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COMPANY PROFILE

Founded in 1950, Zika Industries is Israel's sole welding manufacturer, and is a leading worldwide manufacturer of electrodes and welding wires that fully comply with the strictest international standards for industries around the globe. Zika is also the only welding manufacturer that has been awarded product certification from the Standards Institution of Israel.

MANUFACTURING PROCESSES

All Zika manufacturing processes are ISO 9001:2008 and CE certified. zika is supervised and approved by the Standards Institution of Israe (SII) and TUV. Zika specializes in developing and producing a broad spectrum of electrodes for welding carbon steel, low-hydrogen steel, low-alloy steel, stainless steel, hardface coatings, nickel and copper alloy, iron castings, and more. Zika also produces welding rods and welding wires for MIG welding.

ZIKA'S PRODUCTS

Zika products are renowned worldwide thanks to their excellent quality and unique formulas that have been developed by the Zika research and development teams. The Zika QA division is also internationally known thanks to its strict quality control and assurance procedures and processes. The company's products suit a large variety of welding requirements, from electrodes and wires for welding in general, to special electrodes for specific tailor-made solutions, including nuclear reactors, the petrochemical, gas and oil industries, and shipping.

ZIKA R&D

The Zika research and development team is the heart of the company, and is dedicated to improving existing products while developing and manufacturing new, innovative products that comply with the strictest international standards. The teams' highly experienced engineers, technicians, managers and production workers are complemented by our state-of-the-art laboratories and equipment. Customers receive continuous service, support and consultations, as well as innovative and reliable products that meet their needs. In addition to complying with the strictest international standards such as the AWS and ISO EN the company is supervised by 3rd parties such as GL, LR, BV, TUV, and ABS. Zika customers include shipyards, equipment manufacturers, tanker and pressure tank manufacturers, heavy engineering equipment manufacturers, waste management companies, constructions companies, security industries, electric and energy companies, and the gas, oil and petrochemical industry.

01
ELECTRODES

AWS SFA 5.1 FOR CARBON STEEL ELECTRODE & AWS SFA 5.5 FOR LOW ALLOY STEEL ELECTRODE

One letter	2-3 Digits	Two digits	Letter and digit	Letter and digit
E	Tensile&shear strenght	welding position and current & coating type	chemical composition	diffusible hydrogen
↓ designated an electrode	↓ designated the Tensile&shear strenght (min.) in ksi (table 1)	↓ The left digit designates welding position (table 2) The two digits designates type of coating &current type (table 3)	↓ designates the chemical composition of the undiluted weld metal (table 4)	↓ designatesthat the electrode meets the not exceeding the "digit" ml of H2 per 100gr deposited metal

Example: Z610	
E	Electrode for electric welding
60	Strength 60 ksi
1	All welding positions
10	Welding with DC current and cellulose coating

Table 1:

Code	Tensile strength ksi	Shear strength ksi
60	60	48
70	70	58
80	80	68
90	90	78
100	100	88
110	110	98
120	120	108

Table 2:

Welding Positions	Description
1	All positions
2	Horizontal and vertical
3	Flat only
4	All positions including vertical downwards

Table 3: TYPE OF COATING

Type of Coating	DC Current	AC Current	Torch (-)	Torch (+)	Code
Cellulose sodium	X			X	10
Cellulose potassium	X	X		X	11
Rutile sodium	X	X	X		12
Rutile potassium	X	X	X	X	13
Rutile, Iron powder	X	X	X	X	14
Low hydrogen potassium	X	X		X	16
Low hydrogen potassium, iron powder	X	X		X	18
Rutile, iron powder	X	X	X	X	24
Low hydrogen potassium, iron powder	X	X		X	28

Table 4: ALLOY DEFINITIONS

Symbol	C	Mn	Si	Ni	Cr	Mo	V
A1	0.12	0.4-0.65	0.4-0.8	-	-	0.4-0.65	-
B2	0.12	0.9	0.6-0.9	-	1-1.5	0.4-0.65	-
B3	0.12	0.9	0.6-0.8	-	2-2.5	0.9-1.2	-
B6	0.05-0.1	1	0.9	0.4	4-6	0.4-0.65	-
B8	0.05-0.1	1	0.9	0.4	8-10.5	0.85-1.2	-
B9	0.08-0.13	1.25	0.30	1.0	8.0-10.5	0.85-1.20	
C1	0.12	1.2	0.6-0.8	1-2.75	-	-	-
C3	0.12	0.4-1.25	0.8	0.8-1.1	0.15	0.35	0.05
D1	0.12	1.25-1.75	0.6-0.8	-	-	0.25-0.45	-
G	-	1min	0.8 min	0.5 min	0.3 min	0.2 min	0.1min
W	0.12	0.5-1.30	0.6-0.8	0.35-0.80	0.45-0.70		

AWS SFA 5.4 FOR STAINLESS STEEL ELECTRODES

One letter	letters and 3-4 digits	2 digits
E	Chemical composition	Current type and welding position
↓	↓	↓
Indicates the electrode for electric arc welding	designates the nominal chemical composition	designates type of cover

CHEMICAL COMPOSITION

Chemical Composition
209/219/240
307/308/309/310/312/316/317
318/320/330/347/349/383/385
410/430/630/16-8-2/2209/2594

CURRENT TYPE AND WELDING POSITION

Code	Description
15	DC(+) All positions, Basic
16	AC, DC(+) All positions, Rutile
17	AC, DC(+) All positions, rutile acid coating, slow solidification
25	DC(+) Horizontal and Flat, thick coating, iron wire
26	DC(+) Horizontal and Flat, thick coating, iron wire

ELECTRODES FOR **WELDING**

RUTILE ELECTRODES

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-11	For construction welding, pipes, vats and machinery parts. Low spatter and easy slag release.	A5.1 E 6013	1.6	12	2	40-60
			2	12	2	50-70
			2.5	15	5	60-100
			3.25	15	5	80-150
			4	15	5	140-200
			5	15	5	180-260
Z-10	For construction welding, pipes, vats and machinery parts. Low spatter and easy slag release.	A5.1 E 6013	2.5	15	5	60-100
			3.25	15	5	80-150
			4	15	5	140-200
Z-6	For construction welding, pipes, vats Especially suitable for welding galvanized parts.	A5.1 E 6013	2.5	16.5	5.5	70-95
			3.25	16.5	5.5	100-150
			4	16.5	5.5	140-200
Z-26	For construction welding, pipes, pressure tanks. Especially suitable for thin sheets and galvanized material. Good for dirty surfaces without sufficient preparation. For welding in all positions.	A5.1 E 6013	2	12	2	55-70
			2.5	16.5	5.5	70-100
			3.25	16.5	5.5	100-150
			4	16.5	5.5	140-200
			5	16.5	5.5	160-230
Z-15	heavy coated electrode for general purpose. Suitable for welding thin metal sheets. Provides clean smooth weld in flat and fillet position.	A5.1 E 6013	2.5	15	5	70-110
			3.25	15	5	100-160
Z-5	For construction welding, bridges, machinery parts, pressure tanks. Good for welding dirty surfaces with insufficient preparation. For welding in all positions including vertical down.	A5.1 E 6012	2.5	15	5	65-85
			3.25	15	5	80-120
			4	15	5	120-180
			5	18	6	180-230

DEEP PENETRATION ELECTRODES

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-610	For welding pipes and general welding with DC. Deep penetration and good X-ray quality. suitable for root welding.	A5.1 E 6010	2.5	15	5	60-90
			3.25	15	5	80-125
			4	15	5	120-180
			5	15	5	160-230
Z-611	For pipe welding and general welding in AC. Deep penetration and good X-ray quality. suitable for root weld .	A5.1 E 6011	2.5	15	5	60-90
			3.25	15	5	80-125
Z-710	For welding vats and medium strength pipes carrying liquids or gas at high pressure. For welding in all positions including vertical down. Suitable for welding root pass.	A5.5 E 7010-A1	2.5	15	5	60-90
			3.25	15	5	90-120
			4	15	5	120-160
			5	15	5	160-200
Z-710P	For welding medium strength vats and pipes suitable for welding with DC current.	A5.5 E 7010-A1	3.25	15	5	80-125
Z-910	For welding high-strength pipes such as X65, X70. The weld has exceptional properties. Suitable for root pass.	A5.5 E 9010	3.25	15	5	80-125
			4	15	5	11-180
			5	15	5	140-230

HIGH DEPOSITION ELECTRODES

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-17	Rutile coated electrode for welding with high efficiency deposition of 140%. Smooth weld appearance and self detaching slag.	A5.1 E 7024	3.25	18	6	120-150
			4	18	6	150-190
			5	18	6	200-250
Z-18	Rutile electrode for fillet welds and horizontal V-welds. Deposition efficiency of 165% with high speed welding. Smooth weld appearance and self detaching slag.	A5.1 E 7024	2.5	13.5	4.5	85-125
			3.25	18	6	130-175
			4	18	6	150-240
			5	18	6	210-290
			6	18	6	290-420
Z-19	Rutile electrode for fillet welds and horizontal V-welds. deposition efficiency of 185% with high speed welding. Smooth weld appearance and self detaching slag. Especially suitable for construction welding, bridges and ships.	A5.1 E 7024	3.25	18	6	130-170
			4	18	6	150-230
			5	18	6	200-350
Z-20	High speed high deposition (160%) rutile electrode. Ideal for fast fillet welding and for filling horizontal grooves. Fully controlled molten pool , spatter free and self detaching slag. Suitable for construction welding, bridges, ships, vats with moderate or thick width. High impact strength at a temperature of minus 20 °C.	A5.1 E 7024-1	3.25	18	6	130-170
			4	18	6	150-230
			5	18	6	200-350
Z-21	Rutile electrode for fillet and horizontal V-welds. high welding deposition of 190%, and high welding speed. Smooth weld appearance and self detaching slag. Suitabl for construction welding, bridges, ships and pressure tanks.	A5.1 E 7024	3.25	18	6	130-170
			4	18	6	150-230
			5	18	6	200-35

LOW HYDROGEN ELECTRODES

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-2	Basic coated all position welding electrode. good toughness at low temperature. Maximum of 10 ml hydrogen for 100 gr weld. For construction welding, boilers, ships, pressure containers, piping.	A5.1 E 7018	2.5	13.5	4.5	60-90
			3.25	18	6	90-140
			4	18	6	140-190
			5	18	6	190-240
Z-4	Basic coated low hydrogen (4ml/100gr weld) electrode with high ductility. Suitable for welding pressure containers, fuel tanks, ships, construction, piping. Very good bead appearance Good impact toughness at -30°C.	A5.1 E 7018	2.5	13.5	4.5	75-100
			3.25	18	6	110-140
			4	18	6	140-190
			5	18	6	190-240
			6	18	6	230-330
Z-4V	Basic coated low hydrogen (4ml/100gr weld) electrode with high ductility. Suitable for welding pressure containers, fuel tanks, ships, construction, piping. Very good bead appearance. Good impact toughness at -30°C. Available in vacuum packaging.	A5.1 E 7018	2.5	13.5	2.25	75-100
			3.25	18	3	110-140
			4	18	3	140-190
			5	18	3	190-240
Z-4S	Basic coated low hydrogen (4ml/100gr weld) electrode with high ductility. Suitable for welding pressure containers, fuel tanks, ships, construction, piping. Very good bead appearance. Good impact toughness at -30°C. Red coating.	A5.1 E 7018	2.5	13.5	4.5	75-100
			3.25	18	6	110-140
			4	18	6	140-190
			5	18	6	190-240
Z-7	basic coated electrode for high quality joining of general construction steels. Very good X-ray properties. Suitable for root pass . Good impact toughness at low temperature.	A5.1 E 7016	2.5	13.5	4.5	70-80
			3.25	15	5	100-120
			4	15	5	140-160
Z-55	low hydrogen basic electrodes designed for welding in all positions. Excellent strength and high toughness down to -46°C . suitable fro welding medium and high strength steels.	A5.5 E 7018-1	2.5	13.5	4.5	75-95
			3.25	13.5	4.5	90-140
			4	18	6	135-185
			5	18	6	175-255
Z-23V	Basic coated electrode. Designed for welding creep resistant, Mo containing low-alloy steels. Withstands service temperature up to 525°C. Vacuum-packed.	A5.5 E 7018-A1	2.5	13.5	4.5	60-90
			3.25	18	6	90-130
			4	18	6	130-190
			5	18	6	180-220
Z-3	Basic coated low hydrogen electrode Suitable for maintenance repairing of agricultural equipment with crack free and tough welded joints.	A5.5 E 8018-G	2.5	13.5	4.5	75-110
			3.25	18	6	110-140
			4	18	6	140-180
			5	18	6	190-260
Z-3W	Basic coated electrode for welding thick structural CORTEN steels or with similar composition and mechanical properties.	A5.5 E 8018-W	2.5	13.5	4.5	75-110
			3.25	18	6	110-140
			4	18	6	150-200
Z-31S-V	Basic coated electrode for welding creep resisting steels containing 1%Cr and 0.5%Mo. Service temperatures of maximum 550°C. Vacuum packed.	A5.5 E 8018-B2	2.5	13.5	2.25	60-100
			3.25	18	3	90-130
			4	18	3	130-180
Z-X70	Low hydrogen basic electrode designed for welding in all positions except vertical down. Especially recommended for filler and cover layers of high diameter pipelines.	A5.5 E 9018-G	3.25	15	6	110-140
			4	18	6	150-190
			5	18	6	190-260

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-8	Basic coated electrode with maximum 1%Ni. Excellent impact toughness at very low temperature.	A5.5 E 8018-G	2.5	13.5	4.5	60-90
			3.25	18	6	90-135
			4	18	6	140-180
Z-31S	Basic coated electrode for welding creep resisting steels containing 1%Cr and 0.5%Mo Service temperature of maximum 550°C.	A5.5 E 8018-B2	2.5	13.5	4.5	60-100
			3.25	18	6	90-130
			4	18	6	130-180
Z-32	Basic coated electrode for welding low alloy structures subjected to service temperature down to -60°C. good corrosion resistance to chloride and sulphuric acid.	A5.5 E 8018-C1	2.5	13.5	4.5	80-100
			3.25	15	5	100-140
			4	15	5	130-185
			5	18	6	190-250
			6	18	6	240-320
Z-34	Low hydrogen basic coated electrode. Suitable for welding of low alloyed , fine grained, high tensile strength steels. also can be used for welding CORTEN steels.	A5.5 E 8018-C3	2.5	13.5	4.5	75-110
			3.25	15	5	100-140
			4	15	5	130-200
			5	18	6	200-275
Z-41S	Basic coated electrode for welding creep-resistant steels containing 2%Cr and 1%Mo. Service temperatures of maximum 600°C	A5.5 E 9018-B3	2.5	13.5	2.25	70-100
			3.25	13.5	2.25	90-130
			4	13.5	2.25	130-180
Z-46	Basic coated electrode for construction welding and gas tanks. Working at very low temperatures. Extremely low diffusible hydrogen content.	A5.5 E 9018-D1	3.25	15	6	110-140
			4	18	6	150-190
			5	18	6	190-260
Z-40S	Basic coated electrode for welding Cr Mo steels such as 4130 and 8630 subjected to heat treatment. Welded joints are crack free and tough.	A5.5 E 9018-G	2.5	13.5	4.5	75-100
			3.25	15	5	110-140
			4	15	5	150-190
Z-50	Basic coated electrode for welding fine grained structural steel subjected to very low temperature, such as, navel crafts and submarines.Particular low diffusible hydrogen level.	A5.5 E 10018 -G	3.25	15	5	90-140
			4	15	5	135-185
Z-52	Basic coated for welding high-pressure containers, manufacturing boilers, pressure pipelines, machines parts and agricultural machine parts. excellent X-ray quality	A5.5 E 11018-G	2.5	13.5	4.5	70-95
			3.25	15	5	90-140
			4	15	5	135-185
			5	15	5	175-225
Z-53	Basic coated welding electrode for welding high strength steel for pressure vessels , military application and agricultural machinery.	A5.5 E 12018-G	2.5	13.5	4.5	65-95
			3.25	15	5	90-135
			4	15	5	140-185
Z-502	Basic coated 5%Cr-0.5%Mo electrode. Service temperature of maximum 600°C. Welding of Cr-Mo steels with similar composition. Suitable for welding high pressure pipes , electrical and petrochemical facilities etc.	A5.5 E 8018-B6	2.5	13.5	4.5	65-95
			3.25	15	5	90-130
			4	15	5	125-180
			5	15	5	180-240
Z-505	Basic coated 9%Cr-1%Mo electrode. Service temperature of maximum 650°C	A5.5 E 8018-B8	2.5	13.5	4.5	65-105
			3.25	15	5	110-140
			4	15	5	150-19
Z-91	Low hydrogen electrode suitable for welding 9%Cr-1%Mo steels, also known as GRADE 91 designed to provide excellent endurance in creep, fatigue, oxidation and corrosion resistance on high temperatures.	A5.5 E 9015-B9	2.5	15	4.5	75-100
			3.25	18	6	110-140
			4	18	6	140-190

ELECTRODES **FOR WELDING STAINLESS STEEL** (INOX)

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-307B	Basic coated stainless steel electrode. For welding 14%Mn steels, Armour plate, steels with unknown composition and work hardened steels.also used as a buffer layer in hardfacing applications.	A5.4 E 307-15	2.5	9	1.5	60-80
			3.25	12	2	95-120
			4	12	2	110-160
			5	15	5	150-190
Z-307R	rutile coated stainless steel electrode . For welding 14%Mn steels, Armour steels, and work hardened steels. Can be used as a buffer layer before applying hard coating.	A5.4 E 307-16	2.5	9	1.5	65-80
			3.25	12	2	95-120
			4	12	2	110-160
			5	15	5	150-190
Z-308L	Rutile basic electrode for welding corrosion resistant up to 350°C austenitic steels. Smooth metal transfer with both AC and DC. Focused and stable arc with low spatter loss. Self detaching slag.	A5.4 E 308L-16	1.6	9	1.5	25-40
			2	9	1.5	30-50
			2.5	9	1.5	50-75
			3.25	12	2	75-110
			4	12	2	110-150
			5	12	2	140-190
Z-308H	Rutile - basic all position stailess steel electrode.Used for welding low carbon stainless steels of type AISI 304 in cases where maximum resistance to inter granular corrosion is required. For welding Ti and Nb stabilized stainless steel.	A5.4 E 308H-16	3.25	12	2	75-110
			4	12	2	110-150
			5	12	2	140-190
Z-316L	Rutile coated electrode for welding non stabilized corrosion resistant Cr-Ni-Mo steels. Weld metal bead exhibit fine ripple formation. Focus and stable arc with low spatter easy slag release.	A5.4 E 316L-16	1.6	9	1.5	25-40
			2	9	1.5	30-50
			2.5	9	1.5	50-75
			3.25	12	2	75-110
			4	12	2	110-150
			5	12	2	140-190
Z-316LA	rutile coated electrode for welding non-stabilized corrosion resistant Cr-Ni-Mo steels. Weld metal beads exhibit fine ripple formation. Focused and stable arc with low spatter easy slag removal. Designed with AISI 316 core wire.	A5.4 E 316L-16	3.25	12	2	75-110
			4	12	2	110-150
Z-309S	Rutile coated low carbon electrode for joining of dissimilar steels (austenitic steels to mild and low alloy steels). Suitable for welding similar metal joints (23% Cr- 12% Ni) and austenitic - martenistic steels of 13% Cr - 6% Ni type. Used for buffer layers in hard facing applications. Focused and stable arc. Easy slag release.	A5.4 E 309L-16	2	9	1.5	30-60
			2.5	9	1.5	40-70
			3.25	12	2	70-110
			4	12	2	110-140
			5	12	2	140-180
Z-318	Rutile-basic coated all position electrode for welding Ti, Nb stabilized austenitic stainless Cr-Ni-Mo steels. High resistance to inter-granular corrosion up to 400°C. Excellent weld-ability and easy slag release an both AC and DC.	A5.4 E 318-16	2.5	9	1.5	50-80

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-318B	Basic coated all position electrode for welding Ti, Nb stabilized austenitic stainless Cr-Ni-Mo steels. High resistance to inter-granular corrosion up to 400°C. Excellent weld-ability and easy slag release.	A5.4 E 318-15	3.25	12	2	80-100
Z-309Cb	High CrNiNb alloyed rutile-basic all position. Designed for buffering mild and low alloyed steels for nuclear applications. Used as a buffer electrode in AISI 312 and AISI 347 claddings. Used for the first run when welding 321 or 347 clad steels, prior to completion with 347 type weld metal. Focused and stable arc. Easy slag release.	A5.4 E 309Cb-16	3.25	12	2	70-110
			4	12	2	110-140
Z-309Mo	Rutile-basic coated low carbon all position stainless steel electrode. Suitable for welding high alloyed corrosion resistant Cr-Ni-Mo steels, dissimilar steels (austenitic to ferritic steels). Depositon of austenitic cladding root runs. Focused and stable arc. Easy slag release.	A5.4 E 309MoL-16	2	9	1.5	30-60
			2.5	9	1.5	40-70
			3.25	12	2	70-110
			4	12	2	110-140
			5	12	2	140-180
Z-NiVi	Rutile coated austenitic stainless steel electrode especially designed for welding armor steel and other difficult to weld steels. All position welding on both AC and DC. Weld metal beads exhibit fine rippel formation . Excellent slag release.	A5.4 E 308Mo-16 (mod)	2.5	9	1.5	50-80
			3.25	12	2	90-120
			4	12	2	130-170
			5	12	2	160-220
Z-310	Basic-rutile coated, fully austenitic all position electrode. Suitable for welding heat resistant Cr and Cr-Ni steels. Oxidation and scaling resistance up to 1200°C	A5.4 E 310-16	2	9	1.5	30-60
			2.5	9	1.5	60-90
			3.25	12	2	70-120
			4	12	2	130-160
			5	12	2	150-180
Z-312S	Rutile-basic coated all position electrode for joining dissimilar steels and surfacing applications. Suitable for welding difficult to weld steels such as: Mn-steel, Ni-steel, armor plates and two different kinds of steel. Excellent weldability on both AC and DC.	A5.4 E 312-16 (mod)	2	9	1.5	30-60
			2.5	9	1.5	60-80
			3.25	12	2	70-110
			4	12	2	90-150
Z-347	Rutile-basic coated all position electrode for welding Ti or Nb stabilized austenitic Cr-Ni steels. High resistance to inter-granular corrosion up to 400°C. Excellent weld-ability and slag release an both AC and DC.	A5.4 E 347-16	2	9	1.5	35-55
			2.5	9	1.5	50-80
			3.25	12	2	80-110
			4	12	2	120-150
			5	12	2	150-180
Z-317	Rutile coated electrode for dissimilar welding. Suitable for difficult to weld steels. Enhanced corrosion resistance applications.	A5.4 E 317L-16	2.5	9	1.5	40-80
			3.25	12	2	80-110
			4	12	2	80-110
Z-347B	Basic coated all position electrode for welding Ti, or Nb stabilized austenitic Cr-Ni steels. High resistance to inter-granular corrosion up to 400°C. Excellent weld-ability and easy slag release.	A5.4 E 347-15	3.25	12	2	110-150
			4	12	2	110-140

ELECTRODES **FOR WELDING STAINLESS STEEL** (INOX)

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-ARMBS	Basic coated austenitic stainless steel electrode especially designed for welding armor steel and other difficult to weld steels. All position welding on DC current. Neat weld appearance. Excellent slag release.	A5.4 E 308Mo-15 (mod)	3.25	15	5	90-120
			4	15	5	135-185
			5	15	5	175-255
Z-320	Rutie-basic fully austenitic stainless steel electrode. High resistance in phosphoric and sulfuric acid applications.Smooth metal transfer on both AC and DC.	A5.4 E 385-16MoD (mod)	2.5	9	1.5	40-75
			3.25	12	2	60-105
			4	12	2	80-145

ELECTRODES **FOR HARDFACING AND FOR WEAR RESISTANCE**

Electrode Name / Description		DIN Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-104	Basic coated abrasion resistant electrode. Machinable weld deposit. Moderate impact toughness. Applicable for gear teeth, brake drums, sprockets, bushings and rail crossings. Hardness: 28-33 Rockwell C.	8555 E 1-UM-300	2.5	15	5	60-80
			3.25	18	6	110-130
			4	18	6	140-180
Z-105	Basic coated electrode for surfacing parts subjected to medium abrasion and high compression. Applicable for runners, caterpillar track links, gear wheels and dredging machinery. Hardness: 37-42 Rockwell C.	8555 E 1-UM-400	2.5	15	5	70-100
			3.25	18	6	105-115
			4	18	6	120-160
			5	18	6	180-240
Z-111	Rutile coated electrode for hard surfacing of earth moving machines. Heat resistant up to 600°C. Applicable for bulldozer blades, crusher jaws, excavator teeth and mixers. Non machinable weld deposit. Hardness: 55-58 Rockwell C	8555 E 6-UM-55	2.5	15	5	70-100
			3.25	15/18	5/6	90-110
			4	15/18	5/6	140-180
			5	18	6	180-250
			6	18	6	220-280
Z-113	Basic coated electrode for surfacing parts subjected to impact, high compression stresses and severe abrasion. Applicable for tractor and crane parts, shovel teeth, crusher hammers and scraper blades. Hardness: 57-62 Rockwell C.	8555 E 6-UM-60	3.25	18	6	100-130
			4	18	6	120-160
Z-114	Rutile coated electrode for surfacing parts subjected to abrasion and impact. Applicable for rails truck wheels, worms, coupling shafts and spindles. Non machinable weld deposit. Hardness: 58-60 Rockwell C.	8555 E 6-UM-60	2.5	15	5	75-110
			3.25	15	5	110-140
			4	15	5	150-190
Z-120	Hardfacing electrode with rutile coating. High resistance against abrasion and moderate impact resistance. 160% weld efficiency. Suitable for coating manganese steels, hammers, crushers, excavators, drilling equipment, and more. Suitable for the re-construction of worn parts. Non-machinable weld deposit.	8555 E 10-UM-60-Z	3.25	12	4	100-130
			4	12	4	120-160
			5	12	4	150-240
Z-120B	Hardfacing Electrode with basic coating. High resistance against abrasion and moderate resistance to impact. Outstanding resistance to abrasion against minerals. Weld efficiency 200%. Suitable for coating manganese steels, hammers, crushers, excavators, construction and road equipment, mixers, plows, drilling tools and more. Non-machinable weld deposit. For construction, use Z-151, with Z307B fort an intermediate layer.	8555 E 10-UM-60 GR	3.25	13.5	4.5	110-140
			4	18	6	140-180
			5	18	6	185-23
Z-121	Electrode with basic coating and high metal output for hard coating of parts working under coarse abrasion and impact. For coating shredders, mixer blades, worm conveyors, crusher hammers, wire guides, tensile machine leading wheels and wire cutters. Crushers for loose material that cause abrasion earth-working machines, agricultural work and more. For construction, use Z-151 with an intermediate layer of Z307 B or Z-NiVi.	8555 E 10-UM-55GR	3.25	13.5	4.5	115-150
			4	18	6.0	150-200
			5	18	6.0	190-240

ELECTRODES **FOR HARDFACING AND FOR WEAR RESISTANCE**

Electrode Name / Description		DIN Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-123	Hardfacing Electrode with basic coating. High resistance against abrasion and moderate resistance to impact. 190% electrode efficiency. Operating temperature up to 450° C. For coating mixer blades, concrete pumps, conveyor worms, mixers, plows, other drilling tools and more. Weld deposit is non-machinable. For construction, use Z-151 with an intermediate layer ZNiVi or Z-307B.	8555 E 10-UM-65 GR	3.25	13.5	4.5	115-150
			4	18	6	135-200
			5	18	6	195-255
Z-125	Basic coated electrode for hard surfacing parts. Subjected to severe abrasion with medium impact Use up to 600°C. 190% weld metal recovery. Suitable for screws of refractory material presses, brick presses and cement presses, zinc industries, scrap collectors and mechanical stokers. Hardness: 66 Rockwell C.	8555 E 6-UM-65GR	3.25	18	6	125-160
			4	18	6	150-200
			5	18	6	220-300
Z-130	Hardfacing Electrode with basic coating. For coating parts made of high speed steel (HSS), such as cutting blades, drill bits, chisels, punches and more. Operating temperature up to 600° C . Resistant to abrasion between metals.	8555 E 4 UM 60 S	2.5	13.5	4.5	80-100
			3.25	13.5	4.5	110-130
			4	13.5	4.5	130-160
Z-151	Basic coated cold work hardening Mn austenitic electrode. High resistance to impact and shock. Used for rebuilding and joining between Mn steel and Carbon steel. Suitable for crusher plates, dredger teeth and hammers	8555 E 7 UM 250 KP	3.25	18	6	100-130
			4	18	6	150-180
			5	18	6	200-250
Z-151NC	Basic coating cold work hardening Mn austenitic electrode. Good resistance to impact and pressure. For coating Mn steels and combining them with carbon steels. Reconstruction of worn parts prior to welding hardfacing layer. For crusher hammers, excavator teeth, railway wheels, etc. Welded material hardens under impact.	8555 E 7 UM 250 KP	3.25	15	5	95-130
			4	15	5	130-180
			5	18	6	190-250
			6	18	6	240-280
Z-STEL6	Cobalt base hard facing electrode . or welding high temperature high impact applications. Operating temperature up to 900°C.	8555 E 20 UM 55 CTZ	3.25	18	6	90-120
			4	18	6	120-155
Z-STEL12	Cobalt-based electrode for hardfacing, designed for parts that withstand a combination of high temperature, medium impact and moderate corrosion. Operating temperature up to 900° C.	8555 E 20 UM 45 CTZ	3.25	12	2	90-120
			4	12	2	120-155
			5	12	2	150-190

ELECTRODES **FOR CUTTING AND PERFORATING**

Electrode Name / Description		Diameter (mm)	Weight in kg		Current range Amps
			Wrapping	Box	
Z-71	For notching and cutting all industrial metals.	2.5	10.5	3.5	MIN 120
		3.25	10.5	3.5	MIN 170
		4	10.5	3.5	MIN 190
		5	10.5	3.5	MIN 275
Z-72	For cutting and punching holes in all industrial metals.	3.25	10.5	3.5	MIN 170
		4	10.5	3.5	MIN 120
		5	10.5	3.5	MIN 190

ELECTRODES **FOR CAST IRON**

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-GM	Monel type core wire for welding iron castings or welding cast iron to mild steel. Machinable weld deposit. Suitable for welding lamellar grey, nodular and malleable cast iron.	A5.15 E NiCu-B	2.5	12	2	50-80
			3.25	12	2	80-110
			4	12	2	110-150
Z-GA	Designed for sealing porosity caused by contaminants ,like oil , before welding with Z-NI99 or Z-NI55 on cast iron. With low-melting point covering , to prevent high stresses at the weld area. Non-machinable weld on cast iron.		3.25	18	6	80-110
			4	18	6	110-150
Z-GS	A basic coating for welding nodular cast iron, black cast iron or gray cast iron. Nonmachinable weld deposit.	DIN 8572 E FeC G BG 26	2.5	15	5	60-90
Z-Ni99	Electrodes for welding iron castings including gray cast iron. Designed to repair cracks in castings and connect between cast iron and various types of steels. Machinable weld deposit.	A5.15 E NiCI	2.5	12	2	50-80
			3.25	12	2	80-110
			4	12	2	110-150
Z-Ni55	Basic coated electrode which deposits a machinable nickel iron alloy weld. Designed for strength welding of high duty cast iron such as mechanite, malleable and spheroidal graphite and nodular irons. Welds high phosphorus castings. Typical components to be welded are machine bases, pump bodies, engine blocks, gears and transmission housings.	A5.15 E NiFe CI	2.5	12	2	50-80
			3.25	12	2	80-110
			4	12	2	110-150
Z-Ni99 NC	Nickel electrode for welding cast iron including gray cast iron. Designed to repair cracks in castings and the connection between iron castings and various types of steel. Machinable weld deposits.	A5.15 E Ni-CI	2.5	12	2	60-90
			3.25	12	2	90-110
			4	12	2	110-170

ELECTRODES **FOR CAST IRON**

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-SUPER Ni	Special nickel cored electrode for depositing soft, machinable metal on grey cast iron. Suitable for reclamation and repair of grey cast iron and for joining these to mild and C-Mn steels. Can be used with low welding currents and welding both positive direct current, negative and alternating currents.	A5.15 E Ni-Cl	2.5	12/15	2/2.5	50-80
			3.25	12/15	2/2.5	80-110
			4	12/15	2/2.5	110-150
			5	12/15	2/2.5	150-190

CARBON **ELECTRODES**

Electrode Name / Description	Diameter (inches)	Diameter (mm)	Number of boxes in wrapper	Number of Units in Wrapper	Current Ampere Range
Z-CARBON-04	5/32	4	5	50	90-150
Z-CARBON-05	3/16	5	5	50	150-200
Z-CARBON-06	1/4	6	5	50	300-400
Z-CARBON-08	5/16	8	5	50	350-450
Z-CARBON-10	3/8	10	5	50	450-600
Z-CARBON-13	1/2	13	2	50	800-1000

NONFERROUS ELECTRODES

Electrode Name / Description		AWS Standard	Diameter (mm)	Weight in Kilograms		Current Ampere Range
				Wrapping	Box	
Z-Ni190	Basic coated Ni-Cu (Monel) electrode for welding Ni- Cu alloy to mild and low alloy steels. High resistance to sea water corrosion. Excellent resistance to stress corrosion cracking.	A5.11 E NiCu-7	2.5	12	2	70-90
			3.25	12	2	90-125
			4	12	2	110-160
Z-Ni112	Basic coated NiCrMo electrode. Suitable for welding alloy 625, alloy 825 or similar grades. Joining 9%Ni for high toughness at cryogenic temperatures. Extreme high resistance to general and intergranular corrosion, pitting, crevice and stress corrosion cracking. Resistant to high temperature oxidation and carburization	A5.11 E NiCrMo-3	2.5	12	2	70-85
			3.25	12	2	90-105
				12	2	115-135
			5	12	2	130-260
Z-Ni182	Basic coated electrode for welding nickel-chrome alloys. Good toughness on very low temperature. Suitable for welding steels such as unidentified carbon steels, stainless steels, nickel and nickel alloys. High resistance to creeping and cracking.	A5.11 E NiCrFe-3	2.5	12	2	70-85
			3.25	12	2	90-105
			4	12	2	70-100
			5	12	2	130-260
Z-Ni182R	Rutile basic coated CrNiFe electrode. For welding Ni-base alloys, cladding and dissimilar metals High creep resistant and high resistance to cracking.	A5.11 E NiCrFe-3	2.5	12	2	105-145
			3.25	12	2	140-180
			4	12	2	175-215
Z-BRONZE	Basic coated electrode for assembly and surfacing welds on copper alloys, and casts.	A5.6 E CuSn-C	3.25	12	2	70-100
			4	12	2	120-160
Z-NiC	Basic electrode for welding alloys such as Hastelloy C for building up corrosion-resistant part faces and mechanical stresses at high temperatures of 1100° C, for welding constructions such as various furnaces, tools for hot forging, rolling wheels for hot-rolled steel wire, etc.	A5.11 E NiCrMo-5	2.5	12	2	70-90
			3.25	12	2	100-110
			4	12	2	130-160
			5	12	2	160-200
Z-NiB	Basic coated electrode for welding nickel molybdenum alloys. Good resistance to high temperatures and severe corrosion conditions. Good resistance against acetic, phosphoric, sulfuric and hydrochloric acid.	A5.11 E NiMo-1	2.5	12	2	90-110
			3.25	12	2	130-150
			4	12	2	180-200

ELECTRODES FOR **MAINTENANCE**

Maintenance electrodes from the Z-2000 series are the fruit of research and development conducted at the Zika plant.

These electrodes are designed for maintenance, with regard to market needs overall and customer requirements in particular. These electrodes from the Z-2000 series have a higher quality than that of the base metal, thanks to the ongoing research that Zika conducts in its R&D department, which stands at a very high technical level.

The Z-2000 series electrodes have good penetration and strong mechanical characteristics and are designed, among other things, for welding iron and galvanized sheet metal, pipes and wet and dirty surfaces, red copper, gouging and perforating metals, welding gray metals and repairing heavy work tools.

In light of the increasing use of maintenance electrodes and requests from customers, Zika has published a special technical guide for maintenance electrode use.

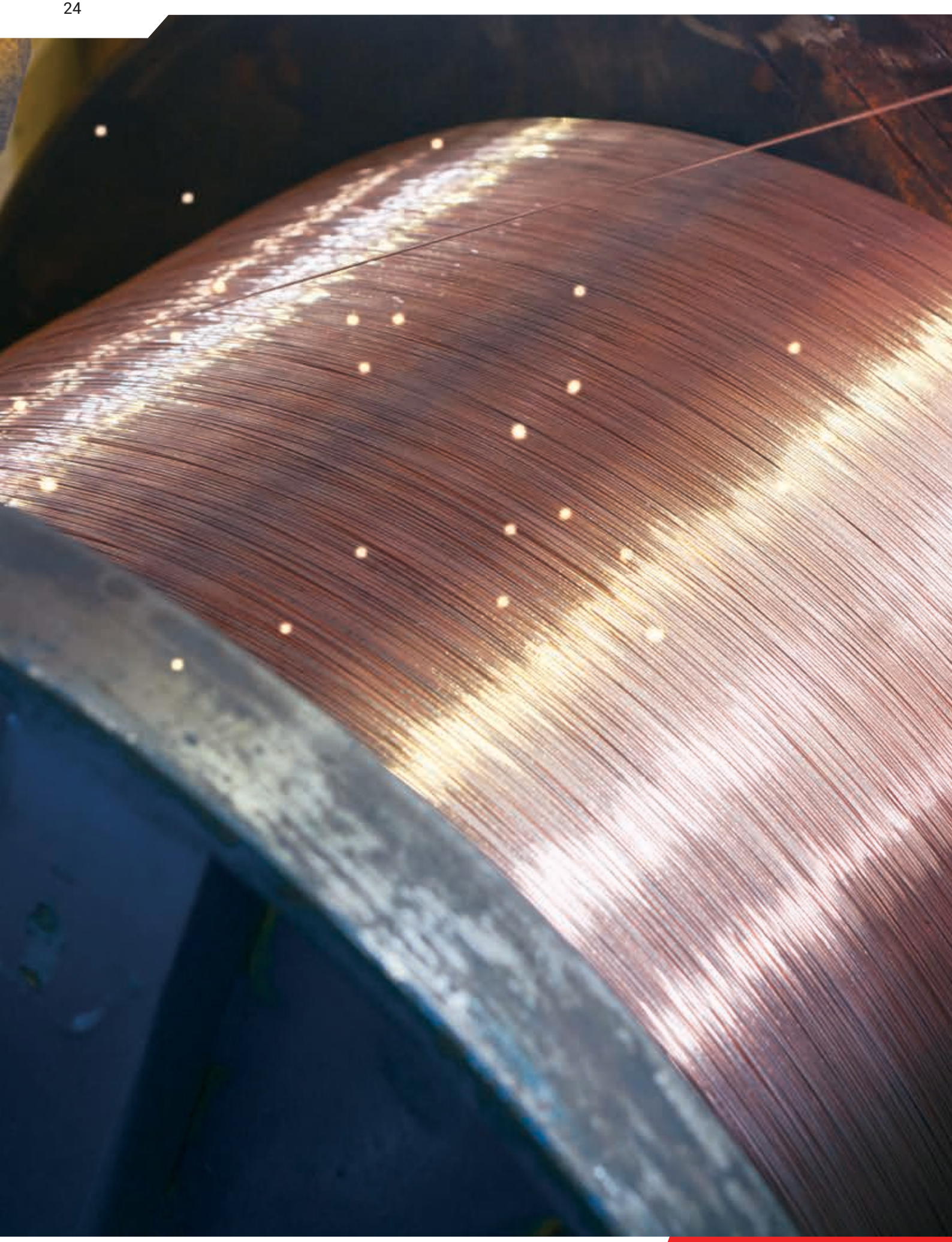
Electrode Name / Description		Diameter (mm)	Weight in Kilograms		Current Ampere Range
			Wrapping	Box	
Z-2001	Electrode for gouging. A special electrode that functions effectively in all types of welding machines. Cropping intensity is the result of the coating composition that enables gouging and cutting without oxygen or compressed air. Effective on all kinds of metals: steel, stainless steel, copper, aluminum, castings. Intended for uses such as: gouging, removing damaged or unwanted welds, beveling preparation in cracks for repair, surface cleaning and temporary welds (tack welds).	2.5	12	4	120 minimum
		3.25	12	4	170 minimum
		4	12	4	190 minimum
		5	12	4	275 minimum
Z-2002	Electrode intended for cutting and perforating without use of oxygen or compressed air, effective for all types of metals.	2.5	12	4	120 minimum
		3.25	12	4	170 minimum
		4	12	4	190 minimum
		5	12	4	275 minimum
Z-2005	Electrode designed for welding gray castings with high tensile strength. An electrode coating composition that allows the welding of most types of castings and the connection between the iron castings and steels, stainless steels, copper, nickel steels and monel. Intended for repairs such as pump housings, machine parts, oil basins, track wheels, gears, etc.	2.5	5.5	-	70-95
		3.25	5.5	-	100-150
		4	5.5	-	140-200
Z-2010	Electrode for welding carbon steels for general purposes on dirty steel (grease, oil), galvanized, painted or wet. Can be used will all types of welding machines.	2	2	-	55-70
		2.5	5.5	-	70-100
		3.25	5.5	-	100-150

Electrode Name / Description		Diameter (mm)	Weight in Kilograms		Current Ampere Range
			Wrapping	Box	
Z-2805	Aluminum cored welding electrode suitable for joining and surfacing welding of AlSi-alloys with a maximum content of 7 % Si and dissimilar joints of Al-alloys.	2.5	0.55	-	60-90
		3.25	0.6	-	80-110
		4	0.6	-	110-150
Z-2812	Aluminum cored welding electrode with 12% Si , suitable for joining and surfacing different Al-alloys with Si content up to 12%.	2.5	-	0.55	60-90
		3.25	-	0.6	80-110
		4	-	0.6	110-150
Z-2700	Electrode for joining, and surfacing copper tin alloys and for weld cladding on cast iron and steel. The welding material has good ductility and resistance to metal-on-metal friction	2.5	-	1	40-65
		3.25	-	1	70-100
Z-2701	Designed for welding pure copper and copper alloys designed to stand with corrosion combined with high temperature .	3.25	-	1	115
Z-2100	Electrode designed for general purpose welding of dirty carbon steels (grease, oil) galvanized, painted or wet.. Can be used with any type of welding machine.	1.6	-	3.5	30-50
		2.0	-	1	40-65
		2.5	-	5	60-85
		3.25	-	4	80-120
		4	-	4	120-180
Z-2600	Electrode designed for welding Cr-Mo steels, SAE 4130 and 4340 steels, the weld can be heat-treated to improve the mechanical properties. One of the outstanding advantages in it is the minimum amount of hydrogen in the weld material, which allows a weld with no cracks.	2.5	-	1	75-100
		3.25	-	1	110-140
		4	-	1	150-190
Z-2601	Electrode with basic coating for high strength low alloy steels. Suitable for welding T1 steels. Intended mainly for the production and repair of heavy agricultural equipment, soil tilling equipment, machine parts, tractor parts and more.	2.5	-	1	60-90
		3.25	-	1	90-135
		4	-	1	140-185
		5	-	1	180-230
		6	-	5	240-320
Z-2602	Double coated basic electrode. Excellent for root pass and all positional welding. Suitable for repair and maintenance work. High impact toughness at low temperatures	2.5	-	4.5	60-90
		3.25	-	5	95-150
		4.5	-	5	140-190
		5	-	1	150-240
Z-2603	Special electrode designed for general maintenance, welding cast steels, low-alloy cast steels. Weld material has medium to high tensile strength but very high impact strength. The electrode can be ignited easily, with a smooth welding arc that penetrates well. Designed mainly to repair agricultural tools, digging equipment, ground drills, steel castings, Redox steels, Creusabro steels and more.	3.25	-	5	90-140
		4	-	5	135-185
		5	-	5	175-255

ELECTRODES **FOR MAINTENANCE**

Electrode Name / Description		Diameter (mm)	Weight in Kilograms	Current Ampere Range
Z-2500	Nickel-based electrode for welding all types of steels, stainless steel, nickel alloys such as Inconel and Monel. Useful for general maintenance in industry, offshore drilling facilities, chemical and petrochemical industries. Designed for welding, such as: basic presses, process furnaces working at high temperatures, hard to weld steels, high-level alloy steels, severe corrosion conditions, etc.	2.5	1	80-100
		3.25	1	110-130
		4	1	150-170
Z-2510	Special electrode with an alloy base of nickel and chrome for welding chrome-nickel steel and carbon steels with a high percentage of carbon. Unidentified steels and hard-to-weld steels. Intended primarily where high strength and resistance to cracking is required. Very useful in the welding of drilling tools and welding industrial structures in the chemical and petrochemical industries or wherever high mechanical strength and high elongation are required.	2.5	1	80-100
		3.25	1	110-130
		4	1	150-170
Z-2470WC	Electrode designed for hardfacing, filled with Tungsten Carbide. For use in high abrasion conditions. Weld surfaces are smooth, with low ripples and without slag. Best applied for two layers. Intended for parts such as digging blades, wastewater, drilling tools, milling asphalt roads, wear of metal on metal and more.	4	1	110-140
		6	1	240-300
Z-2460	Electrode designed for hard coating with good resistance to abrasion combined with impact. Especially suitable for rocky ground. Intended to parts such as mixer blades, drills, crushing hammers, excavator shovels, bulldozer blades and more.	3.25	4.5	110-150
		4	4	150-200
		5	4	230-280
Z-2486	Welding rod containing Tungsten Carbides for hardfacing parts exposed to extreme erosion. The rod is a nickel-silver composition, coated with tungsten carbides and intended for oxy-fuel soldering. The welding rod can be used to solder any ferrous steel and create a very hard layer that is resistant to long-term erosion.	6	1	
Z-2410	Electrode designed for filling and hardfacing. weld material is machinable. The electrode is suitable for filling and coating parts working under abrasion, moderate impact or high pressure, such as: gears, rails, axles, machine parts, cylinders, stretch wheels stretch, chains and more.	2.5	5	70-95
		3.25	5	105-115
		4	5	120-160
		5	5	180-240
Z-2411	The electrode is suitable for building and coating carbon steels, manganese steels, HADFIELD steels, armor plate and hard-to-weld steels. The electrode can also be used as an intermediate layer and as an upper coating. There is no need to pre-heat the part before welding. Weld material work hardening. Intended for parts such as train wheels, railroad tracks, hydraulic presses, hydraulic turbines, pumps, bulldozers, conveyors, agricultural equipment and more.	3.25	5	100-140
		4	5	150-190
Z-2420	Electrode designed for hardcoating parts working under moderate abrasion and heat. Weld material is heat-resistant to a temperature of up to 500°C. The weld material is not machinable. Intended for parts such as bulldozer blades, excavator teeth, crusher hammers, plows, mixers, excavation shovels, worms and more.	2.5	1	70-100
		3.25	5	90-140
		4	5	140-190
		5	1	150-250

Electrode Name / Description		Diameter (mm)	Weight in Kilograms	Current Ampere Range
Z-2440	Electrode designed for hardfacing with high resistance to abrasion. The weld material contains chrome-vanadium carbides. Especially well-suited for sandy soil, and is intended for parts such as Conveyor screws, bulldozer blades, drilling tools, shovel teeth, any part subjected to high erosion and more.	3.25	4	110-150
		4	4	120-140
		5	4	170-190
Z-2900	An electrode for maintenance and general repairs, with an quiet welding arc without spatter and easy to control. Austenitic welding material allows welding of almost all types of steels. High elongation properties designates it for facilities working under severe dynamic forces. Designed for welding, armor steels, Mn steel, tool, steel, castings, as an intermediate layer for hardfacing, connecting dissimilar and unidentified steels and stainless steel.	2	1	30-60
		2.5	1	50-70
		3.25	1	90-110
		4	1	130-170
		5	1	160-220
Z-2911	Rutile-basic coated all position electrode for joining dissimilar steels and surfacing applications. Suitable for welding difficult to weld steels such as: Mn-steel, Ni-steel, armor plates and two different kinds of steel. Excellent weldability on both AC and DC.	2	1	30-60
		2.5	1	60-80
		3.25	1	70-110
		4	1	90-150



02

GAS METAL ARC WELDING

GMAW & FCAW **WELDING**

MIG uses a continuous coil of wire that is fed to the weld pool. The welding current is passed onto the wire and causes an arc to establish between the two pieces. this causes the material being welded and the wire to melt forming a molten puddle that when cooled forms the weld.

MIG Torch

The welding torch used to lead the wire, supply the current and direct the gas to the workpiece.

Complementary accessories for CO2 welding

For the purpose of cleaning the torch, there is the option of using a spray or a paste.
To remove particles from inside the torch, a special plier is to be used.

CO2 Regulator

In order to regulate the gas pressure there is a regulator for the specific gas. In order to avoid freezing the tap due to the dispersion speed of the gas, a heating element with a thermostat that maintains a constant temperature must be installed

MIG Inverter

For the purpose of welding, there are semi-automatic and automatic welding machines with a welding robot. In semi-automatic welding machines there are machines with internal feeding and machines with an option to move the feeder while the power supply remains stationary.

For the feeder in the picture, there is an option to weld as a single unit and an option to extend the distance between the feeder and the supply up to 10 meters. This machine also has an integral connection to weld with electrodes.

GMAW **WELDING**

Item Name	Catalog Number	AWS Standard	Diameter (mm)	Spool Weight in Kilograms
Provides high quality welds and good performance. In massive work and high speed produces a stable, smooth arc and little spatter using 100% CO2 gas, Ar/CO2 75/25 or Ar/CO2 98/2.	ZR6-08P-P15	A5.18 ER 70S-6	0.8	15/5
	ZR6-10P-P15		1	15/5
	ZR6-12P-P15		1.2	15/5
	ZR6-16P-P15		1.6	15/5
Bare wire with oxides that allow work for welding most carbon steels because the ER70S2 oxidants can be used on steels with dirt and rust. Use CO2 gas or an Ar/CO2 75/25 ratio.	ZR2-12P-P15	A5.18 ER 70S-2	1.2	15/5

GMAW Wires

FLUX CORED WELDING **WIRES**

Item Name	Catalog Number	AWS Standard	Diameter (mm)	Spool Weight in Kilograms
Flux-cored wire for welding with gas shielding.	ZIKA71T1-12	A5.20 E71T-1	1.2	15
Flux-cored wire for welding with gas shielding.	ZIKA71T1-16	A5.20 E71T-1	1.6	15
Flux-cored wire for welding with gas shielding.	ZIKA71T5-12	A5.20 E71T-5	1.2	15
Flux-cored wire for welding with gas shielding.	ZIKA71T5-16	A5.20 E71T-5	1.6	15
Flux-cored wire for welding with gas shielding.	ZIKA110T5-K4-16	A5.29 E110T5-K4	1.6	15
Flux-cored wire for welding without gas shielding.	ZIKA70T4-24	A5.20 E70T-4	2.4	15
	ZIKA71TGS-12	A5.20 E71T-GS	1.2	15
	ZIKA71T11-12	A5.20 E71T-11	1.2	15

WIRES FOR GMAW **WELDING** (STAINLESS)

Item Name	Catalog Number	AWS Standard	Diameter (mm)	Spool Weight in Kilograms
For continuous welding of chrome-nickel steels 304 and 308.	MIG308-08	A5.9 ER 308LSi	0.8	15/5
	MIG308-10		1	15/5
	MIG308-12		1.2	15
	MIG308-16		1.6	15
For continuous welding of stainless steels to carbon steels.	MIG309-08	A5.9 ER 309LSi	0.8	15
	MIG309-10		1	15
	MIG309-12		1.2	15
For welding chrome-nickel type 20/25 that withstand very high corrosion and temperature conditions.	MIG310-10	A5.9 ER 310	1	15
	MIG310-12		1.2	15
For continuous welding of chrome-nickel steels and molybdenum.	MIG316-08	A5.9 ER 316LSi	0.8	15/5
	MIG316-10		1	15/5
	MIG316-12		1.2	15

FLUX CORED WELDING **WIRES** (STAINLESS)

Item Name	Catalog Number	AWS Standard	Diameter (mm)	Spool Weight in Kilograms
For continuous welding of chrome-nickel steels.	MIG308LT1-12	A5.22 E308LT1-1	1.2	12.5
	MIG308LT1-16		1.6	12.5
For continuous welding of dissimilar materials such as Cr-Mo steel or mild steel to stainless and build-up welding of carbon stee.	MIG309LT1-12	A5.22 E309LT1-1	1.2	12.5
	MIG309LT1-16		1.6	12.5
For continuous welding of chrome-nickel steels and molybdenum.	MIG316LT1-12	A5.22 E316LT1-1	1.2	12.5
	MIG316LT1-16		1.6	12.5

1. Two-point touch technology is the cause of many advantages in the use of a contact tip with triangular internal structure with high electric conductivity allows a **better looking weld**.
2. Contact tip material is copper + **chrome and zirconium, which permits fewer contact tip changes.**
3. Contact between the welding wire and the contact tip at two points simultaneously allows the **transfer of a better current flow.** Due to the triangular structure, there are three corners remaining hollow, causing **fewer spatters and less sticking.**
4. Wire feed into the contact tip through the V shape is very easy and gives **improved and stable contact for the weld.** Contact at two points simultaneously with high temperature heat-resistant material significantly **reduces the wear and tear.**

Triangle Hole Contact Tip

WIRES FOR GMAW **WELDING** (ALUMINUM)

Item Name	Catalog Number	AWS Standard	Diameter (mm)	Spool Weight in Kilograms
For welding aluminum alloys containing up to 2% alloy materials and castings containing up to 7% silicon.	MIG4043-08	A5.10 ER4043	0.8	7
	MIG4043-10		1	7
	MIG4043-12		1.2	7
	MIG4043-16		1.6	7
For welding aluminum alloys containing more than 3% magnesium.	MIG5356-08	A5.10 ER5356	0.8	7
	MIG5356-10		1	7
	MIG5356-12		1.2	7
	MIG5356-16		1.6	7
For welding aluminum alloys with a higher level of magnesium compering 5356, improves resistance to cracks.	MIG5556-12	A5.10 ER5556	1.2	7

GMAW WIRES FOR **MAINTENANCE**

WIRE FOR FILLING WORN PARTS

Wire Description	Description	Diameter (mm)	Box Weight
W2411	All position ,100% co2 gas shielded. 34-39 RC hardness	1.6	15

WIRE FOR HARDFACING HIGH WEAR RESISTANCE

Wire Description	Description	Diameter (mm)	Box Weight
W2440	All position ,100% co2 gas shielded. 58-61 RC hardness	1.6	15

WIRE FOR HARDFACING HIGH WEAR RESISTANCE COMBINED WITH IMPACT

Wire Description	Description	Diameter (mm)	Box Weight
W2460	All position ,100% co2 gas shielded. 53-56 RC hardness	1.6	15
		2.4	15

WIRE FOR HARDFACING HIGH WEAR RESISTANCE COMBINED WITH IMPACT

Wire Description	Description	Diameter (mm)	Box Weight
W2601	For heavy machinery with gas shield. Standard AWS A5.29; E110-T5	1.2	15
		1.6	15

AIR COOLED MIG CO2 TORCH

TORCH 15 - 180 AMPERE

Item Description	Catalog Number
MIG Welding Torch Model 15, 3 Meter	TB-15/3
MIG Welding Torch Model 15, 4 Meter	TB-15/4
16 mm Nozzle	TB-860
Nozzle Spring	TB-890
Contact Tip For Holder	TB-870
0.6 mm Contact Tip with M6 Thread	TB-015
0.8 mm Contact Tip with M6 Thread	TB-020
1 mm Contact Tip with M6 Thread	TB-025
Insulated Liner, diameter 0.6-1.0 mm (blue)	TB-220

Contact Tip

Nozzle

Spring

Gas Nozzle Holder

Insulated Liner

Nozzle

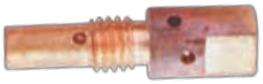
TORCH 25 - 230 AMPERE

Item Description	Catalog Number
MIG Welding Torch Model 25, 3 Meter	TB-25/3
MIG Welding Torch Model 25, 4 Meter	TB-25/4
15 mm Nozzle	TB-070
Straight Nozzle	TB-120
Nozzle Retaining Spring	TB-080
Contact Tip Housing 1.6, 35 mm	TB-060
Nozzle for Model 25 Torch for Spot-Welding	TB-110
0.8 mm Contact Tip with M6 Thread	TB-030
1.0 mm Contact Tip with M6 Thread	TB-040
1.2 mm Contact Tip with M6 Thread	TB-050
Insulated Liner, for diameters 1.0-1.2 mm (red)	TB-908

Contact Tip

Nozzle

Spring



Gas Nozzle Holder

Insulated Liner

AIR COOLED MIG CO2 TORCH

TORCH 36 - 320 AMPERE

Item Description	Catalog Number
MIG Welding Torch Model 36, 3 Meter	TB-36/4
Contact Tip Housing with M6 thread	TB-400
Contact Tip Housing with M8 thread	TB-891
Contact Tip 1.6 mm with M6 thread	TB-895
Contact Tip 1.6 mm with M8 thread	TB-896
Gas Diffuse	TB-410
16 mm Nozzle	TB-420
1.0 mm Contact Tip with M6 Thread	TB-040
1.2 mm Contact Tip with M6 Thread	TB-050
1.2 mm Contact Tip with M8 Thread	TB-840
Red Insulated Liner 4.5 m for 1-1.2 mm wire	TB-908
Yellow Insulated Liner 4.5 m for 1.2-1.6 mm wire	TB-560

Contact Tip

Nozzle

Gas diffuser

Gas Nozzle Holder

Insulated Liner

TORCH 24 - 250 AMPERE

Item Description	Catalog Number
MIG Welding Torch Model 24, 3 Meter	TB-24/3
MIG Welding Torch Model 24, 4 Meter	TB-24/4
0.8 mm Contact Tip with M6 Thread	TB-030
1.0 mm Contact Tip with M6 Thread	TB-040
1.2 mm Contact Tip with M6 Thread	TB-050
Contact Tip holder for Model 24 Torch	TB-897
Gas Diffuser	TB-899
Regular Nozzle	TB-927
Insulated Liner, for diameters 1.0-1.2 mm (red)	TB-908

Contact Tip

Nozzle

Gas Diffuser

Gas Nozzle Holder

Insulated Liner

AIR COOLED MIG CO2 TORCH

TORCH 200 - 300 AMPERE

Item Description	Catalog Number
Bernard 300 A Torch	BE-300
Regular Nozzle	BE-4391
Conical Brass Nozzle	BE-4392
Contact Tip Holder	BE-4335
0.8 mm Contact, Length: 31.8 mm	BE-7488
1.0 mm Contact tip, Length: 31.8 mm	BE-7496
1.2 mm Contact tip, Length: 31.8 mm	BE-7490
1.6 mm Contact tip, Length: 31.8 mm	BE-7491
Insulated Liner for 1.6 mm wire, 5 meters	BE-44215

TORCH 400 - 500 AMPERE

Item Description	Catalog Number
Bernard 400 A Torch	BE-400m
Regular Nozzle	BE-4491
Conical Brass Nozzle	BE-4492
Contact Tip Holder	BE-4335
0.8 mm Contact tip, Length: 31.8 mm	BE-7488
1.0 mm Contact tip, Length: 31.8 mm	BE-7496
1.2 mm Contact tip, Length: 31.8 mm	BE-7490
1.6 mm Contact tip, Length: 31.8 mm	BE-7491
Insulated Liner for 1.6 mm wire, 5 meters	BE-44215

Nozzle

Contact Tip Holder

Contact Tip

Insulated Liner

Brass Nozzle

Torch

03

TIG WELDING

TIG **WELDING**

TIG welding is commonly used for both high quality and manual welding. the process of TIG welding involves an arc being formed between a pointed tungsten electrode and the area to be welded.

THE WELDING TORCH

The welding torch is special and contains the Tungsten electrode. The use of inert gas prevents oxidation, using Argon gas most often, but sometimes using Argon gas mixed with Helium gas for better gas penetration, or mixed with nitrogen substrate or internal shielding.

CLOSING THE ELECTRICAL CIRCUIT

The tungsten electrode is a non-consumable electrode used for creating an electric arc, using an electrode made of tungsten that doesn't become part of the seam because its melting point 3410°C.

- **Aluminum Welding**

When welding Aluminum alloy it is recommended to use green marked electrodes. When igniting the arc, a ball end is obtained - so there is no need for grinding.

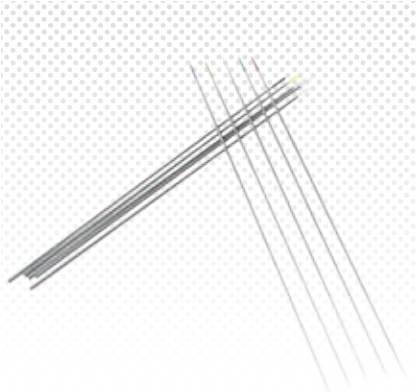
- **Stainless Steel Welding**

When welding using tungsten they are usually marked in red at the end, when sharpening releases radioactivity, which is why tungsten gold is preferred). In order to achieve a focused arc, honing must maintain centrality. A grinding angle of 30°C. is suitable for low current of 20 Amperes, and if the grinding angle of 120°C will be suitable for current of up to 200 Amperes

- **Creating a bath**

Creating the bath is also possible without additional filler material, when required, use for rods to add manually. The filling material must be compatible with the workpiece material being processed, usually with rods.

Argon Regulator



Tungsten Electrodes

WELDING TORCH STRUCTURE

Inside the torch handle there a collet and a collet body, that hold the tungsten rod. A collet with a filter called a gas lens collet body that focuses the shielding gas can be used in their place. Using this accessory improved gas utilization, focuses it and improved the protection on the welded area and the electrode.

Gas Lens Collet Body

Collet / Collet Body

CERAMIC NOZZLE

When choosing a ceramic nozzle, the diameter of the electrode should be considered, in order to prevent damage to the ceramic by overheating. Use a narrow-mouth nozzle on corner welds.

Nozzle

PRESSURE REGULATORS

Pressure regulation has the option of working with a regular Argon regulator, but using a heating Argon regulator is recommended.

During continuous work under high pressure, it occasionally happens that the gas freezes at the regulator's output. The heating option prevents these problems.

Argon Regulator

PROTECTIVE MASK

A welding mask that automatically darkens at the beginning of the weld and clears when you stop welding. In continuous work with Argon, working with this mask takes on even more meaning, because both hands are busy welding. The light weight, simple adjustment for the degree of darkening, the option of exchanging the cassette and the high level of protection allowed combined with convenience and the advantage of enjoyable and higher quality work.

Solar Welding Mask

PROTECTIVE GLOVES

Argon welding produces ultraviolet rays that can cause burns and even skin cancer in some cases. It is therefore necessary to protect all the exposed areas, especially in the neck area.
Since Argon welding is delicate and the parts we come in contact with are thinner, there is importance in using gloves with soft but strong leather, such as deerskin.

Argon Welding Gloves

TIG WELDING RODS (STAINLESS STEEL)

Item Description	AWS Standard	Catalog Number	Diameter (mm)
For Argon welding with chrome-nickel steels 304 and 308.	A5.9 ER308L	TIG308-10	1
		TIG308-12	1.2
		TIG308-16	1.6
		TIG308-20	2.0
		TIG308-24	2.4
		TIG308-32	3.25
		TIG308-40	4
For Argon welding with stainless steels and carbon steels.	A5.9 ER309L	TIG309-16	1.6
		TIG309-20	2.0
		TIG309-24	2.4
For Argon welding with chrome-nickel and molybdenum steels.	A5.9 ER316L	TIG316-10	1
		TIG316-12	1.2
		TIG316-16	1.6
		TIG316-20	2.0
		TIG316-24	2.4
		TIG316-32	3.25
For Argon welding with chrome-nickel steels stabilized with titanium and vanadium.	A5.9 ER347	TIG347-16	1.6
		TIG347-24	2.4
		TIG347-32	3.25
For Argon welding with chrome and chrome-nickel steels for resistance to oxidation and high temperatures.	A5.9 ER310	TIG310-16	1.6
		TIG310-24	2.4
		TIG310-32	3.25
Welding rod for super duplex forged steels such as 2507 and Zeron 100 super duplex casting. Wire structure high resistance to corrosive cracking forces.	A5.9 ER2594	TIG2594-16	1.6
		TIG2594-24	2.4

TIG WELDING RODS (ALUMINUM)

Item Description	AWS Standard	Catalog Number	Package Weight (Kilograms)	Diameter (mm)
For welding aluminum alloys containing up to 2% alloy materials and castings containing up to 7% silicon.	A5.10 ER4043	TIG4043-16	5	1.6
		TIG4043-20	5	2
		TIG4043-24	5	2.4
		TIG4043-32	5	3.25
		TIG4043-40	5	4

TIG WELDING RODS (ALUMINUM)

Item Description	AWS Standard	Catalog Number	Package Weight (Kilograms)	Diameter (mm)
For welding aluminum alloys containing more than 3% magnesium.	A5.10 ER5356	TIG5356-16	5	1.6
		TIG5356-20	5	2
		TIG5356-24	5	2.4
		TIG5356-32	5	3.25
		TIG5356-40	5	4

TUNGSTEN ELECTRODES FOR ARGON WELDING

Item Description	AWS - ASTM Standard	Color	Current
The electrodes contain 99.50% tungsten. Intended primarily for aluminum and magnesium. DC current is not used because it does not ignite a strong arc.	EWP		AC
The electrodes contain 2% thorium and therefore the arc is very stable bow, designed mainly for use with DC currents. Be careful of he radioactivity when grinding.	EWTh-2		DC
More durable than tungsten thorium and can be used with direct current and alternating current. Excellent arc ignition, mainly with low DC currents, and is therefore very popular for use in welding of pipes, delicate parts and pulse welding. No radioactivity when grinding.	EWCe-2		DC או AC/DC
Excellent function in both AC and DC when used in reverse polarity (-), heat resistance slightly better than gold.	EWLa-1		DC או AC/DC
Excellent function in both AC and DC when used in reverse polarity (-).	EWLa-1.5		DC או AC/DC
Excellent function in both AC and DC when used in reverse polarity (-), heat resistance a slightly better than gold, and most similar in properties to thorium, stable arc, option to work also with AC and most importantly not radioactive.	EWLa-2		DC או AC/DC
Like the red-colored electrodes, with a reduced content of thorium - 1%, and thus a stable arc, intended primarily for DC currents. Care must still be taken when grinding due to radioactivity.	EWTh-1		DC
More durable than tungsten thorium and can be used only with AC current. High resistance to contaminants. Little spatter. Not radioactive when grinding.	EWZr-1		AC
Slightly better in heat, more durable than tungsten thorium and can only be used with AC current. High resistance to contaminants. Little spatter. Not radioactive when grinding.	EWZr-8		AC

TIG **FOR ARGON WELDING (STEEL)**

Item Description	AWS Standard	Catalog Number	Package Weight (Kilograms)	Diameter (mm)
Rods for welding in all positions with medium strength.	A5.18 ER70S-6	TIG70S6-16	5	1.6
		TIG70S6-24	5	2.4
Rods for welding rusted and galvanized steel in all positions with medium strength.	A5.18 ER70S-2	TIG70S2-16	5	1.6
		TIG70S2-20	5	2
		TIG70S2-24	5	2.4
		TIG70S2-32	5	3.2

TIG **FOR ARGON WELDING (STEEL)**

Item Description	AWS Standard	Catalog Number	Package Weight (Kilograms)	Diameter (mm)
Welding rods for chrome-molybdenum steels. High work temperature and corrosion resistance.	A5.28 ER80S-B2	TIG80SB2-16	5	1.6
		TIG80SB2-24	5	2.4
Steel welding rods with 5% chrome composition and 0.5% molybdenum for work temperatures up to 550 °C.	A5.28 ER80S-B6	TIG80SB6-16	5	1.6
		TIG80SB6-24	5	2.4
		TIG80SB6-32	5	3.25
Steel welding rods with 9% chrome composition and 1% molybdenum for work temperatures up to 650 °C.	A5.28 ER80S-B8	TIG80SB8-16	5	1.6
Creep-resistant steel welding rods for work temperatures up to 500 °C.	A5.28 ER80S-D2	TIG80SD2-24	5	2.4
		TIG80SD2-32	5	3.2
Steel welding rods containing 2.5% nickel and steels designed to work in low temperatures.	A5.28 ER80S-Ni2	TIG80SNi2-16	5	1.6
		TIG80SNi2-24	5	2.4
		TIG80SNi2-32	5	3.2
Welding rods for chrome-molybdenum steels for work temperatures up to 600 °C.	A5.28 ER90S-B3	TIG90SB3-24	5	2.4
		TIG90SB3-32	5	3.2
Rods with 9% chrome and 1% - molybdenum, suitable for novium and vanadium, which allow strength, oxidation and corrosion resistant at high temperatures.	A5.28 ER90S-B9	TIG90SB9-24	5	2.4

NICKEL RODS **FOR TIG WELDING**

Item Description	AWS Standard	Catalog Number	Package Weight (Kilograms)	Diameter (mm)
Rods for welding in all positions with medium strength.	A5.14 ERNiCr-3	TIGNi82-16	5	1.6
		TIGNi82-24	5	2.4
Nickel rods for welding NiCrMo steels.	A5.14 ERNiCrMo-3	TIGNiCrMo3-16	5	1.6
		TIGNiCrMo3-24	5	2.4

NICKEL RODS FOR TIG WELDING

Item Description	AWS Standard	Catalog Number	Package Weight (Kilograms)	Diameter (mm)
Rods for welding iron castings and gray iron.	A5.14 ERNiCI	TIGNiCI-32	1	3.2
		TIGNiCI-40	1	4
Rods of Nickel alloy 276 for welding steels, nickel and identified and unidentified stainless steel. Thanks to the high molybdenum content, they have excellent high resistance to cracking from corrosion stress.	A5.14 ERNiCrMo-4	TIGC276-16	1	1.6
		TIGC276-24	1	2.4

SUBMERGED ARC WELDING

WIRES FOR SUBMERGED ARC WELDING

Item Description	AWS Standard	Catalog Number	Weight in Kilograms	Diameter (mm)
Covered arc welding wire for pressure tanks.	EM12K	SS2-24	25	2.4
	EM12K	SS2-32	25	3.25
	EM12K	SS2-40	25	4

WELDING POWDERS

Item Description	AWS Standard	Catalog Number	Weight in Kilograms
Active powder for welding pressure tanks, single-layer welding recommended.	EM12K-F7A0	SP-76	25
Active powder for welding pressure tanks, can be welded in multiple layers.	EM12K- F7A4	SP-2678	25

TIG TORCHES - 9,20 MODEL ARGON TORCHES

Item Description	Catalog Number
Air-cooled torch for 125 Ampere Argon torch, 7.5 meters.	WP-9-25
Water cooled torch for 250 Ampere Argon torch.	WP-2025

COLLET

Catalog Number	Diameter (mm)
WP-13N21	1.0
WP-13N22	1.6
WP-13N23	2.4
WP-13N24	3.2

NOZZLE / CERAMIC

Catalog Number	Diameter (mm)
WP-13N08	4
WP-13N09	5
WP-13N10	6
WP-13N11	7
WP-13N12	8

COLLET BODY

Catalog Number	Diameter (mm)
WP-13N26	1.0
WP-13N27	1.6
WP-13N28	2.4
WP-13N29	3.2

BACK CAP

Catalog Number	Diameter (mm)	Length
WP-41V33	9,20	Short
WP-41V35	9,20	Medium
WP-41V42	9	Length

TIG TORCHES - FOR 17 - 18 - 26 ARGON TORCHES

Item Description	Catalog Number
Handle for 150 Ampere Argon Torch, 7.5 meters with tap.	WP-17252V
Handle for 150 Ampere Argon Torch, 4 meters with tap.	WP-17252V4
Handle for 150 Ampere Argon Torch, 4 meters with microswitch.	WP-17252/4
Air-cooled Handle for 150 Ampere Argon Torch.	WP-17252
Air-cooled Handle for 150 Ampere Argon Torch + valve.	WP-17252V
Air-cooled Handle for 250 Ampere Argon Torch.	WP-26252
Water cooled Handle for 250 Ampere Argon Torch.	WP-1825

COLLET

Catalog Number	Diameter (mm)
WP-13N22	1.0
WP-13N23	1.6
WP-13N24	2.4
WP-13N25	3.2

NOZZLE / CERAMIC

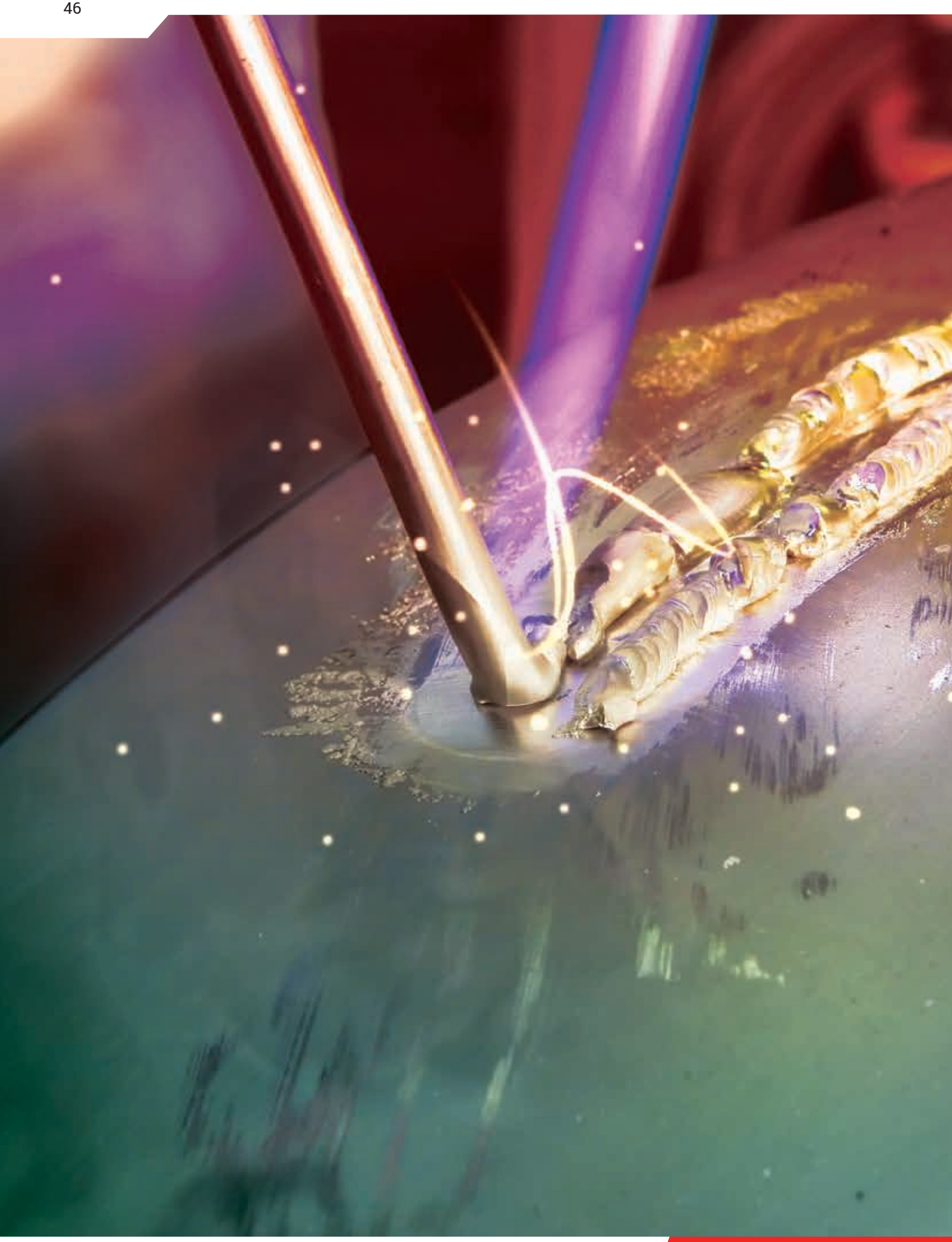
Catalog Number	Diameter (mm)
WP-10N50	4
WP-10N49	5
WP-10N48	6
WP-10N47	7
WP-10N46	8

COLLET BODY

Catalog Number	Diameter (mm)
WP-10N30	1.0
WP-10N31	1.6
WP-10N32	2.4
WP-10N33	3.2

BACK CAP

Catalog Number	Diameter (mm)	Length
WP-57Y04	17,18,26	Short
WP-57Y02	17,18,26	Length



04

OXY-FUEL WELDING AND SOLDERING

OXY-FUEL **WELDING** AND SOLDERING

SOLDERING

There are two methods of soldering.

Brazing - designed for materials whose melting point is 425 °C or more.

Soldering - designed for materials whose melting point is less than 425 °C.

The use of a combination of oxygen and acetylene creates a flame that melts the two pieces of metal intended for soldering, with or without additional wire.

The weld is usually intended to connect metal sheets and various body work.
Air conditioning personnel use propane gas and perform silver soldering.
Propane gas is capable of reaching temperatures of about 700 °C.

Melting points for various materials:

Silver

Silver melts at 961.9 °C. The higher the percentage of silver, the lower the melting point, and the easier it is to work with th molten material.

Copper

1083 °C.

Aluminum

Aluminum melts between 580 and 620 °C.

STEEL RODS FOR OXY-FUEL WELDING

Item Description	AWS 5.8 Standard	Catalog Number	Package Weight (Kilograms)	Diameter (mm)
Rods for welding in all positions for steels with low strength.	R-45	TIGER-16	10	1.6
		TIGER-20	10	2
		TIGER-25	10	2.5
		TIGER-32	10	3.2
		TIGER-40	10	4
		TIGER-50	10	5

* The steel rods are manufactured from the same rods used to manufacture welding electrodes.

SILVER RODS FOR COPPER SOLDERING

Item Description	Standard	Catalog Number	Diameter (mm)
Copper-Phosphorus wire with a low silver content. Suitable for filling wide connections. Suitable for brazing copper and copper alloys. Operating temperatures between - 60 ° C and 150 ° C * Do not use in sulfuric environment and on ferrous and nickel alloys.	L-AG2P - FLAT ROD 1,3X3,2X500MM CP 105	TIGSB5%-FLT	1.3X3.25
Bare copper wire - phosphorus with 15% silver content that provides high ductility, even At low temperatures. Suited for soldering copper and copper alloys. Recommended for connections with high heat load and vibration. In common with brazing for working temperatures between - 70 ° C and 150 ° C *. Do not use in sulfuric environment and on ferrous and nonferrous alloys.	BS EN 1044 15 AG BARE WIRE	TIGSB15%-30BR	1.6
Alloy with 20% silver content, without cadmium. Not sensitive to overheating. Brazing non-alloyed steels and steels without nickel alloys and nickel-cast iron alloys, copper and copper alloys. Fully color matching with brass. Silicon can reduce the mechanical properties of carbon steel. For working temperatures with a maximum of 200 ° C.	DIN 8513 L AG 20 EN1044-AG 206	TIGSB20%-15	1.5
Wires containing cadmium are especially useful in spare parts stores for air conditioning. With a 20% silver content, overheating of the filler material should be avoided due to the presence of zinc, which can create holes and prevent sealing when overheated. Good ventilation is recommended for the area in which the soldering takes place.	DIN 8513 L Ag 20Cd EN1044 AG 309	TIGSB20%-15B	1.5
An alloy with 30% silver content, without cadmium and not sensitive to overheating. Brazing non-alloyed steels and steels without nickel alloys and nickel-cast iron alloys, copper and copper alloys. Fully color matching with brass. Silicon can reduce the mechanical properties of carbon steel. For working temperatures with a maximum of 300 ° C.	UNI EN ISO 17672:2010-AG 130	TIGSB30%-15	1.5
Wires containing cadmium are especially useful in spare parts stores for air conditioning. With a 30% silver content, overheating of the filler material should be avoided due to the presence of zinc, which can create holes and prevent sealing when overheated. Good ventilation is recommended for the area in which the soldering takes place.	DIN 8513 L AG 30CD EN1044 AG 306	TIGSB30%-15B	1.5

SILVER RODS FOR COPPER SOLDERING

Item Description	Standard	Catalog Number	Diameter (mm)
An alloy with 40% silver content, without cadmium. Sensitive to overheating. For brazing unalloyed steels, nickel and nickel-cast iron alloys, copper and copper alloys. Silicon can reduce the mechanical properties of carbon steel. For working temperatures with a maximum of 200°C.	UNI EN ISO 17672:2010-AG 105	TIGSB40%-15	1.5
Alloy wire with a silver content of 40%, blue color, contains cadmium for brazing unalloyed and alloyed steels, nickel and nickel alloys. Avoid overheating due to the filling material due to the percentage of cadmium and even more due to the presence of zinc, which, when overheated can create holes and prevent sealing. Cast Iron, copper and copper alloys. Silicon can reduce the mechanical properties of carbon steel. For working temperatures with a maximum of 200°C.	DIN 8513 L AG 40CD EN1044 AG 304	TIGSB40%-15B	1.5
Alloy with 56% silver content, without cadmium, not sensitive to overheating. Good fluidity and capillarity for brazing unalloyed and alloyed steels, nickel alloys and cast iron, aluminum, copper and copper alloy. The absence of cadmium makes it particularly suitable for connecting parts that will come in contact with food in the future. For working temperature with a maximum of 200°C.	AWS A5.8 B-Ag 7 EN1044 AG 102	TIGSB56%-15	1.5
Filler with good melting and capillarity. Suitable for brazing copper and copper alloys. For brazing in working temperatures between 60°C and 150°C. * Do not use in sulfuric environment and on ferrous and nickel alloys.	LCuP-6	TIG-CUPPHOS6	3
Sil-Fos wire suitable for brazing copper pipe and copper alloys for a working temperature of minus 20°C to 150°C. Length 600 mm.	L-CuP7 - CP 202	TIGSILFUS5	2X4

POWDERS FOR SILVER SOLDERING

Item Description	Catalog Number	Package Weight (Kilograms)
Powder for silver soldering/brazing.	POWDER	1

RODS FOR BRAZING STEEL

Item Description	Standard	Catalog Number	Package Weight in Kilograms	Diameter (mm)
Coated rod for brazing steel.	-	Z2017-16	1	1.6
	-	Z2017-24	1	2.4
Coated rod for brazing bronze and copper.	-	Z2018-20	1	2
	-	Z2018-32	1	3.25
Bronze brazing rod. Length 350 mm.	-	CW-BRZE25-6	5	2.5
	-	CW-BRZE32-6	5	3.25
	-	CW-BRZE40-6	5	4
Brass wire for brazing - contains copper with zinc for filling metals with low tin content to improve strength and resistance to corro-sion. Length: 1000 mm.	RBCuZn-A	TIG-BRASS	5	2

05

WELDING
ACCESSORIES
/ TORCHES

WELDING ACCESSORIES / TORCHES

400 Ampere Twist Type Welding Torch

Catalog Number: 99-400R

300 Ampere Welding Torch

Catalog Number: 99-300S
Samson Model

500 Ampere Welding Torch

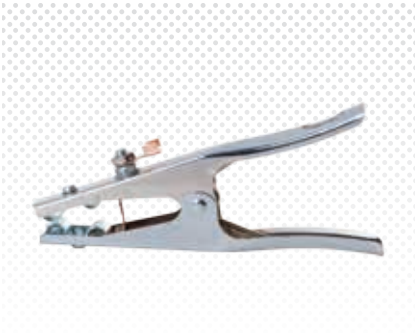
Catalog Number: 99-500S
Samson Model

300 Ampere Welding Torch

Catalog Number: 99-300J
Jackson Model

Gouging Carbon Electrode Torch

Catalog Number: K-4000
Suitable for diameters up to 13 mm (Arcer)
Includes a 2.1 meter long cable with a bronze connector that allows aground to the workpiece body. The head of the torch has four holes in the pressure port for compressed air exhaust. Up to 1000 amps. Accepts Carbon electrodes from 4 mm to 13 mm. Pressure required: 80 to 100 Psi; Flow rate:708, 25CF liters per minute. Torch Weight: 3.65 kilograms.



500 Ampere Ground Clamp

Catalog Number: JA-2320

300 Ampere Ground Clamp

Catalog Number: JA-2315

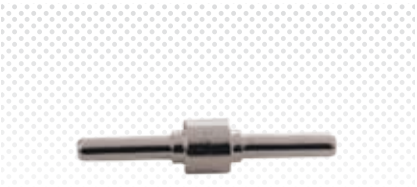
600 Ampere Ground Clamp

Catalog Number: JA-2330

I-COMBO Cutting Torch

GAS DIFFUSER

Catalog Number: RI-GD/COMBO



I-COMBO ELECTRODE

Catalog Number: RI-ELE-COMBO

SHIELDED CUP For Combo Plasma

Catalog Number: RI-CETER/COMBO

I-Combo Plasma Contact Tip

Catalog Number: RI-DIZA/COMBO

I-PLAS 25/40 Plasma Cutting Torch

I-PLAS 25/40 Electrode for Plasma

Catalog Number: RI-ELE-25/40

I-Plas 25/40 Shielded Cup For Plasma

Catalog Number: RI-CETER 25/40

Contact Tip

Catalog Number: RI-DIZA 25/40

DISCS FOR CUTTING AND GRINDING

Description	Catalog Number	Disk Diameter	Disk Thickness (mm)
Cut-Off Wheels For Cutting Iron 3"*14	ZCUT-14	14	3
Cut-Off Wheels For Cutting Iron 4.5"*1.6	ZCUT-4.5*1.6	4.5	1.6
Cut-Off Wheels For Cutting Iron 4.5"*1/8	ZCUT-4.5*1/8	4.5	3.2
Cut-Off Wheels For Cutting Iron 5"*1/8	ZCUT-5	5	3.2
Cut-Off Wheels For Cutting Iron 7"	ZCUT-7	7	3.2
Cut-Off Wheels For Cutting Iron 9"	ZCUT-9	9	3.2
Cut-Off Wheels For Cutting Stainless Steel 4.5"*1.6	ZCUTSS-4.5*1.6	4.5	1.6
Grinding Discs Iron 4.5"*1/4	ZGRIND-4.5	4.5	7
Grinding Discs Iron 5"	ZGRIND-5	5	7
Grinding Discs Iron 7"	ZGRIND-7	7	7
Grinding Discs Iron 9"*1/4	ZGRIND-9	9	7

Cut-Off Wheels Iron 14"*3

Catalog Number: ZCUT-14

Cut-Off Wheels Iron 4.5"*1.6

Catalog Number: ZCUT-4.5*1.6

Cut-Off Wheels Iron 4.5"*1/8

Catalog Number: ZCUT-4.5*1.

Cut-Off Wheels Iron 5"*1/8

Catalog Number: ZCUT-5

Cut-Off Wheels Iron 7"*

Catalog Number: ZCUT-7

Cut-Off Wheels Iron 9"

Catalog Number: ZCUT-9

Grinding Discs Iron 4.5"*1/4

Catalog Number: ZGRIND-4.5

Grinding Discs Iron 5"

Catalog Number: ZGRIND-5

INDUSTRIAL MARKERS

Liquid Paint Marker

Intended for marking on smooth surfaces or rough surfaces of oiled iron and metal, aluminum, piping, plastic and rubber.

Marking Thickness: 3 mm.
For marking materials in the temperature range between -46º C and 66ºC.

Catalog Number	Color
96960	White
96961	Yellow
96962	Red
96963	Black

Broad Tip Paint Marker

Intended for marking on smooth surfaces or rough surfaces of oiled iron and metal, aluminum, piping, plastic and rubber.

Marking Thickness: 7 mm.
For marking materials in the temperature range between -18º C and 66ºC.

Catalog Number	Color
90900	White
90901	Yellow
90902	Red
90903	Black

Ball Tip Paint Marker

Intended for marking on smooth or rough surfaces, wet or oily, frozen, rust on metal, wood, plastic, glass or any other hard material. Comes in an unbreakable plastic bottle.

For marking materials in the temperature range between -46º C and 66ºC.

Catalog Number	Color
84620	White
84621	Yellow
84622	Red
84623	Black

Solid Paint Marker

Suitable for marking on oily, frozen, rust on metal, wood, concrete, rubber, glass and paper surfaces, wet or cold.

For marking materials in the temperature range between -46º C and 66ºC.

Catalog Number	Thickness (mm)
61117	9.5
80420	17

WELDING CABLES AND COMPLEMENTARY EQUIPMENT

Item Description	Catalog Number	Diameter
Orange welding cable with double insulation. Approved by the Standards Institution of Israel.	CB-16	16 mm^2
	CB-25	25 mm^2
	CB-35	35 mm^2
	CB-50	50 mm^2
	CB-70	70 mm^2

Cable Set

Item Description	Catalog Number
Welding Cable Lugs, 16 mm Diameter.	NC-16
Welding Cable Lugs, 25 mm Diameter.	NC-25
Welding Cable Lugs, 35 mm Diameter.	NC-35
Welding Cable Lugs, 50 mm Diameter.	NC-50
Welding Cable Lugs, 70 mm Diameter.	NC-70
Welding Cable Lugs, 90 mm Diameter.	NC-90

Welding Cable Lugs

Massive Male welding cable joint

Catalog Number: JA-VL-2
Connects to Female Cable to lengthen cables with diameters from 35 to 90 mm.

Female welding cable joint

Catalog Number: MA-NE16-25
for diameters from 16 to 25 mm.
Catalog Number: MA-NE35-50
for diameters from 35 to 50 mm.
Female cable connector to lengthen and connect cables to the welder.

Female socket M8 for welding machine

Catalog Number: JA-MC-M8
Female Cable for connection to Welding Machine
M8 Connector for small connector.

Massive Female welding cable joint

Catalog Number: JA-VL-3
Connects to Male Cable to lengthen cables with diameters from 35 to 90 mm.

Male welding cable joint

Catalog Number: MAZA-16-25 for diameters from 16 to 25 mm.
Catalog Number: MAZA-35-50 for diameters from 35 to 50 mm.
Male cable connector to lengthen and connect cables to the welder.

Female socket M10 for welding machine

Catalog Number: JA-MC-M10
Female Cable for connection to Welding Machine
M10 Connector for large connector.

WELDING ACCESSORIES

Antispatter Paste for CO2 Welding

Catalog Number: 99-Z185
Without Silicon

Antispatter Spray for CO2 Welding

Catalog Number: 99-Z180
Without Silicon

Antispatter Spray for CO2 Welding

Catalog Number: 99-Z181
With Silicon

Crack Detection Cleaner Spray

Catalog Number: 99-Z170
Cleaner

Crack Detection Penetrate Spray

Catalog Number: 99-Z171
Penetrates cracks

Crack Detection Developer Spray

Catalog Number: 99-Z172
Developer

Rust-Penetrating Oil Spray

Catalog Number: 99-Z101

Stainless Steel Weld Cleaning Gel

Catalog Number: 99-SSG

Plastic Handle Scratch Brush

Catalog Number: SP-001

COMPLEMENTARY PRODUCTS FOR WELDING

CO2 Pressure Regulator with Electric Heating Element

Catalog Number: VA-CO2

Argon Pressure Regulator (GH-25 thread)
ALSO Available in 580 thread

Catalog Number: VA-ARGON

Infrared Thermometer measures welding preheat temperatures

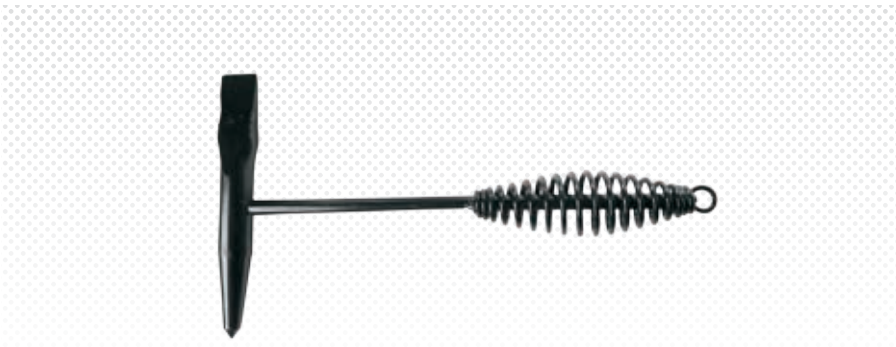
Catalog Number: MAD-T

Temperature Indicator Markers

Catalog Number: TEM-PEN

Soapstone

Catalog Number: JA-7182



Slag Chipping Hammer with Spring Handle to Prevent Wrist Shock

Catalog Number: JA-2140

CO2 special-purpose pliers

Catalog Number: CO2-CLEANER

Electrode Drying Oven

Catalog Number: AT-500/20
Oven for drying electrodes, can contain up to 20 kg. Drying chamber and extra chamber to maintain electrode warmth. Digital Display. Up to 500ºC.

Electrode Drying Oven

Catalog Number: AT-500/60
Oven for drying electrodes, can contain up to 60 kg. Drying chamber and extra chamber to maintain electrode warmth. Digital Display. Up to 500ºC.

Electrode Drying Oven

Catalog Number AT-300
Drying oven, 300ºC, can hold up to 10 kg. of electrodes with length up to 450 mm. Includes temperature indicator.

Electrode Drying Oven

Catalog Number AT-400
Oven for drying up to 15 kg. of electrodes, reaches 400ºC. Temperature is adjustable and oven has a temperature indicator.

Portable Welding electrode Oven

Catalog Number: AT-10Y
Can hold up to 5 kg of electrodes with lengths of up to 450 mm.

Welding Gauge

Catalog Number: MAD-RIT
Welding gauge that allows measurement of depth, angle and quality of the weld. Comes with hard case to protect the gauge.

06

SAFETY EQUIPMENT

SAFETY EQUIPMENT

SOLAR WELDING MASK

DIAMOND

The **Diamond** is a Auto-darkening welding mask that automatically darkens when welding. This mask is manufactured for Zika according to the most stringent requirements and testing by the company's professional team, which guarantees you, the customer, a high-quality professional welding mask.

TECHNICAL SPECIFICATIONS

Light transfer under normal conditions	DIN 3 or 4
Light transfer under variable welding conditions	Darkness rating varies from DIN 9-13
Changing time from light to dark	1/1000 of a second at room temperature
Delay time	Delay adjustment between 0.2 and 0.8 seconds
Sensitivity adjustment (at the end of welding)	Adjustment rating
Power source	Combination of solar and lithium battery
Minimum battery life span	5000 welding hours
Working temperature	Between -5º and 55º Celsius
Viewing area	98*44 mm
Cassette dimensions	110*90*80 mm
UV radiation protection	210<313< NM, T<0.00006%
	313<365< NM, T<0.00006%
IR radiation protection	780-1400NM, T<0.003%
Weight	430 Grams
Mask material	Nylon

MASK ADVANTAGES

- Maximum protection against radiation, spatter and spray.
- Wide welding window allows optimal viewing space during welding.
- Automatic darkening of the welding window with electrode ignition.
- Darkening control button for settings 9 through 13.
- Headband designed for maximum mask support.
- Light and balanced weight.
- Made from high-quality materials that last for years.
- Maximum protection for the face, including the ears.
- Innovative design.
- 24-Month warranty, not including breakage.

The mask has qualitative characteristics such as: light weight, simplicity of changing darkening setting, option to change the cassette and the high level of protection give you, the professional welder, ease and more comfortable work, and is higher quality.

STAR - O

Serious professional welders should consider using more advanced auto-darkening helmets with continuously variable controls that adjust the shade from a light state to a dark one and back. These helmets protect from harmful light emissions at all times and darken to a almost any pre-selected shade in milliseconds, thanks to quick-changing LCD (Liquid Crystal Display) technology in the auto-darkening cartridges.
The **STAR-O** welding mask allows welding even with very low amperage and high amperage .
The mask also has an external switch that allows the stopping of automatic shutoff and turns the mask into a high-quality grinding protection mask.
This helmet features a light state of 4, and a dark state of 9 - 13. There is a fixed sensitivity control and a viewing area of 7.25 square inches. The TIG rating Amps is 5, and there are two independent sensors on this helmet.

TECHNICAL SPECIFICATIONS

Filter dimensions	110*90
Sensors	2
Sensitivity control	Analog - High/Low
Opening/closing time (seconds)	1/10000
Primary power	Solar power cells
Backup power	Lithium battery
Work and storage temperatures	-10° to +50° Celsius
UV/IR radiation protection	Up to Rating 16
Delay to opening	0.1 to 2 seconds
Darkness rating	4
Grinding setting	Yes
Standard	ANSI Z87.1 CE Pending

MASK ADVANTAGES

- Manufacturer in the U.S.
- Lightweight and comfortable to use.
- Option to change the cassette and high level of protection.
- Darkness setting adjustment - the level of darkening can be changed from No. 9 up to No. 13, at the welder's convenience.
- Sensitivity setting adjustment - turning the button to the left shifts the mask to grinding status.
- Turning the button to the right returns the mask to welding status.
- Delay button that controls the time between dark state and transparent (automatic opening of the cassette).
- Special state designed mainly for low power or spot welding (quick stops in welding).
- Special state designed mainly for 60 to 120 Ampere power.
- Special state designed mainly for higher power (slowed closing rate).
- Special state designed for high power from 400 Amperes (closing rate is slower).

This mask's characteristics turn it into the ideal solution for varied work requiring grinding after welding, work with low or high power, and ease of work give the professional welder the best solution on the market.

WELDING MASKS

American Welding Mask

Catalog Number: TITAN

Double-sized field of vision/Front window lifts

American Welding Mask

Catalog Number: NERO-R

Nero Red/Front window lifts

American Welding Mask

Catalog Number: NERO-S

Nero Silver/Front window lifts

American Welding Mask

Catalog Number: NERO-B

Nero Black/Front window lifts

American Welding Mask

Catalog Number: NERO-G

Nero Gray/Front window lifts

American Face Shield

Catalog Number: 32010

American Complete Face Shield

Catalog Number: 38110

Zika Welding Mask

Catalog Number: WH701

Front window lifts

Hand-held Welding Mask

Catalog Number: 5114049

Fixed window

Powered Air Purifying Respirator

Catalog Number: STAR-AIRSET

Durable Welding Mask

Catalog Number: 39371

Black

REPLACEMENT PARTS FOR STAR MASKS AND SMOKE EXHAUST SYSTEM

STAR-1	Interior shield for STAR-E
STAR-2	Front shield for STAR-E, STAR-O and STAR-P
STAR-3	Interior shield for STAR-O and STAR-P
STAR-4	Sweat shield for STAR-E, STAR-O and STAR-P
STAR-5	Face Plate for STAR-E, STAR-O and STAR-P
STAR-6	STAR-E Auto-darkening Welding Filter, Dark State Shade 9-13
STAR-7	Solar mask for star-e auto-darkening Welding Filter
STAR-8	STAR-E Auto-darkening Welding Filter - AUTO adjustment
STAR-9	Auto-darkening Welding Filter, Dark State Shade 9-13
STAR-AIRSET	Complete air scrubbing system
STAR-AIRSET-1	Belt for air scrubbing system
STAR-AIRSET-2	Improved belt for air scrubbing system
STAR-AIRSET-3	Light P.V.C. Tube
STAR-AIRSET-4	Battery charger
STAR-AIRSET-5	Rechargeable nickel metal battery, 4.8 V
STAR-AIRSET-6	P3 rated filter
STAR-AIRSET-7	Pre-filter
STAR-AIRSET-8	PRE FILTER odour (active carbon)
STAR-AIRSET-9	Fabrics for air scrubbing system
STAR-AIRSET-10	Kit including bow and air tube for mask
STAR-AIRSET-11	Face shielding cloth - assembled on the headband

Dust proof + Aluminium bound

Catalog Number: 5114082

Clear visor + Aluminium bound

Catalog Number: 5114082-3

MEDICAL SUPPLIES

Item description	Catalog Number			
First Aid Cabinet, suitable for up to 20 workers.	MED-110			
	Contents			
	Item	Quantity	Item	Quantity
	Resuscitator mask	1	Wooden applicators	110
	Personal bandage	2	Sterile gloves	4
	Cloth triangle (sling)	5	Savior Ointment by “Teva”	1
	Sterile gauze pads	10	Spray bandage	1
	Non-stick burn pads	1	Silk rolled adhesive tape	1
	Medical cotton wool - 50 grams	2	Polydine Ointment, 20 gr.	1
	Stainless steel medical tweezers	1	Professional nurse’s scissors	1
	Adhesive tape with cutter	1	Quality sterile band-aids	40
	H bandage from surgical cloth	12	Quality sterile stretch bandage	1
	Alcohol wipes	2	Splints for finger immobilization	3
	Gauze roll, 5 cm wide	5	70% Alcohol spray	1
	Gauze roll, 7 cm wide	2	Azolin eye drops	1
	Standard tourniquet	1	Burn ointment	1
	Splint for immobilization	1	Pro-vera gel 100% natural	1
	Professional eye washer	1	Safety pins	10
	Elastic bandage	1		

First Aid Cabinet

Item description	Catalog Number
First Aid Bag, Full	MED-120
Burn treatment kit	MED-130
Fire escape kit	MED-140

Item description	Catalog Number
Large spray bandage 150 cc	MED-150
Chip extracting pencil	5116055

First Aid Bag

Burn Treatment Kit

Spray Bandage

Fire Escape Kit

Magnetic Eye Probe

SPARE PARTS FOR MASKS AND FACE PROTECTORS

GLASS PLATES

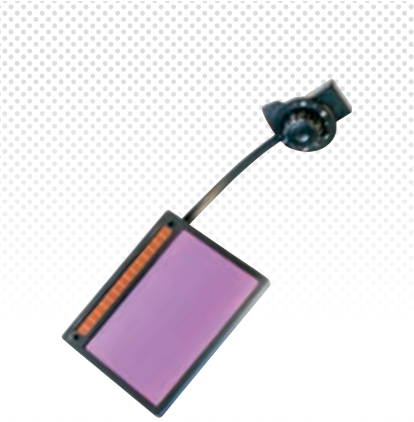
Item Description	Catalog Number
Round Lens No. 6 for Oxy-Acetylene Welder's Goggles	JA-06
Clear glass 108X51 mm	JA-2000
Protective welding glass shade 9 108X51 mm	JA-09
Protective welding glass shade 10 108X51 mm	JA-10
Protective welding glass shade 11 108X51 mm	JA-11
Protective welding glass shade 12 108X51 mm	JA-12
Protective welding glass shade 13 108X51 mm	JA-13

* Additional/gilded glass can be obtained.

Glass Parts

REPLACEMENT PARTS FOR SOLAR MASKS

Item Description	Catalog Number
Replacement Auto-Darkening filters	WH8000-2
Front Shield	WH8000-3
Interior Shield	WH8000-4
Headband for solar mask	WH8000-5
Sweat Band	WH8000-6
Darkness rating adjustment button	WH8000-7



Replacement Auto-Darkening Filters

HEADBAND

Item Description	Catalog Number
Headband for American Nero welding mask	NERO-H

Headband for solar mask

COMPLEMENTARY SAFETY PRODUCTS

SAFETY GLASSES

Item Description	Catalog Number
Oxy-Acetylene welding glasses	5113101
Green safety glasses	5113788
Clear safety glasses	5113789
Dark American safety glasses	5113790
Clear American safety glasses	5113792

Oxy-Acetylene welding glasses

Green safety glasses

Clear safety glasses

Dark American safety glasses

Clear American safety glasses

OPTICAL LENSES

Item Description	Catalog Number
Optical Lens No. 1	OP-N220
Optical Lens No. 1.5	OP-N222
Optical Lens No. 2	OP-N224
Optical Lens No. 2.5	OP-N250
Optical Lens No. 2.75	OP-N275

SHIELDS FOR TITAN MODEL WELDING MASK

Item Description	Catalog Number
Clear polycarbonate shield	24411-0
Polycarbonate shield, darkness rating 10	24411-10P
Polycarbonate shield, darkness rating 11	24411-11P
Polycarbonate shield, darkness rating 12	24411-12P

Shields for Welding Masks

SAFETY AND PROTECTION PRODUCTS

Item Description	Catalog Number
The curtain is fire-resistant, made of vinyl. Useful in a welding environment, plasma cutting and welding instruments. Made according to the CPA 1-84 standard and flame-resistantin accordance with the California Organization, Welding Curtain 1.82*1.80, comes with rings on all edges of the curtain	97310-3
Blanket for protecting the welding area from a distance of at least 80 cm. Dimensions: 1.2 m by 1.8 m.	AS-90
Silicone welding blanket, resistant to temperatures of 1650º Celsius.	AS-100
Welding Blanket, 2 meters by 2 meters, made from reversed leather.	AS-110
Welder's hat	AS-200

LEATHER PRODUCTS FOR PROTECTION DURING WELDING

Item Description	Catalog Number
Leather apron for chest protection during welding	AS-80
Leather sleeve for arm protection during welding	5112025
Leather leg guard for ankle protection during welding, Velcro closures	AS-65L
Long leather jacket for protection during welding. Length: 80 cm.	L5112013
	5112013XL
	5112013XXL

Item Description	Length (mm)	Width (mm)	Thickness (mm)
Jacket, L	76.2	55.9	1.3-1.4
Jacket, XL	78.7	60.9	1.3-1.4
Jacket, XXL	81.3	63.5	1.3-1.4
Sleeve	60.9	24	1.2-1.3
Gaiter	33	17.8	1.3-1.5
Apron	90	59.7	1.3-1.5

Rain Jacket, Catalog Number 51123

Rain Suit, Catalog Number 51122

Welding Curtain

Welding BLANKET

Welder's Hat

Leather Sleeve

Leather Apron

Leather welder leg guard

Leather Jacket

GLOVES

Improved Cowhide

Catalog Number: 5111006
Cow grain leather working glove, rubberized cuff

Light Jobs

Catalog Number: 5111007
Cotton drill,knitted wrist

Protect against chemicals and slipping

Catalog Number: 5111055
Latex coated working gloves, protect against slipping and chemicals.

Cotton Interlock Gloves 100%

Catalog Number: 5111009
Tricot with cuff, made of fine knit tricot with a support strap at the wrist.

Vein Protective Gloves

Catalog Number: 5111034
Heavy leather palm red cotton back.

Rubber Spots

Catalog Number: 5111041
Cloth gloves with rubber spots to prevent slipping of glass, floor times, etc.

Improved General Work Gloves

Catalog Number: 5111004
Cowhide split leather long stripe cotton black.

Leather/Cloth Gloves

Catalog Number: 5111008
Leather/cloth: Palm face made of leather, back of hand made of cloth for light to medium jobs.

For Oils and Sheet Metals

Catalog number: 5111133
Blue nitrile fully coated,sandy finished safty for work with oils and sheet metals.

Latex for a Variety of Jobs

Latex for a variety of jobs. Approved by the US Department of Health

Catalog Number:
5111050S **5111050L**
5111050M **5111050XL**

For Oils and Fuels

Red pvc dipped working gloves gauntlet cuff

Catalog Number:
5111017 27 cm
5111018 35 cm
5111019 40 cm

Improved Welding Gloves

Catalog Number: 5111015B
Improved welding gloves for general welding, has double seams, additional leather bands on the palm.

General welding works

Catalog Number: 5111015
For general welding works, 38 cm.

For argon welding

Catalog Number: 5111106L
For argon welding, front part is made of deer hide, length is 38 cm.

Leather Gloves for Welding

Catalog Number: 5111015A
Leather gloves for welding, 36 cm.

Leather Gloves for Welding

Catalog Number: 5111016
Leather gloves for welding, 40 cm.

07

WELDING & CUTTING MACHINE

WELDING & CUTTING MACHINE

STICK WELDERS

MINI-160

PORTABLE, LIGHTWEIGHT AND PROFESSIONAL

DESCRIPTION AND APPLICATION

1. A single phase, easy to carry welding machine that comes in a particularly durable rigid carrying case, combining maximum convenience in carrying.
2. The case protects the welding machine so that the machine is protected from dust and impact during storage as well as being optimally stored.
3. The welding machine is intended for operation with a 16 ampere electrical fuse.
4. The welding machine provides a great solution for welders who perform various welding jobs using electrodes of up to 3.25 mm diameter in the maintenance and general joining field.
5. The welding machine is intended for intensive welding work at a maximum current of 166 amps.
6. Full protection from overloads.
7. Also works on an 8KVA generator output.

ADVANTAGES OF THE MACHINE

- Lightweight and convenient to carry, Rigidity, durability and warranty
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- A ventilation system with a unique structure that combines a strong fan with a very large passive cooling unit.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- Mini-160 welding machine.
- Lined rigid case for protecting the machine.
- 16 mm² cross section welding cable.
- 300 amp electrode holder
- 16 mm² section grounding cable.
- Grounding connection handle.
- 2 meter standard power cable and Israeli Standard approved type plug.

TECHNICAL SPECIFICATION

Input voltage V	Required fuse A	Current range A	Open circuit voltage V	Currency as 60% efficiency A	Weight Kg	Works with generator	Dimensions - mm (l/w/h)	Case
230	16	30-166	65	166	5.5	+	203/132/290	+

I-200C

PORTABLE, LIGHTWEIGHT AND PROFESSIONAL

DESCRIPTION AND APPLICATION

1. A single phase 200 ampere welding machine.
2. A professional welding machine with convenient dimensions for carrying. Comes in a particularly durable rigid carrying case, combining maximum convenience in carrying.
3. The box protects the welding machine so that during storage too, the machine is protected from dust and blows and is optimally stored.
4. The welding machine is intended for operation with a 25 ampere electrical fuse.
5. This welding machine is perfect for welders who perform continuous welding work using electrodes of up to 4.0 mm size in the fields of maintenance, pipe and general welding jobs.
6. Allows for welding using a Z-610 electrode for quality pipe welds and aluminum welds using a Z-2805/Z-2812 electrode.
7. Fully protected overloads.
8. Also works on a 10 Kva generator output.

ADVANTAGES OF THE MACHINE

- Digital display for convenient, precise adjustment of current.
- Suitable for pipe welding (Z-610).
- Lightweight and easy to carry, with rigidity, durability and warranty.
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- A ventilation system with a unique structure that combines a strong fan with a very large passive cooling unit.
- 12 months of comprehensive warranty from Zika Group Ltd.

Digital display

SET SPECIFICATION

- I-200c welding machine.
- Lined rigid case for protecting the machine.
- 25 mm^2 cross section welding cable.
- 300 amp electrode holder
- 25 mm^2 cross section grounding cable.
- Grounding connection handle.
- 2 meter standard power cable and Israeli Standard approved type plug.

TECHNICAL SPECIFICATION

Input voltage V	Required fuse A	Current range A	Open circuit voltage V	Currency as 60% efficiency A	Weight Kg	Works with generator	Dimensions - mm (l/w/h)	Case
230	25	30-200	70	200	8	+	375/155/232	+

STICK **WELDERS**

I-250C

THREE PHASE 250-AMPERE WELDING MACHINE

DESCRIPTION AND APPLICATION

1. A lightweight industrial welding machine designed for welding jobs, maintenance work, pipe and general welding jobs requiring continuous work with electrodes of up to 5 mm diameter.
2. A welding machine that provides for continuous, intensive welding work at 100% efficiency at 180 amps.
3. The welding machine is fully protected against overload.
4. The welding machine has full open phase protection.
5. Also works on a 15 Kva generator output.

DC | 3 three phase | 50/60 Hz

ADVANTAGES OF THE MACHINE

- Digital display for convenient, precise adjustment of current.
- Suitable for pipe welding.
- Lightweight and easy to carry.
- Rigidity, durability and warranty.
- Three phase protection circuit breaker at front of welding machine.
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- A ventilation system with a unique structure that combines a strong fan with a very large passive cooling unit.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

Digital display

SET SPECIFICATION

- I-250c welding machine.
- 25 mm^2 cross section welding cable.
- 300 amp electrode holder
- 25 mm^2 section grounding cable.
- Grounding connection handle.
- 2 meter standard power cable and Israeli Standard approved type plug.

TECHNICAL SPECIFICATION

Input voltage V	Required fuse A	Current range A	Open circuit voltage V	Currency as 60% efficiency A	Weight Kg	Works with generator	Dimensions - mm (l/w/h)	Case
380	16*3	20-250	67	250	17.5	+	303/204/480	+

I-DC-400

THREE PHASE 400-AMPERE INDUSTRIAL WELDING MACHINE

DESCRIPTION AND APPLICATION

1. A powerful IGBT technology industrial welding machine.
2. A three phase industrial welding machine for continuous, intensive work for all types of welding and cutting using electrodes.
3. A high power industrial welder designed for welding and cutting jobs in the fields of construction, piping, maintenance and general welding requiring continuous, intensive welding work using electrodes of up to 6 mm diameter.

Digital display

ADVANTAGES OF THE MACHINE

- ARC FORCE selector - gives a great advantage in integrating convenience and increased penetration power during the welding work. This selector is very important for performing pipe welding work (Z610) and is an advantage in performing welding work by providing significant additional penetration force during welding throughout the entire performance of the welding operation.
- Digital display for convenient, precise adjustment of current- A clear control display that provides for precision control of the welding current and deep penetration.
- Very high efficiency of more than 60% at 40 °C Celsius, allowing for continuous, intensive work under high load conditions.
- A cooling system with triple protection, against water, wind and dust.
- Ability to work at a voltage of 320 to 450 volts.
- HOT START - a property that allows for rapid, easy ignition of electrodes, which is a major advantage in working with the cellulose type electrodes used for pipe welding (Z-610).
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Optimum performance of work, even with unstable electrical grids.
- Open phase, low voltage, excess voltage / current and overheating protection.
- Has a unique structure that combines a strong fan with a very large passive cooling unit, with triple protection.
- Suitable for pipe welding.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- I-DC 400 welding machine.
- 35 mm^2 cross section welding and grounding cables.
- 500 ampere electrode holder and grounding connection handle.
- Standard power cable and Israeli Standard approved 3-phase type plug.
- Optional remote control for remote operation and welding power adjustment.

TECHNICAL SPECIFICATION

Input voltage V	Required fuse A	Current range A	Open circuit voltage V	Currency as 60% efficiency A	Weight Kg	Works with generator	Dimensions - mm (l/w/h)	Case
380	25*3	40-400	68	400	28	+	370/260/515	+

STICK **WELDERS**

I-DC-500

THREE PHASE 500-AMPERE INDUSTRIAL WELDING MACHINE

DESCRIPTION AND APPLICATION

1. A powerful IGBT technology industrial welding machine.
2. A three phase industrial welding machine for continuous, intensive work for all types of welding and cutting using electrodes.
3. A high power industrial welder designed for welding and cutting jobs in the fields of construction, piping, maintenance and general welding requiring continuous, intensive welding work using electrodes of up to 6 mm diameter

ADVANTAGES OF THE MACHINE

- ARC FORCE selector - gives a great advantage in integrating convenience and increased penetration power during the welding work. This selector is very important for performing pipe welding work (Z610) and is an advantage in performing welding work by providing significant additional penetration force during welding throughout the entire performance of the welding operation.
- Digital display for convenient, precise adjustment of current- A clear control display that provides for precision control of the welding current and deep penetration.
- Very high efficiency of more than 60% at 40 °C Celsius, allowing for continuous, intensive work under high load conditions.
- A cooling system with triple protection, against water, wind and dust.
- Ability to work at a voltage of 320 to 450 volts.
- HOT START - a property that allows for rapid, easy ignition of electrodes, which is a major advantage in working with the cellulose type electrodes used for pipe welding (Z-610).
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Optimum performance of work, even with unstable electrical grids.
- Open phase, low voltage, excess voltage / current and overheating protection.
- Has a unique structure that combines a strong fan with a very large passive cooling unit, with triple protection.
- Suitable for pipe welding.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- I-DC 500 welding machine.
- 50 mm^2 cross section welding and grounding cables.
- 500 ampere electrode holder and grounding connection handle.
- Standard power cable and Israeli Standard approved 3-phase type plug.
- Optional remote control for remote operation and welding power adjustment.

TECHNICAL SPECIFICATION

Input voltage V	Required fuse A	Current range A	Open circuit voltage V	Currency as 60% efficiency A	Weight Kg	Works with generator	Dimensions - mm (l/w/h)
380	40*3	40-500	80	500	40	+	437/313/760

I-DC-630

THREE PHASE 630-AMPERE INDUSTRIAL WELDING MACHINE

DESCRIPTION AND APPLICATION

1. A powerful IGBT technology industrial welding machine.
2. A three phase industrial welding machine for continuous, intensive work for all types of welding and cutting using electrodes.
3. A high power industrial welder designed for welding and cutting jobs in the fields of construction, piping, maintenance and general welding requiring continuous, intensive welding work using electrodes of up to 6 mm diameter.

ADVANTAGES OF THE MACHINE

- ARC FORCE selector - gives a great advantage in integrating convenience and increased penetration power during the welding work. This selector is very important for performing pipe welding work (Z610) and is an advantage in performing welding work by providing significant additional penetration force during welding throughout the entire performance of the welding operation.
- Digital display for convenient, precise adjustment of current- A clear control display that provides for precision control of the welding current and deep penetration.
- Very high efficiency of more than 60% at 40 °C Celsius, allowing for continuous, intensive work under high load conditions.
- A cooling system with triple protection, against water, wind and dust.
- Ability to work at a voltage of 320 to 450 volts.
- HOT START - a property that allows for rapid, easy ignition of electrodes, which is a major advantage in working with the cellulose type electrodes used for pipe welding (Z-610).
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Optimum performance of work, even with unstable electrical grids.
- Open phase, low voltage, excess voltage / current and overheating protection.
- Has a unique structure that combines a strong fan with a very large passive cooling unit, with triple protection.
- Suitable for pipe welding.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- I-DC 630 welding machine.
- 50 mm^2 cross section welding and grounding cables.
- 630 ampere electrode holder and grounding connection handle.
- Standard power cable and Israeli Standard approved 3-phase type plug.
- Optional remote control for remote operation and welding power adjustment.

TECHNICAL SPECIFICATION

Input voltage V	Required fuse A	Current range A	Open circuit voltage V	Currency as 60% efficiency A	Weight Kg	Works with generator	Dimensions - mm (l/w/h)
380	40*3	40-630	80	630	53	+	617/337/670

MIG-200

MIG WELDING MACHINE (INTERNAL FEEDER) COMBINED WITH WELDING ELECTRODE MACHINE

- Welding machine for combined work.
- For welding using coils of MIG 0.8mm - 1.0mm wire diameter in spools weighing 5 to 15 kg.
- For welding using electrodes of up to 3.25 mm diameter in the maintenance and general welding field.

DESCRIPTION AND APPLICATION

1. The MIG200 CO2 gas-shielded welding machines designed by our company are inverter welding machines manufactured by us and applying the most advanced inversion technology in the world.

2. Their principle is to convert the power frequency of 50Hz/60Hz into direct current, then utilize the high-power IGBT device to invert it into high frequency (15 KHz/16KHz), perform voltage-drop and convert it into a high-power output D.C power supply via Pulse Width Modulation (PWM). Since the switch power inversion technology is adopted, the weight and dimensions of the welding machine are brought down considerably, with a conversion efficiency increase of more than 30%. Characteristics: stable wire feed rate, little splatter, portable, energy-saving, low electromagnetic noise.

3. Our CO2 gas-shielded welding machine is equipped with a unique electronic reactor circuit, controlling the short-circuiting transfer and mixed transfer of welding precisely, producing excellent welding characteristics. Compared to silicon controlled welding machines and welders with taps, our products have the following merits: a stable wire feed rate, portability, energy-saving, electromagnetic noise-free. Besides these, our products have the advantages of a self-compensation function for the electric network, little spatter, good arc ignition, deep welding pool, high duty cycle etc. This equipment can be applicable in large-scale plants such as shipyards, steel structure plants etc., featuring high efficiency and energy-saving.

4. This CO2 gas-shielded welding machine has a function for ending arc On/Off. Arc starting current and ending arc current can be adjusted separately, this being highly applicable for automatic welding. The machine is most suitable for welding of mild steel, alloy steels and stainless steels.

5. This welding machine also provides a great solution for welders who perform various welding jobs using electrodes of up to 3.25 mm diameter in the maintenance and general welding field.

6. The welding machine is designed for intensive welding work at a maximum current of 166 amps, non-stop.

7. The machine is equipped with wheels for easy, convenient portability.
The welding machine is the best solution for welders using spools of 0.6 mm to 1 mm diameter.

8. The perfect solution for maintenance departments, welding shops and welding departments in factories.

9. The welding machine is fully protected against overload.
The welding machine may operate on the output from a 10 Kva generator.

ADVANTAGES OF THE MACHINE

- Lightweight, convenient to carry, Rigidity, durability and warranty
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Controllers for regulating the wire speed and welding voltage power.
- Wire feeder with two feed wheels.
- BINZEL compatible standard European welding handle connection.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- MIG 200 welding machine.
- Quality welding handle that has all required components.
- Earth cable and matching handle.
- Pressure regulator for CO2 gas.
- 2 meter power cable and single phase plug approved by IIS standards.

TECHNICAL SPECIFICATION

Power voltage V	Frequency Hz	Rated input current A	No-load voltage V	Output current adjustment A	Output voltage	Duty cycle	Efficiency	Weight Kg	Dimensions - mm (l/w/h)
1 phase AC220±15%	50/60	MMA:32.9 MIG:37.5	MMA: 60 MIG: 60	MMA: 30-160 MIG: 40-200	MMA:26.4V MIG:24V	60%	80%	21	467/243/447

MIG **WELDERS**

MIG - 300

COIL WELDING MACHINE (INTERNAL FEEDER)

DESCRIPTION AND APPLICATION

1. A welding machine that is designed for welding using wire with spools of 15 kg weight.
2. The machine is equipped with wheels for easy, convenient portability.
3. The welding machine is the best solution for welders using continuous coils of 0.6 mm to 1 mm diameter
4. The perfect solution for maintenance departments, welding shops and welding departments in factories.
5. Welding machine is fully protected against overload.
6. The welding machine may also operate on the output from a 9 Kva generator.

ADVANTAGES OF THE MACHINE

- Lightweight and convenient to carry
- Rigidity, durability and warranty
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Controllers for regulating the wire speed and welding voltage power.
- Wire feeder with two feed wheels.
- BINZEL compatible standard European welding handle connection.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- MIG 300 welding machine.
- Quality welding handle that has all required components.
- Earth cable and matching handle.
- Pressure regulator for CO2 gas + electric heater for preventing freezing at gas outlet.
- 2 meter standard power cable and three phase plug approved by IIS standards.

TECHNICAL SPECIFICATION

Input voltage V	Required fuse A	Current range A	Range voltage V	Currency as 60% efficiency A	Weight Kg	Wire speed m / min	Dimensions - mm (l/w/h)
380	16*3	50-300	16.5-29	300	33	2.5-24 m/s	940/400/665

MIG - 300 GD

SEMI AUTOMATIC MIG WELDING MACHINE USING COILS AND ELECTRODES WITH ADVANCED IGBT TECHNOLOGY (INTERNAL FEEDER)

- This MIG 300-GD welding machine applies the most advanced inversion technology in the world.
- It has a unique electronic system that controls the short circuit current of the welding circuit and mixed feed, as well as the uniformity of the wire, which leads to a more effective use of equipment.
- Welding equipment meets all international requirements and uses the most advanced technology in the world

DESCRIPTION AND APPLICATION

1. The principle of inversion is to transform the power frequency of 50Hz/60Hz into direct current and invert it into high frequency (24KHz) through a high-power IGBT device, then perform voltage-drop and commutation with the output high-power D.C power supply via Pulse Width Modulation (PWM).

2. When the power inversion switch technology is adopted, the weight and volume decrease greatly while the conversion efficiency increases more than 30%.

3. Additional to MIG, the machine has an added MMA function. It adopts a full digital panel display, which can realize synergic adjustment to feeding speed and welding voltage, as well as easily regulating the welding parameters.

4. Our CO2 gas-shielded welding machine is equipped with a unique electronic reactor circuit, which can control the short-circuiting transfer and mixed transfer precisely, resulting in better performance than other machines. Compared to silicon controlled welding machines and tapped welding, our products have the following advantages:
   - Stable wire feed rate.
   - Portable.
   - Energy-saving.
   - Electromagnetic noise free.

5. Besides, our products spatterless, with easier arc ignition, deep welding pool, high duty cycle etc.

6. With high-efficiency and electrical-saving advantage, this equipment is applicable when both multi-metal and multi technology welding is required.

DC | 3 three phase | 50/60 Hz

ADVANTAGES OF THE MACHINE

- Digital display for convenient, precise adjustment of current and welding speed and control, synergic control.
- With three-proof design, protected-against dust, wind erosion and dampness for electric components.
- Brand-new exterior design, simple and elegant, with build-in wire feeder, with gas cylinder runner.
- Works using the most advanced IGBT technology.
- Lightweight and convenient portability.
- Wire feeder is driven by single chip microcomputer.
- Rigidity, durability and warranty.
- With EMC, wide range for input voltage, can work with power generator.
- Output polarity reversion.
- Designed for welding using continuous coils, flux-cored wire and electrodes.
- Enlarged torch holder for accessories and personal equipment.
- Large Wheels, 10 cm above ground.
- Good container for storing accessories & gear.
- Excellent high blocks & locking connectors to keep the cylinder from falling.
- Very durable wire feeder with four feed wheels.
- Option for easy inversion of welding polarity.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- MIG 300GD welding machine using IGBT technology.
- Quality welding handle that has all required components.
- Earth cable and matching handle.
- Pressure regulator for CO2 gas with electric heating element for preventing freezing at gas outlet.
- Standard power cable and three phase plug approved by IIS standards.

TECHNICAL SPECIFICATION

Power voltage (V)	3 phase AC380±15%
Frequency (Hz)	50/60
Rated input current (A)	MMA:18.5 MIG:16.8
Current range (A)	50-300
Input voltage (V)	380

duty cycle	35%
Output current adjustment (A)	MMA: 40-300 MIG: 45-300
Currency as 60% efficiency (A)	195
Wire speed m / min	2.5-24 m/s

Efficiency	85%
Required fuse (A)	16*3
Range voltage (V)	16.5-26.5
Output voltage (V)	MMA:21.6-32 MIG:16.2-29
Weight (Kg)	60
Dimensions-mm (l/w/h)	520/275/595

MIG **WELDERS**

MIG - 350

WELDING MACHINE USING COILS AND ELECTRODES WITH ADVANCED IGBT TECHNOLOGY (EXTERNAL FEEDER)

DESCRIPTION AND APPLICATION

1. A welding machine designed for welding with spooled wire coils of 5 kg and 15 kg weight, as well as using electrodes.
2. Slotting works (Z-71) and cutting works (Z-72) and work using Z-carbon electrodes may be performed.
3. The welding machine is equipped with wheels for easy, convenient portability.
4. The welding machine has a lightweight, optimally convenient external feeder for moving between different locations.
5. The perfect solution for industry and many continuous welds, for welding shops and welding departments in factories that weld using coils of 0.6 to 1.2 mm diameter.
6. Welding machine works using the most advanced IGBT technology.
7. Welding machine has full overload protection.
8. Welding machine has full open phase protection.
9. Machine may be operated using a 15 Kva generator.

ADVANTAGES OF THE MACHINE

- Digital display for convenient, precise adjustment of current and welding speed.
- Works using the most advanced IGBT technology.
- Lightweight and convenient portability.
- Rigidity, durability and warranty.
- Designed for welding using continuous coils, flux-cored wire and electrodes.
- Designed for slotting works (Z-71) and cutting works (Z-72) and work using Z-carbon electrodes.
- Three controllers for regulating wire speed, welding voltage and welding arc properties.
- Very durable wire feeder with four feed wheels.
- Option for easy inversion of welding polarity.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- MIG 350 welding machine using IGBT technology.
- External wire feeder for welding wires of up to 1.2 mm diameter.
- Quality welding handle that has all required components.
- Earth cable and matching handle.
- Pressure regulator for CO2 gas + electrical heater for preventing freezing at gas outlet.
- Standard power cable and three phase plug approved by IIS standards.

TECHNICAL SPECIFICATION

Power voltage V	Required fuse A	Current range A	Output voltage A	Open circuit voltage V	Currency as 60% efficiency A	Weight Kg	Wire speed m / min	Dimensions - mm (l/w/h)
380	16*3	MIG 50-350 MMA 35-350	MIG 16.5-31.5 MMA 16.5-33	60	350	36 (with out feeder)	3-15 m/s	550/280/545

MIG - 500

WELDING MACHINE USING COILS AND ELECTRODES WITH ADVANCED IGBT TECHNOLOGY (EXTERNAL FEEDER)

DESCRIPTION AND APPLICATION

1. A welding machine designed for welding, using coils on spools weighing 5 kg and 15 kg, as well as using electrodes.
2. Slotting works (Z-71), cutting works (Z-72) and work using Z-carbon electrodes may be performed.
3. The welding machine is equipped with wheels for easy, convenient portability.
4. The welding machine has a lightweight, optimally convenient external feeder for moving between different locations.
5. The perfect solution for industry and many, continuous welds, for welding shops and welding departments in factories that weld using coils of 1.0 to 1.6 mm diameter.
6. Welding machine works using the most advanced IGBT technology.
7. Welding machine is fully protected against overload.
8. Welding machine has full open phase protection.

ADVANTAGES OF THE MACHINE

- Digital display for convenient, precise adjustment of current and speed of welding.
- Works using the most advanced IGBT technology.
- Lightweight and convenient portability.
- Rigidity, durability and warranty.
- Designed for welding using continuous coils, a filled wire and electrodes.
- Designed for slotting works (Z-71) and cutting works (Z-72) and work using Z-carbon electrodes.
- Three controllers for regulating wire speed, welding voltage and welding arc properties.
- Very durable wire feeder with four feed wheels.
- Option for easy inversion of welding polarity.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- MIG 500 welding machine using IGBT technology.
- External wire feeder for welding wires of up to 1.6 mm diameter.
- Quality welding handle that has all required components.
- Earth cable and matching handle.
- Pressure regulator for CO2 gas + electrical heater for preventing freezing at gas outlet.
- Standard power cable and three phase plug approved by IIS standards.

TECHNICAL SPECIFICATION

Power voltage V	Required fuse A	Current range A	Output voltage A	Open circuit voltage V	Currency as 60% efficiency A	Weight Kg	Wire speed m / min	Dimensions - mm (l/w/h)
380	32*3	MIG 80-500 MMA 35-500	MIG 18-39 MMA 18-40	72	500	42 (with out feeder)	3-15 m/s	685/302/660

TIG **WELDERS**

I - TIG 200 DC

STAINLESS STEEL TIG WELDING MACHINE

- Welding machine for using electrodes up to 3.25 mm diameter.
- Welding machine for welding with argon gas shielding.

DESCRIPTION AND APPLICATION

The machine has the option for welding in one of two welding methods:

1. As a welding machine for welding with stick electrodes.
   The welding machine has a set of welding cables enclosed, including a handle for welding to an electrode and a grounding connection handle.
   Allows for welding with electrodes of up to 3.25 mm diameter.

2. Machine for welding with argon gas shielding.
   Ideal for welding jobs with argon gas shielding, for stainless steels and other steels.
   The machine comes with an Argon welding handle.
   Can work with direct current - DC, for steels and stainless steel from 0.3 mm to a 4 mm material thickness.

Aluminum welding

Gas control before and after welding, cleaning of alumina oxide using an AC wave for quality aluminum welding, various adjustments for gas flow time.

Can work with aluminum from 0.3 mm to 3 mm wall thickness.

Particularly suitable for:

Joining parts made of non-ferrous metals.
Shaping and repairing parts made of non-ferrous metals.
Manufacturing aluminum furniture and building aluminum substructures.
Welding of tanks and pipes made of special metals.
Fully protected against overload.
The machine can also work on the output from a 12 Kva generator.

ADVANTAGES OF THE MACHINE

- Lightweight and convenient to carry, Rigidity, durability and warranty.
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Very strong and effective ventilation system.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- I-TIG 200 DC welding machine.
- Spare parts: Rear dome, tungsten electrode, ceramic spout, clasp and clasp housing.

  * Argon welding requires procurement of an argon gas cylinder and argon regulator.

TECHNICAL SPECIFICATION

Power voltage (V)	1 phase 220±15%
Frequency (Hz)	50/60
Rated input current (A)	MMA:43 TIG:28
Current range (A)	10-200
No-load voltage (V)	56
Rated output voltage (V)	MMA: 28 TIG: 18
Duty cycle	60%

No load loss	40
Arcing way	High frequency arc ignition
Insulation grade	F
Efficiency at maximum current	80
Power coefficient	0.73
Seal level	IP21
Weight Kg	9

Dimensions - mm (l/w/h)	301/153/395

I - TIG 200 AC/DC

A TIG ALUMINUM AND STAINLESS STEEL WELDING MACHINE

- Welding machine for using electrodes up to 3.25 mm diameter.
- Welding machine for welding with argon gas shielding.

DESCRIPTION AND APPLICATION

The machine has the option for welding in one of two welding methods:

1. As a welding machine for welding with stick electrodes.
   The welding machine has a set of welding cables enclosed, including a handle for welding to an electrode and a grounding connection handle.
   Allows for welding with electrodes of up to 3.25 mm diameter.

2. Machine for welding with argon gas shielding.
   Ideal for welding jobs with argon gas shielding, for stainless steels and other steels.
   Can work with direct current - DC, for steels and stainless steel from 0.3 mm to a 4 mm material thickness.
   The machine comes with an Argon welding handle.

Aluminum welding

Gas control before and after welding, cleaning of alumina oxide using an AC wave for quality aluminum welding, various adjustments for gas flow time.
Can work with aluminum from 0.3 mm to 3 mm wall thickness.

Particularly suitable for:

Joining parts made of non-ferrous metals.
Shaping and repairing parts made of non-ferrous metals.
Manufacturing aluminum furniture and building aluminum substructures.
Welding of tanks and pipes made of special metals.
Fully protected against overload.
The machine can also work on the output from an 8 Kva generator.

ADVANTAGES OF THE MACHINE

- Lightweight and convenient to carry, Rigidity, durability and warranty.
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Very strong and effective ventilation system.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- I-TIG 200 AC/DC welding machine.
- A set of cables for Oxy-Acetylene welding, no. 17 handle for welding with argon gas shielding - air cooled.
- Spare parts: Rear dome, tungsten electrode, ceramic spout, clasp and clasp housing.

  * Argon welding requires procurement of an argon gas cylinder and argon regulator.

TECHNICAL SPECIFICATION

Power voltage (V)	1 phase AC220±15%
Frequency (Hz)	50/60
Rated input current (A)	MMA:43.5 TIG:28
Current range (A)	10-200
No-load voltage (V)	56
Rated output voltage (V)	MMA: 28 TIG: 18
AC duty cycle	20-80%

Pulse duty cycle	10-90%
Post-flow time (S)	0-10
Pulse frequency (Hz)	0.5-5.0
Basic value current (A)	5-200
Arc initiation current (A)	5-200
Pulse frequency (Hz)	0.5-5.0
Basic value current (A)	5-200
Arc initiation current (A)	5-200
Attenuation time (S)	0-15
Remote control	Yes

Arc initiation way	HF
Frequency (%)	80
Duty cycle (%)	60
Power factor	0.73
Insulation grade	F
Protection grade	IP21
Weight Kg	20
Dimensions - mm (l/w/h)	498/328/302
Max. thickness (mm)	10

I - COMBO

WELDING MACHINE FOR COMBINED WORK FOR WELDING USING AN ELECTRODE, ARGON AND PLASMA CUTTING (MMA/TIG/CUT)

The I - COMBO is an innovative welder that is the perfect solution for combined works or for people who want to maintain one triple-purpose welding machine.

DESCRIPTION AND APPLICATION

The welding machine can perform three different welding operations:

- Welding using electrodes with up to a diameter of 3.25 mm.
- Welding of rods (TIG) of up to 1.6 mm diameter with argon gas shielding.
- Cutting metals up to a 16 mm metal thickness with plasma, using an external compressor supplying at least 4 bar or 55 PSI.

This combination of three features in a single compact machine allows for work to be performed in workshops / maintenance departments and garages.

The welding machine is equipped with an HF system that is split into its three components.

Therefore, if extensive, continuous cutting work is required, it is advisable to use a dedicated cutting machine such as: I-PLAS.

The welding machine weighs 14 kg, providing for easy portability during work.

The machine can also work using a generator with a 4 Kva output.

ADVANTAGES OF THE MACHINE

- Lightweight and convenient portability.
- Rigidity, durability and warranty.
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Very strong and effective ventilation system.
- Professional and technical consultation of welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- I-COMBO welding machine.
- Set of cutting torch&grounding cable.
- Set of welding cables and torch for electrode welding.
- Set of cables for argon welding ,17 TIG torch, air-cooled torch & grounding cable

DC | 1 one phase | 50/60 Hz

TECHNICAL SPECIFICATION

Input voltage V	Required fuse A	Current range A	Open circuit voltage V	Currency as 60% efficiency A	Max. thickness (mm)	Works with generator	diameter of the electrode	Weight Kg	Dimensions - mm (l/w/h)
230	16	30-170	62	170	16	+	Argon - 1.6mm Electrode - 3.25mm cutting - 16 mm	14	432/204/302

PLASMA **CUTTING**

I-PLAS 25

A SMALL MACHINE FOR CUTTING BY PLASMA ARC - UP TO 25 MM

DESCRIPTION AND APPLICATION

1. A cutting machine for performing industrial work with a plasma arc of up to 25 mm.
2. The machine weighs only 25 kg, providing for portability and uncompromising convenience in work.
3. The machine's current may be regulated in accordance with the required cutting thickness.
4. A unique feature of this machine is its protective circuits that prevent damage due to overloads, heat and voltage fluctuations.
5. Machine requires a 4-6 bar air pressure supply.
6. Machine comes with:
7. A plasma cutting handle and a grounding connection handle.
8. A pressure regulator for working with high pressure lines.
   Consumable spare parts.

ADVANTAGES OF THE MACHINE

- Unique protective circuits that prevent damage due to overloads, heat and voltage fluctuations.
- Lightweight and convenient portability.
- Rigidity, durability and warranty.
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Professional cutting ability using a plasma arc of up to 25 mm thickness.
- Professional and technical consultation with welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- I-PLAS 25 plasma cutting machine.
- A set of cables and plasma arc cutting torch.
- Pressure Gauge + water trap.
- Consumable spare parts.

TECHNICAL SPECIFICATION

Input voltage V	Required fuse A	Current range A	Open circuit voltage V	Currency as 60% efficiency A	Maximum cutting thickness	Weight Kg	Dimensions - mm (l/w/h)
380	25*3	20-80	112	80	25mm	25	515/263/372

I-PLAS 40

A SMALL MACHINE FOR CUTTING BY PLASMA ARC - UP TO 40 MM

DESCRIPTION AND APPLICATION

1. A cutting machine for performing industrial work with a plasma arc of up to 40 mm.
2. The machine weighs only 39 kg, providing for portability and uncompromising convenience in work.
3. The machine's current may be regulated in accordance with the required cutting thickness.
4. A unique feature of this machine is its protective circuits that prevent damage due to overloads, heat and voltage fluctuations.
5. Machine requires a 4-6 bar air pressure supply.
6. Machine comes with:
7. A plasma cutting handle and a grounding connection handle.
8. A pressure regulator for working with high pressure lines.
9. Consumable spare parts.

ADVANTAGES OF THE MACHINE

- Unique protective circuits that prevent damage due to overloads, heat and voltage fluctuations.
- Lightweight and convenient portability.
- Rigidity, durability and warranty.
- A rigid, IP21 rated dustproof case for use in outdoor conditions.
- Professional cutting ability using a plasma arc of up to 40 mm thickness.
- Professional and technical consultation with welding experts.
- 12 months of comprehensive warranty from Zika Group Ltd.

SET SPECIFICATION

- I-PLAS 40 plasma cutting machine.
- A set of cables and plasma arc cutting torch.
- Pressure Gauge + water trap.
- Consumable spare parts.

TECHNICAL SPECIFICATION

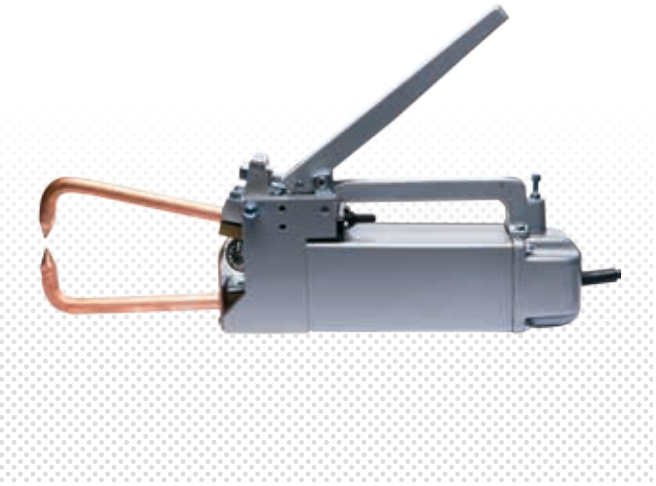
Input voltage V	Required fuse A	Current range A	Open circuit voltage V	Currency as 60% efficiency A	Maximum cutting thickness	Weight Kg	Dimensions - mm (l/w/h)
380	25*3	20-100	120	100	40mm	36.5	575/286/502

SP-WELDER

WELDER FOR SPOT-WELDING

DESCRIPTION AND APPLICATION

1. Designed to spot-weld sheet metal up to 3.2 mm thick.
2. The welder is compact and can be moved easily to any place in the plant/welding shop.



TECHNICAL SPECIFICATIONS

Input voltage	230
Output (KVA)	1.5
Utilization (%)	50
Maximum metal thickness (mm)	3.2
Dimensions (mm)	114.3/152/330
Weight Kg	10.6

RI-PEDAL

A pedal that allows changing to current with the welder's foot.
During welding with Argon gas shielding, both hands are busy with welding and the current needs to be changed for parts of the welding.
Use of the pedal allows for a better quality weld and work with finishing at a higher level.

RI-400RC

A remote control, that allows raising and lowering of the current in ZIKA current rectifiers. Having the ability to change the current level when welding at heights or inside piping makes the remote control an excellent solution to a common problem.

RI-COOLER

1. Contains water cooler for cooling the torch handle during Argon gas-shielded welding and can also be used as handle cooling for MIG welding with wire.

2. The cooler contains 10 liters of water, single-phase electrical connection. It also has a pressure display gauge and a level indicator sothe welder can know when to add water.

1 one phase

QUALITY CERTIFICATES & APPROVALS

Germanischer Lloyd

LLOYD'S REGISTER QUALITY ASSURANCE

DNV

ABS

BUREAU VERITAS

ZIKA