

TECHNOLOGY FOR THE WELDER'S WORLD.

ABIMIG[®] GRIP LW



MIG/MAG Air-cooled Torches



www.binzel-abicor.com

ABIMIG® GRIP LW MIG/MAG Welding Torches

Air cooled • Rating 170 A up to 480 A

ABIMIG® GRIP LW air-cooled MIG torches combine ergonomic feel with our innovative lightweight cables that provide perfect balance to reduce wrist, arm, shoulder and back strain. The "GRIP" insert and ball joint in the handle guarantees a secure grip with optimal handling.

All torches are carefully designed to provide comfortable and precise operation.

50% lower weight due to our Low Weight Bikox® cables

Screw-on long-life gas nozzle

Multi-function tip holder (gas diffuser, gas nozzle holder and contact tip holder in one piece) – reduces stock requirements

Laminar gas provides excellent gas coverage for improved welding results

Replaceable gas nozzle seat extends operating cycle of the torch neck and reduces maintenance costs

ABIMIG® GRIP 2 LW

Technical data (EN 60 974-7):

Rating:

Duty cycle:	35%	60%
CO ₂	270 A	240 A
Mixed gases	220 A	170 A

M21 (DIN EN 439)

Wire size: 0.8 – 1.2 mm (.030" – .045")

ABIMIG® GRIP 3 LW

Technical data (EN 60 974-7):

Rating:

Duty cycle:	35%	60%
CO ₂	350 A	300 A
Mixed gases	320 A	270 A

M21 (DIN EN 439)

Wire size: 0.9 – 1.6mm (.035" – .062")

ABIMIG® GRIP 4 LW

Technical data (EN 60 974-7):

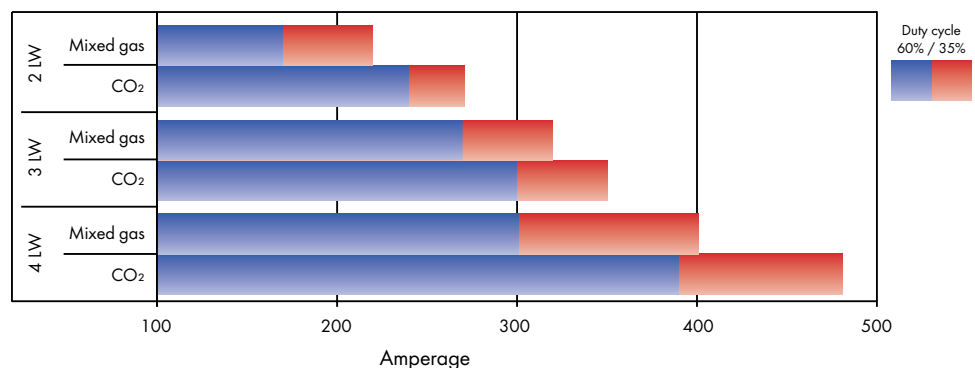
Rating:

Duty cycle:	35%	60%
CO ₂	480 A	390 A
Mixed gases	400 A	300 A

M21 (DIN EN 439)

Wire size: 0.9 – 1.6mm (.035" – .062")

ABIMIG Grip LW torch ratings



ABIMIG® GRIP 2 LW, 3 LW and 4 LW

Ordering instructions for Complete ABIMIG® GRIP LW MIG Guns

A	G	3	15	T	-	35	L1	LW
Torch model	Handle	Amperage	Cable length	Nozzle		Wire size	Back end	Type
Torch model								Type
A = Abimig®								LW - Lightweight cable
Handle								Back end
G = Grip								E = Euro L = Lincoln external gas L1 = Lincoln 10 L2 = Lincoln power MIG HT = Hobart/Tweco M = Miller X = No connector kit installed
Amperage								Wire size
2 = 200 amp 3 = 300 amp 4 = 400 amp								35 = .035" 45 = .045" 52 = .052"* 62 = .062"*
Cable length								
10 feet 12 feet 15 feet 20 feet 25 feet								
Nozzle								
T = Threaded								

Casse Study: Testing Welder Body Stress with ABIMIG LW Torch

Presently, very little scientific research exists concerning the design of welding torches and the health effects experienced by professional welders at work.

The Research:

ABICOR® BINZEL participated in a cooperative study with the Justus Liebig University of Giessen - Department of Sport Medicine:

- Use of standard 350 Amp torch vs. the new ABICOR BINZEL 350 Amp light weight torch
- Tested with more than 20 experienced professional welders
- Welding in 2 positions
- Measuring all relevant muscle activity during welding (arm, shoulder, neck and back) with 8 channel EMG technology* and video recording
- Measuring blood pressure, heart rate and lactate scale
- Examination of subjective stress and exertion through use of the Borg scale**

*Technique for evaluating and recording the electrical activity produced by skeletal muscles.

**The Borg scale is used to document the effects of exertion.



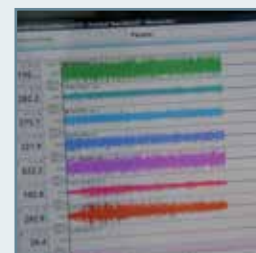
Sitting measuring position



Standing measuring position



Position of electrodes and cabling



EMG-data

MIG/MAG Welding Torches "ABIMIG® GRIP LW"

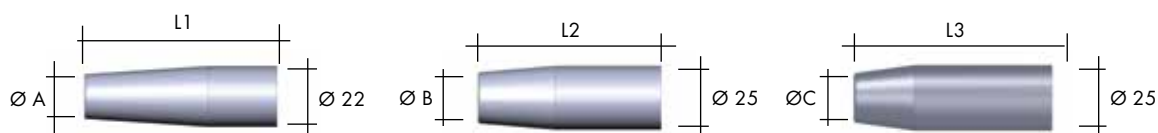
Air cooled • Rating 170 A up to 480 A

Wear parts

ABIMIG® GRIP 2 LW

ABIMIG® GRIP 3 LW

ABIMIG® GRIP 4 LW



Gas nozzle (5 pcs.)	Ø A	L1		Ø B	L2		Ø C	L3	
Conical recess	Ø 1/2"	70 mm	N2T-R-50*	Ø 1/2"	72 mm	N3T-R-50	Ø 1/2"	85 mm	N4T-50
Conical recess	Ø 9/16"	70 mm	N2T-R-56	Ø 5/8"	72 mm	N3T-R-62*	Ø 5/8"	85 mm	N4T-62*
Conical recess	Ø 5/8"	70 mm	N2T-R-62	Ø 3/4"	72 mm	N3T-R-75	Ø 3/4"	85 mm	N4T-75
Conical flush	Ø 1/2"	67mm	N2T-F-50	Ø 9/16"	69 mm	N3T-F-56	-	-	-
Conical flush	Ø 9/16"	67mm	N2T-F-56	Ø 5/8"	69 mm	N3T-F-62	-	-	-

* Designates factory standard.

Wear parts

ABIMIG® GRIP 2 LW Std.

ABIMIG® GRIP 3

* ABIMIG® GRIP 4 LW



Contact tip (25 pcs.)		M6	M8	M8 / M10 (optional)
E-Cu	Ø .030"	140.0051	140.0114	140.0114 -
	Ø .035"	140.0169	140.0214	140.0214 -
	Ø .040"	140.0242	140.0313	140.0313 -
	Ø .045"	140.0379	140.0442	140.0442 -
	Ø .052"	-	140.0533	140.0533 -
	Ø .062"	-	140.0587	140.0587 -
	Ø .078"	-	140.0653	140.0653 -
	Ø .094"	-	140.0677	140.0677 -
E-Cu for Al	Ø .030"	141.0001	141.0003	141.0003 -
	Ø .035"	141.0004	141.0043	141.0043 -
	Ø .040"	141.0006	141.0008	141.0008 -
	Ø .045"	141.0010	141.0075	141.0075 -
	Ø .052"	-	141.0055	141.0055 -
	Ø .062"	-	141.0022	141.0022 -
CuCrZr	Ø .030"	140.0054	140.0117	140.0117 -
	Ø .035"	140.0172	140.0217	140.0217 *140.1248
	Ø .040"	140.0245	140.0316	140.0316 *140.0348
	Ø .045"	140.0382	140.0445	140.0445 *140.0481
	Ø .052"	-	140.0536	140.0536 *140.0547
	Ø .062"	-	140.0590	140.0590 *140.0616
	Ø .078"	-	140.0656	140.0656 *140.0665
	Ø .094"	-	140.0679	140.0679 *140.0698

* Note: M6 tip is standard on ABIMIG® Grip 2 LW. M8 tip is standard on ABIMIG® Grip 3 and 4 LW. M10 tips requires tip holder H4T-10-C and are optional for ABIMIG® Grip 4 LW. Additional Contact Tip types are available. See the GRIP LW Product Page on our website or contact customer service for details. 1-800-542-4867

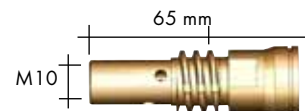
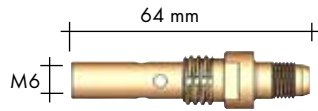
ABIMIG® GRIP 2 LW, 3 LW, and 4 LW

Wear parts

ABIMIG® GRIP 2 LW

ABIMIG® GRIP 3 LW

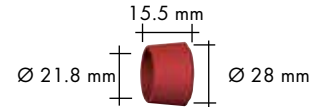
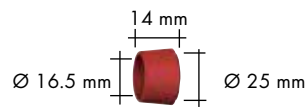
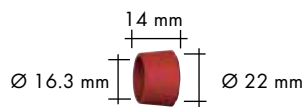
ABIMIG® GRIP 4 LW



Contact tip holder (10 pcs.)

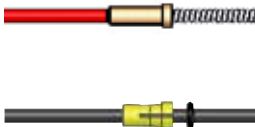
2 LW, 3 LW, 4 LW	H2T-6-C	H3T-8-C	H4T-8-C*
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* Optional HD M10 available P/N H4T-10-C



Adapter piece (1 pcs.)

2 LW, 3 LW, 4 LW	767.D656	767.D668	767.D759
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Liner		2 LW / 3 LW for 15 ft	2 LW / 3 LW for 25 ft	4 LW for 15 ft	4 LW for 25 ft
Liner	Ø .024"-.030"	SI-2435-17PT	-	-	-
	Ø .035"-.045"	SI-3545-17PT	SI-3545-28PT	SI4-3545-17PT	SI4-3545-28PT
	Ø .052"-.062"	SI-5262-17PT**	SI-5262-28PT**	SI4-5262-17PT	SI4-5262-28PT
	Ø .078"-.094"	-	-	SI4-7894-17PT	SI4-7894-28PT
Combi PA liner	Ø .035"-.045"	128.9047	-	128.9047*	-
	Ø .052"-.062"	128.9050	-	128.9050*	-
Carbon PTFE liner	Ø .035"-.045"	127.9003	-	127.9003*	-
	Ø .052"-.062"	127.9006	-	127.9006*	-

* 4 LW Requires collet spacer P/N 130.9006, sold separately.

** .052" - .062" is not recommended for 2 LW.

**Lightweight and
Welds great!
Scientifically proven.**

**The ABIMIG LW
makes welding more
comfortable!**

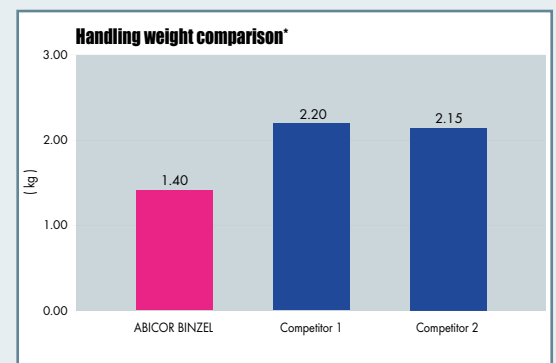
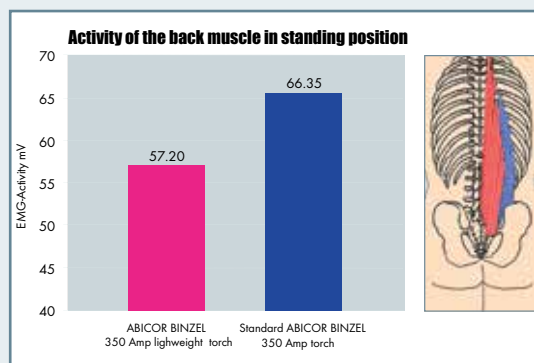


ABIMIG® GRIP LW won the
1st prize "Le sacre de l'innovation 2010" for
the most innovative product at the "Industrie"
Exhibition Paris

The Results:

Significantly reduced stress on back muscles
Significantly reduced lactate scale - less exertion for
the welder

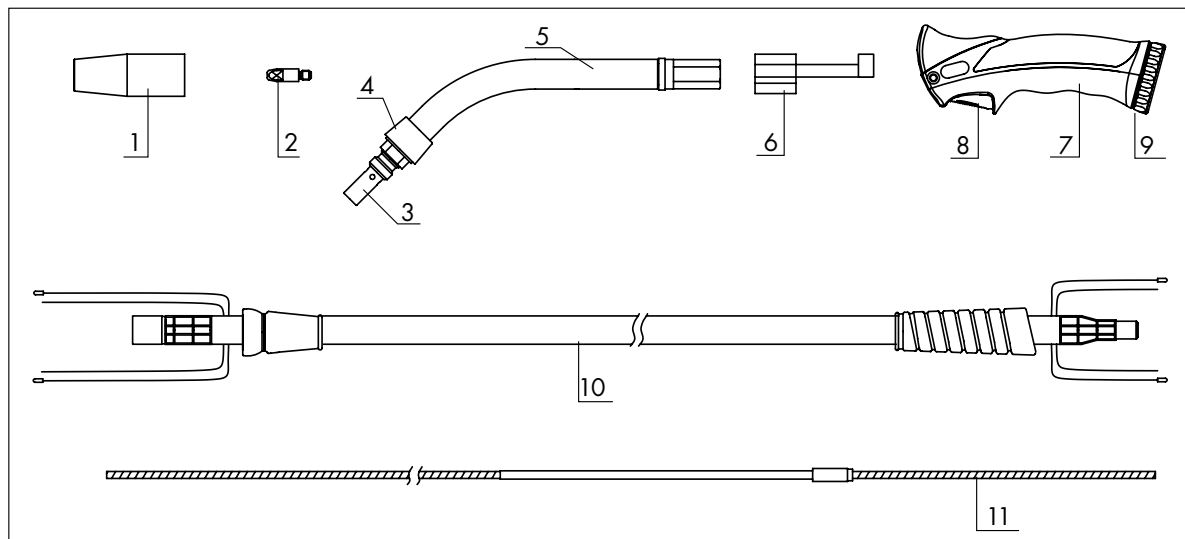
Reduced stress levels in all measured muscle groups
Reduced feeling of exertion when using light weight
torches as documented by Borg scale results



*Handling weight measured in 5 ft working height.

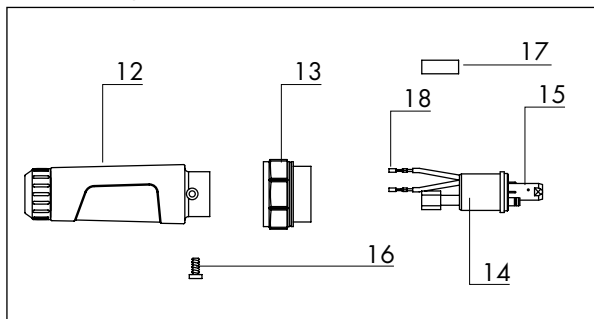
MIG/MAG Welding Torch "ABIMIG® GRIP LW"

Body Cable Assembly



		2 LW	3 LW	4 LW
Item No.	Description	Part No.	Part No.	Part No.
1	Nozzle	See pg 4	See pg 4	See pg 4
2	Contact Tip	See pg 4	See pg 4	See pg 4
3	Tip holder/Diffuser	See pg 5	See pg 5	See pg 5
4	Adapter Piece	See pg 5	See pg 5	See pg 5
5	Swanneck Assembly	767.D651	767.D707	767.D793
6	Body Torch Plastic	400.0044	400.0044	400.1333
7	Handle Complete with Trigger	180.0127	180.0127	180.0132
8	Trigger only	185.0101	185.0101	185.0107
9	Retaining Ring Swivel	400.1122	400.1122	400.1122
10	Bikox 10 feet (4 LW cable shown)	160.H238	160.H244	160.H053
	Bikox 12 feet	160.H240	160.H246	160.H250
	Bikox 15 feet	160.H242	160.H248	160.H252
11	Liner (4 LW liner shown)	See pg 5	See pg 5	See pg 5
N/S	Contact Tip Wrench	191.0001	191.0001	191.0001

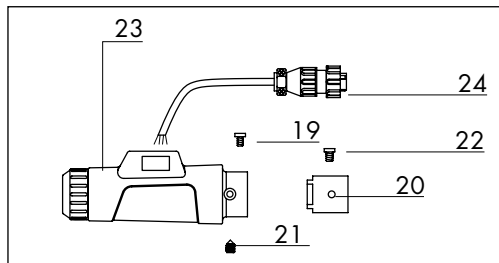
Direct Plug Connector: Euro



		2 LW/3 LW	4 LW
Item No.	Description	Part No.	Part No.
12	Rear Housing Complete, Euro	501.D508	501.D508
13	Adaptor Nut	500.0213	500.0213
14	Adaptor Block, Euro	501.0003	501.0003
15	Nut Liner Retaining	501.0082	501.0082
17	Plastic Liner Collet Spacer	N/A	130.9006
18	Connector Female	175.0033	175.0033

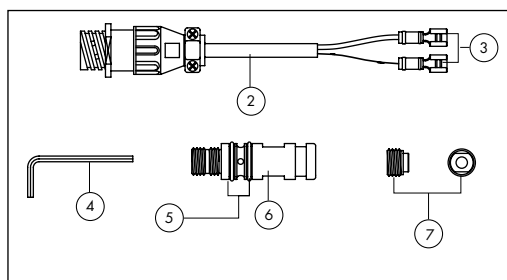
Connectors

Direct Plug Connector



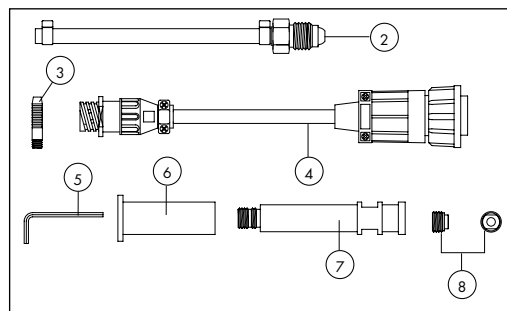
Item No.	Description	2 LW/3 LW 4 LW	
		Part No.	Part No.
19	Screw Slotted Head, M4 x 6	000.0552	000.0552
20	Adapter Block Direct	501.D333	501.D333
21	Set Screw Hex Head M5x5	009.0136	000.0552
22	Gas Seal	001.D092	001.D092
23	Rear Housing Complete, Direct	501.D501	501.D501
24	Trigger Lead	175.D098	175.D098

Direct Plug Connector: Hobart/Tweco



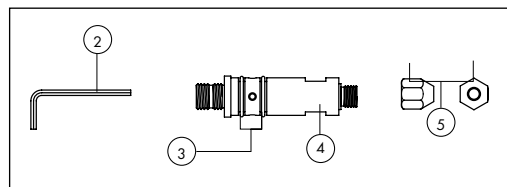
Item No.	Description	2 LW	3 LW	4 LW
		Part No.	Part No.	Part No.
2	Trigger Lead Jumper HT	175.9120	175.9120	175.9120
3	Connector Wire 1/4" Male	175.9074	175.9074	175.9074
4	Allen Wrench 2.5mm	191.0017	191.0017	191.0017
5	O-Rings (2 required)	165.0025	165.0025	165.0025
6	Connector Plug HT	331.9003	331.9003	501.9246
7	Liner Nut HT/LN	272.9017	272.9017	272.9035

Direct Plug Connector: Lincoln



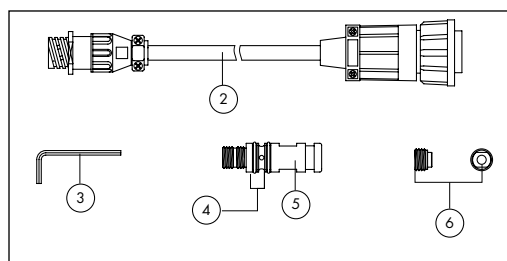
Item No.	Description	2 LW	3 LW	4 LW
		Part No.	Part No.	Part No.
2	Gas Hose Assembly	102.9149	102.9149	102.9149
3	Gas Fitting with M6 THD	353.0002	353.0002	353.0002
4	Trigger Lead Jumper LN	175.9121	175.9121	175.9121
5	Allen Wrench 2.5mm	191.0017	191.0017	191.0017
6	Insulator Bushing	AC2030	AC2030	AC2030
7	Connector Plug L	501.9191	501.9191	501.9241
8	Liner Nut HT/LN	272.9017	272.9017	272.9035

Direct Plug Connector: Miller



Item No.	Description	2 LW	3 LW	4 LW
		Part No.	Part No.	Part No.
2	Allen Wrench 2.5mm	191.0017	191.0017	191.0017
3	O-Rings (2 required)	165.9006	165.9006	165.9006
4	Connector Plug Miller	501.9183	501.9183	501.9245
5	Liner Nut MR	272.9018	272.9018	272.9036

Direct Plug Connector: Lincoln 10



Item No.	Description	2 LW	3 LW	4 LW
		Part No.	Part No.	Part No.
2	Trigger Lead Jumper LN	175.9121	175.9121	175.9121
3	Allen Wrench 2.5 mm	191.0017	191.0017	191.0017
4	O-Rings (2 required)	165.0025	165.0025	165.0025
5	Connector Plug HT	331.9003	331.9003	501.9246
6	Liner Nut HT/LN	272.9017	272.9017	272.9035

WARNING!

Please read all Safety Instructions

WARNING			
<ul style="list-style-type: none"> Read and follow the manufacturer's instructions, employer's safety practices, and Material Safety Data Sheets (MSDSs). Only qualified personnel should install, use, or service this material and/or equipment 		ELECTRIC SHOCK can kill. <ul style="list-style-type: none"> Always wear dry insulating gloves Do not touch live electrical parts. Always disconnect power source before hooking up or changing electrodes, nozzles and other parts. 	
	WELDING SPARKS can cause fire or explosion <ul style="list-style-type: none"> Do not weld near flammable material Do not weld on closed containers. Remove combustibles from the work area and/or provide a fire watch. Avoid oily or greasy clothing as a spark may ignite them. 		FUMES AND GASES can be hazardous to your health. <ul style="list-style-type: none"> Keep your head out of the fumes Use enough ventilation or exhaust at the arc to keep fumes and gases from your breathing zone, and general area. Fumes from cutting and welding can deplete air quality, causing injury or death. Always wear an air supplied respirator in confined areas, or if breathing air is not safe.
	ARC RAYS can injure eyes and burn skin <ul style="list-style-type: none"> Always wear correct eye, ear, and body protection Always wear a welding helmet with the proper grade filter lens. Protect yourself and others from spatter arc flash rays by using protective screens, barriers and welding curtains. Always wear protective gloves and clothing to cover exposed skin. This will aid in the prevention of arc and spatter burns. 		LOUD NOISE can damage hearing. <ul style="list-style-type: none"> Always wear protective hearing devices to ensure protection when noise levels exceed OSHA standards.
Do Not Remove This Label.			
ID 123-4567CI			
Alexander Binzel Corporation 650 Medimmune Court, Suite 110, Frederick, MD 21703-8619 Tel: 301.846.4196 Fax: 301.846.4497 www.binzel-abicor.com			
Read American National Standard Z49.1, "Safety in Welding, and Cutting, and Allied Processes," available from American Welding Society, 550 N.W. LeJune Rd., Miami, FL 33126; OSHA Safety and Health Standards, available from U.S. Government Printing Office, Washington, DC 20402.			



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