



MATHESON
Select[®]

Welding and Safety Products Catalog



Table of Contents

Gas Equipment

Medium Duty Outfits	9
Heavy Duty Outfits	10
Hand-Cutting Torch	11
Cutting Tips	12
Regulators (Medium Duty)	13
Regulators (Heavy Duty)	14-15
Flow Measurement Equipment	16
Gauges	17

Welding & ARC Accessories

Gouging Torch	18-19
Copper Coated Gouging Carbons	19
250 & 400 Amp Select-A-Gun	20-21
135 Amp Air-Cooled MIG Guns	22-23
250 Amp Air-Cooled MIG Guns	24-25
400 Amp Air-Cooled MIG Guns	26-29
MIG Gun Selector Chart	30
One-Tip System	31
Tweco Style MIG Consumables	32-33
Bernard Style MIG Consumables	34-35
Tregaskiss Style MIG Consumables	36-37
Miller Style MIG Consumables	38
Modular TIG Kits	39-40
150M Series TIG Torches	41
200M Series TIG Torches	42
225M Series TIG Torches	43
9FMT Series TIG Torches	44-45
17FMT Series TIG Torches	46-47
24FMT Series TIG Torches	48-49
26FMT Series TIG Torches	50-51
9 Series TIG Torches	52-53
17 Series TIG Torches	54-55
18 Series TIG Torches	56-57
20 Series TIG Torches	58-59
22 Series TIG Torches	60-61
24 Series TIG Torches	62-63
26 Series TIG Torches	64-65
12 Series TIG Torches	66
27 Series TIG Torches	67
Tungsten Electrodes	68-69
Tungsten Grinders	70-71
Accessory Kits	72
Accessory Kits & Handles	73
Collets and Collet Bodies	74
TIG Gas Lenses, Back Caps & Valves	75
TIG Nozzles (Cups)	76
TIG Power Cables & Hoses	77
TIG Power Cables, Hoses & Adapters	78
Extension Kits & Hook-up Kits	79
TIG Hook-ups	80-81
Electrode Holders	82
Ground Clamps	82
Cable Connectors	83
Cable Lugs	83

Filler Metals

Aluminum MIG Welding Alloy (4043 Alloy)	84
Aluminum MIG Welding Alloy (5356 Alloy)	85
Aluminum TIG Welding Alloy (4043 Alloy)	86
Aluminum TIG Welding Alloy (5356 Alloy)	87
Low-Fuming Bronze Brazing Alloy (Flux Coated)	88
Low-Fuming Bronze Brazing Alloy (Bare)	89
Silicon Bronze Welding Alloy	90
Mild Steel Welding Alloy (ER70S-6 GMAW MIG)	91
Mild Steel Welding Alloy (Self-Shielding Alloy)	92
Mild Steel Welding Alloy (ER70S-2 GTAW TIG)	93
Mild Steel Welding Alloy (ER70S-6 GTAW TIG)	94
Solid Wire Oxy-Fuel (RG45 Solid Wire)	95
Solid Wire Oxy-Fuel (RG60 Solid Wire)	96
Stainless Steel (GTAW) TIG Welding Alloy (308L GTAW TIG)	97
Stainless Steel (GTAW) TIG Welding Alloy (309L GTAW TIG)	98
Stainless Steel (GTAW) TIG Welding Alloy (316L GTAW TIG)	99
Mild Steel Electrodes (E6010)	100
Mild Steel Electrodes (E6011)	101
Mild Steel Electrodes (E6013)	102
Mild Steel Electrodes (E7014)	103
Mild Steel Electrodes (E7018 & E7018AC)	104
Nickel-Iron Alloy Electrodes (AC-DC) (Nickel 55)	105
Nickel-Iron Alloy Electrodes (AC-DC) (Nickel 99)	106
Maintenance & Repair Steel Welding Electrodes	107
Maintenance & Repair Alloy Electrodes (Aluminum)	108
Maintenance & Repair Alloy Electrodes (Hard Surface)	109

Welding Supplies

Adaptors and Fittings	110-120
Welding Hoses	121
Welding Accessories (Tip Cleaners, Torch Lighters & Flints)	122
Welding Accessories (Soapstones)	123
Welding Accessories (Chipping Hammers)	124
Welding Accessories (Wrenches)	125
Welding Chemicals	126
Welding Cable	127
Pre-Assembled Welding Cables	128
Welding Machine Cords and Adapters	129
Extension Cords	130-132
GFCI Cords	132
Heavy Duty Jumper Cables	133
Hand Scratch Brushes	134
Cup Brushes	135
Wire Wheels and End Brushes	136
Flap Discs	137
Cutting and Grinding Wheels	138-139

Safety Supplies

Welding Helmets	140
Eye Protection (Cover Lens & Safety Plates)	141
Eye Protection (Filter Lens)	142
Eye Protection (Magnifier Lens & Visors)	143
Eye Protection (Welder's Goggles)	144
Eye Protection (Safety Eyewear)	145

Disclaimer: MATHESON Select® is not affiliated with Lincoln, Miller, Tweco, Bernard, Tregaskiss, ESAB, Thermal Dynamics, Hypertherm or Weldcraft. The parts shown in this catalog are MATHESON Select® brand name parts. References to the above named brands are to assist you in choosing the equivalent MATHESON Select® replacement part.

Specifications contained herein reflect current data and are subject to change. Values are nominal and or approximate.





MATHESON

The Gas Professionals

For more than 90 years, MATHESON

has provided gases, equipment, and services to end-users in a large number of industries including Metal Fabrication.

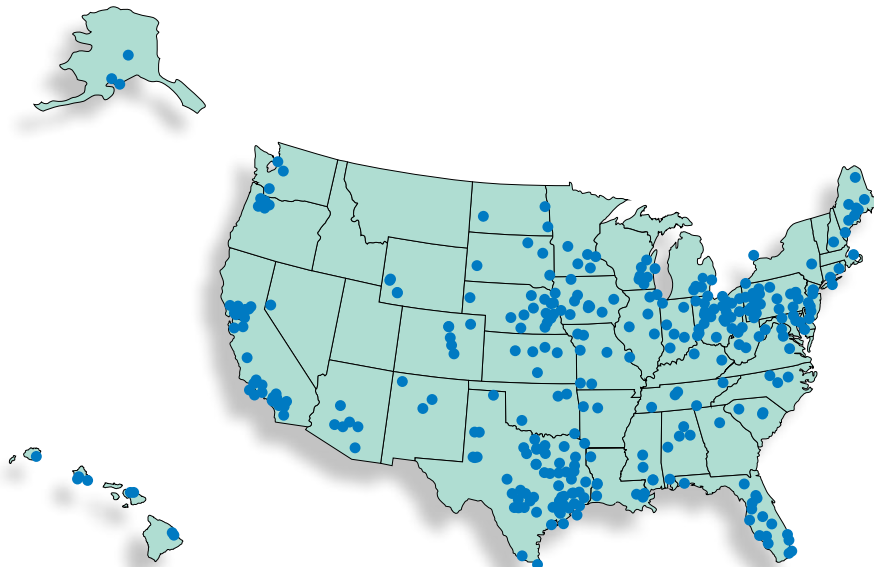
Metal Fabrication can mean many things. The industry itself spans a wide range of business types and applications. With this diversity comes a wide range of requirements for compressed gases and related products, services, and expertise.

- Trains, Trucks, Containers
- Modules and Parts for Motor Vehicles
- Shipbuilding and Repair
- Automotive and Repair
- Rail Fabrication
- Railroad Containers, Equipment, and Cars
- Aerospace
- Food, Wine, and Beer Processing
- Chemical and Pharmaceutical Manufacturing
- Boilers, Vessels, Carpentries
- Construction, Civil Engineering, External Maintenance
- Tubes and Other Semi-Finished Metallic Products
- Refining & Oil, Coal & LNG Transportation
- Petrochemicals
- Utilities & Waste Management
- Maintenance & Turnaround Operations
- General Fabrication
- Others

Almost as long as the list of industrial segments is the list of materials used in metal fabrication... each with its own properties.

- Carbon Steel
- Steel Alloys
- High Nickel Content Alloys
- Chromium Content Alloys
- Copper Content Alloys
- Stainless Steel
- Duplex, Super Duplex
- Galvanized Steel
- Aluminum
- Iron
- Plated Materials
- Oxidized Materials
- Specialized Metals, Titanium, Zirconium, Magnesium
- Others

MATHESON supports the metal fabrication industry with gases and equipment and related items from a national footprint of over 300 locations to serve and supply you.





MATHESON

Select®

MATHESON Select® is our own premium brand of welding gases and related equipment, accessories and consumables offering today's welder the highest quality and reliably consistent performance – the **MATHESON Select®** Brand Name is our assurance that these products will perform to the **MATHESON** high standard of quality.

MATHESON Select® Shielding Gases

MATHESON Select® Shielding Gases have been researched and formulated to provide improved welding performance in virtually any welding application.

When developing the line of **MATHESON Select®** Shielding Gases, we “threw out the book” on conventional shielding gas mixture composition. We studied ultra-high speed video of droplet formation and plasma stability. We studied weld consistency. We looked at weld cross-sections to observe weld depth, shape, porosity, and metallurgical characteristics.

The result is a line of welding shielding gases that helps you get better productivity and efficiency, while at the same time, achieving higher quality welding results.

• Improved Safety and Environmental Impact

- Reduced fumes & hexavalent chromium emissions
- Lower environmental impact

• Enhanced Weld Quality

- AWS A5.32 compliant homogenous mixtures ensure consistently high mechanical properties and reduced porosity

• Lower Welding Costs

- Reduced cost / ft and cost / lb
- Improved productivity by as much as 40%

Select **MATHESON'S** welding gases to help you improve your bottom line and achieve considerable gains in productivity, efficiency, and quality.



MATHESON Select® Filler Metals, Welding Accessories, and Safety Supplies

• Filler Metals

- Stick electrodes (SMAW)
- Maintenance & repair electrodes
- TIG rods (GTAW)
- Gas welding rods
- MIG wire (GMAW)
- Self shielding welding wire

• Welding Accessories

- MIG guns and consumables
- TIG torches and consumables
- Tungsten electrodes
- Carbon arc gouging
- Electrode holders, cable connectors, ground clamps
- Oxy fuel accessories, connectors, hose
- Welding cables, jumper cables, extension cords

• Safety Supplies

- Head, face, and hand protection
- Welding jackets and gloves
- Safety goggles and glasses

Look for the **MATHESON Select®** brand for premium products at an attractive price. The **MATHESON Select®** product line is available at all of our retail locations. Use our Store Locator at www.mathesongas.com to find a **MATHESON** store near you.



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MATHESON Supports Your Applications



Welding Applications

In any welding application, the suitable choice of shielding gas (or welding gas) can improve weld quality, decrease fume and spatter, and reduce overall costs.

The MATHESON Welding & Cutting Team can help you evaluate your current process parameters, and evaluate options.

MATHESON's commitment to your success in welding does not stop with cylinders filled with gas.

MATHESON wants to help you improve your process and its results; and earn your business by saving you time and money.

- **Application Specific Shielding Gas Mixtures (MATHESON Select® Brand)**
- **Argon, Oxygen, Welding Mixtures**
- **Specific Laser Mixes for Welding**
- **Gases: Cylinders, 6, 12 and 16-Packs, Micro Bulk and Bulk**
- **Gas Handling: Regulators, Manifolds, Switchovers**
- **Welding Supplies: Wire, Rods, Holders, Electrodes**
- **Welding Equipment: Power Supplies, Torches, Guns, Regulators**
- **Welding Apparel: Goggles, Helmets, Gloves, Jackets, Blankets**
- **General Industrial Tools, Saws, Drills**
- **NANOCHEM®: Delivering the Highest Quality Gas Supply for Critical Weld Requirements.**

Tools and supplies – as well as packaged gas – are available from over 300 locations nationwide (and growing).



Cutting Applications

As is the case with welding, the appropriate choice of cutting gas plays an important part in the success, speed, and effectiveness of cutting applications.

The MATHESON Welding & Cutting Team can help you take a look at your tools, processes, and gas – with an eye toward better quality and lower total cost.

- **Cutting Fuel Gases: Oxyfuel – Acetylene, Propylene, Propane, Others**
- **Plasma Cutting Gases: Argon, Hydrogen, Nitrogen, Oxygen**
- **Lasing and Assist Gases: O₂, N₂ and a Full Line of Lasing Gases**
- **Gases for Brazing and Soldering**
- **Cutting and Grinding Abrasives, Tools, Supplies**

Tools and supplies – as well as packaged gas – are available from over 300 locations nationwide (and growing).

Lasing Applications

The use of a Laser-based welding or cutting system carries with it the expectation of high quality & throughput. An out-of-spec or out-of-compliance laser gas mix can lead to reduced performance, lower quality, or laser failure.

The MATHESON Welding and Cutting Team can help get the most out of your lasing application by delivering consistent, reliable, and accurately prepared gas products.

- **Welding and Cutting Gas Blends that Meet Stringent AWS 5.32 Code and Manufacturer Specs**
- **Gases for Reactive Cutting Applications**
- **Auto Switchover Manifolds**
- **Cutting and Grinding Tools and Supplies**

Tools and supplies – as well as packaged gas – are available from over 300 locations nationwide (and growing).

Safety ... *the only job more important than the job*

Safety Products

No task is so urgent or important that it should not be done safely. In our own labs, plants, and offices we adhere to the motto "Safety First."

Our QSSP certified experts provide a full consultation and are available to survey your site.

MATHESON wants to help you improve your process and its results; and earn your business by saving you time and money.

- **MATHESON offers an Extensive Line of Personal Protection Equipment and Safety Products from World Class Manufacturers**

Clean Air Solution; Workplace Safety

Your manufacturing processes may create welding smoke, grinding dust, etc. Your work or process may take place in poorly ventilated or completely confined spaces.

MATHESON employs cutting edge principles and technology, and is able to offer practical and affordable solutions for a healthier, and more environmentally friendly workplace.

- **Gases and Consumables Designed to Reduce Fumes and Hexavalent Chromium Emissions for Lower Environmental Impact**
- **Clean Air Systems**
- **Large Capacity Dust Collector Systems**
- **Air Filtering Systems**
- **Ventilation Systems, Commercial Fans, and Cooling Equipment**
- **Breathing Air**

Allow MATHESON to help you keep your workers safe and free from unhealthy exposure.



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MATHESON *SelectPRO* Program

Metal Fabrication Process Optimization Program

The **MATHESON *SelectPRO*** Program puts our team of welding experts at your side to focus on these three foundations of welding effectiveness:

- **Productivity Improvement**
- **Reduced Cost Per Weld**
- **Optimization of Processes**

Working with you and key members of your team, our experts evaluate your welding and metal fabrication operations.

Our goal is to lead you to a more effective welding and fabrication operation – with improved quality, reduced total costs, and smoother workflow ... putting you in a better position to deliver greater satisfaction and value to your business and to your customers.

How the MATHESON *SelectPRO* Program Works.

In principle, the Program is quite simple: the more we understand about your fabrication practices, challenges, and goals, the better we will be able to help you get better results.

As a **MATHESON *SelectPRO*** Program partner, the Program never really ends. Our shared commitment to better welding results is a continuous commitment.

Partnership

The ***SelectPRO*** Program begins with a partnership and a shared goal to gain insight into your operational challenges, opportunities for improvement, and your business goals.

Where do you seek improvement? *Delivery times?*
Quality? Code compliance? Cost? Workflow?
Workplace safety? Automation?

Are you getting complaints? *Customers? Employees?*
Inspectors? Managers?

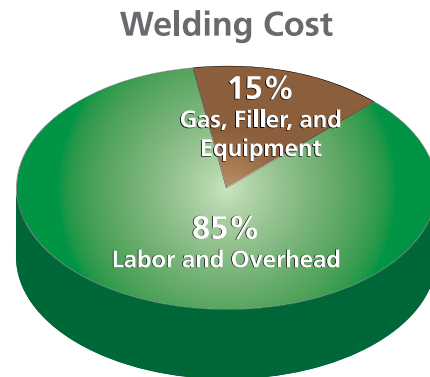
Insights into questions like these help us guide our Site Survey in ways that are meaningful to your actual current business situation. The more information we gather, the more relevant our recommendations will be.



Using the data gathered in the Site Survey, our team will perform an analysis, looking for changes and improvements that could increase productivity, quality, and cost-efficiency ... and also address your business goals and requirements.

What You Can Expect

It is widely known that 85% of the cost of welding is found in labor and overhead – the costs of filler and gas are not meaningless, but they are small in the larger view.



Examples of substantial changes can often include (when practical):

- **Moving from short circuit to spray to increase deposition rate**
- **Changing shielding gas to enable the use of one gas mixture in multiple applications**
- **Altering shielding gas, filler type, or both, to affect improvements in porosity, spatter, color, control, or deposition rate**
- **Adding automation to appropriate step(s) to improve throughput and improve welder availability**

... these are just a few examples of typical program outcomes. The possibilities are far greater in numbers.

The **MATHESON *SelectPRO*** Program may have a beginning ... but it really does not have an end. We are always at your side to help guide you to continuous improvements in productivity, cost reduction, and process optimization.





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Manufactured for MATHESON by **VICTOR**
AN ESAB BRAND

Victor Style Medium Duty Cutting & Heating Outfits

Features:

- Victor G Series regulators
- Victor WH270FC-V welding handle with built in flashback arrestors & check valves
- Victor CA270-V cutting attachment
- Victor 4 MFA-1 heating nozzle
- Two series 3-101 cutting tips



Medium Duty Outfits 250-15-510/300

Ordering Information

Part Number	Description
MSA 03841440MS	Victor Style Medium Duty Cutting & Heating Outfit CGA 510
MSA 03841441MS	Victor Style Medium Duty Cutting & Heating Outfit CGA 300
MSA 03870237MS	Victor Style Medium Duty Cutting Attachment
MSA 03870238MS	Victor Style Medium Duty Welding Handle





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AN ESAB BRAND

Victor Style Heavy Duty Cutting & Heating Outfits

Features:

- Victor G Series regulators
- Victor WH370FC-V welding handle with built in flashback arrestors & check valves
- Victor CA370-V cutting attachment
- Victor 6 MFA-1 heating nozzle
- Two series 1-101 cutting tips



Heavy Duty Outfits 350-15-510/300

Ordering Information

Part Number	Description
MSA 03841442MS	Victor Style Heavy Duty Cutting & Heating Outfit CGA 510
MSA 03841443MS	Victor Style Heavy Duty Cutting & Heating Outfit CGA 300
MSA 03870242MS	Victor Style Heavy Duty Cutting Attachment
MSA 03870243MS	Victor Style Heavy Duty Welding Handle



**MATHESON**
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Manufactured for MATHESON by



V-Series Hand-Cutting Torch

Features:

- Victor compatible straight cutting torch
- Designed for use with all fuel gases
- All around torch for metal fabrication
- Cutting capacity up to 6"
- Uses Victor style cutting tips
- Light weight with a stainless steel cutting lever
- Ease-on cutting valve for safer, better piercing
- Strength and rigidity with a brazed triangular tube design
- Flashguard check valves with greater safety and ease of change in field
- One year warranty

**Ordering Information**

Part Number	Model Number	Head Angle	Length	Weight	Tip Styles
MSA 1004653MS	MS21V	90°	21"	3.2 lbs	1-101
					1-GPN
					1-GPP





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Manufactured for MATHESON by **VICTOR**
AN ESAB BRAND

Victor Style Cutting Tips

Features:

- General purpose
- Hand and machine cutting tip
- High quality cutting tip made for MATHESON by Victor

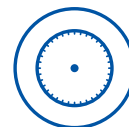
Type 101



Ordering Information

Part Number	Description	Gas Service
Series 1 Type 101		
MSA 62000008MS	Victor Style, 000-1-101	Acetylene
MSA 62000009MS	Victor Style, 00-1-101	
MSA 62000010MS	Victor Style, 0-1-101	
MSA 62000011MS	Victor Style, 1-1-101	
MSA 62000012MS	Victor Style, 2-1-101	
MSA 62000013MS	Victor Style, 3-1-101	
MSA 62000014MS	Victor Style, 4-1-101	
MSA 62000015MS	Victor Style, 5-1-101	
Series 3 Type 101		
MSA 62000018MS	Victor Style, 000-3-101	Acetylene
MSA 62000019MS	Victor Style, 00-3-101	
MSA 62000020MS	Victor Style, 0-3-101	
MSA 62000021MS	Victor Style, 1-3-101	
MSA 62000022MS	Victor Style, 2-3-101	
MSA 62000023MS	Victor Style, 3-3-101	

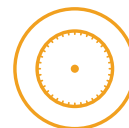
Type GPN



Ordering Information

Part Number	Description	Gas Service
Series 1 Type GPN		
MSA 62000028MS	Victor Style, 000-GPN	Propane/Natural Gas
MSA 62000029MS	Victor Style, 00-GPN	
MSA 62000030MS	Victor Style, 0-GPN	
MSA 62000031MS	Victor Style, 1-GPN	
MSA 62000032MS	Victor Style, 2-GPN	
MSA 62000033MS	Victor Style, 3-GPN	
MSA 62000034MS	Victor Style, 4-GPN	
MSA 62000035MS	Victor Style, 5-GPN	
Series 3 Type GPN		
MSA 62000038MS	Victor Style, 000-3-GPN	Propane/Natural Gas
MSA 62000039MS	Victor Style, 00-3-GPN	
MSA 62000040MS	Victor Style, 0-3-GPN	
MSA 62000041MS	Victor Style, 1-3-GPN	
MSA 62000042MS	Victor Style, 2-3-GPN	

Type GPP



Ordering Information

Part Number	Description	Gas Service
Series 1 Type GPP		
MSA 62000048MS	Victor Style, 000-GPP	Propylene
MSA 62000049MS	Victor Style, 00-GPP	
MSA 62000050MS	Victor Style, 0-GPP	
MSA 62000051MS	Victor Style, 1-GPP	
MSA 62000052MS	Victor Style, 2-GPP	
MSA 62000053MS	Victor Style, 3-GPP	
MSA 62000054MS	Victor Style, 4-GPP	
MSA 62000055MS	Victor Style, 5-GPP	
Series 3 Type GPP		
MSA 62000058MS	Victor Style, 000-3-GPP	Propylene
MSA 62000059MS	Victor Style, 00-3-GPP	
MSA 62000060MS	Victor Style, 0-3-GPP	
MSA 62000061MS	Victor Style, 1-3-GPP	
MSA 62000062MS	Victor Style, 2-3-GPP	





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Manufactured for MATHESON by **VICTOR**
AN ESAB BRAND

Oxygen and Acetylene Regulators – Medium Duty

Features:

- Color coded knobs
- Single stage
- Medium duty
- Forged brass body with Zinc Aluminum housing cap

Ordering Information

Part Number	Description
MSA 07819293MS	Oxygen Regulator 0-150 psi CGA 540 G250-150-540
MSA 07819294MS	Acetylene Regulator 0-15 psi CGA 510 G250-15-510
MSA 07819295MS	Acetylene Regulator 0-15 psi CGA 300 G250-15-300



MSA 07819293MS



MSA 07819294MS



MSA 07819295MS





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Oxygen and Acetylene Regulators – Heavy Duty

Features:

- Color coded knobs
- Single stage
- Heavy duty
- Forged brass body with Zinc Aluminum housing cap

Ordering Information

Part Number	Description
MSA 07819297MS	Oxygen Regulator 0-150 psi CGA 540 G350-150-540
MSA 07819298MS	Acetylene Regulator 0-15 psi CGA 510 G350-15-510
MSA 07819299MS	Acetylene Regulator 0-15 psi CGA 300 G350-15-300



MSA 07819297MS



MSA 07819298MS



MSA 07819299MS





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Manufactured for MATHESON by



Oxygen and Acetylene Regulators - Heavy Duty

Features:

- Single stage; heavy duty
- Forged brass body and bonnet
- Easy to read 2.5" brass gauges
- Tamper-proof, self-reseating, internal high pressure safety valve
- 7 year warranty

Ordering Information

Part Number	Description
MSA 3002240MS	Oxygen Regulator 0-125 psi CGA 540 MS-425-125-540
MSA 3002242MS	Acetylene Regulator 0-15 psi CGA 510 MS-425-15-510
MSA 3002241MS	Acetylene Regulator 0-15 psi CGA 300 MS-425-15-300



MSA 3002240MS



MSA 3002242MS



MSA 3002241MS





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Regulator/Flow Gauge and Flowmeter

Features:

- Single stage 150 series
- Single stage piston design (HRF1425-580 only)
- Stem type seat mechanism
- Comes with 10' hose
- 2 year warranty

Ordering Information

Part Number	Description
MSA 07819291MS	Regulator/Flow Gauge w/ 10' Hose AF-150-580
MSA 07819292MS	Regulator/Flow Gauge w/ 10' Hose CF-150-320
MSA 07819296MS	Regulator/Flowmeter w/ 10' Hose HRF1425-580



MSA 07819291MS



MSA 07819296MS



MSA 07819292MS





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Manufactured for MATHESON by **VICTOR**
AN ESAB BRAND

Pressure Gauges

Features:

- 1.5", 2.0" and 2.5" diameters
- UL Listed
- High quality, general purpose pressure gauges

Ordering Information

Part Number	Description
1.5"	
MSA 14240538MS	1.5" x 30 Pressure Gauge
MSA 14240539MS	1.5" x 100 Pressure Gauge
MSA 14240540MS	1.5" x 400 Pressure Gauge
MSA 14240541MS	1.5" x 4000 Pressure Gauge
MSA 14240542MS	1.5" x 30 SCFH Pressure Gauge
2.0"	
MSA 14240543MS	2.0" x 30 Pressure Gauge
MSA 14240544MS	2.0" x 200 Pressure Gauge
MSA 14240545MS	2.0" x 400 Pressure Gauge
MSA 14240546MS	2.0" x 4000 Pressure Gauge
MSA 14240547MS	2.0" x 50 SCFH Pressure Gauge
2.5"	
MSA 14240548MS	2.5" x 30 Pressure Gauge
MSA 14240549MS	2.5" x 200 Pressure Gauge
MSA 14240550MS	2.5" x 400 Pressure Gauge
MSA 14240551MS	2.5" x 4000 Pressure Gauge



1.5"



2.0"



2.5"



MATHESON
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4000 Gouging Torch & Torch Packages

Part Number	Description
01-082-002-MS	1000 Amp Gouging Torch
61-082-008-MS	Torch Assembly 7' Cable
61-082-009-MS	Torch Assembly 10' Cable

4000-MS Replacement Parts

#	Part Number	Description
1 -	94-433-183-MS	Insulator Assembly
2 -	94-048-088-MS	Upper Arm
3 -	94-476-066-MS	Lever Assembly
4 -	94-103-206-MS	Torch Body
5 -	94-632-094-MS	Hinge Pin
6 -	94-800-077-MS	Spring
7 -	94-801-011-MS	Valve with O-Rings
8 -	94-710-036-MS	O-Rings
9 -	94-104-012-MS	Bonnet
10 -	94-104-016-MS	Valve & Bonnet
11 -	70-084-207-MS	7' Cable Assembly
	70-084-210-MS	10' Cable Assembly
12 -	94-105-014-MS	Insulating Boot
13 -	94-170-150-MS	Air/Power Connector
14 -	94-370-163-MS	Handle
15 -	94-378-368-MS	Head & Screw

Features:

- Heavy duty construction
- 1000 maximum amps
- Pointed carbons from 5/32" to 1/2"
- Flat carbons from 3/8" to 5/8"
- All components are interchangeable with other leading gouging torch brands



3000 Gouging Torch & Torch Packages

Part Number	Description
01-065-001-MS	600 Amp Gouging Torch
61-065-006-MS	Torch Assembly 7' Cable
61-065-007-MS	Torch Assembly 10' Cable

Features:

- Heavy duty construction
- 600 maximum amps
- Pointed carbons from 1/8" to 3/8"
- Flat carbons from 3/8" to 5/8"
- All components are interchangeable with other leading gouging torch brands



3000-MS Replacement Parts

#	Part Number	Description
1 -	94-433-193-MS	Insulator Assembly
2 -	94-048-120-MS	Upper Arm
3 -	94-476-080-MS	Lever Assembly
4 -	94-103-232-MS	Torch Body
5 -	94-632-101-MS	Hinge Pin
6 -	94-800-191-MS	Spring
7 -	94-801-011-MS	Valve with O-Rings
8 -	94-710-036-MS	O-Rings
9 -	94-104-012-MS	Bonnet
10 -	94-104-016-MS	Valve & Bonnet
11 -	70-088-107-MS 70-088-110-MS	7' Cable Assembly 10' Cable Assembly
12 -	94-105-014-MS	Insulating Boot
13 -	94-170-150-MS	Air/Power Connector
14 -	94-370-179-MS	Handle
15 -	94-378-366-MS	Head & Screw



Copper-Coated Gouging Electrodes

Features:

- High density graphite
- Available in all common sizes
- Superb arc starting and stability
- Uniform diameters



Pointed Gouging Carbons



Most common type
Back gouging roots, porosity,
cracks, etc. also used for
cutting or slicing

Hollow Gouging Carbons



Lower emissions
than pointed carbon

Jointed Gouging Carbons



Generally used with
high amperage automated
as well as hand held gouging

Flat Gouging Carbons



Ideal for scarfing
or surface metal removal

Half Round Gouging Carbons



Combination of both
round and flat electrodes
Ideal for removing weld
crowns and scarfing

Part Number	Description
22023003-MS	1/8" x 12" (3.2mm x 305mm)
22983003-MS	5/32" x 12" (4.0mm x 305mm)
22033003-MS	3/16" x 12" (5.0mm x 305mm)
22043003-MS	1/4" x 12" (6.5mm x 305mm)
22053003-MS	5/16" x 12" (8.0mm x 305mm)
22063003-MS	3/8" x 12" (9.5mm x 305mm)
22082003-MS	1/2" x 14" (13.0mm x 355mm)

Part Number	Description
22033003HC-MS	3/16" x 12" (5.0mm x 305mm)
22043003HC-MS	1/4" x 12" (6.5mm x 305mm)
22053003HC-MS	5/16" x 12" (8.0mm x 305mm)
22063003HC-MS	3/8" x 12" (9.5mm x 305mm)

Part Number	Description
24052003-MS	5/16" x 14" (5.0mm x 355mm)
24062003-MS	3/8" x 14" (9.5mm x 355mm)
24064003-MS	3/8" x 17" (9.5mm x 430mm)
24082003-MS	1/2" x 14" (13.0mm x 355mm)
24084003-MS	1/2" x 17" (13.0mm x 430mm)
24104003-MS	5/8" x 17" (16.0mm x 430mm)
24124003-MS	3/4" x 17" (19.0mm x 430mm)

Part Number	Description
35099003-MS	3/8" x 5/32" x 12" (9.5 x 4.0 x 305mm)
35033003-MS	5/8" x 3/16" x 12" (16.0 x 5.0 x 305mm)

Part Number	Description
25103003-MS	5/8" x 5/16" x 12" (16.0 x 5.0 x 305mm)



MATHESON
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Custom Buildable MIG Guns

4 Easy Steps:

- 1- Select your MIG gun amperage
- 2- Select the proper machine connector
- 3- Select the consumable style you want
- 4- See if you need the Lincoln pin adaptor

Duty Cycles:

250 — 280 amps @ 60% with mixed gas

400 — 400 amps @ 60% with CO₂



Tweco Style

MCK-TW2-MS (250 Amp)

MCK-TW4-MS (400 Amp)

Miller style

MCK-MR2-MS (250 Amp)

Tregaskiss Style

MCK-TR2-MS (250 Amp)

MCK-TR4-MS (400 Amp)

Bernard Style

MCK-BR2-MS (250 Amp)

MCK-BR4-MS (400 Amp)

3-Select Consumable Type

Part Number		MCK-TW2-MS	MCK-TW4-MS	MCK-MR2-MS	MCK-TR2-MS	MCK-TR4-MS	MCK-BR2-MS	MCK-BR4-MS
#	Description	Tweco 250A	Tweco 400A	Miller 250A	Tregaskiss 250A	Tregaskiss 400A	Bernard 250A	Bernard 400A
1 -	Contact Tip	14-35-MS	14-35-MS	000-068	403-1-35-MS	403-1-35-MS	7489-MS	1589-MS
		14-45-MS	14-45-MS	000-069	403-1-45-MS	403-1-45-MS	7490-MS	1590-MS
2 -	Nozzle	23-50-MS	23-62-MS	200-258-MS	401-4-62-MS	401-6-62-MS	4393-MS	4591-MS
3 -	Diffuser	52FN-MS	54A-MS	169-728-MS	404-13-MS	404-13-MS	4235-MS	4635-MS
3a -	Retainer	—	—	169-729-MS	—	—	—	—
4 -	Insulator	—	—	169-730-MS	402-7-MS	402-7-MS	4323R-MS	4423R-MS
5 -	Gun Tube	25CT-MS	40CT-MS	25CTM-MS	25CTT-MS	40CTT-MS	25CTB-MS	40CTB-MS
6 -	Liner	42-4045-15-MS	44-3545-15-MS	42-4045-15-MS	42-4045-15-MS	44-3545-15-MS	42-4045-15-MS	44-3545-15-MS



Custom Buildable MIG Guns

1-Select Gun Amperage

Part Number	Description
250153545-MS	250 Amp Platform Gun
400153545-MS	400 Amp Platform Gun



2-Select Machine Connector

#	Part Number	Description
A	25TC-MS	Tweco Style
B	25MC-MS	Miller Style
C	25LC-MS	Lincoln Style

See Selector Chart Below



4-Select Trigger Connector

#	Part Number	Description
D	25MA-MS	Miller Style 4 Pin (included)
E	25LAC-MS	Lincoln Style 5 Pin (optional)

See Selector Chart Below



Standard with each Select-A-Gun

Needed for some Lincoln feeders
See selector chart below



For video demo go to:
www.matheson-e3.com/sal

Selector Chart

	Welding Machine or Wire Feeder	Machine Connector	Trigger Connector
Hobart	•Beta-MIG 250/251	25TC-MS	Included
	•Beta-MIG 1800 (500 Series) •IronMan 210/240	25MC-MS	Included
	•Beta-MIG 2510 (500 Series) •Beta-MIG 2250 •IronMan 250, 275	25MC-MS	Included
Miller	•Millermatic 90/120/130/130XP •Millermatic 140/150/175/180/185/ 211 •SideKick •SideKick XL •Miller Challenger •Challenger 172 •Millermatic DVI •Millermatic Passport	25MC-MS	Included
	•Millermatic 200, 210, 212, 250, 250X, 251, 252, 255, 350/350P & Millermatic Vintage, 300 Access 300/450 •MigRunner Package CP-302, Delta-Fab System, Deltaweld 302, 452, Invision 456MP, 456P	25MC-MS	Included
Lincoln	•Power MIG 200/215/255/255C/300 •Wire-Matic 255	25TC-MS	Included
	•LN-7 Series, LN-742, LN-8, LN-9 Series LN-25	25LC-MS	25LAC-MS
	•Power Feed 10M/LN-10/DH-10/STT-10/LN-15	25TC-MS	25LAC-MS
	•Power Feed 15MLF-72/LF-74 Series	25TC-MS	25LAC-MS



135 MIG Guns & Set-up Options

Features:

- Tweco or Miller style front end consumables
- Comfort grip handle
- Heavy duty spring strain relief
- Extended trigger & gun hanger
- Available in MIG & flux core versions
- Duty cycle: 160 amps @ 60% with mixed gas
135 amps @ 80% with mixed gas



Part Number	Description	Back End Connection	Wire Size	Length
135103035T-MS	Tweco Style Front End Consumables	Tweco Style	.030" - .035"	10'
135M103035M-MS	Miller Style Front End Consumables	Miller Style	.030" - .035"	10'
135103035M-MS	Tweco Style Front End Consumables	Miller Style	.030" - .035"	10'
135103545FC-MS	Flux Core	Tweco Style	.035" - .045"	10'

For MIG Gun Selector Guide see page 30

Tweco or Lincoln Style



Miller Style



135 MIG Guns Parts Breakdown

#	Part Number	Description	Consumable Type
1 -	21-37-MS	3/8" Nozzle, Recess 1/8"	Tweco
	21-50-MS	1/2" Nozzle, Recess 1/8"	
	21-50F-MS	1/2" Nozzle, Flush	
	21-62-MS	5/8" Nozzle, Recess 1/8"	
	21T-37-MS	3/8" Tapered Nozzle	
2 -	K1939-1-MS	Nozzle, Gasless	Lincoln
3 -	169-715-MS	1/2" Nozzle, Flush	Miller
4 -	11-23-MS	Standard .023" (0.6mm)	Tweco
	11-30-MS	Standard .030" (0.8mm)	
	11-35-MS	Standard .035" (0.9mm)	
	11-45-MS	Standard .045" (1.2mm)	
5 -	11T-23-MS	Tapered .023" (0.6mm)	Tweco
	11T-30-MS	Tapered .030" (0.8mm)	
	11T-35-MS	Tapered .035" (0.9mm)	
	11T-45-MS	Tapered .045" (1.2mm)	
6 -	087-299-MS	Standard .023" (0.6mm)	Miller
	000-067-MS	Standard .030" (0.8mm)	
	000-068-MS	Standard .035" (0.9mm)	
	000-069-MS	Standard .045" (1.2mm)	
7 -	35-50-MS	Diffuser	Tweco
8 -	169-715-MS	Diffuser	Miller

#	Part Number	Description	Consumable Type
9 -	13CT-MS	Conductor Tube	Tweco
10 -	13CTM-MS	Conductor Tube	Miller
11 -	13BK-MS	Tube Block	—
12 -	25TR-MS	Trigger	—
13 -	25TB-MS	Trigger Blade	—
14 -	25GH-MS	Gun Hanger	—
15 -	13HD-MS	Handle	—
16 -	25HR-MS	Locking Ring	—
17 -	13SR-MS	Strain Relief	—
18 -	13PC-MS	Power Cable Assembly 10'	—
19 -	13TA-MS	Tweco Trigger Connector	—
20 -	25MA-MS	Miller Trigger Connector	—
21 -	13TC-MS	Tweco Connector	—
22 -	13MC-MS	Miller Connector	—
23 -	13MCM-MS	Miller Connector	—
24 -	13CA-MS	Connector Housing	—
25 -	13SRR-MS	Strain Relief	—
26 -	13SW-MS	Washer	—
	35-40-15-MS	Liner (MIG)	Tweco
	45-40-15-MS	Liner (Flux Core)	—
	194-010	Liner, .023"-.025" x 15'	Miller
	194-011	Liner, .030"-.035" x 15'	
	194-012	Liner, .035"-.045" x 15'	

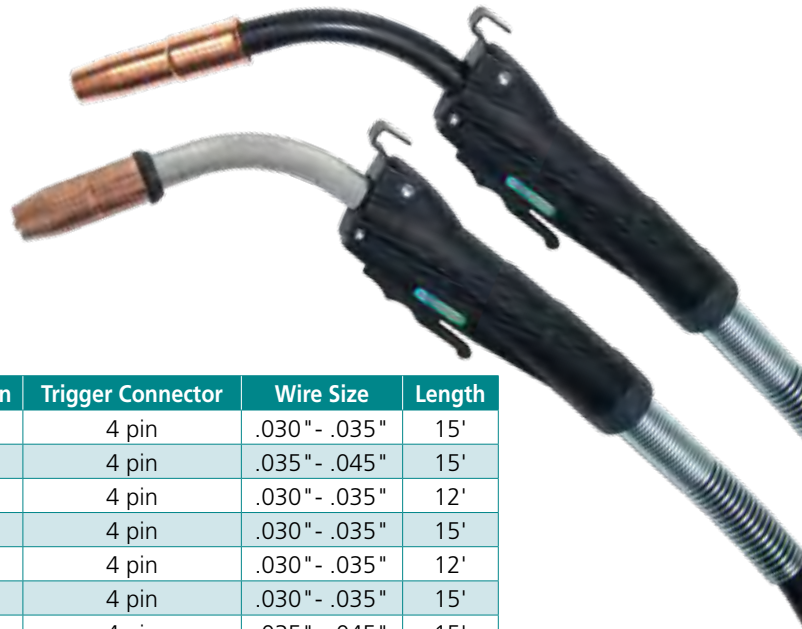


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250 MIG Guns & Set-up Options

Features:

- Tweco or Miller style front end consumables
- Comfort grip handle
- Heavy duty spring strain relief
- Extended trigger & gun hanger
- Duty cycle: 280 amps @ 60% with mixed gas
250 amps @ 80% with mixed gas
- Gun tube swivels 360°



Part Number	Front End Consumables	Back End Connection	Trigger Connector	Wire Size	Length
250153035T-MS	Tweco Style	Tweco Style	4 pin	.030" - .035"	15'
250153545T-MS	Tweco Style	Tweco Style	4 pin	.035" - .045"	15'
250M123035M-MS	Miller Style	Miller Style	4 pin	.030" - .035"	12'
250M153035M-MS	Miller Style	Miller Style	4 pin	.030" - .035"	15'
250123035M-MS	Tweco Style	Miller Style	4 pin	.030" - .035"	12'
250153035M-MS	Tweco Style	Miller Style	4 pin	.030" - .035"	15'
250153545M-MS	Tweco Style	Miller Style	4 pin	.035" - .045"	15'
250153035L-MS	Tweco Style	Lincoln Style	5 pin	.030" - .035"	15'
250153545L-MS	Tweco Style	Lincoln Style	5 pin	.035" - .045"	15'

For MIG Gun Selector Guide see page 30

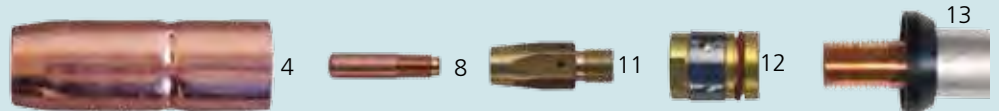
Tweco Set-up



Optional Tweco Set-up



Miller Set-up



400 MIG Guns & Set-up Options

Features:

- Tweco style front end consumables
- Duty cycle: 400 amps @ 60% with CO₂
- Heavy duty spring strain relief
- Extended trigger & gun hanger
- Gun tube swivels 360°
- Comfort grip handle



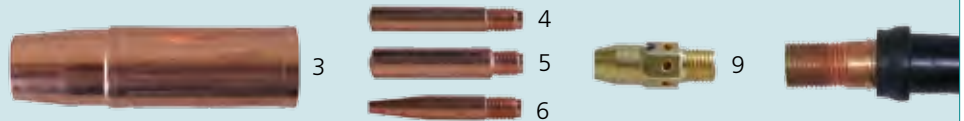
Part Number	Description	Back End Connection	Wire Size	Length
400153545T-MS	Tweco Style Front End Consumables	Tweco Style	.035" - .045"	15'
40015116T-MS	Tweco Style Front End Consumables	Tweco Style	.045" - 1/16"	15'
400153545M-MS	Tweco Style Front End Consumables	Miller Style	.035" - .045"	15'
40015116M-MS	Tweco Style Front End Consumables	Miller Style	.045" - 1/16"	15'
400153545L-MS	Tweco Style Front End Consumables	Lincoln Style	.035" - .045"	15'
40015116L-MS	Tweco Style Front End Consumables	Lincoln Style	.045" - 1/16"	15'

For MIG Gun Selector Guide see page 30

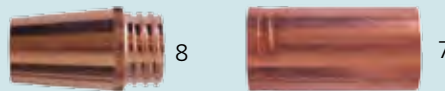
Standard Set-up



Optional Set-up



Optional Set-up



MATHESON
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400 MIG Guns Parts Breakdown

#	Part Number	Description
1 -	24A-50-SS-MS	1/2" Short Stop, 1/8" Recess
	24A-50-MS	1/2" Adjustable
	24A-62-SS-MS	5/8" Short Stop, 1/8" Recess
	24A-62-MS	5/8" Adjustable
	24A-75-SS-MS	3/4" Short Stop, 1/8" Recess
2 -	24A-75-MS	3/4" Adjustable
	34A-MS	Nozzle Insulator
3 -	23-37-MS	3/8" Insulated, 1/8" Recess
	23-50-MS	1/2" Insulated, 1/8" Recess
	23-62-MS	5/8" Insulated, 1/8" Recess
	23-75-MS	3/4" Insulated, 1/8" Recess
	23T-37-MS	3/8" Insulated, Tapered
	23T-37F-MS	3/8" Insulated, Tapered Flush
4 -	14-23-MS	Standard .023" (0.6mm)
	14-30-MS	Standard .030" (0.8mm)
	14-35-MS	Standard .035" (0.9mm)
	14-45-MS	Standard .045" (1.2mm)
	14-52-MS	Standard .052" (1.3mm)
	14-116-MS	Standard .062" (1.6mm)
	14-564-MS	Standard .078" (2.0mm)
5 -	14H-35-MS	Heavy Duty .035" (0.9mm)
	14H-45-MS	Heavy Duty .045" (1.2mm)
	14H-52-MS	Heavy Duty .052" (1.3mm)
	14H-116-MS	Heavy Duty .062" (1.6mm)
	14H-564-MS	Heavy Duty .078" (2.0mm)
6 -	14T-30-MS	Tapered .030" (0.8mm)
	14T-35-MS	Tapered .035" (0.9mm)
	14T-45-MS	Tapered .045" (1.2mm)
	14T-52-MS	Tapered .052" (1.3mm)
	14T-116-MS	Tapered .062" (1.6mm)

#	Part Number	Description
7 -	34CT-MS	Insulator, Coarse Thread
8 -	24CT-50S-MS	1/2" Coarse Thread
	24CT-62S-MS	5/8" Coarse Thread
	24CT-75S-MS	3/4" Coarse Thread
9 -	54A-MS	Diffuser, Brass
	54P-MS	Diffuser, Copper
10 -	40CT-MS	Conductor Tube
11 -	40BK-MS	Tube Block
12 -	25TR-MS	Trigger
13 -	25TB-MS	Trigger Blade
14 -	25GH-MS	Gun Hanger
15 -	40HD-MS	Handle
16 -	40HR-MS	Locking Ring
17 -	40CB-MS	Connector Body
18 -	25MC-MS	Miller Connector
19 -	25TC-MS	Tweco Connector
20 -	25LC-MS	Lincoln Connector
21 -	25CA-MS	Connector Case
22 -	40PC-MS	Power Cable, 15'
23 -	25LA-MS	Lincoln Trigger Connector
24 -	25MA-MS	Miller Trigger Connector
	44-3545-15-MS	Liner, .035"-.045" x 15'
	44-3545-25-MS	Liner, .035"-.045" x 25'
	44-116-15-MS	Liner, .052"-1/16" x 15'
	44-116-25-MS	Liner, .052"-1/16" x 25'
	44-564-15-MS	Liner, 5/64" x 15'
	44-564-25-MS	Liner, 5/64" x 25'



#4-400 Amp MIG Guns & Set-up Options

Features:

- Tweco style front end consumables
- Duty cycle: 400 amps @ 60% with CO₂
- Heavy duty spring strain relief
- Gun tube swivels 360°



Part Number	Description	Back End Connection	Wire Size	Length
4153545T-MS	Tweco Style Front End Consumables	Tweco Style	.035" - .045"	15'
415116T-MS	Tweco Style Front End Consumables	Tweco Style	.045" - 1/16"	15'
4153545M-MS	Tweco Style Front End Consumables	Miller Style	.035" - .045"	15'
415116M-MS	Tweco Style Front End Consumables	Miller Style	.045" - 1/16"	15'
4153545L-MS	Tweco Style Front End Consumables	Lincoln Style	.035" - .045"	15'
415116L-MS	Tweco Style Front End Consumables	Lincoln Style	.045" - 1/16"	15'

For MIG Gun Selector Guide see page 30

Standard Set-up



Optional Set-up



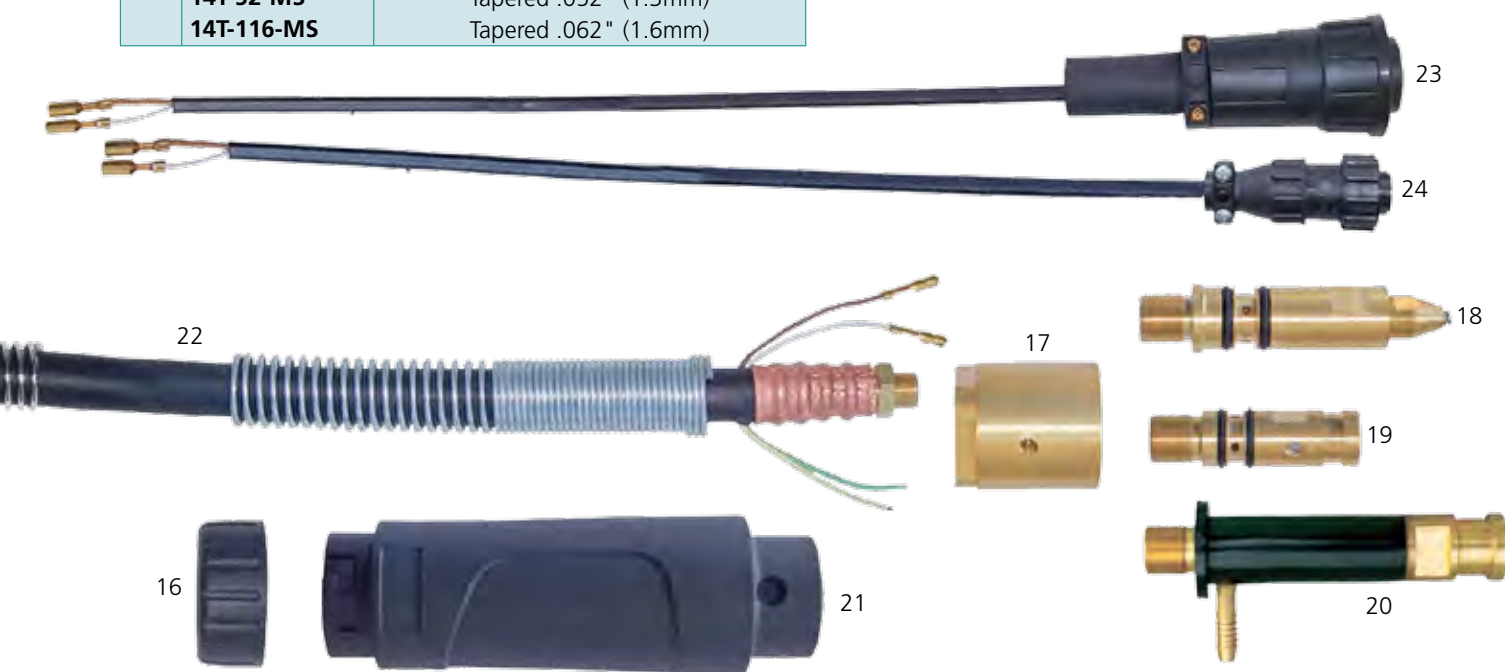
Optional Set-up



#4-400 Amp MIG Guns Parts Breakdown

#	Part Number	Description
1 -	24A-50-SS-MS	1/2" Short Stop, 1/8" Recess
	24A-50-MS	1/2" Adjustable
	24A-62-SS-MS	5/8" Short Stop, 1/8" Recess
	24A-62-MS	5/8" Adjustable
	24A-75-SS-MS	3/4" Short Stop, 1/8" Recess
	24A-75-MS	3/4" Adjustable
2 -	34A-MS	Nozzle Insulator
3 -	23-37-MS	3/8" Insulated, 1/8" Recess
	23-50-MS	1/2" Insulated, 1/8" Recess
	23-62-MS	5/8" Insulated, 1/8" Recess
	23-75-MS	3/4" Insulated, 1/8" Recess
	23T-37-MS	3/8" Insulated, Tapered
	23T-37F-MS	3/8" Insulated, Tapered Flush
4 -	14-23-MS	Standard .023" (0.6mm)
	14-30-MS	Standard .030" (0.8mm)
	14-35-MS	Standard .035" (0.9mm)
	14-45-MS	Standard .045" (1.2mm)
	14-52-MS	Standard .052" (1.3mm)
	14-116-MS	Standard .062" (1.6mm)
	14-564-MS	Standard .078" (2.0mm)
5 -	14H-35-MS	Heavy Duty .035" (0.9mm)
	14H-45-MS	Heavy Duty .045" (1.2mm)
	14H-52-MS	Heavy Duty .052" (1.3mm)
	14H-116-MS	Heavy Duty .062" (1.6mm)
	14H-564-MS	Heavy Duty .078" (2.0mm)
6 -	14T-30-MS	Tapered .030" (0.8mm)
	14T-35-MS	Tapered .035" (0.9mm)
	14T-45-MS	Tapered .045" (1.2mm)
	14T-52-MS	Tapered .052" (1.3mm)
	14T-116-MS	Tapered .062" (1.6mm)

#	Part Number	Description
7 -	34CT-MS	Insulator, Coarse Thread
8 -	24CT-50S-MS	1/2" Coarse Thread
	24CT-62S-MS	5/8" Coarse Thread
	24CT-75S-MS	3/4" Coarse Thread
9 -	54A-MS	Diffuser, Brass
	54P-MS	Diffuser, Copper
10 -	415CT-MS	Conductor Tube
11 -	40BK-MS	Tube Block
12 -	415TR-MS	Trigger
13 -	25TB-MS	Trigger Blade
14 -	415GH-MS	Gun Hanger
15 -	415HD-MS	Handle
16 -	40HR-MS	Locking Ring
17 -	40CB-MS	Connector Body
18 -	25MC-MS	Miller Connector
19 -	25TC-MS	Tweco Connector
20 -	25LC-MS	Lincoln Connector
21 -	25CA-MS	Connector Case
22 -	415PC-MS	Power Cable, 15'
23 -	25LA-MS	Lincoln Trigger Connector
24 -	25MA-MS	Miller Trigger Connector
	44-3545-15-MS	Liner, .035"-.045" x 15'
	44-3545-25-MS	Liner, .035"-.045" x 25'
	44-116-15-MS	Liner, .052"-1/16" x 15'
	44-116-25-MS	Liner, .052"-1/16" x 25'
	44-564-15-MS	Liner, 5/64" x 15'
	44-564-25-MS	Liner, 5/64" x 25'



Connection Options/Selector Chart

	Welding Machine or Wire Feeder	MIG Gun Part #
Hobart	•Handler 120/130/150	135103035T-MS — 135103035FC-MS
	•Beta-MIG 250/251	250153035T-MS — 250153545T-MS 400153545T-MS — 40015116T-MS
	•Beta-MIG 1800 (500 Series) •IronMan 210/240	130103035M-MS
	•Beta-MIG 2510 (500 Series) •Beta-MIG 2250 •IronMan 250, 275	250123035M-MS — 250153035M-MS — 250153545M-MS 400153545M-MS — 40015116M-MS
Miller	•Millermatic 90/120/130/130XP •Millermatic 140/150/175 /180/185/ 211 •SideKick •SideKick XL •Miller Challenger •Challenger 172 •Millermatic DVI •Millermatic Passport	135103035M-MS
	•Millermatic 200, 210, 212, 250, 250X, 251, 252, 255, 350/350P & Millermatic Vintage, 300 Axxess 300/450 •MigRunner Package CP-302, Delta-Fab System, Deltaweld 302, 452, Invision 456MP, 456P	250123035M-MS — 250153035M-MS — 250153545M-MS 400153545M-MS — 40015116M-MS
	•SP-100/SP-100-I/SP-100T/SP-125 Plus/SP-135T SP-135 Plus/SP-140-I/P-150/ SP-170/SP-170-I SP-170T/SP-175T/SP-175 Plus •Pro-MIG 135/140T/140C/175/180T/180C	135103035T-MS — 135103035FC-MS
Lincoln	•SP-140T/SP-180T •Power MIG 140C/180C	135103035L-MS
	•Power MIG 200/215/255/255C/300 •Wire-Matic 255	250153035T-MS — 250153545T-MS — 400153545T-MS — 40015116T-MS
	•LN-7 Series, LN-742, LN-8, LN-9 Series, LN-25	250153035L-MS — 250153545L-MS 400153545L-MS — 40015116L-MS
	•Power Feed 10M/LN-10/DH-10/STT-10/LN-15 •Power Feed 15MLF-72/LF-74 Series	250153035L2-MS — 250154355L2-MS 400153545L2-MS — 40015116T-MS + 25LAC-MS



MATHESON Select One-Tip System

ONE CONSUMABLE TYPE FOR ALL MIG GUNS!

MATHESON Select One-Tip utilizes Tregaskiss style consumables with diffusers to convert Lincoln, Miller, Bernard and Tweco MIG guns to be fitted with Tregaskiss tips and nozzles. This means that businesses with a mix of MIG guns can reduce inventory and save money.



Parts shown with an X are genuine OEM parts that can be replaced with MATHESON Select parts.

Bernard Centerfire & Traditional



Diffuser	Insulator Options
404-3B-MS	4423R-MS

All Bernard MIG Guns

Lincoln Magnum PRO/Curve



Diffuser	Insulator Options
404-3L-MS	402-7-MS

All Magnum PRO & Magnum PRO Curve Models (excluding PRO 100L)

Lincoln Traditional



Diffuser	Insulator Options
404-3-MS	402-7-MS

Magnum 300 and 400 Amp Guns

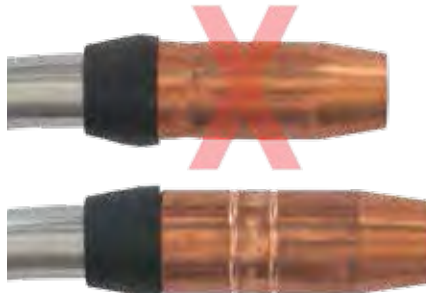
Miller



Diffuser	Insulator Options
404-3M-MS	402-7-MS or 169-730

M-25 and M-40

Miller Roughneck



Diffuser	Insulator Options
404-3B-MS	4423R-MS or Original

C-30, C-40, C-50, C-60

Tweco and MATHESON Select



Diffuser	Insulator Options
404-3-MS	402-7-MS

Tweco No. 3 and No. 4
& MATHESON Select 400 Amp

See page 36 for a complete list of Tregaskiss Consumables



MATHESON *Select* 135, Tweco Mini & No.1

Nozzles



Part Number	Description	Size
21-37-MS	Recess 1/8"	3/8"
21-37F-MS	Flush	3/8"
21-50-MS	Recess 1/8"	1/2"
21-50F-MS	Flush	1/2"
21-62-MS	Recess 1/8"	5/8"
21-62F-MS	Flush	5/8"
21T-37-MS	Tapered	3/8"



Part Number	Description
K1939-1-MS	Nozzle, Gasless

Contact Tips



Standard

Part Number	Size
11-23-MS	.023" (0.6mm)
11-30-MS	.030" (0.8mm)
11-35-MS	.035" (0.9mm)
11-40-MS	.040" (1.0mm)
11-45-MS	.045" (1.2mm)



Tapered

Part Number	Size
11T-23-MS	.023" (0.6mm)
11T-30-MS	.030" (0.8mm)
11T-35-MS	.035" (0.9mm)
11T-45-MS	.045" (1.2mm)

Diffusers



Part Number	Guns
35-50-MS	Select 135, Tweco Mini
51-MS	Tweco No.1
51-23-MS	Tweco No.1 .023" Wire

Liners



Part Number	Size	Length
35-40-15-MS	.030"-0.035"	15'
45-40-15-MS	.035"-0.045"	15'

MATHESON *Select* 250, Tweco No.2

Nozzles



Slip-on

Part Number	Description	Size
22-37-SS-MS	1/8" Recess	3/8"
22-50-MS	Adjustable	1/2"
22-50-SS-MS	1/8" Recess	1/2"
22-62-MS	Adjustable	5/8"
22-62-SS-MS	1/8" Recess	5/8"
22T37-SS-MS	Tapered Flush	3/8"



Insulated

Part Number	Description	Size
23-37-MS	1/8" Recess	3/8"
23-37F-MS	Flush	3/8"
23-50-MS	1/8" Recess	1/2"
23-50F-MS	Flush	1/2"
23-62-MS	1/8" Recess	5/8"
23-62F-MS	Flush	5/8"
23-75-MS	1/8" Recess	3/4"
23T-37-MS	Tapered, 1/8" Recess	3/8"
23T-37F-MS	Tapered Flush	3/8"

Diffusers



Part Number	Description
52-MS	Standard
52-23-MS	.023" Wire

Contact Tips



Standard

Part Number	Size
14-23-MS	.023" (0.6mm)
14-30-MS	.030" (0.8mm)
14-35-MS	.035" (0.9mm)
14-40-MS	.040" (1.0mm)
14-45-MS	.045" (1.2mm)



Heavy Duty

Part Number	Size
14H-35-MS	.035" (0.9mm)
14H-40-MS	.040" (1.0mm)
14H-45-MS	.045" (1.2mm)



Tapered

Part Number	Size
14T-30-MS	.030" (0.8mm)
14T-35-MS	.035" (0.9mm)
14T-40-MS	.040" (1.0mm)
14T-45-MS	.045" (1.2mm)

Insulators



Part Number	Description
32-MS	Insulator

Liners



Part Number	Size	Length
42-23-15-MS	.023"	15'
42-3035-15-MS	.030"-0.035"	15'
42-4045-15-MS	.040"-0.045"	15'
42-3035-25-MS	.030"-0.035"	25'
42-4045-25-MS	.040"-0.045"	25'



MATHESON
Select

MATHESON *Select* 400, Tweco No.3 & No.4

Nozzles



Part Number	Description	Size
23-37-MS	Insulated, 1/8" Recess	3/8"
23-37F-MS	Insulated, Flush	3/8"
23-50-MS	Insulated, 1/8" Recess	1/2"
23-50F-MS	Insulated, Flush	1/2"
23-62-MS	Insulated, 1/8" Recess	5/8"
23-62F-MS	Insulated, Flush	5/8"
23-75-MS	Insulated, 1/8" Recess	3/4"
23T-37-MS	Insulated, Tapered	3/8"
23T-37F-MS	Insulated, Tapered Flush	3/8"



Part Number	Description	Size
24A-37-SS-MS	Slip-on, 1/8" Recess	3/8"
24A-50-SS-MS	Slip-on, 1/8" Recess	1/2"
24A-50-MS	Slip-on, Adjustable	1/2"
24A-62-SS-MS	Slip-on, 1/8" Recess	5/8"
24A-62-MS	Slip-on, Adjustable	5/8"
24A-75-SS-MS	Slip-on, 1/8" Recess	3/4"
24A-75-MS	Slip-on, Adjustable	3/4"



Part Number	Description	Size
24CT-50S-MS	Coarse Thread	1/2"
24CT-62S-MS	Coarse Thread	5/8"
24CT-75S-MS	Coarse Thread	3/4"
34CT-MS	Insulator, Coarse Thread	

Part Number	Description	Size
24FN-50S-MS	Fine Thread	1/2"
24FN-62S-MS	Fine Thread	5/8"
24FN-75S-MS	Fine Thread	3/4"
34FN-MS	Insulator, Fine Thread	



Part Number	Description	Size
HD24L-62-MS	Slip-on HD, 1/8" Recess	5/8"
HD24L-75-MS	Slip-on HD, 1/8" Recess	3/4"

Contact Tips



Standard

Part Number	Size
14-23-MS	.023" (0.6mm)
14-30-MS	.030" (0.8mm)
14-35-MS	.035" (0.9mm)
14-45-MS	.045" (1.2mm)
14-52-MS	.052" (1.3mm)
14-116-MS	1/16" (1.6mm)
14-564-MS	5/64" (2.0mm)



Heavy Duty

Part Number	Size
14H-35-MS	.035" (0.9mm)
14H-45-MS	.045" (1.2mm)
14H-52-MS	.052" (1.3mm)
14H-116-MS	1/16" (1.6mm)
14H-564-MS	5/64" (2.0mm)



Tapered

Part Number	Size
14T-30-MS	.030" (0.8mm)
14T-35-MS	.035" (0.9mm)
14T-45-MS	.045" (1.2mm)
14T-52-MS	.052" (1.3mm)
14T-116-MS	1/16" (1.6mm)

Contact Tips

Heavy Duty
use with HD54-16 Diffuser

Part Number	Size
16S-35-MS	.035" (0.9mm)
16S-45-MS	.045" (1.2mm)
16S-52-MS	.052" (1.3mm)
16S-116-MS	1/16" (1.6mm)
16S-564-MS	5/64" (2.0mm)
16S-332-MS	3/32" (2.4mm)

Tapered Heavy Duty

Part Number	Size
16ST-35-MS	.035" (0.9mm)
16ST-45-MS	.045" (1.2mm)

Insulators



Part Number	Description
34A-MS	Insulator

Diffusers



Part Number	Description
54A-MS	Brass
54P-MS	Copper

Liners



Part Number	Size	Length
44-3545-15-MS	.035"-.045"	15'
44-116-15-MS	1/16"	15'
44-564-15-MS	5/64"	15'
44-564-25-MS	5/64"	25'
44-3545-25-MS	.035"-.045"	25'
44-116-25-MS	1/16"	25'

Diffuser



Part Number	Use With
HD54-16-MS	HD24L-62-MS HD24L-75-MS

* These parts work only with each other and will not work with other parts listed on this page.



Standard Bernard Consumables

Contact Tips



Standard Long



Standard Short



Tapered

Part Number	Size
1597-MS	.023 " (0.6mm)
1588-MS	.030 " (0.8mm)
1589-MS	.035 " (0.9mm)
1596-MS	.040 " (1.0mm)
1590-MS	.045 " (1.2mm)
1598-MS	.052 " (1.3mm)
1591-MS	1/16 " (1.6mm)
1592-MS	5/64 " (2.0mm)
1593-MS	3/32 " (2.4mm)

Part Number	Size
7497-MS	.023 " (0.6mm)
7488-MS	.030 " (0.8mm)
7489-MS	.035 " (0.9mm)
7496-MS	.040 " (1.0mm)
7490-MS	.045 " (1.2mm)
7498-MS	.052 " (1.3mm)
7491-MS	1/16 " (1.6mm)
7492-MS	5/64 " (2.0mm)
7493-MS	3/32 " (2.4mm)

Part Number	Size
4281-MS	.035 " (0.9mm)
4282-MS	.045 " (1.2mm)

Insulators



Part Number	Gun
4323R-MS	200A-300A
4423R-MS	350A-500A

Diffusers



Part Number	With Nozzles	With Tips
4235-MS	4391-MS 4392-MS 4393-MS 4394-MS	15XX-MS
4335-MS	4391-MS 4392-MS 4393-MS 4394-MS	74XX-MS
4335-MS	4295-MS	428X-MS



Part Number	With Nozzles	With Tips
4435-MS	4491-MS 4492-MS 4591-MS 4592-MS	74XX-MS
4635-MS	4491-MS 4492-MS 4591-MS 4592-MS	15XX-MS

Nozzles



Use With Diffuser 4335-MS

Part Number	Description	Size
4295-MS	Tapered, Brass	3/8 "



Use With Diffusers 4235-MS or 4335-MS

Part Number	Description	Size
4391-MS	Nozzle, Brass	5/8 "
4392-MS	Nozzle, Brass	1/2 "
4393-MS	Nozzle, Copper	5/8 "
4394-MS	Nozzle, Copper	1/2 "



Use With Diffusers 4435-MS or 4635-MS

Part Number	Description	Size
4491-MS	Nozzle, Brass	3/4 "
4492-MS	Nozzle, Brass	9/16 "
4591-MS	Nozzle, Copper	3/4 "
4592-MS	Nozzle, Copper	9/16 "

Liners



Part Number	Size	Length
43015-MS	.023 " - .030 "	15'
43115-MS	.035 " - .045 "	15'
43215-MS	.045 " - 1/16 "	15'
44115-MS	.035 " - .045 "	15'
44215-MS	.045 " - .062 "	15'
44225-MS	.045 " - .062 "	25'
45415-MS	3/32 "	15'

Conductor Tubes



Part Number	Gun
4786-MS	200A-300A
4790-MS	350A-400A

Universal Liners



Part Number	Size	Length	Color	Replaces Bernard®	Replaces Tregaskiss®
L1A-15-MS	.023 " - .030 "	15'	Yellow	43015	415-23-15
L3A-15-MS	.035 " - .045 "	15'	White	44115	415-35-15
L3A-25-MS	.035 " - .045 "	25'	White	44125	415-25-35
L3B-15-MS	.035 " - .045 "	15'	Brown	43115	—
L3B-25-MS	.035 " - .045 "	25'	Brown	43125	—
L4A-15-MS	.045 " - 1/16 "	15'	Red	44215	415-116-15
L4A-25-MS	.045 " - 1/16 "	25'	Red	44225	415-116-25
L5A-15-MS	1/16 " - 5/64 "	15'	Orange	44315	415-564-15
L5A-25-MS	1/16 " - 5/64 "	25'	Orange	44325	415-564-25
L6A-15-MS	5/64 "	15'	Blue	45415	415-564-15
L6A-25-MS	5/64 "	25'	Blue	45425	415-564-25
L7A-15-MS	3/32 "	15'	Gray	45615	415-332-15
L7A-25-MS	3/32 "	25'	Gray	45625	415-332-25



For video Demo go to:
www.matheson-e3.com/bernard

Realize significant cost savings by replacing Bernard genuine MIG gun parts with the MATHESON Select parts listed on this page.

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MATHESON
Select®

Bernard Centerfire Alternative

Item	Centerfire	Traditional Long Tip	Traditional Short Tip
Diffuser	D-1	4635-MS	4435-MS

Contact Tips	T-030	1588-MS	7488-MS
	T-035	1589-MS	7489-MS
	T-045	1590-MS	7490-MS
	T-052	1598-MS	7498-MS
	T-062	1591-MS	7491-MS
	T-078	1592-MS	7492-MS
	T-094	1593-MS	7493-MS

Nozzles	N-5800C N-5818C N-5814C	4592-MS	
	N-5800B N-5818B N-5814B	4492-MS	
	N-3400C N-3418C N-3414C	4591-MS	
	N-3418B N-3414B	4491-MS	

Item	Centerfire	Traditional Long Tip	Traditional Short Tip
Diffuser	DS-1	4235-MS	4335-MS

Contact Tips	T-030	1588-MS	7488-MS
	T-035	1589-MS	7489-MS
	T-045	1590-MS	7490-MS
	T-052	1598-MS	7498-MS
	T-062	1591-MS	7491-MS
	T-078	1592-MS	7492-MS
	T-094	1593-MS	7493-MS

Nozzles	NS-1218C	4394-MS	
	NS-1200B NS-1218B	4392-MS	
	NS-5800C NS-5818C	4393-MS	
	NS-5800B NS-5818B NS-5814B	4391-MS	

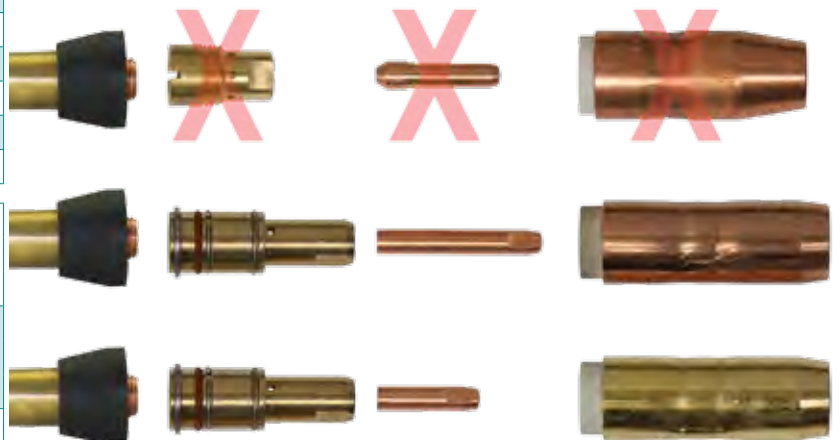
Item	Centerfire	Traditional Long Tip	Traditional Short Tip
Diffuser	DS-1	4235-MS	4335-MS

Contact Tips	TT-035	4281-MS	7489-MS
	TT-045	4282-MS	7490-MS

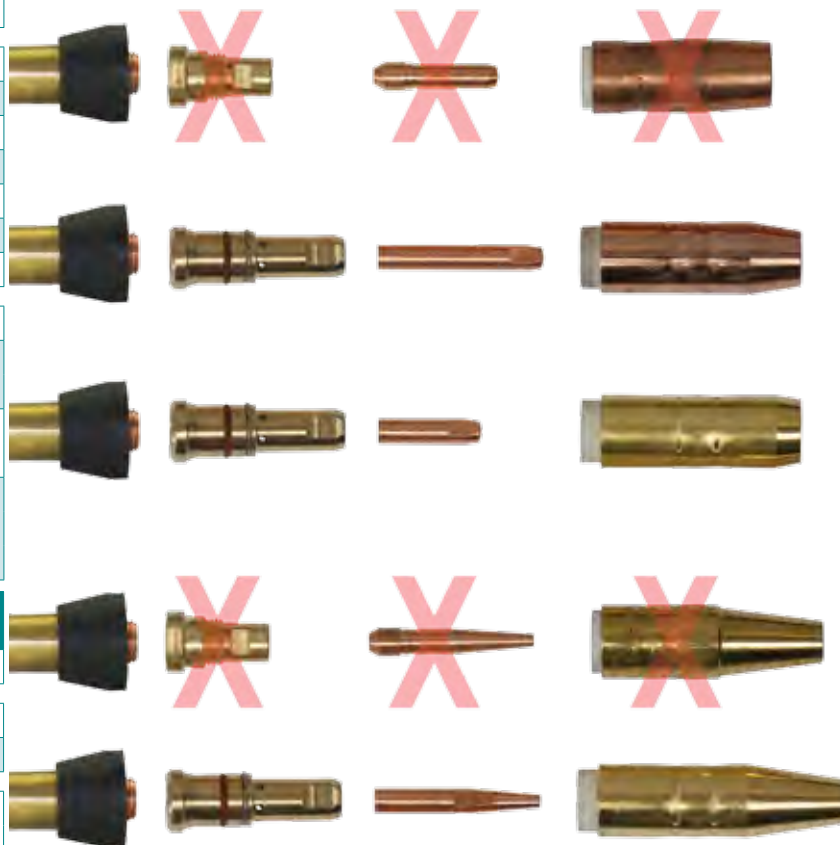
Nozzles	NS-5800B NS-5818B	4391-MS	
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Parts shown with an X are genuine OEM parts that can be replaced with MATHESON Select parts.



Realize significant cost savings by replacing Bernard Centerfire genuine parts with the MATHESON Select parts listed on this page.



MATHESON
Select®

Standard Tregaskiss Consumables

Contact Tips



Standard

Part Number	Size
403-35-MS	.035" (0.9mm)
403-45-MS	.045" (1.2mm)
403-116-MS	1/16" (1.6mm)



Heavy Duty

Part Number	Size
403-1-35-MS	.035" (0.9mm)
403-1-45-MS	.045" (1.2mm)
403-1-52-MS	.052" (1.3mm)
403-1-116-MS	1/16" (1.6mm)



Tapered

Part Number	Size
403-3-35-MS	.035" (0.9mm)
403-3-45-MS	.045" (1.2mm)

Shock Washer



Part Number	Description
402-5-MS	Heavy Duty
402-7-MS	Standard

Nozzles



Part Number	Description	Size
401-4-38-MS	Standard Flush	3/8"
401-4-50-MS	Standard, 1/8" Recess	1/2"
401-4-62-MS	Standard, 1/8" Recess	5/8"
401-5-62-MS	Heavy Duty, 1/4" Recess	5/8"
401-5-75-MS	Heavy Duty, 1/4" Recess	3/4"
401-6-62-MS	Heavy Duty, 1/8" Recess	5/8"
401-6-75-MS	Heavy Duty, 1/8" Recess	3/4"

Liners



Part Number	Description	Size	Length
415-35-15-MS	Standard	.035"-.045"	15'
415-116-15-MS	Standard	.045"-1/16"	15'
415-116-2-MS	Nylon Core	.045"-1/16"	15'
415-116-25-MS	Standard	.045"-1/16"	25'

Conductor Tubes



Part Number	Description	Gun
305-60-MS	60°	300A
405-45-MS	45°	400A
405-60-MS	60°	400A

Diffusers & Retainers



Part Number	Use with
404-MS	Standard Tips
404-1-MS	Heavy Duty Tips



Part Number	Description
402-3-MS	Nozzle Retainer



Part Number	Description
404-3-MS	For Heavy Duty Tips
404-13-MS	For H.D. Tips w/ Set Screw

See page 34 for
Universal Liners.



Tregaskiss TOUGH LOCK™ Consumables

Shock Washer



Part Number	Description
402-11-MS	Heavy Duty

Contact Tips



Heavy Duty

Part Number	Size
403-20-30-MS	.030" (0.8mm)
403-20-35-MS	.035" (0.9mm)
403-20-1.0-MS	.040" (1.0mm)
403-20-45-MS	.045" (1.2mm)
403-20-364-MS	3/64" (1.2mm)
403-20-52-MS	.052" (1.3mm)
403-20-116-MS	1/16" (1.6mm)
403-20-332-MS	3/32" (2.4mm)

Heavy Duty Long Life
(Chrome Zirconium)

Part Number	Size
403-27-30-MS	.030" (0.8mm)
403-27-35-MS	.035" (0.9mm)
403-27-1.0-MS	.040" (1.0mm)
403-27-45-MS	.045" (1.2mm)



Tapered Heavy Duty

Part Number	Size
403-21-30-MS	.030" (0.8mm)
403-21-35-MS	.035" (0.9mm)
403-21-45-MS	.045" (1.2mm)

Nozzles



Part Number	Description	Size
401-7-62-MS	H.D. Brass, Short Taper	5/8"
401-71-62-MS	H.D. Brass, Short Taper	5/8"
401-81-62-MS	H.D. Copper, Short Taper	5/8"

Retaining Heads



Part Number	Description
404-30-MS	Single Taper for Robotic Applications



Part Number	Description	Size
401-48-50-MS	Standard Brass Bottleneck	1/2"
401-48-62-MS	H.D. Copper Bottleneck	5/8"



Part Number	Description
404-20-MS	Single Taper for Semi-automatic Applications

Realize significant cost savings by replacing Tregaskiss genuine MIG gun parts with the MATHESON Select parts listed on this page.



Tregaskiss TOUGH LOCK™ Alternative

Item	TOUGH LOCK™	Traditional
Diffuser	404-14, 404-18	404-MS
Retainer		402-3-MS
Contact Tips	403-14-30	403-30-MS
	403-14-35	403-35-MS
	403-14-45	403-45-MS
	403-14-52	403-52-MS
	403-14-116	403-116-MS
	403-12-35	403-2-35-MS
	403-12-45	403-2-45-MS
Nozzles	Remain the same	

X Parts shown with an X are genuine OEM parts that can be replaced with MATHESON Select parts.



Realize significant cost savings by replacing genuine Tregaskiss TOUGH LOCK™ parts with the MATHESON Select parts listed on this page.

Item	TOUGH LOCK™	Traditional
Diffuser	404-20, 404-26	404-3-MS
Contact Tips	403-20-30	403-1-30-MS
	403-20-35	403-1-35-MS
	403-20-45	403-1-45-MS
	403-20-52	403-1-52-MS
	403-20-116	403-1-116-MS
	403-21-35	403-3-35-MS
	403-21-45	403-3-45-MS
Nozzles	Remain the same	



MATHESON Select One-Tip System

ONE CONSUMABLE TYPE FOR ALL MIG GUNS!

MATHESON Select One-Tip utilizes Tregaskiss style consumables with diffusers to convert Lincoln, Miller, Bernard and Tweco MIG guns to be fitted with Tregaskiss tips and nozzles. This means that businesses with a mix of MIG guns can reduce inventory and save money.



Bernard
All Guns

Lincoln (Mag Pro)
to 350 Amp

Lincoln (Standard)
to 350 Amp

Miller
200 to 350

Tweco
No.2 to No. 3

Item	Part Number	Part Number	Part Number	Part Number	Part Number
Diffuser	404-3B-MS	404-3L-MS	404-3-MS	404-3M-MS	404-3-MS
Shock Washer Options	4423R-MS	402-5-MS 402-7-MS	402-5-MS 402-7-MS	169-730-MS 402-5-MS 402-7-MS	402-5-MS 402-7-MS



Standard Miller Consumables

Nozzles



Guns: M15

Part Number	Description	Size
169-715-MS	Flush	1/2"



Guns: M25/25M, M40/40AL

Part Number	Description	Size
169-724-MS	1/8" Recess	1/2"
200-258-MS	Flush	1/2"
169-725-MS	1/8" Recess	5/8"
169-726-MS	Flush	5/8"
169-727-MS	1/8" Stick-out	5/8"

Contact Tips



Guns: M15, M25/25M, M40/40AL

Part Number	Size
087-299-MS	.023" (0.6mm)
000-067-MS	.030" (0.8mm)
000-068-MS	.035" (0.9mm)
000-069-MS	.045" (1.2mm)
172-024-MS	1/16" (1.6mm)
172-025-MS	5/64" (2.0mm)
172-034-MS	3/64" (1.2mm)

Diffusers



Guns: M15

Part Number
169-716-MS



Guns: M25/25M, M40/40AL

Part Number
169-728-MS

Retainer



Guns: M25/25M, M40/40AL

Part Number
169-729-MS

Shock Washer



Guns: M25/25M, M40/40AL

Part Number
169-730-MS

Liners



Guns: M15, M25/25M, M40/40AL

Part Number	Size	Length
194-010-MS	.023"-.025"	15'
194-011-MS	.030"-.035"	15'
194-012-MS	.035"-.045"	15'

Miller FasTip Consumables

Contact Tips



Heavy Duty

Part Number	Size (Steel)	Size (Alum)
206185-MS	.030" (0.8mm)	—
206186-MS	.035" (0.9mm)	.030" (0.8mm)
206187-MS	.040" (1.0mm)	.035" (0.9mm)
206188-MS	.045" (1.2mm)	.040" (1.0mm)
206189-MS	.052" (1.3mm)	3/64" (1.2mm)
206190-MS	1/16" (1.6mm)	—
206191-MS	.068" (1.7mm)	1/16" (1.6mm)



Tapered

Part Number	Size (Steel)	Size (Alum)
209026-MS	.035" (0.9mm)	.030" (0.8mm)
209027-MS	.045" (1.2mm)	.040" (1.0mm)
209028-MS	3/64" (1.2mm)	—
209029-MS	.052" (1.3mm)	3/64" (1.2mm)

Diffusers



Guns: MIG Guns

Part Number	Description
206195-MS	1/8" Recess
206196-MS	Flush



Guns: Spoolmatic, XR Pistol

Part Number	Description
227749-MS	1/8" Recess



Guns: XR Aluma Pro

Part Number	Description
229670-MS	1/8" Recess

Nozzles



Copper

Part Number	Description	Size
199615-MS	Standard	1/2"
198855-MS	Standard	5/8"
199618-MS	Heavy Duty	5/8"
199617-MS	Heavy Duty	3/4"



Brass

Part Number	Description	Size
199610-MS	Standard	1/2"
199613-MS	Standard	5/8"
199614-MS	Heavy Duty	5/8"
199611-MS	Standard	3/4"



Copper Tapered

Part Number	Description	Size
209035-MS	Heavy Duty	3/8"
209036-MS	Heavy Duty	1/2"

Miller XR-15A, 30A, 15W, 30W/XRM-15A, 30A, 15W, 30W & Spoolmatic-30A

Contact Tips



Part Number	Wire Type	Size	I.D.
135-424-MS	Aluminum	.047"	.059"
135-425-MS	Aluminum	.062"	.078"
135-426-MS	Steel	.062"	.073"
135-427-MS	Steel	.030"	.035"
135-428-MS	Aluminum	.030"	.040"
135-429-MS	Steel	.047"	.054"
135-430-MS	Aluminum	.035"	.050"

Nozzles



Part Number	Size
050-115-MS	1/2"
050-622-MS	5/8"

Liners



Part Number	Size	Length
136-682-MS	.023"-.035"	6.75"
136-683-MS	.045"-1/16"	6.75"



The Solution Torch TIG Kits



For video demo for phone or tablet go to:
www.matheson-e3.com/mod

For video demo for computer go to:
www.matheson-e3.com/modular



The modular advantage is weld-joint accessibility!



Features:

- The modular advantage is weld-joint accessibility
- Air-cooled kits have 20 possible configurations
- Kits come with tungsten and consumables
- Reusable attaché case with programmable locks
- Super-flexible nylon braided hoses
- Each kit comes with a variety of unique interchangeable torch heads

Who should have one of these kits?

- Maintenance crews • Oil rigs • Ships
- Bench welders • Job shops • Everyone that TIG welds

Why should you have one?

Because having the right torch for the job means less down time and less down time means more profits

Part Number
ST-150-R-MS



Part Number
M-200-R-MS



Part Number
M-225-R-MS



Description
150 Amp Air-Cooled Torch Kit
Kit Includes:
1 - 150 Amp Air-Cooled Torch Pkg, 25'
7 - Modular Torch Heads
Modular Kit with 5 back caps,
1 - 2 wrenches, 1 torch body,
3 elements and 2 flex extensions
1 - Consumables Kit with Collets, Collet Bodies, Nozzles and Back Caps to Fit all Heads and Tungsten Sizes .040", 1/16" and 3/32"
1 - Tungsten Kit with 6 Pcs of E3 Tungsten, 2 of Each Sizes .040", 1/16" and 3/32"
1 - Reusable Aluminum Attaché Case

Description
200 Amp Air-Cooled Torch Kit
Kit Includes:
1 - 200 Amp Air-Cooled Torch Pkg, 25'
1 - Consumables Kit with Collets, Collet Bodies, Nozzles and Back Caps to Fit all Heads and Tungsten Sizes 1/16", 3/32" and 1/8"
1 - Tungsten Kit with 6 Pcs of E3 Tungsten, 2 of Each Sizes 1/16", 3/32" and 1/8"
5 - Modular Torch Heads
2 - Elements, Flex Coil and Solid
2 - Torch Bodies, With and Without Valve
1 - Reusable Aluminum Attaché Case
2 - Wrenches

Description
225 Amp Water-Cooled Torch Kit
Kit Includes:
1 - 225 Amp Water-Cooled Torch Pkg, 25'
1 - Consumables Kit with Collets, Collet Bodies, Nozzles and Back Caps to Fit all Heads and Tungsten Sizes 1/16", 3/32" and 1/8"
1 - Tungsten Kit with 6 Pcs of E3 Tungsten, 2 of Each Sizes 1/16", 3/32" and 1/8"
5 - Modular Torch Heads
1 - Reusable Aluminum Attaché Case

Air-cooled kits can make 20 different torch configurations!



MATHESON
Select®

150 Amp Air-Cooled

#	Part Number	Description
1 -	1726M-MS	150 Amp 70° Torch Head
2 -	1726PM-MS	150 Amp 180° Torch Head
3 -	9-90M-MS	125 Amp 90° Torch Head
4 -	9-70M-MS	125 Amp 70° Torch Head
5 -	9PM-MS	125 Amp 180° Torch Head
6 -	24-90M-MS	80 Amp 90° Torch Head
7 -	24M-MS	80 Amp 70° Torch Head
8 -	150CEM-MS	Flex Element
9 -	150SEM-MS	Solid Element
10 -	150TBM-MS	Torch Body
11 -	150VTBM-MS	Torch Body with Valve
12 -	VS-2-MS	Valve Stem
13 -	150M-MS	Torch Assembly
14 -	150VM-MS	Torch Assembly with Valve
15 -	41V24-MS	Back Cap, Long
16 -	41V35-MS	Back Cap, Medium
17 -	41V33-MS	Back Cap, Short
18 -	57Y02-MS	Back Cap, Long
19 -	300M-MS	Back Cap, Medium
20 -	57Y04-MS	Back Cap, Short
21 -	105Z55R-MS	Ribbed Handle
22 -	150WM-MS	Wrench, 7/16" -1/2"
23 -	57Y01R-MS 57Y03R-MS	Power Cable, 12.5' Rubber 1 Piece Power Cable, 25' Rubber 1 Piece
24 -	57Y01BR-MS 57Y03BR-MS	Power Cable, 12.5' Braided Rubber 1 Piece Power Cable, 25' Braided Rubber 1 Piece
25 -	57Y01-2-MS 57Y03-2-MS	Power Cable, 12.5' 2 Piece Power Cable, 25' 2 Piece
26 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3"X10' Cable Cover, 3"X22'
27 -	BS-1S-MS	Switch Boot, Snap-on
28 -	BS-1-MS	Switch Boot, Rubber
29 -	SW2-0-MS	Switch, On-Off
30 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
31 -	DA-917FS-MS	Dinse 25mm, with 24" Auxiliary Hose
32 -	DP-25M-MS	Dinse 25mm, for 2pc Cable
33 -	DI-917F-MS	Dinse 50mm, in-line
34 -	DP-50M-MS	Dinse 50mm, for 2pc Cable
35 -	DA-917F-MS	Dinse 50mm, with 24" Auxiliary Hose
36 -	105Z57-MS	Power Cable Adapter



150M Series Available TIG Torch Packages

Part Number	Description
150M-12-2-MS	150 Amp Flex, 12.5' 2 Piece
150M-12-R-MS	150 Amp Flex, 12.5' Rubber 1 Piece
150M-25-2-MS	150 Amp Flex, 25' 2 Piece
150M-25-R-MS	150 Amp Flex, 25' Rubber 1 Piece

Part Number	Description
150VM-12-2-MS	150 Amp Flex with Valve, 12.5' 2 Piece
150VM-12-R-MS	150 Amp Flex with Valve, 12.5' Rubber 1 Piece
150VM-25-2-MS	150 Amp Flex with Valve, 25' 2 Piece
150VM-25-R-MS	150 Amp Flex with Valve, 25' Rubber 1 Piece

Torch Package Includes: Torch Assembly, Handle, Power Cable, Insulator, 9-70M-MS and 1726M-MS Torch Heads



200 Amp Air-Cooled

#	Part Number	Description
1	1726M-MS	200 Amp 70° Torch Head
2	1726PM-MS	200 Amp 180° Torch Head
3	9-90M-MS	125 Amp 90° Torch Head
4	9-70M-MS	125 Amp 70° Torch Head
5	9PM-MS	125 Amp 180° Torch Head
6	24-90M-MS	80 Amp 90° Torch Head
7	24M-MS	80 Amp 70° Torch Head
8	200CEM-MS	Flex Element
9	200SEM-MS	Solid Element
10	200TBM-MS	Torch Body
11	200VTBM-MS	Torch Body with Valve
12	VS-1-MS	Valve Stem
13	200M-MS	Torch Assembly
14	200VM-MS	Torch Assembly with Valve
15	41V24-MS	Back Cap, Long
16	41V35-MS	Back Cap, Medium
17	41V33-MS	Back Cap, Short
18	57Y02-MS	Back Cap, Long
19	300M-MS	Back Cap, Medium
20	57Y04-MS	Back Cap, Short
21	10N15R-MS	Ribbed Handle
22	200WM-MS	Wrench, 5/8" -11/16"
23	46V28R-MS 46V30R-MS	Power Cable, 12.5' Rubber, 1 Piece Power Cable, 25' Rubber, 1 Piece
24	46V28-2-MS 46V30-2-MS	Power Cable, 12.5' 2 Piece Power Cable, 25' 2 Piece
25	CC-3-10-MS CC-3-22-MS	Cable Cover, 3"X10' Cable Cover, 3"X22'
26	BL-15-MS	Switch Boot, Snap-on
27	BL-1-MS	Switch Boot, Rubber
28	SW2-0-MS	Switch, On-Off
29	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
30	DA-26R-MS	Dinse 50mm, with 24" Auxiliary Hose
31	45V62-MS	Power Cable Adapter



200M Series Available TIG Torch Packages

Part Number	Description
200M-12-2-MS	200 Amp Flex, 12.5' 2 Piece
200M-12-R-MS	200 Amp Flex, 12.5' Rubber, 1 Piece
200M-25-2-MS	200 Amp Flex, 25' 2 Piece
200M-25-R-MS	200 Amp Flex, 25' Rubber, 1 Piece

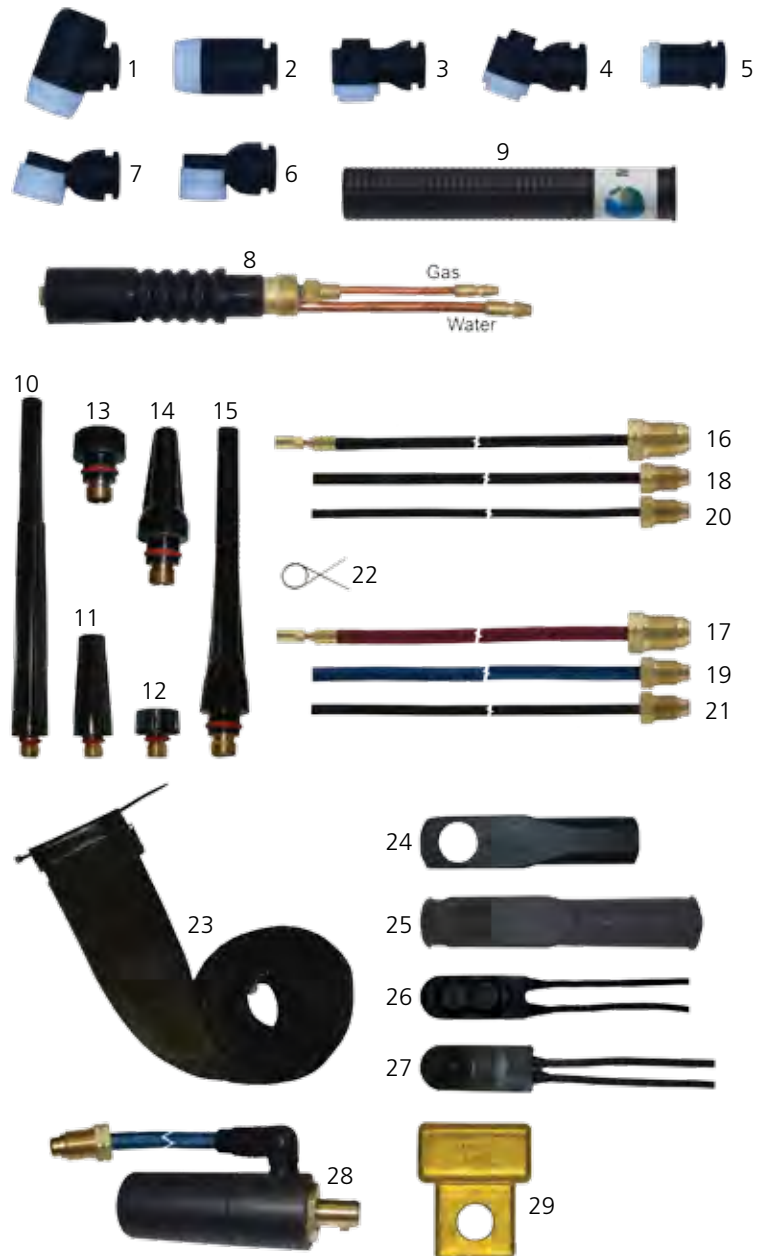
Part Number	Description
200VM-12-2-MS	200 Amp Flex with Valve, 12.5' 2 Piece
200VM-12-R-MS	200 Amp Flex with Valve, 12.5' Rubber, 1 Piece
200VM-25-2-MS	200 Amp Flex with Valve, 25' 2 Piece
200VM-25-R-MS	200 Amp Flex with Valve, 25' Rubber, 1 Piece

Torch Package Includes: Torch Assembly, Handle, Power Cable, Insulator, 1726M-MS and 1726PM-MS Torch Heads



225 Amp Water-Cooled

#	Part Number	Description
1 -	1726M-MS	200 Amp 70° Torch Head
2 -	1726PM-MS	200 Amp 180° Torch Head
3 -	9-90M-MS	125 Amp 90° Torch Head
4 -	9-70M-MS	125 Amp 70° Torch Head
5 -	9PM-MS	125 Amp 180° Torch Head
6 -	24-90M-MS	80 Amp 90° Torch Head
7 -	24M-MS	80 Amp 70° Torch Head
8 -	225M-MS	Torch Body
9 -	53N06-MS	Textured Handle
10 -	41V24-MS	Back Cap, Long
11 -	41V35-MS	Back Cap, Medium
12 -	41V33-MS	Back Cap, Short
13 -	57Y04-MS	Back Cap, Short
14 -	300M-MS	Back Cap, Medium
15 -	57Y02-MS	Back Cap, Long
16 -	45V03-MS 45V04-MS	Power Cable, 12.5' Vinyl Power Cable, 25' Vinyl
17 -	45V03R-MS 45V04R-MS	Power Cable, 12.5' Braided Rubber Power Cable, 25' Braided Rubber
18 -	45V07-MS 45V08-MS	Water Hose, 12.5' Vinyl Water Hose, 25' Vinyl
19 -	45V07R-MS 45V08R-MS	Water Hose, 12.5' Braided Rubber Water Hose, 25' Braided Rubber
20 -	45V09-MS 45V10-MS	Gas Hose, 12.5' Vinyl Gas Hose, 25' Vinyl
21 -	45V09R-MS 45V10R-MS	Gas Hose, 12.5' Braided Rubber Gas Hose, 25' Braided Rubber
22 -	53N04-MS	Hose Clamp
23 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3"X10' Cable Cover, 3"X22'
24 -	BS-1S-MS	Switch Boot, Snap-on
25 -	BS-1-MS	Switch Boot, Rubber
26 -	SW2-0-MS	Switch, On-Off
27 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
28 -	DA-1820L-MS	Dinse 50mm, with 24" Aux. Hose
29 -	45V11-MS	Power Cable Adapter



225M Series Available TIG Torch Packages

Part Number	Description
225M-12-MS	225 Amp, 12.5' Vinyl
225M-12-R-MS	225 Amp, 12.5' Braided Rubber

Part Number	Description
225M-25-MS	225 Amp, 25' Vinyl
225M-25-R-MS	225 Amp, 25' Braided Rubber

Torch Package Includes: Torch Body, Handle, Power Cable, Water & Gas Hoses, Insulator, 9-70M-MS and 1726M-MS Torch Heads



125 Amp Air-Cooled

#	Part Number	Description
1 -	9FM-MS	Torch Head
2 -	150TBM-MS	Torch Body
3 -	150VTBM-MS	Torch Body with Valve
4 -	9FMT-MS	Torch Assembly
5 -	9FVMT-MS	Torch Assembly with Valve
6 -	VS-2-MS	Valve Stem
7 -	41V24-MS	Back Cap, Long
8 -	41V35-MS	Back Cap, Medium
9 -	41V33-MS	Back Cap, Short
10 -	57Y01R-MS 57Y03R-MS	Power Cable, 12.5' Rubber, 1 Piece Power Cable, 25' Rubber, 1 Piece
11 -	57Y01-2-MS 57Y03-2-MS	Power Cable, 12.5' 2 Piece Power Cable, 25' 2 Piece
12 -	105Z55R-MS	Ribbed Handle
13 -	105Z55-MS	Textured Handle
14 -	598882-MS	Gasket Insulator
15 -	Next page	Collet
16 -	Next page	Collet Body
17 -	Next page	Nozzle
18 -	BS-1S-MS	Switch Boot, Snap-on
19 -	BS-1-MS	Switch Boot, Rubber
20 -	SW2-0-MS	Switch, On-Off
21 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
22 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3"X10' Cable Cover, 3"X22'
23 -	DA-917FS-MS	Dinse 25mm, with 24" Auxiliary Hose
24 -	DP-25M-MS	Dinse 25mm, for 2 Piece Cable
25 -	DI-917F-MS	Dinse 50mm, in-line
26 -	DP-50M-MS	Dinse 50mm, for 2 Piece Cable
27 -	DA-917F-MS	Dinse 50mm, with 24" Auxiliary Hose
28 -	105Z57-MS	Power Cable Adapter

Features:

- Direct replacements for Weldcraft style flex torches
- Constructed from 2 pieces (flex head and torch body)
- Torch heads can be replaced if necessary



9FMT Series Available TIG Torch Packages

Part Number	Description
9FMT-12-2-MS	125 Amp Flex, 12.5' 2 Piece
9FMT-12-R-MS	125 Amp Flex, 12.5' Rubber, 1 Piece
9FMT-25-2-MS	125 Amp Flex, 25' 2 Piece
9FMT-25-R-MS	125 Amp Flex, 25' Rubber, 1 Piece

Part Number	Description
9FVMT-12-2-MS	125 Amp Flex with Valve, 12.5' 2 Piece
9FVMT-12-R-MS	125 Amp Flex with Valve, 12.5' Rubber, 1 Piece
9FVMT-25-2-MS	125 Amp Flex with Valve, 25' 2 Piece
9FVMT-25-R-MS	125 Amp Flex with Valve, 25' Rubber, 1 Piece

Torch Package Includes: Torch Assembly, Handle, Power Cable, Insulator and Medium Back Cap



9FMT Series Set-up Options & Consumables

Standard Set-up



Gas Lens Set-up



Stubby Gas Lens Set-up



Electrode Diameter	—	.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	—
Nozzle Size	#3 (3/16")	#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")
Standard Set-up							
14 - Gasket Insulator		598882-MS	598882-MS	598882-MS	598882-MS	598882-MS	
15 - Collet		13N20-MS	13N21-MS	13N22-MS	13N23-MS	13N24-MS	
16 - Collet Body		13N25-MS	13N26-MS	13N27-MS	13N28-MS	13N29-MS	
17 - Alumina Nozzle Standard		13N08-MS	13N09-MS	13N10-MS	13N11-MS	13N12-MS	13N13-MS
17a - Alumina Nozzle Long	A796F70-MS	A796F71-MS	A796F72-MS	A796F73-MS			
17b - Alumina Nozzle Extra Long	A796F74-MS	A796F75-MS	A796F76-MS	A796F77-MS			
Gas Lens Set-up							
14 - Gasket Insulator		598882-MS	598882-MS	598882-MS	598882-MS	598882-MS	
15 - Collet		13N20-MS	13N21-MS	13N22-MS	13N23-MS	13N24-MS	
29 - Gas Lens Collet Body		45V41-MS	45V42-MS	45V43-MS	45V44-MS	45V45-MS	
30 - Alumina Nozzle Standard		53N58-MS	53N59-MS	53N60-MS	53N61-MS	53N61S-MS	
Stubby Gas Lens Set-up							
31 - Gasket Insulator		54N63-20-MS	54N63-20-MS	54N63-20-MS	54N63-20-MS	54N63-20-MS	
32 - Gas Lens Collet		13N20L-MS	13N21L-MS	13N22L-MS	13N23L-MS	13N24L-MS	
33 - Gas Lens Collet Body		45V0204S-MS	45V0204S-MS	45V116S-MS	45V64S-MS	995795S-MS	
34 - Alumina Nozzle Standard				57N75-MS		57N74-MS	53N88-MS
						#12 (3/4")	53N87-MS
						#15 (15/16")	53N89-MS



150 Amp Air-Cooled

#	Part Number	Description
1 -	17FM-MS	Torch Head
2 -	150TBM-MS	Torch Body
3 -	150VTBM-MS	Torch Body with Valve
4 -	17FMT-MS	Torch Assembly
5 -	17FVMT-MS	Torch Assembly with Valve
6 -	VS-2-MS	Valve Stem
7 -	57Y02-MS	Back Cap, Long
8 -	300M-MS	Back Cap, Medium
9 -	57Y04-MS	Back Cap, Short
10 -	57Y01R-MS 57Y03R-MS	Power Cable, 12.5' Rubber, 1 Piece Power Cable, 25' Rubber, 1 Piece
11 -	57Y01-2-MS 57Y03-2-MS	Power Cable, 12.5' 2 Piece Power Cable, 25' 2 Piece
12 -	105Z55R-MS	Ribbed Handle
13 -	105Z55-MS	Textured Handle
14 -	18CG-MS	Gasket Insulator
15 -	next page	Collet
16 -	next page	Collet Body
17 -	next page	Nozzle
18 -	BS-1S-MS	Switch Boot, Snap-on
19 -	BS-1-MS	Switch Boot, Rubber
20 -	SW2-0-MS	Switch, On-Off
21 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
22 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3"X10' Cable Cover, 3"X22'
23 -	DA-917FS-MS	Dinse 25mm, with 24" Auxiliary Hose
24 -	DP-25M-MS	Dinse 25mm, for 2 Piece Cable
25 -	DI-917F-MS	Dinse 50mm, in-line
26 -	DP-50M-MS	Dinse 50mm, for 2 Piece Cable
27 -	DA-917F-MS	Dinse 50mm, with 24" Auxiliary Hose
28 -	105Z57-MS	Power Cable Adapter

Features:

- Direct replacements for Weldcraft style flex torches
- Constructed from 2 pieces (flex head and torch body)
- Torch heads can be replaced if necessary



17FMT Series Available TIG Torch Packages

Part Number	Description
17FMT-12-2-MS	150 Amp Flex, 12.5' 2 Piece
17FMT-12-R-MS	150 Amp Flex, 12.5' Rubber, 1 Piece
17FMT-25-2-MS	150 Amp Flex, 25' 2 Piece
17FMT-25-R-MS	150 Amp Flex, 25' Rubber, 1 Piece

Part Number	Description
17FVMT-12-2-MS	150 Amp Flex with Valve, 12.5' 2 Piece
17FVMT-12-R-MS	150 Amp Flex with Valve, 12.5' Rubber, 1 Piece
17FVMT-25-2-MS	150 Amp Flex with Valve, 25' 2 Piece
17FVMT-25-R-MS	150 Amp Flex with Valve, 25' Rubber, 1 Piece

Torch Package Includes: Torch Assembly, Handle, Power Cable, Insulator and Long Back Cap



17FMT Series Set-up Options & Consumables

Standard Set-up



Medium Gas Lens Set-up



Large Gas Lens Set-up



Stubby Collet Body Set-up



Electrode Diameter		.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	5/32" (4.0mm)	—
Nozzle Size		#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")	#12 (3/4")
Standard Set-up								
14 -	Gasket Insulator	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	
15 -	Collet	10N21-MS	10N22-MS	10N23-MS	10N24-MS	10N25-MS	54N20-MS	
16 -	Collet Body	10N29-MS	10N30-MS	10N31-MS	10N32-MS	10N28-MS	406488-MS	
17 -	Alumina Nozzle Standard	10N50-MS	10N49-MS	10N48-MS	10N47-MS	10N46-MS	10N45-MS	10N44-MS
17a -	Alumina Nozzle Long		10N49L-MS	10N48L-MS	10N47L-MS			
Medium Gas Lens Set-up								
29 -	Gasket Insulator	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	
30 -	Gas Lens Collet Body	45V29-MS	45V24-MS	45V25-MS	45V26-MS	45V27-MS	45V28-MS	
31 -	Alumina Nozzle Standard	54N18-MS	54N17-MS	54N16-MS	54N15-MS	54N14-MS	54N19-MS	
32 -	Alumina Nozzle Long		54N17L-MS	54N16L-MS	54N15L-MS	54N14L-MS		
Large Gas Lens Set-up								
33 -	Gasket Insulator	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	
34 -	Gas Lens Collet Body	45V0204-MS	45V0204-MS	45V116-MS	45V64-MS	995795-MS	45V63-MS	
35 -	Alumina Nozzle Standard			57N75-MS		57N74-MS	53N88-MS	53N87-MS
	Alumina Nozzle Long			57N75L-MS		57N74L-MS		
	Alumina Nozzle Extra Long			57N75XL-MS		57N74XL-MS		
Stubby Collet Body Set-up								
36 -	Gasket Insulator	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS		
37 -	Stubby Collet	10N21S-MS	10N22S-MS	10N23S-MS	10N24S-MS	10N25S-MS		
38 -	Stubby Collet Body	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS		
39 -	Alumina Nozzle Standard	13N08-MS	13N09-MS	13N10-MS	13N11-MS	13N12-MS	13N13-MS	



80 Amp Air-Cooled

#	Part Number	Description
1 -	24FM-MS	Torch Head
2 -	150TBM-MS	Torch Body
3 -	150VTBM-MS	Torch Body with Valve
4 -	24FMT-MS	Torch Assembly
5 -	24FVMT-MS	Torch Assembly with Valve
6 -	VS-2-MS	Valve Stem
7 -	57Y01R-MS 57Y03R-MS	Power Cable, 12.5' Rubber, 1 Piece Power Cable, 25' Rubber, 1 Piece
8 -	57Y01-2-MS 57Y03-2-MS	Power Cable, 12.5' 2 Piece Power Cable, 25' 2 Piece
9 -	105Z55R-MS	Ribbed Handle
10 -	105Z55-MS	Textured Handle
11 -	53N22-MS	Gasket Insulator
12 -	Next page	Collet
13 -	Next page	Collet Body
14 -	Next page	Nozzle
15 -	BS-1S-MS	Switch Boot, Snap-on
16 -	BS-1-MS	Switch Boot, Rubber
17 -	SW2-0-MS	Switch, On-Off
18 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
19 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3" X10' Cable Cover, 3" X22'
20 -	DA-917FS-MS	Dinse 25mm, with 24" Auxiliary Hose
21 -	DP-25M-MS	Dinse 25mm, for 2 Piece Cable
22 -	DI-917F-MS	Dinse 50mm, in-line
23 -	DP-50M-MS	Dinse 50mm, for 2 Piece Cable
24 -	DA-917F-MS	Dinse 50mm, with 24" Auxiliary Hose
25 -	105Z57-MS	Power Cable Adapter

Features:

- Direct replacements for Weldcraft style flex torches
- Constructed from 2 pieces (flex head and torch body)
- Torch heads can be replaced if necessary



24FMT Series Available TIG Torch Packages

Part Number	Description
24FMT-12-2-MS	80 Amp Flex, 12.5' 2 Piece
24FMT-12-R-MS	80 Amp Flex, 12.5' Rubber, 1 Piece
24FMT-25-2-MS	80 Amp Flex, 25' 2 Piece
24FMT-25-R-MS	80 Amp Flex, 25' Rubber, 1 Piece

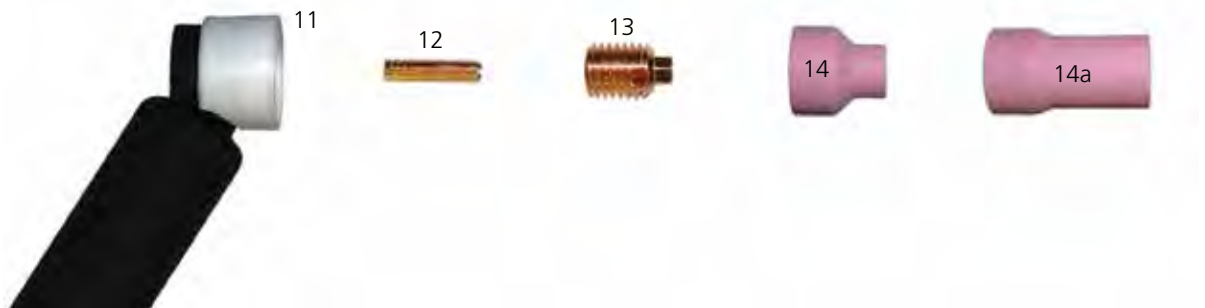
Torch Package Includes: Torch Assembly, Handle, Power Cable and Insulator

Part Number	Description
24FVMT-12-2-MS	80 Amp Flex with Valve, 12.5' 2 Piece
24FVMT-12-R-MS	80 Amp Flex with Valve, 12.5' Rubber, 1 Piece
24FVMT-25-2-MS	80 Amp Flex with Valve, 25' 2 Piece
24FVMT-25-R-MS	80 Amp Flex with Valve, 25' Rubber, 1 Piece



24FMT Series Set-up Options & Consumables

Standard Set-up



Gas Lens Set-up



Electrode Diameter		—	.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	—
Nozzle Size		#3 (3/16")	#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")
Standard Set-up							
11 -	Gasket Insulator	53N22-MS	53N22-MS	53N22-MS	53N22-MS	53N22-MS	
12 -	Collet		53N15-MS	53N16-MS	53N14-MS	24C332-MS	
13 -	Collet Body		53N17-MS	53N18-MS	53N19-MS	24CB332-MS	
14 -	Alumina Nozzle Standard	53N23A-MS	53N24A-MS	53N25A-MS	53N27A-MS		
14a -	Alumina Nozzle Long		53N28A-MS		53N26A-MS		
Gas Lens Set-up							
26 -	Gasket Insulator		53N66-MS	53N66-MS	53N66-MS	53N66-MS	53N66-MS
27 -	Collet		53N62-MS	53N63-MS	53N64-MS	24GLC332-MS	
28 -	Gas Lens Collet Body		45V41-MS	45V42-MS	45V43-MS	45V44-MS	
29 -	Alumina Nozzle Standard		53N58-MS	53N59-MS	53N60-MS	53N61-MS	53N61S-MS



200 Amp Air-Cooled

#	Part Number	Description
1 -	26FM-MS	Torch Head
2 -	200TBM-MS	Torch Body
3 -	200VTBM-MS	Torch Body with Valve
4 -	26FMT-MS	Torch Assembly
5 -	26FVMT-MS	Torch Assembly with Valve
6 -	VS-1-MS	Valve Stem
7 -	57Y02-MS	Back Cap, Long
8 -	300M-MS	Back Cap, Medium
9 -	57Y04-MS	Back Cap, Short
10 -	46V28R-MS 46V30R-MS	Power Cable, 12.5' Rubber, 1 Piece Power Cable, 25' Rubber, 1 Piece
11 -	46V28-2-MS 46V30-2-MS	Power Cable, 12.5' 2 Piece Power Cable, 25' 2 Piece
12 -	10N15R-MS	Ribbed Handle
13 -	10N15-MS	Textured Handle
14 -	18CG-MS	Gasket Insulator
15 -	next page	Collet
16 -	next page	Collet Body
17 -	next page	Nozzle
18 -	BL-1S-MS	Switch Boot, Snap-on
19 -	BL-1-MS	Switch Boot, Rubber
20 -	SW2-0-MS	Switch, On-Off
21 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
22 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3"X10' Cable Cover, 3"X22'
23 -	DI-26F-MS	Dinse 50mm, in-line
24 -	DP-50M-MS	Dinse 50mm, for 2 Piece Cable
25 -	DA-26R-MS	Dinse 50mm, with 24" Auxiliary Hose
26 -	45V62-MS	Power Cable Adapter

Features:

- Direct replacements for Weldcraft style flex torches
- Constructed from 2 pieces (flex head and torch body)
- Torch heads can be replaced if necessary



26FMT Series Available TIG Torch Packages

Part Number	Description	Part Number	Description
26FMT-12-2-MS	200 Amp Flex, 12.5' 2 Piece	26FVMT-12-2-MS	200 Amp Flex with Valve, 12.5' 2 Piece
26FMT-12-R-MS	200 Amp Flex, 12.5' Rubber, 1 Piece	26FVMT-12-R-MS	200 Amp Flex with Valve, 12.5' Rubber, 1 Piece
26FMT-25-2-MS	200 Amp Flex, 25' 2 Piece	26FVMT-25-2-MS	200 Amp Flex with Valve, 25' 2 Piece
26FMT-25-R-MS	200 Amp Flex, 25' Rubber, 1 Piece	26FVMT-25-R-MS	200 Amp Flex with Valve, 25' Rubber, 1 Piece

Torch Package Includes: Torch Assembly, Handle, Power Cable, Insulator and Long Back Cap



26FMT Series Set-up Options & Consumables

Standard Set-up



Medium Gas Lens Set-up



Large Gas Lens Set-up



Stubby Collet Body Set-up



Electrode Diameter		.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	5/32" (4.0mm)	—
Nozzle Size		#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")	#12 (3/4")
Standard Set-up								
14 -	Gasket Insulator	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	
15 -	Collet	10N21-MS	10N22-MS	10N23-MS	10N24-MS	10N25-MS	54N20-MS	
16 -	Collet Body	10N29-MS	10N30-MS	10N31-MS	10N32-MS	10N28-MS	406488-MS	
17 -	Alumina Nozzle Standard	10N50-MS	10N49-MS	10N48-MS	10N47-MS	10N46-MS	10N45-MS	10N44-MS
17a -	Alumina Nozzle Long		10N49L-MS	10N48L-MS	10N47L-MS			
Medium Gas Lens Set-up								
27 -	Gasket Insulator	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	
28 -	Gas Lens Collet Body	45V29-MS	45V24-MS	45V25-MS	45V26-MS	45V27-MS	45V28-MS	
29 -	Alumina Nozzle Standard	54N18-MS	54N17-MS	54N16-MS	54N15-MS	54N14-MS	54N19-MS	
30 -	Alumina Nozzle Long		54N17L-MS	54N16L-MS	54N15L-MS	54N14L-MS		
Large Gas Lens Set-up								
31 -	Gasket Insulator	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	
32 -	Gas Lens Collet Body	45V0204-MS	45V0204-MS	45V116-MS	45V64-MS	995795-MS	45V63-MS	
33 -	Alumina Nozzle Standard			57N75-MS		57N74-MS	53N88-MS	53N87-MS
	Alumina Nozzle Long			57N75L-MS		57N74L-MS		
	Alumina Nozzle Extra Long			57N75XL-MS		57N74XL-MS		
Stubby Collet Body Set-up								
34 -	Gasket Insulator	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS		
35 -	Stubby Collet	10N215-MS	10N225-MS	10N235-MS	10N245-MS	10N255-MS		
36 -	Stubby Collet Body	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS		
37 -	Alumina Nozzle Standard	13N08-MS	13N09-MS	13N10-MS	13N11-MS	13N12-MS	13N13-MS	



125 Amp Air-Cooled

#	Part Number	Description
1 -	9-MS	Torch Body
2 -	9F-MS	Torch Body, Flex
3 -	9FV-MS	Torch Body, Flex with Valve
4 -	9P-MS	180° Torch Body
5 -	9V-MS	Torch Body with Valve
6 -	VS-2-MS	Valve Stem
7 -	41V24-MS	Back Cap, Long
8 -	41V35-MS	Back Cap, Medium
9 -	41V33-MS	Back Cap, Short
10 -	57Y01R-MS 57Y03R-MS	Power Cable, 12.5' Rubber, 1 Piece Power Cable, 25' Rubber, 1 Piece
11 -	57Y01-2-MS 57Y03-2-MS	Power Cable, 12.5' 2 Piece Power Cable, 25' 2 Piece
12 -	H-100R-MS	Ribbed Handle
13 -	H-100-MS	Textured Handle
14 -	598882-MS	Gasket Insulator
15 -	Next page	Collet
16 -	Next page	Collet Body
17 -	Next page	Nozzle
18 -	BS-1S-MS	Switch Boot, Snap-on
19 -	BS-1-MS	Switch Boot, Rubber
20 -	SW2-0-MS	Switch, On-Off
21 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
22 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3" X10' Cable Cover, 3" X22'
23 -	DA-917FS-MS	Dinse 25mm, with 24" Auxiliary Hose
24 -	DP-25M-MS	Dinse 25mm, for 2 Piece Cable
25 -	DI-917F-MS	Dinse 50mm, in-line
26 -	DP-50M-MS	Dinse 50mm, for 2 Piece Cable
27 -	DA-917F-MS	Dinse 50mm, with 24" Auxiliary Hose
28 -	105Z57-MS	Power Cable Adapter



9 Series Available TIG Torch Packages

Part Number	Description
9-12-2-MS	125 Amp, 12.5' 2 Piece
9-12-R-MS	125 Amp, 12.5' Rubber, 1 Piece
9-25-2-MS	125 Amp, 25' 2 Piece
9-25-R-MS	125 Amp, 25' Rubber, 1 Piece
9V-12-2-MS	125 Amp with valve, 12.5' 2 Piece
9V-12-R-MS	125 Amp with valve, 12.5' Rubber, 1 Piece
9V-25-2-MS	125 Amp with valve, 25' 2 Piece
9V-25-R-MS	125 Amp with valve, 25' Rubber, 1 Piece
9F-12-2-MS	125 Amp Flex 12.5' 2 Piece
9F-12-R-MS	125 Amp Flex 12.5' Rubber, 1 Piece

Part Number	Description
9F-25-2-MS	125 Amp Flex 25' 2 Piece
9F-25-R-MS	125 Amp Flex 25' Rubber, 1 Piece
9FV-12-2-MS	125 Amp Flex with valve, 12.5' 2 Piece
9FV-12-R-MS	125 Amp Flex with valve, 12.5' Rubber, 1 Piece
9FV-25-2-MS	125 Amp Flex with valve, 25' 2 Piece
9FV-25-R-MS	125 Amp Flex with valve, 25' Rubber, 1 Piece
9P-12-2-MS	125 Amp Pencil 180° 12.5' 2 Piece
9P-12-R-MS	125 Amp Pencil 180° 12.5' Rubber, 1 Piece
9P-25-2-MS	125 Amp Pencil 180° 25' 2 Piece
9P-25-R-MS	125 Amp Pencil 180° 25' Rubber, 1 Piece

Torch Package Includes: Torch Body, Handle, Power Cable, Insulator and Medium Back Cap (9P has no back cap)



9 Series Set-up Options & Consumables

Standard Set-up



Gas Lens Set-up



Stubby Gas Lens Set-up



Electrode Diameter	—	.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	—
Nozzle Size	#3 (3/16")	#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")
Standard Set-up							
14 - Gasket Insulator		598882-MS	598882-MS	598882-MS	598882-MS	598882-MS	
15 - Collet		13N20-MS	13N21-MS	13N22-MS	13N23-MS	13N24-MS	
16 - Collet Body		13N25-MS	13N26-MS	13N27-MS	13N28-MS	13N29-MS	
17 - Alumina Nozzle Standard		13N08-MS	13N09-MS	13N10-MS	13N11-MS	13N12-MS	13N13-MS
17a - Alumina Nozzle Long	A796F70-MS	A796F71-MS	A796F72-MS	A796F73-MS			
17b - Alumina Nozzle Extra Long	A796F74-MS	A796F75-MS	A796F76-MS	A796F77-MS			
Gas Lens Set-up							
14 - Gasket Insulator		598882-MS	598882-MS	598882-MS	598882-MS	598882-MS	
15 - Collet		13N20-MS	13N21-MS	13N22-MS	13N23-MS	13N24-MS	
29 - Gas Lens Collet Body		45V41-MS	45V42-MS	45V43-MS	45V44-MS	45V45-MS	
30 - Alumina Nozzle Standard		53N58-MS	53N59-MS	53N60-MS	53N61-MS	53N61S-MS	
Stubby Gas Lens Set-up							
31 - Gasket Insulator		54N63-20-MS	54N63-20-MS	54N63-20-MS	54N63-20-MS	54N63-20-MS	
32 - Gas Lens Collet		13N20L-MS	13N21L-MS	13N22L-MS	13N23L-MS	13N24L-MS	
33 - Gas Lens Collet Body		45V0204S-MS	45V0204S-MS	45V116S-MS	45V64S-MS	995795S-MS	
34 - Alumina Nozzle Standard				57N75-MS		57N74-MS	53N88-MS
						#12 (3/4")	53N87-MS
						#15 (15/16")	53N89-MS

150 Amp Air-Cooled

#	Part Number	Description
1 -	17-MS	Torch Body
2 -	17F-MS	Torch Body, Flex
3 -	17FV-MS	Torch Body, Flex with Valve
4 -	17V-MS	Torch Body with Valve
5 -	VS-2-MS	Valve Stem
6 -	57Y02-MS	Back Cap, Long
7 -	300M-MS	Back Cap, Medium
8 -	57Y04-MS	Back Cap, Short
9 -	57Y01R-MS 57Y03R-MS	Power Cable, 12.5' Rubber, 1 Piece Power Cable, 25' Rubber, 1 Piece
10 -	57Y01-2-MS 57Y03-2-MS	Power Cable, 12.5' 2 Piece Power Cable, 25' 2 Piece
11 -	H-100R-MS	Ribbed Handle
12 -	H-100-MS	Textured Handle
13 -	18CG-MS	Gasket Insulator
14 -	Next page	Collet
15 -	Next page	Collet Body
16 -	Next page	Nozzle
17 -	BS-1S-MS	Switch Boot, Snap-on
18 -	BS-1-MS	Switch Boot, Rubber
19 -	SW2-0-MS	Switch, On-Off
20 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
21 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3"X10' Cable Cover, 3"X22'
22 -	DA-917FS-MS	Dinse 25mm, with 24" Auxiliary Hose
23 -	DP-25M-MS	Dinse 25mm, for 2 Piece Cable
24 -	DI-917F-MS	Dinse 50mm, in-line
25 -	DP-50M-MS	Dinse 50mm, for 2 Piece Cable
26 -	DA-917F-MS	Dinse 50mm, with 24" Auxiliary Hose
27 -	105Z57-MS	Power Cable Adapter



17 Series Available TIG Torch Packages

Part Number	Description
17-12-2-MS	150 Amp, 12.5' 2 Piece
17-12-R-MS	150 Amp, 12.5' Rubber, 1 Piece
17-25-2-MS	150 Amp, 25' 2 Piece
17-25-R-MS	150 Amp, 25' Rubber, 1 Piece
17V-12-2-MS	150 Amp with Valve, 12.5' 2 Piece
17V-12-R-MS	150 Amp with Valve, 12.5' Rubber, 1 Piece
17V-25-2-MS	150 Amp with Valve, 25' 2 Piece
17V-25-R-MS	150 Amp with Valve, 25' Rubber, 1 Piece

Part Number	Description
17F-12-2-MS	150 Amp Flex 12.5' 2 Piece
17F-12-R-MS	150 Amp Flex 12.5' Rubber, 1 Piece
17F-25-2-MS	150 Amp Flex 25' 2 Piece
17F-25-R-MS	150 Amp Flex 25' Rubber, 1 Piece
17FV-12-2-MS	150 Amp Flex with Valve, 12.5' 2 Piece
17FV-12-R-MS	150 Amp Flex with Valve, 12.5' Rubber, 1 Piece
17FV-25-2-MS	150 Amp Flex with Valve, 25' 2 Piece
17FV-25-R-MS	150 Amp Flex with Valve, 25' Rubber, 1 Piece

Torch Package Includes: Torch Body, Handle, Power Cable, Insulator and Long Back Cap



17 Series Set-up Options & Consumables

Standard Set-up



Medium Gas Lens Set-up



Large Gas Lens Set-up



Stubby Collet Body Set-up



Electrode Diameter		.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	5/32" (4.0mm)	—
Nozzle Size		#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")	#12 (3/4")
Standard Set-up								
13 -	Gasket Insulator	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	
14 -	Collet	10N21-MS	10N22-MS	10N23-MS	10N24-MS	10N25-MS	54N20-MS	
15 -	Collet Body	10N29-MS	10N30-MS	10N31-MS	10N32-MS	10N28-MS	406488-MS	
16 -	Alumina Nozzle Standard	10N50-MS	10N49-MS	10N48-MS	10N47-MS	10N46-MS	10N45-MS	10N44-MS
16a -	Alumina Nozzle Long		10N49L-MS	10N48L-MS	10N47L-MS			
Medium Gas Lens Set-up								
28 -	Gasket Insulator	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	
29 -	Gas Lens Collet Body	45V29-MS	45V24-MS	45V25-MS	45V26-MS	45V27-MS	45V28-MS	
30 -	Alumina Nozzle Standard	54N18-MS	54N17-MS	54N16-MS	54N15-MS	54N14-MS	54N19-MS	
31 -	Alumina Nozzle Long		54N17L-MS	54N16L-MS	54N15L-MS	54N14L-MS		
Large Gas Lens Set-up								
32 -	Gasket Insulator	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	
33 -	Gas Lens Collet Body	45V0204-MS	45V0204-MS	45V116-MS	45V64-MS	995795-MS	45V63-MS	
34 -	Alumina Nozzle Standard			57N75-MS		57N74-MS	53N88-MS	53N87-MS
	Alumina Nozzle Long			57N75L-MS		57N74L-MS		
	Alumina Nozzle Extra Long			57N75XL-MS		57N74XL-MS		
Stubby Collet Body Set-up								
35 -	Gasket Insulator	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS		
36 -	Stubby Collet	10N21S-MS	10N22S-MS	10N23S-MS	10N24S-MS	10N25S-MS		
37 -	Stubby Collet Body	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS		
38 -	Alumina Nozzle Standard	13N08-MS	13N09-MS	13N10-MS	13N11-MS	13N12-MS	13N13-MS	



350 & 500 Amp Water-Cooled

#	Part Number	Description
1 -	18-MS	Torch Body (350 Amp)
2 -	18F-MS	Flex Torch Body (350 Amp)
3 -	18P-MS	180° Machine Torch Body (500 Amp)
4 -	18V-MS	Torch Body with Valve (350 Amp)
5 -	18PB-MS	Handle, Barrel
6 -	H-200-MS	Handle
7 -	57Y02-MS	Back Cap, Long
8 -	300M-MS	Back Cap, Medium
9 -	57Y04-MS	Back Cap, Short
10 -	VS-2-MS	Valve Stem
11 -	40V64-MS 41V29-MS	Power Cable, 12.5' Vinyl Power Cable, 25' Vinyl
12 -	40V64R-MS 41V29R-MS 40V64P-MS 41V29P-MS	Power Cable, 12.5' Rubber Power Cable, 25' Rubber Power Cable, 12.5' Rubber (18P) Power Cable, 25' Rubber (18P)
13 -	40V74-MS 41V32-MS	Water Hose, 12.5' Vinyl Water Hose, 25' Vinyl
14 -	40V74R-MS 41V32R-MS	Water Hose, 12.5' Braided Rubber Water Hose, 25' Braided Rubber
15 -	40V75-MS 41V30-MS	Gas Hose, 12.5' Vinyl Gas Hose, 25' Vinyl
16 -	40V75R-MS 41V30R-MS	Gas Hose, 12.5' Braided Rubber Gas Hose, 25' Braided Rubber
17 -	53N04-MS	Hose Clamp
18 -	18CG-MS	Gasket Insulator
19 -	next page	Collet
20 -	next page	Collet Body
21 -	next page	Nozzle
22 -	BL-1S-MS	Switch Boot, Snap-on
23 -	BL-1-MS	Switch Boot, Rubber
24 -	SW2-0-MS	Switch, On-Off
25 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
26 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3" X10' Cable Cover, 3" X22'
27 -	DA-1820L-MS	Dinse 50mm, with 24" Auxiliary Hose
28 -	45V11-MS	Power Cable Adapter



18 Series Available TIG Torch Packages

Part Number	Description
18-12-MS	350 Amp, 12.5' Vinyl
18-12-R-MS	350 Amp, 12.5' Rubber
18-25-MS	350 Amp, 25' Vinyl
18-25-R-MS	350 Amp, 25' Rubber
18F-12-MS	350 Amp, Flex, 12.5' Vinyl
18F-12-R-MS	350 Amp, Flex, 12.5' Rubber
18F-25-MS	350 Amp, Flex, 25' Vinyl

Part Number	Description
18F-25-R-MS	350 Amp, Flex, 25' Rubber
18V-12-MS	350 Amp, with valve, 12.5' Vinyl
18V-12-R-MS	350 Amp, with valve, 12.5' Rubber
18V-25-MS	350 Amp, with valve, 25' Vinyl
18V-25-R-MS	350 Amp, with valve, 25' Rubber
18P-12-MS	500 Amp, 180° Machine torch, 12.5' Rubber
18P-25-MS	500 Amp, 180° Machine Torch, 25' Rubber

Torch Package Includes: Torch Body, Handle, Power Cable, Water & Gas Hoses, Insulator and Long Back Cap (18P has no back cap)



18 Series Set-up Options & Consumables

Standard Set-up



Medium Gas Lens Set-up



Large Gas Lens Set-up



Stubby Collet Body Set-up



Electrode Diameter		.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	5/32" (4.0mm)	—
Nozzle Size		#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")	#12 (3/4")
Standard Set-up								
18 -	Gasket Insulator	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	
19 -	Collet	10N21-MS	10N22-MS	10N23-MS	10N24-MS	10N25-MS	54N20-MS	
20 -	Collet Body	10N29-MS	10N30-MS	10N31-MS	10N32-MS	10N28-MS	406488-MS	
21 -	Alumina Nozzle Standard	10N50-MS	10N49-MS	10N48-MS	10N47-MS	10N46-MS	10N45-MS	10N44-MS
21a -	Alumina Nozzle Long		10N49L-MS	10N48L-MS	10N47L-MS			
Medium Gas Lens Set-up								
29 -	Gasket Insulator	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	
30 -	Gas Lens Collet Body	45V29-MS	45V24-MS	45V25-MS	45V26-MS	45V27-MS	45V28-MS	
31 -	Alumina Nozzle Standard	54N18-MS	54N17-MS	54N16-MS	54N15-MS	54N14-MS	54N19-MS	
32 -	Alumina Nozzle Long		54N17L-MS	54N16L-MS	54N15L-MS	54N14L-MS		
Large Gas Lens Set-up								
33 -	Gasket Insulator	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	
34 -	Gas Lens Collet Body	45V0204-MS	45V0204-MS	45V116-MS	45V64-MS	995795-MS	45V63-MS	
35 -	Alumina Nozzle Standard			57N75-MS		57N74-MS	53N88-MS	53N87-MS
	Alumina Nozzle Long			57N75L-MS		57N74L-MS		
	Alumina Nozzle Extra Long			57N75XL-MS		57N74XL-MS		
Stubby Collet Body Set-up								
36 -	Gasket Insulator	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS		
37 -	Stubby Collet	10N215-MS	10N225-MS	10N235-MS	10N245-MS	10N255-MS		
38 -	Stubby Collet Body	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS		
39 -	Alumina Nozzle Standard	13N08-MS	13N09-MS	13N10-MS	13N11-MS	13N12-MS	13N13-MS	



250 & 200 Amp Water-Cooled

#	Part Number	Description
1 -	20-MS	Torch Body (250 Amp)
2 -	20F-MS	Flex Torch Body (250 Amp)
3 -	20P-MS	180° Torch Body (250 Amp)
4 -	25-MS	180° Flex Torch Body (200 Amp)
5 -	20M-MS	Torch Body
6 -	41V24-MS	Back Cap, Long
7 -	41V35-MS	Back Cap, Medium
8 -	41V33-MS	Back Cap, Short
9 -	45V03-MS 45V04-MS	Power Cable, 12.5' Vinyl Power Cable, 25' Vinyl
10 -	45V03R-MS 45V04R-MS	Power Cable, 12.5' Braided Rubber Power Cable, 25' Braided Rubber
11 -	45V07-MS 45V08-MS	Water Hose, 12.5' Vinyl Water Hose, 25' Vinyl
12 -	45V07M-MS 45V08M-MS	Water Hose, 12.5' Vinyl (20M, 20F) Water Hose, 25' Vinyl (20M, 20F)
13 -	45V07R-MS 45V08R-MS	Water Hose, 12.5' Braided Rubber Water Hose, 25' Braided Rubber
14 -	45V07RM-MS 45V08RM-MS	Water Hose, 12.5' Braided Rubber (20M, 20F) Water Hose, 25' Braided Rubber (20M, 20F)
15 -	45V09-MS 45V10-MS	Gas Hose, 12.5' Vinyl Gas Hose, 25' Vinyl
16 -	45V09R-MS 45V10R-MS	Gas Hose, 12.5' Rubber Gas Hose, 25' Rubber
17 -	53N04-MS	Hose Clamp
18 -	H-100-MS 53N06-MS	Handle (20M, 20P, 20F, 25) Handle (20)
19 -	598882-MS	Gasket Insulator
20 -	next page	Collet
21 -	next page	Collet Body
22 -	next page	Nozzle
23 -	BS-1S-MS	Switch Boot, Snap-on
24 -	BS-1-MS	Switch Boot, Rubber
25 -	SW2-0-MS	Switch, On-Off
26 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
27 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3" X10' Cable Cover, 3" X22'
28 -	DA-1820L-MS	Dinse 50mm, with 24" Auxiliary Hose
29 -	45V11-MS	Power Cable Adapter



20 Series Available TIG Torch Packages

Part Number	Description
20-12-MS	250 Amp, 12.5' Vinyl
20-12-R-MS	250 Amp, 12.5' Braided Rubber
20-25-MS	250 Amp, 25' Vinyl
20-25-R-MS	250 Amp, 25' Braided Rubber
20F-12-MS	250 Amp Flex, 12.5' Vinyl
20F-12-R-MS	250 Amp Flex, 12.5' Braided Rubber
20F-25-MS	250 Amp Flex, 25' Vinyl
20F-25-R-MS	250 Amp Flex, 25' Braided Rubber
20M-12-MS	250 Amp, 12.5' Vinyl
20M-12-R-MS	250 Amp, 12.5' Braided Rubber

Part Number	Description
20M-25-MS	250 Amp, 25' Vinyl
20M-25-R-MS	250 Amp, 25' Braided Rubber
20P-12-MS	250 Amp 180°, 12.5' Vinyl
20P-12-R-MS	250 Amp 180°, 12.5' Braided Rubber
20P-25-MS	250 Amp 180°, 25' Vinyl
20P-25-R-MS	250 Amp 180°, 25' Braided Rubber
25-12-MS	200 Amp Flex 180°, 12.5' Vinyl
25-12-R-MS	200 Amp Flex 180°, 12.5' Braided Rubber
25-25-MS	200 Amp Flex 180°, 25' Vinyl
25-25-R-MS	200 Amp Flex 180°, 25' Braided Rubber

Torch Package Includes: Torch Body, Handle, Power Cable, Water & Gas Hoses, Insulator and Medium Back Cap (20P & 25 have no back cap)

20 Series Set-up Options & Consumables

Standard Set-up



Gas Lens Set-up



Stubby Gas Lens Set-up



Electrode Diameter	—	.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	—
Nozzle Size	#3 (3/16")	#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")
Standard Set-up							
19 - Gasket Insulator		598882-MS	598882-MS	598882-MS	598882-MS	598882-MS	
20 - Collet		13N20-MS	13N21-MS	13N22-MS	13N23-MS	13N24-MS	
21 - Collet Body		13N25-MS	13N26-MS	13N27-MS	13N28-MS	13N29-MS	
22 - Alumina Nozzle Standard		13N08-MS	13N09-MS	13N10-MS	13N11-MS	13N12-MS	13N13-MS
22a - Alumina Nozzle Long	A796F70-MS	A796F71-MS	A796F72-MS	A796F73-MS			
22b - Alumina Nozzle Extra Long	A796F74-MS	A796F75-MS	A796F76-MS	A796F77-MS			
Gas Lens Set-up							
19 - Gasket Insulator		598882-MS	598882-MS	598882-MS	598882-MS	598882-MS	
20 - Collet		13N20-MS	13N21-MS	13N22-MS	13N23-MS	13N24-MS	
30 - Gas Lens Collet Body		45V41-MS	45V42-MS	45V43-MS	45V44-MS	45V45-MS	
31 - Alumina Nozzle Standard		53N58-MS	53N59-MS	53N60-MS	53N61-MS	53N61S-MS	
Stubby Gas Lens Set-up							
32 - Gasket Insulator		54N63-20-MS	54N63-20-MS	54N63-20-MS	54N63-20-MS	54N63-20-MS	
33 - Gas Lens Collet		13N20L-MS	13N21L-MS	13N22L-MS	13N23L-MS	13N24L-MS	
34 - Gas Lens Collet Body		45V0204S-MS	45V0204S-MS	45V116S-MS	45V64S-MS	995795S-MS	
35 - Alumina Nozzle Standard				57N75-MS		57N74-MS	53N88-MS
						#12 (3/4")	53N87-MS
						#15 (15/16")	53N89-MS



250 Amp Water-Cooled

#	Part Number	Description
1 -	22A-MS	Machine Torch, 7"
2 -	22B-MS	Machine Torch, 3"
3 -	22-7-MS	Collet Knob
4 -	22-9-MS	Insulating Boot
5 -	22-10-MS	Gasket Insulator
6 -	45V03R-MS	Power Cable, 12.5' Braided Rubber
	45V04R-MS	Power Cable, 25' Braided Rubber
7 -	45V07RM-MS	Water Hose, 12.5' Braided Rubber
	45V08RM-MS	Water Hose, 25' Braided Rubber
8 -	45V09R-MS	Gas Hose, 12.5' Braided Rubber
	45V10R-MS	Gas Hose, 25' Braided Rubber
9 -	next page	Collet
10 -	next page	Collet Body
11 -	next page	Nozzle
12 -	CC-3-10-MS	Cable Cover, 3"X10'
	CC-3-22-MS	Cable Cover, 3"X22'
13 -	45V11-MS	Power Cable Adapter
14 -	DA-1820L-MS	Dinse 50mm, with 24" Auxiliary Hose



22 Series Available TIG Torch Packages

Part Number	Description
22A-3-MS	7" 250 Amp, 3' Braided Rubber
22A-12-MS	7" 250 Amp, 12.5' Braided Rubber
22A-25-MS	7" 250 Amp, 25' Braided Rubber

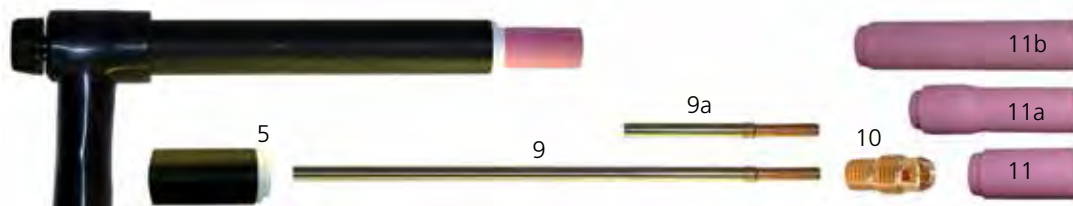
Part Number	Description
22B-3-MS	3" 250 Amp, 3' Braided Rubber
22B-12-MS	3" 250 Amp, 12.5' Braided Rubber
22B-25-MS	3" 250 Amp, 25' Braided Rubber

Torch Package Includes: Machine Torch, Boot, Power Cable, Water & Gas Hoses and Insulator

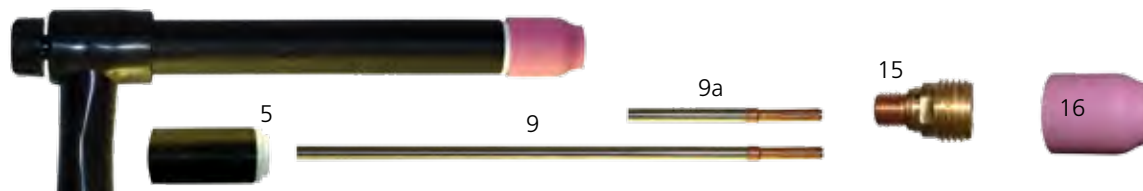


22 Series Set-up Options & Consumables

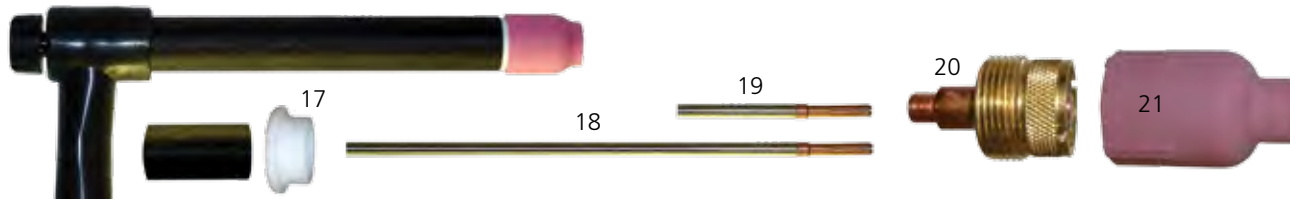
Standard Set-up



Gas Lens Set-up



Stubby Gas Lens Set-up



Electrode Diameter		—	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	—
Nozzle Size		#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")
Standard Set-up							
5 -	Gasket Insulator		22-10-MS	22-10-MS	22-10-MS	22-10-MS	
9 -	22A Collet		22N21A-MS	22N22A-MS	22N23A-MS	22N24A-MS	
9a -	22B Collet		22N21B-MS	22N22B-MS	22N23B-MS	22N24B-MS	
10 -	Collet Body		13N26-MS	13N27-MS	13N28-MS	13N29-MS	
11 -	Alumina Nozzle Standard	13N08-MS	13N09-MS	13N10-MS	13N11-MS	13N12-MS	13N13-MS
11a -	Alumina Nozzle Long	A796F71-MS	A796F72-MS	A796F73-MS			
11b -	Alumina Nozzle Extra Long	A796F75-MS	A796F76-MS	A796F77-MS			
Gas Lens Set-up							
5 -	Gasket Insulator		22-10-MS	22-10-MS	22-10-MS	22-10-MS	
9 -	22A Collet		22N21A-MS	22N22A-MS	22N23A-MS	22N24A-MS	
9a -	22B Collet		22N21B-MS	22N22B-MS	22N23B-MS	22N24B-MS	
15 -	Gas Lens Collet Body		45V42-MS	45V43-MS	45V44-MS	45V45-MS	
16 -	Alumina Nozzle Standard	53N58-MS	53N59-MS	53N60-MS	53N61-MS	53N61S-MS	
Stubby Gas Lens Set-up							
17 -	Gasket Insulator		54N63-20-MS	54N63-20-MS	54N63-20-MS	54N63-20-MS	
18 -	22A Collet		22N21AL-MS	22N22AL-MS	22N23AL-MS	22N24AL-MS	
19 -	22B Collet		22N21BL-MS	22N22BL-MS	22N23BL-MS	22N24BL-MS	
20 -	Gas Lens Collet Body		45V0204S-MS	45V116S-MS	45V64S-MS	995795S-MS	
21 -	Alumina Nozzle Standard			57N75-MS		57N74-MS	53N88-MS
						#12 (3/4")	53N87-MS
						#15 (15/16")	53N89-MS



180 Amp Water-Cooled & 80 Amp Air-Cooled

#	Part Number	Description
1 -	24W-MS	Torch Body, Water-cooled 180 Amp
2 -	24WN-MS	90° Torch Body, Water-cooled 180 Amp
3 -	24V-MS 24VN-MS	70° Torch Body, Air-cooled 80 Amp w/Valve 90° Torch Body, Air-cooled 80 Amp w/Valve
4 -	24-MS 24N-MS	70° Torch Body, Air-cooled 80 Amp 90° Torch Body, Air-cooled 80 Amp
5 -	45V03-MS 45V04-MS	Power Cable, 12.5' Vinyl Power Cable, 25' Vinyl
6 -	45V03R-MS 45V04R-MS	Power Cable, 12.5' Braided Rubber Power Cable, 25' Braided Rubber
7 -	45V07-MS 45V08-MS	Water Hose, 12.5' Vinyl Water Hose, 25' Vinyl
8 -	45V07R-MS 45V08R-MS	Water Hose, 12.5' Braided Rubber Water Hose, 25' Braided Rubber
9 -	45V09-MS 45V10-MS	Gas Hose, 12.5' Vinyl Gas Hose, 25' Vinyl
10 -	45V09R-MS 45V10R-MS	Gas Hose, 12.5' Braided Rubber Gas Hose, 25' Braided Rubber
11 -	53N04-MS	Hose Clamp
12 -	56Y38R-MS 56Y97R-MS	Power Cable, 12.5' Rubber, 1 Piece Power Cable, 25' Rubber, 1 Piece
13 -	VS-2-MS	Valve Stem
14 -	53N22-MS	Gasket Insulator
15 -	next page	Collet
16 -	next page	Collet Body
17 -	next page	Nozzle
18 -	H-100R-MS	Ribbed Handle (24, 24N, 24V, 24VN)
19 -	H-100-MS	Textured Handle (24W, 24WN)
20 -	BS-1S-MS	Switch Boot, Snap-on
21 -	BS-1-MS	Switch Boot, Rubber
22 -	SW2-0-MS	Switch, On-Off
23 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
24 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3"X10' Cable Cover, 3"X22'
25 -	DA-1820L-MS	Dinse 50mm, with 24" Auxiliary Hose
26 -	45V11-MS	Power Cable Adapter
27 -	DI-24F-MS	Dinse 50mm, in-line
28 -	53N43-MS	Power Cable Adapter



24 Series Available TIG Torch Packages

Part Number	Description
24W-12-MS	180 Amp Water-cooled 60°, 12.5' Vinyl
24W-12-R-MS	180 Amp Water-cooled 60°, 12.5' Rubber
24W-25-MS	180 Amp Water-cooled 60°, 25' Vinyl
24W-25-R-MS	180 Amp Water-cooled 60°, 25' Rubber
24WN-12-MS	180 Amp Water-cooled 90°, 12.5' Vinyl
24WN-12-R-MS	180 Amp Water-cooled 90°, 12.5' Rubber
24WN-25-MS	180 Amp Water-cooled 90°, 25' Vinyl
24WN-25-R-MS	180 Amp Water-cooled 90°, 25' Rubber

Part Number	Description
24-12-R-MS	80 Amp Air-cooled 60°, 12.5' Rubber
24-25-R-MS	80 Amp Air-cooled 60°, 25' Rubber
24N-12-R-MS	80 Amp Air-cooled 90°, 12.5' Rubber
24N-25-R-MS	80 Amp Air-cooled 90°, 25' Rubber
24V-12-R-MS	80 Amp Air-cooled 60° with Valve, 12.5' Rubber
24V-25-R-MS	80 Amp Air-cooled 60° with Valve, 25' Rubber
24VN-12-R-MS	80 Amp Air-cooled 90° with Valve, 12.5' Rubber
24VN-25-R-MS	80 Amp Air-cooled 90° with Valve, 25' Rubber

Torch Package Includes: Torch Body, Handle, Power Cable, Water & Gas Hoses (24W, 24WN) and Insulator

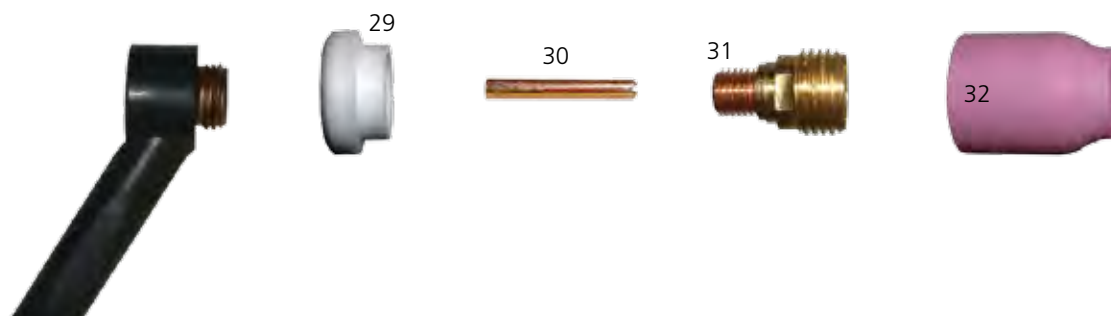


24 Series Set-up Options & Consumables

Standard Set-up



Gas Lens Set-up



Electrode Diameter		—	.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	—
Nozzle Size		#3 (3/16")	#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")
Standard Set-up							
14 -	Gasket Insulator	53N22-MS	53N22-MS	53N22-MS	53N22-MS	53N22-MS	
15 -	Collet		53N15-MS	53N16-MS	53N14-MS	24C332-MS	
16 -	Collet Body		53N17-MS	53N18-MS	53N19-MS	24CB332-MS	
17 -	Alumina Nozzle Standard	53N23A-MS	53N24A-MS	53N25A-MS	53N27A-MS		
17a -	Alumina Nozzle Long		53N28A-MS		53N26A-MS		
Gas Lens Set-up							
29 -	Gasket Insulator		53N66-MS	53N66-MS	53N66-MS	53N66-MS	53N66-MS
30 -	Collet		53N62-MS	53N63-MS	53N64-MS	24GLC332-MS	
31 -	Gas Lens Collet Body		45V41-MS	45V42-MS	45V43-MS	45V44-MS	
32 -	Alumina Nozzle Standard		53N58-MS	53N59-MS	53N60-MS	53N61-MS	53N61S-MS



200 Amp Air-Cooled

#	Part Number	Description
1 -	26-MS	Torch Body
2 -	26F-MS	Torch Body, Flex
3 -	26FV-MS	Torch Body, Flex with Valve
4 -	26V-MS	Torch Body with Valve
5 -	VS-1-MS	Valve Stem
6 -	57Y02-MS	Back Cap, Long
7 -	300M-MS	Back Cap, Medium
8 -	57Y04-MS	Back Cap, Short
9 -	46V28R-MS 46V30R-MS	Power Cable, 12.5' Rubber, 1 Piece Power Cable, 25' Rubber, 1 Piece
10 -	46V28-2-MS 46V30-2-MS	Power Cable, 12.5' 2 Piece Power Cable, 25' 2 Piece
11 -	H-200R-MS	Ribbed Handle
12 -	H-200-MS	Textured Handle
13 -	18CG-MS	Gasket Insulator
14 -	Next page	Collet
15 -	Next page	Collet Body
16 -	Next page	Nozzle
17 -	BL-1S-MS	Switch Boot, Snap-on
18 -	BL-1-MS	Switch Boot, Rubber
19 -	SW2-0-MS	Switch, On-Off
20 -	SW1-MS SW1F-MS	Switch, Bulb Switch, Flat
21 -	CC-3-10-MS CC-3-22-MS	Cable Cover, 3"X10' Cable Cover, 3"X22'
22 -	DI-26F-MS	Dinse 50mm, in-line
23 -	DP-50M-MS	Dinse 50mm, for 2 Piece Cable
24 -	DA-26R-MS	Dinse 50mm, with 24" Auxiliary Hose
25 -	45V62-MS	Power Cable Adapter



26 Series Available TIG Torch Packages

Part Number	Description
26-12-2-MS	200 Amp, 12.5' 2 Piece
26-12-R-MS	200 Amp, 12.5' Rubber, 1 Piece
26-25-2-MS	200 Amp, 25' 2 Piece
26-25-R-MS	200 Amp, 25' Rubber, 1 Piece
26V-12-2-MS	200 Amp with Valve, 12.5' 2 Piece
26V-12-R-MS	200 Amp with Valve, 12.5' Rubber, 1 Piece
26V-25-2-MS	200 Amp with Valve, 25' 2 Piece
26V-25-R-MS	200 Amp with Valve, 25' Rubber, 1 Piece

Part Number	Description
26F-12-2-MS	200 Amp Flex, 12.5' 2 Piece
26F-12-R-MS	200 Amp Flex, 12.5' Rubber, 1 Piece
26F-25-2-MS	200 Amp Flex, 25' 2 Piece
26F-25-R-MS	200 Amp Flex, 25' Rubber, 1 Piece
26FV-12-2-MS	200 Amp Flex with Valve, 12.5' 2 Piece
26FV-12-R-MS	200 Amp Flex with Valve, 12.5' Rubber, 1 Piece
26FV-25-2-MS	200 Amp Flex with Valve, 25' 2 Piece
26FV-25-R-MS	200 Amp Flex with Valve, 25' Rubber, 1 Piece

Torch Package Includes: Torch Body, Handle, Power Cable, Insulator and Long Back Cap



26 Series Set-up Options & Consumables

Standard Set-up



Medium Gas Lens Set-up



Large Gas Lens Set-up



Stubby Collet Body Set-up



Electrode Diameter		.020" (0.5mm)	.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	5/32" (4.0mm)	—
Nozzle Size		#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")	#12 (3/4")
Standard Set-up								
13 -	Gasket Insulator	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	18CG-MS	
14 -	Collet	10N21-MS	10N22-MS	10N23-MS	10N24-MS	10N25-MS	54N20-MS	
15 -	Collet Body	10N29-MS	10N30-MS	10N31-MS	10N32-MS	10N28-MS	406488-MS	
16 -	Alumina Nozzle Standard	10N50-MS	10N49-MS	10N48-MS	10N47-MS	10N46-MS	10N45-MS	10N44-MS
16a -	Alumina Nozzle Long		10N49L-MS	10N48L-MS	10N47L-MS			
Medium Gas Lens Set-up								
26 -	Gasket Insulator	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	54N01-MS	
27 -	Gas Lens Collet Body	45V29-MS	45V24-MS	45V25-MS	45V26-MS	45V27-MS	45V28-MS	
28 -	Alumina Nozzle Standard	54N18-MS	54N17-MS	54N16-MS	54N15-MS	54N14-MS	54N19-MS	
29 -	Alumina Nozzle Long		54N17L-MS	54N16L-MS	54N15L-MS	54N14L-MS		
Large Gas Lens Set-up								
30 -	Gasket Insulator	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	54N63-MS	
31 -	Gas Lens Collet Body	45V0204-MS	45V0204-MS	45V116-MS	45V64-MS	995795-MS	45V63-MS	
32 -	Alumina Nozzle Standard			57N75-MS		57N74-MS	53N88-MS	53N87-MS
	Alumina Nozzle Long			57N75L-MS		57N74L-MS		
	Alumina Nozzle Extra Long			57N75XL-MS		57N74XL-MS		
Stubby Collet Body Set-up								
33 -	Gasket Insulator	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS	18CG20-MS		
34 -	Stubby Collet	10N21S-MS	10N22S-MS	10N23S-MS	10N24S-MS	10N25S-MS		
35 -	Stubby Collet Body	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS	17CB20-MS		
36 -	Alumina Nozzle Standard	13N08-MS	13N09-MS	13N10-MS	13N11-MS	13N12-MS	13N13-MS	



500 Amp Water-Cooled

#	Part Number	Description
1 -	12-MS	Torch Body
2 -	56Y44-MS	Back Cap, Long
3 -	56Y45-MS	Back Cap, Short
4 -	40V84R-MS 40V84RL-MS	Power Cable, 12.5' Rubber Power Cable, 25' Rubber
5 -	40V83R-MS 40V83RL-MS	Water Hose, 12.5' Rubber Water Hose, 25' Rubber
6 -	40V82R-MS 40V82RL-MS	Gas Hose, 12.5' Rubber Gas Hose, 25' Rubber
7 -	85WP13-MS	Handle
8 -	CC-4-10-MS CC-4-22-MS	Cable Cover, 4"X10' Cable Cover, 4"X22'
9 -	45V11-MS	Power Cable Adapter
10 -	12NG-MS	Gasket Insulator

Features:

- Heavy duty 500 amp hand held water-cooled TIG torch
- Reinforced rubber power cable and hoses for long life



12 Series Set-up Options & Consumables

Electrode Diameter	—	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	5/32" (4.0mm)	3/16" (4.8mm)	1/4" (6.4mm)
Nozzle Size	#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")	#12 (3/4")
Standard Set-up							
10 -	Gasket Insulator		12NG-MS	12NG-MS	12NG-MS	12NG-MS	12NG-MS
11 -	Collet		85Z14-MS	85Z15-MS	85Z16-MS	85Z17-MS	85Z18-MS
12 -	Collet Body		11WP65-MS	11WP65-MS	11WP65-MS	11WP65-MS	11WP65-MS
13 -	Alumina Nozzle	14N57-MS	14N58-MS	14N59-MS	14N60-MS	14N61-MS	14N61-10-MS
Gas Lens Set-up							
14 -	Gasket Insulator		12GLG-MS	12GLG-MS	12GLG-MS	12GLG-MS	
15 -	Gas Lens Collet Body		11GL16-MS	11GL32-MS	11GL18-MS	11GL53-MS	11GL36-MS
16 -	Alumina Nozzle			57N75-MS		57N74-MS	53N88-MS
	Alumina Nozzle Long			57N75L-MS		57N74L-MS	53N88L-MS
	Alumina Nozzle Extra Long			57N75XL-MS		57N74XL-MS	53N88XL-MS

12 Series Available TIG Torch Packages

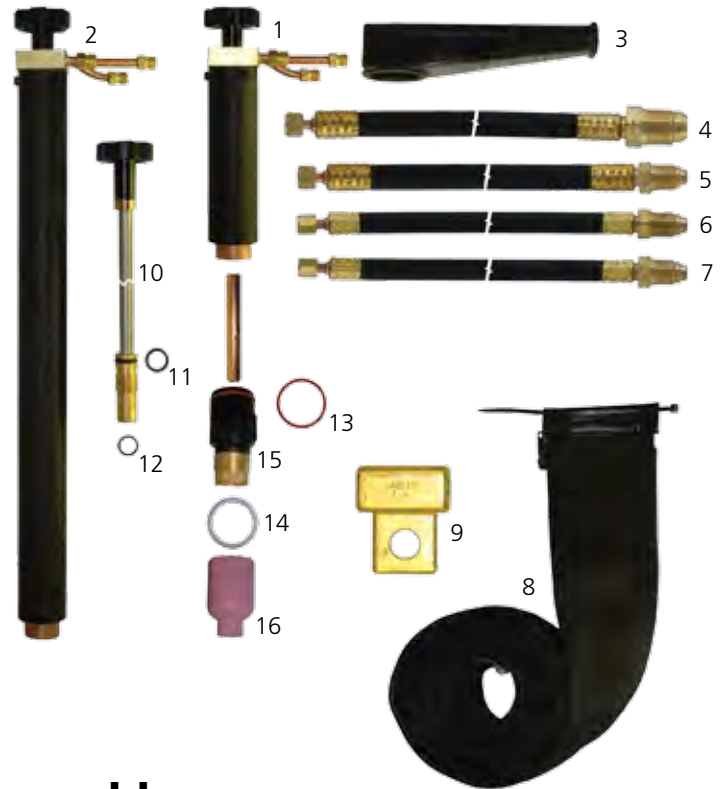
Part Number	Description	Part Number	Description
12-12-MS	500 Amp, 12.5' Rubber	12-25-MS	500 Amp, 25' Rubber

Torch Package Includes: Torch Body, Handle, Power Cable, Water & Gas Hoses, Insulator and Long Back Cap



500 Amp Water-Cooled Machine Torch

#	Part Number	Description
1 -	27A-MS	Torch Body 9"
2 -	27B-MS	Torch Body 20"
3 -	27-12-MS	Insulating Boot
4 -	40V84R-MS 40V84RL-MS	Power Cable, 12.5' Rubber Power Cable, 25' Rubber
5 -	40V84R-3-MS	Power Cable, 3' Rubber
6 -	40V83R-3-MS 40V83R-MS 40V83RL-MS	Water Hose, 3' Rubber Water Hose, 12.5' Rubber Water Hose, 25' Rubber
7 -	40V82R-3-MS 40V82R-MS 40V82RL-MS	Gas Hose, 3' Rubber Gas Hose, 12.5' Rubber Gas Hose, 25' Rubber
8 -	CC-4-10-MS CC-4-22-MS	Cable Cover, 4" X10' Cable Cover, 4" X22'
9 -	45V11-MS	Power Cable Adapter
10 -	27-13A-MS 27-13B-MS	Shaft Assembly (27A) Shaft Assembly (27B)
11 -	27-13-2-MS	O-ring
12 -	27-13-3-MS	O-ring
13 -	181W89-MS	O-ring
14 -	57N56-MS	Gasket Insulator



27 Series Set-up Options & Consumables

Electrode Diameter		.040" (1.0mm)	1/16" (1.6mm)	3/32" (2.4mm)	1/8" (3.2mm)	5/32" (4.0mm)	3/16" (4.8mm)	1/4" (6.4mm)
Nozzle Size		#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")	#12 (3/4")
Standard Set-up								
14 -	Gasket Insulator	57N56-MS	57N56-MS	57N56-MS	57N56-MS	57N56-MS	57N56-MS	57N56-MS
15 -	Gas Lens Collet Body	49V22-MS	49V23-MS	49V24-MS	49V25-MS	49V26-MS	49V27-MS	49V28-MS
16 -	Alumina Nozzle			57N75-MS		57N74-MS	53N88-MS	53N87-MS
	Alumina Nozzle Long			57N75L-MS		57N74L-MS	53N88L-MS	53N87L-MS
	Alumina Nozzle Extra Long			57N75XL-MS		57N74XL-MS	53N88XL-MS	53N87XL-MS

27 Series Available TIG Torch Packages

Part Number	Description	Part Number	Description
27A-3-MS	500 Amp, 9" Machine Torch, 3' Rubber	27B-3-MS	500 Amp, 20" Machine Torch, 3' Rubber
27A-12-MS	500 Amp, 9" Machine Torch, 12.5' Rubber	27B-12-MS	500 Amp, 20" Machine Torch, 12.5' Rubber
27A-25-MS	500 Amp, 9" Machine Torch, 25' Rubber	27B-25-MS	500 Amp, 20" Machine Torch, 25' Rubber

Torch Package Includes: Torch Body, Boot, Power Cable, Water & Gas Hoses, and Insulator





E3 The Ultimate Electrode!

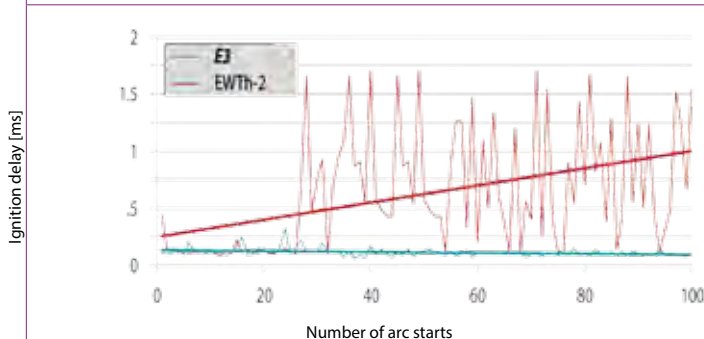
**Engineered blend of oxides outperforms other electrode types.
The long life tungsten electrode.**

Features:

- Best choice to replace thoriated electrodes
- Longer life
- Non-radioactive additives
- Proven to outperform other electrodes
- Can be used in both DC & AC processes
- Stable tip and arc geometry
- Every electrode is Eddy Current tested for defects

E3 Starts Faster & Maintains A Stable Arc!

Testing has shown that ignition delay with E3 is actually improved over time while thoriated tungsten starts to deteriorate after only 25 starts.



E3



Thoriated 2%

E3 Electrodes Maintained A Stable Tip Geometry And Therefore A Longer Life.

The two electrode photos to the left were subjected to the same welding parameters: 5 hours controlled welding on a test fixture at 250 Amp DC.



E3



E3 Electrodes Run Much Cooler Therefore Extending Tip Life!

In tests the E3 electrode is shown to run approximately 1650° F cooler than thoriated at the same energy output.

Size	Quantity	Part Number
.020" x 7" (0.5 x 175mm)	10	020X7E3-MS
.040" x 7" (1.0 x 175mm)	10	040X7E3-MS
1/16" x 3" (1.6 x 75mm)	10	1/16X3E3-MS
1/16" x 7" (1.6 x 175mm)	10	1/16X7E3-MS
	3	1/16X7E3-3-MS
1/16" x 12" (1.6 x 305mm)	10	1/16X12E3-MS
1/16" x 18" (1.6 x 457mm)	10	1/16X18E3-MS
3/32" x 3" (2.4 x 75mm)	10	3/32X3E3-MS
3/32" x 7" (2.4 x 175mm)	10	3/32X7E3-MS
	3	3/32X7E3-3-MS
3/32" x 12" (2.4 x 305mm)	10	3/32X12E3-MS
3/32" x 18" (2.4 x 457mm)	10	3/32X18E3-MS
1/8" x 3" (3.2 x 75mm)	10	1/8X3E3-MS
1/8" x 7" (3.2 x 175mm)	10	1/8X7E3-MS
	3	1/8X7E3-3-MS
1/8" x 12" (3.2 x 305mm)	10	1/8X12E3-MS
1/8" x 18" (3.2 x 457mm)	10	1/8X18E3-MS
1/8" x 24" (3.2 x 610mm)	10	1/8X24E3-MS
5/32" x 7" (4.0 x 175mm)	10	5/32X7E3-MS
5/32" x 12" (4.0 x 305mm)	10	5/32X12E3-MS
5/32" x 18" (4.0 x 457mm)	10	5/32X18E3-MS
3/16" x 7" (4.8 x 175mm)	5	3/16X7E3-MS
3/16" x 12" (4.8 x 305mm)	5	3/16X12E3-MS
3/16" x 18" (4.8 x 457mm)	5	3/16X18E3-MS
1/4" x 7" (6.4 x 175mm)	5	1/4X7E3-MS



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AWS Spec. A5.12M/A5.12:2009

AWS Class. EWG — Color Code: Purple

E3 Chemical Specification: 98.34% W + 1.5% La₂O₃ + .08% ZrO₂ + .08% Y₂O₃





Electrode Type		Pure	1.5% Lanthanated	2% Ceriated	Zirconiated
AWS (ISO) Classification		EWP (WP)	EWLa-1.5 (WLa 1.5)	EWCe-2 (WCe 20)	EWZr-1 (WZr 3)
Size	Quantity	Part Number	Part Number	Part Number	Part Number
.020" x 7" (0.5 x 175mm)	10	020X7PG-MS	020X7L1.5-MS	020X7C2-MS	020X7ZG-MS
.040" x 7" (1.0 x 175mm)	10	040X7PG-MS	040X7L1.5-MS	040X7C2-MS	040X7ZG-MS
1/16" x 3" (1.6 x 75mm)	10	1/16X3G-MS	1/16X3L1.5-MS	1/16X3C2-MS	1/16X3ZG-MS
1/16" x 7" (1.6 x 175mm)	10	1/16X7PG-MS	1/16X7L1.5-MS	1/16X7C2-MS	1/16X7ZG-MS
	3	1/16X7PG-3-MS	1/16X7L1.5-3-MS		
1/16" x 12" (1.6 x 305mm)	10			1/16X12C2-MS	
3/32" x 3" (2.4 x 75mm)	10	3/32X3G-MS	3/32X3L1.5-MS	3/32X3C2-MS	3/32X3ZG-MS
3/32" x 7" (2.4 x 175mm)	10	3/32X7PG-MS	3/32X7L1.5-MS	3/32X7C2-MS	3/32X7ZG-MS
	3	3/32X7PG-3-MS	3/32X7L1.5-3-MS		
3/32" x 12" (2.4 x 305mm)	10			3/32X12C2-MS	
3/32" x 18" (2.4 x 457mm)	10		3/32X18L1.5-MS	3/32X18C2-MS	
1/8" x 3" (3.2 x 75mm)	10	1/8X3PG-MS	1/8X3L1.5-MS	1/8X3C2-MS	1/8X3ZG-MS
1/8" x 7" (3.2 x 175mm)	10	1/8X7PG-MS	1/8X7L1.5-MS	1/8X7C2-MS	1/8X7ZG-MS
	3	1/8X7PG-3-MS	1/8X7L1.5-3-MS		
1/8" x 18" (3.2 x 457mm)	10			1/8X18C2-MS	
1/8" x 24" (3.2 x 610mm)	10			1/8X24C2-MS	
5/32" x 3" (4.0 x 75mm)	10		5/32X3L1.5-MS		5/32X3ZG-MS
5/32" x 7" (4.0 x 175mm)	10	5/32X7PG-MS	5/32X7L1.5-MS	5/32X7C2-MS	5/32X7ZG-MS
5/32" x 12" (4.0 x 305mm)	10	5/32X12PG-MS			
3/16" x 3" (4.8 x 75mm)	5		3/16X3L1.5-MS		3/16X3ZG-MS
3/16" x 7" (4.8 x 175mm)	5	3/16X7PG-MS	3/16X7L1.5-MS	3/16X7C2-MS	3/16X7ZG-MS
3/16" x 18" (4.8 x 457mm)	5		3/16X18L1.5-MS	3/16X18C2-MS	
1/4" x 3" (6.4 x 75mm)	5	1/4X3PG-MS			
1/4" x 7" (6.4 x 175mm)	5	1/4X7PG-MS	1/4X7L1.5-MS	1/4X7C2-MS	1/4X7ZG-MS
1/4" x 12" (6.4 x 305mm)	5			1/4X12C2-MS	
1/4" x 18" (6.4 x 457mm)	5			1/4X18C2-MS	



Wet Tungsten Grinders

Features:

- Solid heavy duty aluminum housing
- Grinds tungsten from 15° to 180° (included angle)
- Comes with stainless steel work table
- Replaceable bottle collects grinding dust
- Longitudinal grinding of electrode
- Stick-out adjustment reduces electrode waste

Select-Sharp



Grinding Only

Part Number	Description
88897030-MS	Select-Sharp Wet Tungsten Grinder
Comes With:	Electrode Holder 1/16", 3/32", 1/8" Electrode Clamp Cooling Liquid Grinder Stand

Select-Sharp-Cut



Grinding and Cutting

Part Number	Description
88897530-MS	Select-Sharp-Cut Wet Tungsten Grinder/Cutter
Comes With:	Electrode Holder 1/16", 3/32", 1/8" Electrode Clamp 1/16", 3/32", 1/8" Cut-off Collets Cut-off Collet tool 2 Cut-off Tools Cooling Liquid Grinder Stand



Wet Tungsten Grinders

The Select-Sharp-Cut's cutting chamber lets you cut electrodes lengths from 5/16" to 6 1/8".



Commonly Ordered Spare Parts for Wet Grinders

Part Number	Description
44490512-MS	Diamond Grinding Wheel
44490520-MS	Diamond Cut-off Wheel (Select-Sharp-Cut Only)
W95/1-12-MS	Grinding Liquid 8 oz Bottle
44510162-MS	1/16" Electrode Clamp
44510164-MS	3/32" Electrode Clamp
44510165-MS	1/8" Electrode Clamp
W95/1-45-MS	Liquid Containing Dust Receiving Bottle
W95/1-07-MS	Inspection Cover
W95/1-10-MS	Gasket for Inspection Cover



All 3 grinders can grind from 15° to 180° included angle.

Portable Tungsten Grinder

Features:

- Portable tungsten grinding system means less welding down time
- Enclosed grinding system protects the welder and the environment
- Correct electrode grain direction and automatic collection of grinding dust
- Multiple grinding positions ensure long grinding wheel life



Part Number	Grinder Comes With:
88896022-MS	Select Portable Tungsten Grinder
Comes With:	Electrode Holder 1/16", 3/32", 1/8" Electrode Clamp Wrenches



Stick-out adjustment ensures minimal loss of tungsten.

Commonly Ordered Spare Parts

Part Number	Description
44510030-MS	Diamond Grinding Wheel
44510260-MS	Filter Cassette
44510162-MS	1/16" Electrode Clamp
44510164-MS	3/32" Electrode Clamp
44510165-MS	1/8" Electrode Clamp
44510290-MS	Inspection Cover
44510174-MS	5/32" Electrode Clamp



Accessory Kits



Torches: 17, 18, 26

Part Number	Contains
AK-2-MS	1 Short Back Cap 3 Collets - .040", 1/16", 3/32" 3 Collet Bodies - .040", 1/16", 3/32" 3 Alumina Nozzles - #4, #5, #6 3 E3 Tungsten 7" - .040", 1/16", 3/32"
AK-3-MS	1 Long Back Cap 3 Collets - 1/16", 3/32", 1/8" 3 Collet Bodies - 1/16", 3/32", 1/8" 3 Alumina Nozzles - #5, #6, #8 3 E3 Tungsten 7" - 1/16", 3/32", 1/8"



Torches: 9, 20, 22, 25

Part Number	Contains
AK-1-MS	1 Long Back Cap 2 Collets - .040" & 1/16" 2 Collet Bodies - .040" & 1/16" 3 Alumina Nozzles - #4, #5, #6 2 E3 Tungsten 7" - .040" & 1/16"
AK-4-MS	1 Long Back Cap 3 Collets - 1/16", 3/32", 1/8" 3 Collet Bodies - 1/16", 3/32", 1/8" 3 Alumina Nozzles - #5, #6, #7 3 E3 Tungsten 7" - 1/16", 3/32", 1/8"

Accessory Kits are a great way to stock up on standard and gas lens setups and keep them organized and close at hand.

Master Accessory Kits



Torches: 9, 20, 22, 25

Part Number	Kit Contains
MAK-15-MS	4 Back Caps 1 - Short, 2 - Medium, 1 - Long
	12 Collets 2 - .040", 4 - 1/16", 4 - 3/32", 2 - 1/8"
	7 Collet Bodies 1 - .040", 2 - 1/16", 2 - 3/32", 2 - 1/8"
	4 Gas Lenses 1 - .040", 1 - 1/16", 1 - 3/32", 1 - 1/8"
	1 Cup Gasket
	4 O-rings for Back Caps
	10 Wire Clamps



Torches: 17, 18, 26

Part Number	Kit Contains
MAK-25-MS	2 Back Caps 1 - Short, 1 - Long
	10 Collets 1 - .040", 3 - 1/16", 3 - 3/32", 2 - 1/8", 1 - 5/32"
	8 Collet Bodies 1 - .040", 2 - 1/16", 2 - 3/32", 2 - 1/8", 1 - 5/32"
	4 Gas Lenses 1 - .040", 1 - 1/16", 1 - 3/32", 1 - 1/8"
	2 Cup Gaskets
	1 Gas Lens Insulator
	4 O-rings for Back Caps



Gas Lens Kits



GLK-5



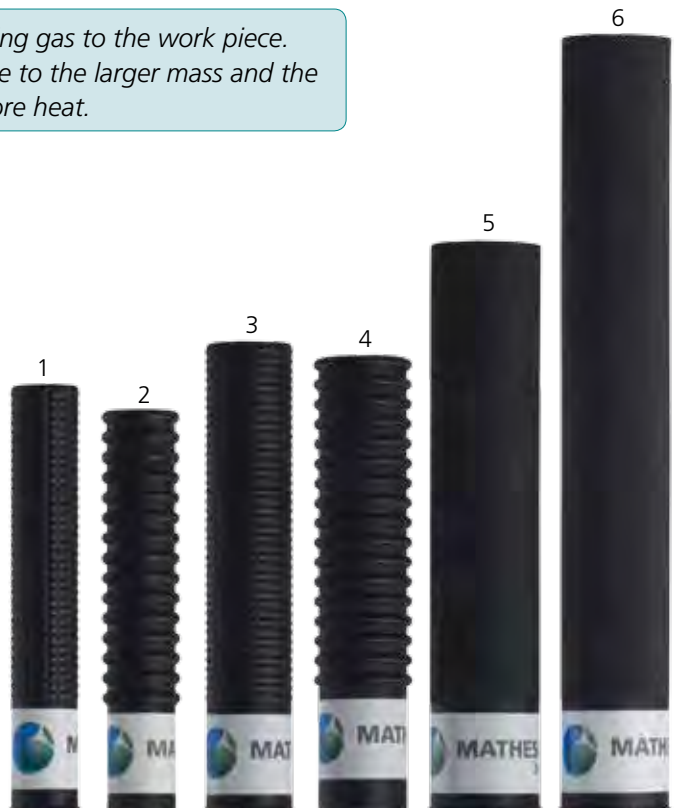
GLK-6

Part Number	Contains 1 Each				Torches
GLK-5-MS	Back Caps	Short 41V33-MS	Medium 41V35-MS	Long 41V24-MS	9, 20
	E3® Tungsten 7"	1/16" X 7" 116-7E3-MS	3/32" X 7" 332-7E3-MS	1/8" X 7" 18-7E3-MS	
	Collets	1/16" 13N22-MS	3/32" 13N23-MS	1/8" 13N24-MS	
	Gas Lens	1/16" 45V43-MS	3/32" 45V44-MS	1/8" 45V45-MS	
	Alumina Nozzles	#6 3/8" 53N60-MS	#7 7/16" 53N61-MS	#8 1/2" 53N61S-MS	
GLK-6-MS	Back Caps	Short 57Y04-MS	Medium 300M-MS	Long 57Y02-MS	17, 18, 26
	E3® Tungsten 7"	1/16" X 7" 116-7E3-MS	3/32" X 7" 332-7E3-MS	1/8" 18-7E3-MS	
	Collets	1/16" 10N23-MS	3/32" 10N24-MS	1/8" 10N25-MS	
	Gas Lens	1/16" 45V25-MS	3/32" 45V26-MS	#8 1/2" 45V27-MS	
	Alumina Nozzles	#6 3/8" 54N16-MS	#7 7/16" 54N15-MS	54N14-MS	
	Gas Lens Insulator	54N01-MS			

Gas Lenses provide a smooth, non-turbulent column of shielding gas to the work piece. Amperage can be increased by up to 25% using a gas lens due to the larger mass and the shielding gas passing through the screens, scrubbing away more heat.

Handles

#	Part Number	Description	Use on Torches
1 -	H-100-MS	Textured, Push-on	9, 17, 20M, 20F, 24
	53N06-MS	Textured, Threaded	20, 225M, HP9, HP20
	105Z55-MS	Textured, Threaded	150M, HP17, HP24
2 -	H-100R-MS	Ribbed, Push-on	9, 17, 24
	105Z55R-MS	Ribbed, Threaded	150M, HP17, HP24
3 -	H-200-MS	Textured, Push-on	18, 26
	10N15-MS	Textured, Threaded	200M, HP18, HP26
4 -	H-200-R-MS	Ribbed, Threaded	26
	10N15R-MS	Ribbed, Push-on	200M, HP18, HP26
5 -	85WP13-MS	Textured, Push-on	12
6 -	18PB-MS	Barrel	18P



MATHESON
Select®

Collets



Torches: 17, 18, 26

Part Number	Size
10N21-MS	.020" (0.5mm)
10N22-MS	.040" (1.0mm)
10N23-MS	1/16" (1.6mm)
10N24-MS	3/32" (2.4mm)
10N25-MS	1/8" (3.2mm)
54N20-MS	5/32" (4.0mm)



Torches: 17, 18, 26

Part Number	Size
10N21S-MS	.020" (0.5mm)
10N22S-MS	.040" (1.0mm)
10N23S-MS	1/16" (1.6mm)
10N24S-MS	3/32" (2.4mm)
10N25S-MS	1/8" (3.2mm)



Torches: 9, 20

Part Number	Size
13N20-MS	.020" (0.5mm)
13N21-MS	.040" (1.0mm)
13N22-MS	1/16" (1.6mm)
13N23-MS	3/32" (2.4mm)
13N24-MS	1/8" (3.2mm)



Torches: 9, 20

Part Number	Size
13N20L-MS	.020" (0.5mm)
13N21L-MS	.040" (1.0mm)
13N22L-MS	1/16" (1.6mm)
13N23L-MS	3/32" (2.4mm)
13N24L-MS	1/8" (3.2mm)



Torches: 24, 24W

Part Number	Size
24C332-MS	3/32" (2.4mm)
53N14-MS	1/16" (1.6mm)
53N15-MS	.020" (0.5mm)
53N16-MS	.040" (1.0mm)



Torches: 24, 24W

Part Number	Size
24GLC332-MS	3/32" (2.4mm)
53N62-MS	.020" (0.5mm)
53N63-MS	.040" (1.0mm)
53N64-MS	1/16" (1.6mm)



Torches: 12

Part Number	Size
85Z14-MS	1/16" (1.6mm)
85Z15-MS	3/32" (2.4mm)
85Z16-MS	1/8" (3.2mm)
85Z17-MS	5/32" (4.0mm)
85Z18-MS	3/16" (4.8mm)
85Z19-MS	1/4" (6.4mm)



Torches: 27A, 27B

Part Number	Size
57N45-MS	.040" (1.0mm)
57N46-MS	1/16" (1.6mm)
57N47-MS	3/32" (2.4mm)
57N48-MS	1/8" (3.2mm)
57N49-MS	5/32" (4.0mm)
57N50-MS	3/16" (4.8mm)
57N51-MS	1/4" (6.4mm)



Torches: 22A, 23A

Part Number	Description	Size
22N22A-MS	Standard Collet	1/16" (1.6mm)
22N22AL-MS	Stubby Gas Lens Collet	1/16" (1.6mm)
22N23A-MS	Standard Collet	3/32" (2.4mm)
22N23AL-MS	Stubby Gas Lens Collet	3/32" (2.4mm)
22N24A-MS	Standard Collet	1/8" (3.2mm)
22N24AL-MS	Stubby Gas Lens Collet	1/8" (3.2mm)

Torches: 22B

Part Number	Description	Size
22N22B-MS	Standard Collet	1/16" (1.6mm)
22N22BL-MS	Stubby Gas Lens Collet	1/16" (1.6mm)
22N23B-MS	Standard Collet	3/32" (2.4mm)
22N23BL-MS	Stubby Gas Lens Collet	3/32" (2.4mm)
22N24B-MS	Standard Collet	1/8" (3.2mm)
22N24BL-MS	Stubby Gas Lens Collet	1/8" (3.2mm)

Collet Bodies



Torches: 17, 18, 26

Part Number	Size
10N28-MS	1/8" (3.2mm)
10N29-MS	.020" (0.5mm)
10N30-MS	.040" (1.0mm)
10N31-MS	1/16" (1.6mm)
10N32-MS	3/32" (2.4mm)
406488-MS	5/32" (4.0mm)



Torches: 9, 20, 22

Part Number	Size
13N25-MS	.020" (0.5mm)
13N26-MS	.040" (1.0mm)
13N27-MS	1/16" (1.6mm)
13N28-MS	3/32" (2.4mm)
13N29-MS	1/8" (3.2mm)



Torches: 24, 24W

Part Number	Size
24CB332-MS	3/32" (2.4mm)
53N17-MS	.020" (0.5mm)
53N18-MS	.040" (1.0mm)
53N19-MS	1/16" (1.6mm)



Torches: 12

Part Number	Size
11WP65-MS	All Sizes



Gas Lens Collet Bodies



Torches: 17, 18, 26

Part Number	Size
45V24-MS	.040" (1.0mm)
45V25-MS	1/16" (1.6mm)
45V26-MS	3/32" (2.4mm)
45V27-MS	1/8" (3.2mm)
45V28-MS	5/32" (4.0mm)
45V29-MS	.020" (0.5mm)



Torches: 17, 18, 26

Part Number	Size
45V0204-MS	.020" (0.5mm) .040" (1.0mm)
45V116-MS	1/16" (1.6mm)
45V63-MS	5/32" (4.0mm)
45V64-MS	3/32" (2.4mm)
995795-MS	1/8" (3.2mm)



Torches: 9, 20, 22, 24

Part Number	Size
45V41-MS	.020" (0.5mm)
45V42-MS	.040" (1.0mm)
45V43-MS	1/16" (1.6mm)
45V44-MS	3/32" (2.4mm)
45V45-MS	1/8" (3.2mm)



Torches: 9, 20, 22, 24

Part Number	Size
45V0204S-MS	.020" (0.5mm) .040" (1.0mm)
45V116S-MS	1/16" (1.6mm)
45V64S-MS	3/32" (2.4mm)
995795S-MS	1/8" (3.2mm)

Part Number	Size
49V22-MS	.040" (1.0mm)
49V23-MS	1/16" (1.6mm)
49V24-MS	3/32" (2.4mm)
49V25-MS	1/8" (3.2mm)
49V26-MS	5/32" (4.0mm)
49V27-MS	3/16" (4.8mm)
49V28-MS	1/4" (6.4mm)



Torches: 27A, 27B

Part Number	Size
11GL16-MS	1/16" (1.6mm)
11GL18-MS	1/8" (3.2mm)
11GL32-MS	3/32" (2.4mm)
11GL53-MS	5/32" (4.0mm)
11GL36-MS	3/16" (4.8mm)



Torches: 12

Gas lenses are used to create a non-turbulent column of shielding gas, allowing the operator to extend the electrode up to 1 1/4" beyond the nozzle (cup). They also help to scrub away heat from the torch head making it possible to increase amperage slightly.

Back Caps & Valves



Torches: 17, 18, 26

Part Number	Description
57Y02-MS	Long 4 3/4"
300M-MS	Medium 2 1/4"
57Y04-MS	Short 1"
98W18-MS	O-ring



Torches: 9, 20

Part Number	Description
41V24-MS	Long 5 3/4"
41V35-MS	Medium 1 7/8"
41V33-MS	Short 5/8"
98W77-MS	O-ring



Torches: 12

Part Number	Description
56Y44-MS	Long 5 3/4"
56Y45-MS	Short 5/8"



Collet Knob

Part Number	Torches
22-7-MS	22A, 22B, 23A



Valve Stem

Part Number	Torches
VS-1-MS	26, 200M
VS-2-MS	9, 17, 18, 150M



Shaft Assembly

Part Number	Torches
27-13A-MS	27A
27-13B-MS	27B



Alumina Nozzles

Standard 10N Series



Torches: 17, 18, 26

Part Number	Size	Orifice	Length
10N44-MS	# 12	3/4"	1 7/8"
10N45-MS	# 10	5/8"	1 7/8"
10N46-MS	# 8	1/2"	1 7/8"
10N47-MS	# 7	7/16"	1 7/8"
10N47L-MS	# 7	7/16"	3"
10N48-MS	# 6	3/8"	1 7/8"
10N48L-MS	# 6	3/8"	3"
10N49-MS	# 5	5/16"	1 7/8"
10N49L-MS	# 5	5/16"	3"
10N50-MS	# 4	1/4"	1 7/8"

Standard 13N Series



Torches: 9, 20, 22

Part Number	Size	Orifice	Length
13N08-MS	# 4	1/4"	1 3/16"
13N09-MS	# 5	5/16"	1 3/16"
13N10-MS	# 6	3/8"	1 3/16"
13N11-MS	# 7	7/16"	1 3/16"
13N12-MS	# 8	1/2"	1 3/16"
13N13-MS	# 10	5/8"	1 3/16"

Standard 14N Series



Torch: 12

Part Number	Size	Orifice	Length
14N57-MS	# 4	1/4"	1 1/4"
14N58-MS	# 5	5/16"	1 1/4"
14N59-MS	# 6	3/8"	1 1/4"
14N60-MS	# 7	7/16"	1 1/4"
14N61-MS	# 8	1/2"	1 1/4"
14N61-10-MS	# 10	5/8"	1 1/4"
14N61-12-MS	# 12	3/4"	1 1/4"

Medium Gas Lens



Torches: 17, 18, 26

Part Number	Size	Orifice	Length
54N14-MS	# 8	1/2"	1 5/8"
54N14L-MS	# 8	1/2"	3"
54N15-MS	# 7	7/16"	1 5/8"
54N15L-MS	# 7	7/16"	3"
54N16-MS	# 6	3/8"	1 5/8"
54N16L-MS	# 6	3/8"	3"
54N17-MS	# 5	5/16"	1 5/8"
54N17L-MS	# 5	5/16"	3"
54N18-MS	# 4	1/4"	1 5/8"
54N19-MS	# 11	.700"	1 1/8"

Standard Long 13N Series



Torches: 9, 20, 22

Part Number	Size	Orifice	Length
A796F70-MS	# 3	3/16"	1 15/16"
A796F71-MS	# 4	1/4"	1 15/16"
A796F72-MS	# 5	5/16"	1 15/16"
A796F73-MS	# 6	3/8"	1 15/16"
A796F74-MS	# 3	3/16"	2 1/2"
A796F75-MS	# 4	1/4"	2 1/2"
A796F76-MS	# 5	5/16"	2 1/2"
A796F77-MS	# 6	3/8"	2 1/2"

Standard 53N Series



Torch: 24

Part Number	Size	Orifice	Length
53N23A-MS	# 3	.165"	5/8"
53N24A-MS	# 4	1/4"	5/8"
53N25A-MS	# 5	5/16"	5/8"
53N27A-MS	# 6	3/8"	5/8"

Large Gas Lens



Torches: 12, 17, 18, 26, 27

Part Number	Size	Orifice	Length
53N87-MS	# 12	3/4"	1 7/8"
53N87L-MS	# 12	3/4"	2 3/4"
53N87XL-MS	# 12	3/4"	3 1/4"
53N88-MS	# 10	5/8"	1 7/8"
53N88L-MS	# 10	5/8"	2 3/4"
53N88XL-MS	# 10	5/8"	3 1/4"
53N89-MS	# 15	15/16"	1 3/8"
57N74-MS	# 8	1/2"	1 7/8"
57N74L-MS	# 8	1/2"	2 3/4"
57N74XL-MS	# 8	1/2"	3 1/4"
57N75-MS	# 6	3/8"	1 7/8"
57N75L-MS	# 6	3/8"	2 3/4"
57N75XL-MS	# 6	3/8"	3 1/4"

Small Gas Lens



Torches: 9, 20, 22

Part Number	Size	Orifice	Length
53N58-MS	# 4	1/4"	1"
53N59-MS	# 5	5/16"	1"
53N60-MS	# 6	3/8"	1"
53N61-MS	# 7	7/16"	1"
53N61S-MS	# 8	1/2"	1"

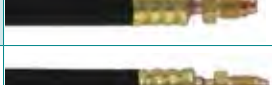
Alumina Nozzles are generally the most common type, made from alumina oxide. They are highly resistant to impact and heat. Alumina makes a good electrical insulator and resists spatter build-up. Alumina does not perform as well as lava in applications where excessive heat is reflected back to the nozzle.



MATHESON
Select®

Air-Cooled Power Cables

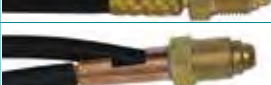
Torches: 9, 17, 24FMT, 150M

Part Number	Description	
57Y01R-MS	12.5' Rubber 1 Piece Cable	
57Y03R-MS	25' Rubber 1 Piece Cable	
57Y01BR-MS	12.5' Braided Rubber 1 Piece Cable	
57Y03BR-MS	25' Braided Rubber 1 Piece Cable	
57Y01-2-MS	12.5' 2 Piece with Gas Hose	
57Y03-2-MS	25' 2 Piece with Gas Hose	

Torch: 24

Part Number	Description	
56Y38R-MS	12.5' Rubber 1 Piece Cable	
56Y97R-MS	25' Rubber 1 Piece Cable	

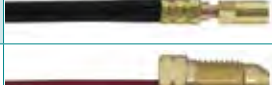
Torches: 26, 200M

Part Number	Description	
46V28R-MS	12.5' Rubber 1 Piece Cable	
46V30R-MS	25' Rubber 1 Piece Cable	
46V28BR-MS	12.5' Braided Rubber 1 Piece Cable	
46V30BR-MS	25' Braided Rubber 1 Piece Cable	
46V28-2-MS	12.5' 2 Piece with Gas Hose	
46V30-2-MS	25' 2 Piece with Gas Hose	

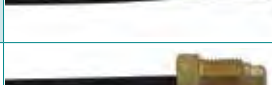
All MATHESON Select® power cables, gas and water hoses are made in the USA utilizing American manufactured copper cable, hose and fittings.

20, 22, 24W, 225M Series Cables and Hoses

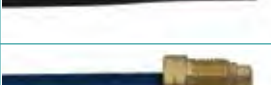
Power Cables

Part Number	Description	
45V03-MS	12.5' Vinyl	
45V04-MS	25' Vinyl	
45V03R-MS	12.5' Braided Rubber	
45V04R-MS	25' Braided Rubber	

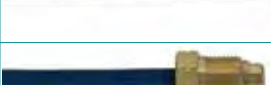
Gas Hoses

Part Number	Description	
45V09-MS	12.5' Vinyl	
45V10-MS	25' Vinyl	
45V09R-MS	12.5' Braided Rubber	
45V10R-MS	25' Braided Rubber	

Water Hoses 20M, 20F, 22

Part Number	Description	
45V07M-MS	12.5' Vinyl	
45V08M-MS	25' Vinyl	
45V07RM-MS	12.5' Braided Rubber	
45V08RM-MS	25' Braided Rubber	

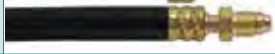
Water Hoses 20, 20P, 25

Part Number	Description	
45V07-MS	12.5' Vinyl	
45V08-MS	25' Vinyl	
45V07R-MS	12.5' Braided Rubber	
45V08R-MS	25' Braided Rubber	



18 Series Cables and Hoses

Power Cables

Part Number	Description	
40V64-MS	12.5' Vinyl	
41V29-MS	25' Vinyl	
40V64R-MS	12.5' Rubber	
41V29R-MS	25' Rubber	
40V64BR-MS	12.5' Braided Rubber	
41V29BR-MS	25' Braided Rubber	
40V64P-MS	12.5' Rubber (18P)	
41V29P-MS	25' Rubber (18P)	

Water Hoses

Part Number	Description	
40V74-MS	12.5' Vinyl	
41V32-MS	25' Vinyl	
40V74R-MS	12.5' Braided Rubber	
41V32R-MS	25' Braided Rubber	

Gas Hoses

Part Number	Description	
40V75-MS	12.5' Vinyl	
41V30-MS	25' Vinyl	
40V75R-MS	12.5' Braided Rubber	
41V30R-MS	25' Braided Rubber	

12 & 27 Series Cables and Hoses

Power Cables

Part Number	Description	
40V84R-MS	12.5' Rubber	
40V84RL-MS	25' Rubber	
40V84R-3-MS	3' Rubber	

Water Hoses

Part Number	Description	
40V83R-MS	12.5' Rubber	
40V83RL-MS	25' Rubber	
40V83R-3-MS	3' Rubber	

Gas Hoses Rubber

Part Number	Description	
40V82R-MS	12.5' Rubber	
40V82RL-MS	25' Rubber	
40V82R-3-MS	3' Rubber	

Power Cable Adapters



Torches: All Water-cooled

Part Number	Threads
45V11-MS	7/8"-14LH 5/8"-18LH



Torches: 9, 17, 24FMT, 150M

Part Number	Threads
105Z57-MS	3/8"-24RH 5/8"-18RH



Torches: 26, 200M

Part Number	Threads
45V62-MS	7/8"-14RH 5/8"-18RH



Torches: 24

Part Number	Threads
53N43-MS	3/8"-24RH 5/8"-18RH



Extension Kits



Torches: All Water-cooled

Part Number	Description
EK-1-25-R-MS	Water-Cooled Extension Kit, 25' Rubber
Each Kit Includes one of each	
40V78LR-MS	25' Power Cable Extension
40V76LR-MS	25' Water Hose
40V77LR-MS	25' Gas Hose
11N19-MS	Power Cable Coupler
11N18-MS	Water Hose Coupler
11N17-MS	Gas Hose Coupler
11N19IS-MS	Insulator Sleeve

Part Number	Description
EK-1-25-MS	Water-Cooled Extension Kit, 25' Vinyl
Each Kit Includes one of each	
40V78L-MS	25' Power Cable Extension
40V76L-MS	25' Water Hose
40V77L-MS	25' Gas Hose
11N19-MS	Power Cable Coupler
11N18-MS	Water Hose Coupler
11N17-MS	Gas Hose Coupler
11N19IS-MS	Insulator Sleeve



Torches: 9, 17, 24FMT, 150M

Part Number	Description
EK-2-25-R-MS	Air-Cooled Extension Kit, 25' Rubber
Each Kit Includes one of each	
57Y03-R-MS	25' Power Cable
430A-MS	Power Cable Coupler
430AIS-MS	Insulator Sleeve



Torches: 26, 200M

Part Number	Description
EK-26-25-R-MS	Air-Cooled Extension Kit, 25' Rubber
Each Kit Includes one of each	
46V30EK-R-MS	25' Power Cable Extension
11N20-MS	Power Cable Coupler
11N19IS-MS	Insulator Sleeve

It is recommended to reduce amperage by 25% of maximum torch capacity when using extension kit to maintain effective cooling of torch and cables.

Hook-up Kits



Torches: All Water-cooled

Part Number	Description
HK-1-MS	Water-Cooled Hook-up Kit, 12.5' Vinyl
Each Kit Includes	
40V76-MS	(2) 12.5' Water Hoses
40V77-MS	(1) 12.5' Gas Hose
45V11-MS	(1) Power Cable Adapter
11N18-MS	(1) Water Hose Coupler
A405-MS	(2) Water Adapters



Torches: All Air-cooled

Part Number	Description
HK-2-MS	Air-Cooled Hook-up Kit, 12.5' Vinyl
Each Kit Includes	
40V77-MS	(1) 12.5' Gas Hose
11N17-MS	(1) Gas Hose Coupler

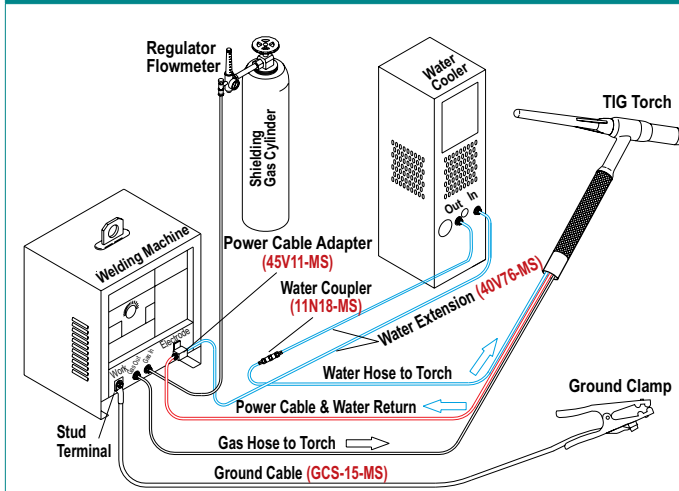


Part Number	Description
HK-3-MS	Air-Cooled Hook-up Kit, 12.5' Vinyl
Each Kit Includes	
40V77-MS	(1) 12.5' Gas Hose
40V77-18-MS	(1) 18" Gas Hose

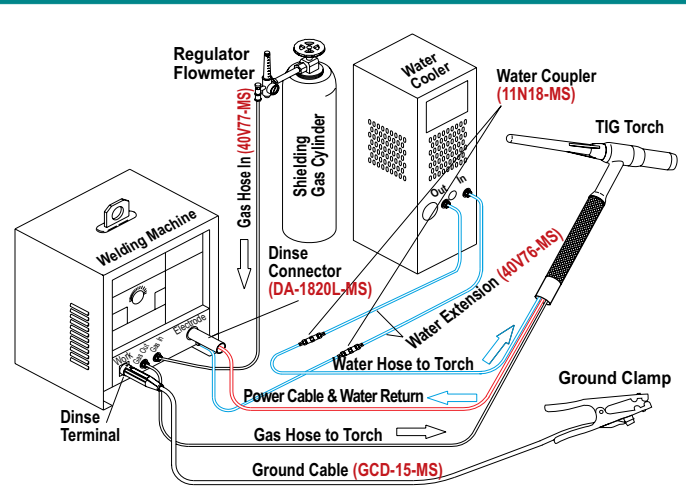


Water-cooled Hook-ups

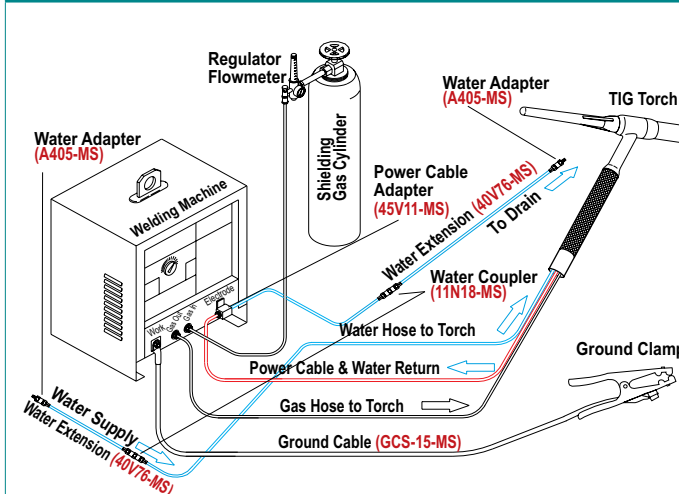
For Stud Machines With Gas Solenoid
With Water Cooler



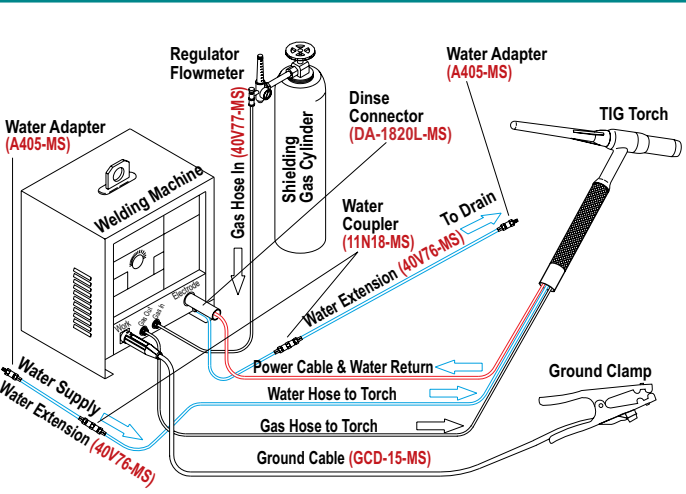
For Machines with Dinse Connectors and Gas Solenoid
With Water Cooler



For Stud Machines With Gas Solenoid
Using City Water

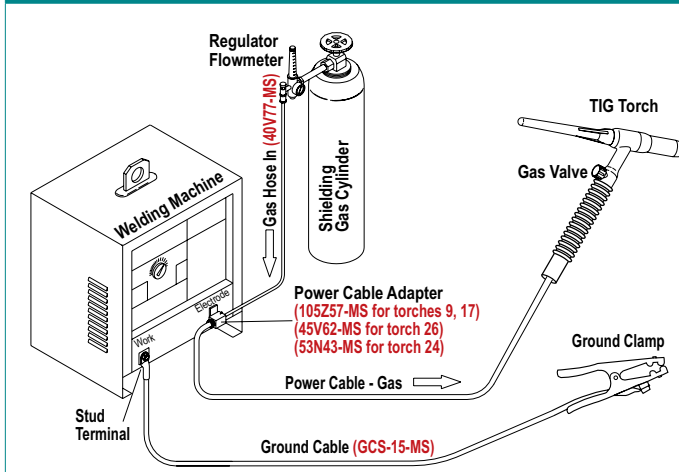


For Machines with Dinse Connectors and Gas Solenoid
Using City Water

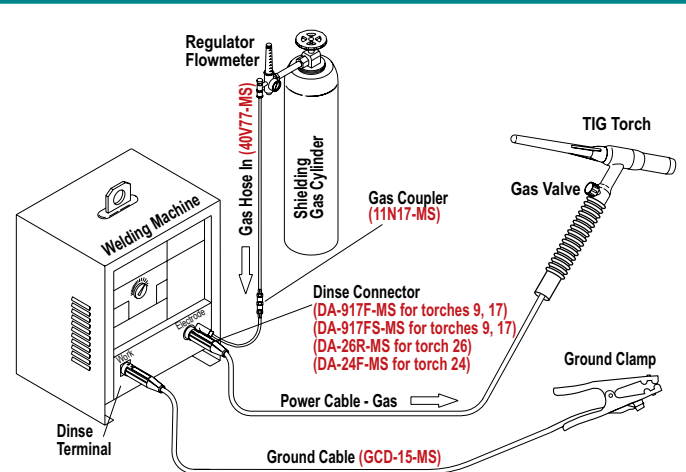


Air-cooled Hook-ups

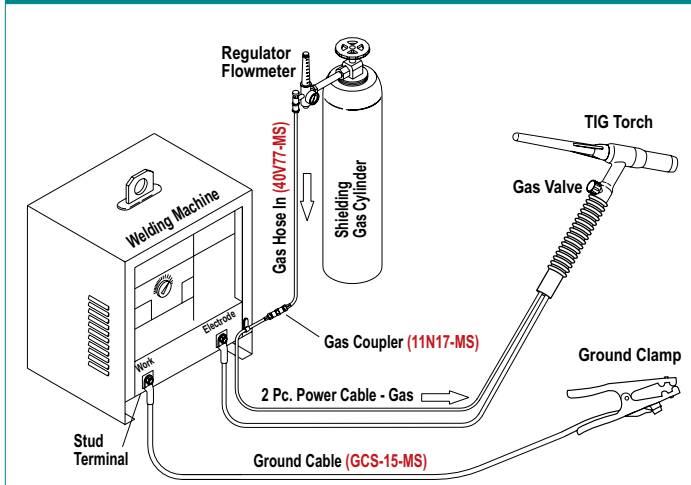
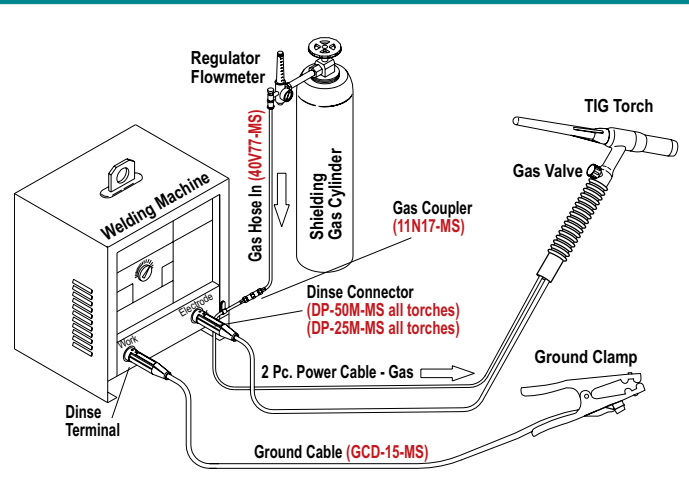
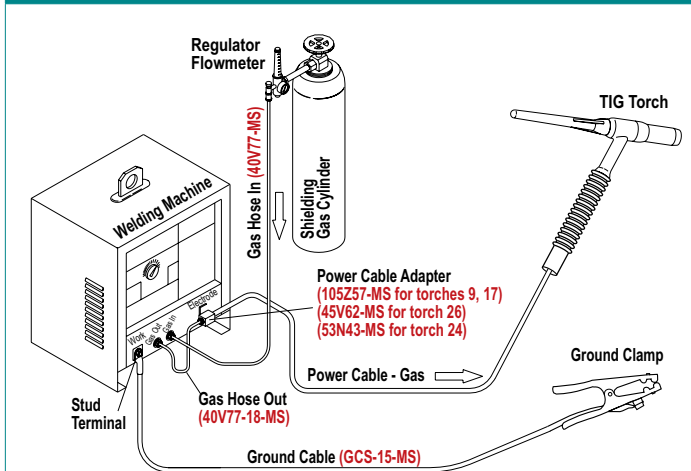
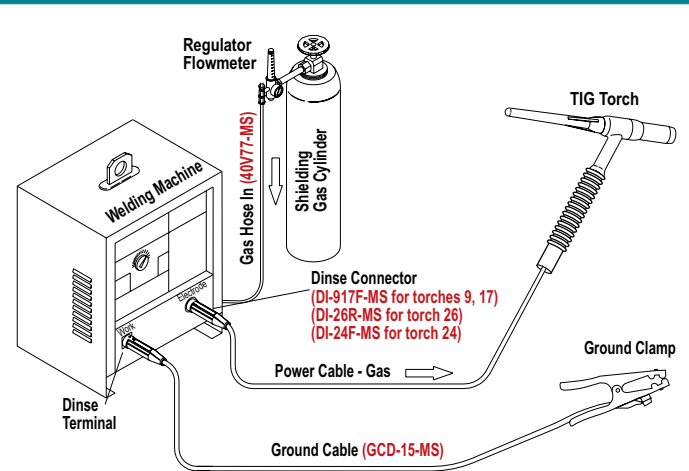
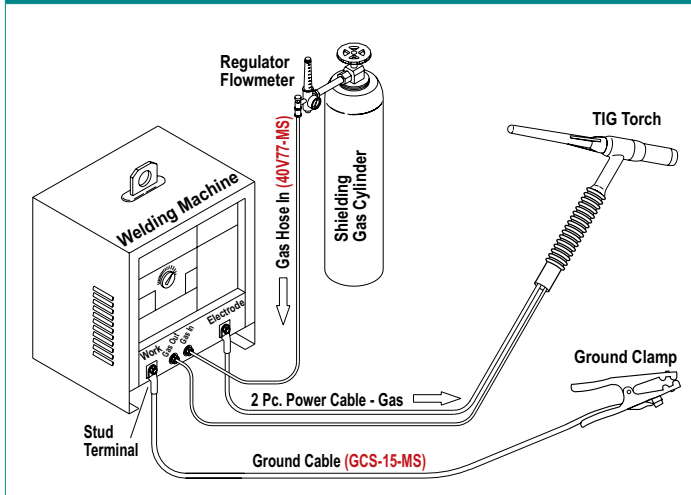
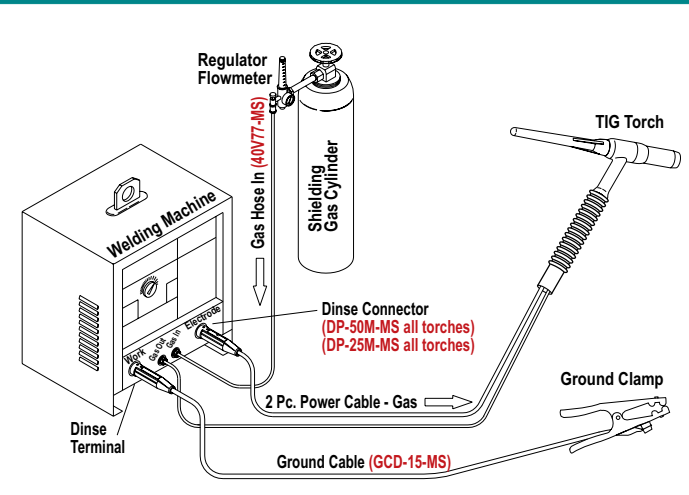
For Stud Machine Without Gas Solenoid
1 Piece Power Cable, With Valve



For Machine With Dinse Connector Without Gas Solenoid
1 Piece Power Cable, With Valve



Air-cooled Hook-ups

For Stud Machine Without Gas Solenoid
2 Piece Power Cable, With ValveFor Machine With Dinse Connector Without Gas Solenoid
2 Piece Power Cable, With ValveFor Stud Machine With Gas Solenoid
1 Piece Power Cable, Without ValveFor Machine Equipped With In-line Dinse Connector
1 Piece Power Cable, Without ValveFor Stud Machine With Gas Solenoid
2 Piece Power Cable, Without ValveFor Machine With Dinse Connector & Gas Solenoid
2 Piece Power Cable, Without Valve

Tweco Style Electrode Holders

Features:

- 6-position jaw patterns to hold the welding electrode in place
- Ball point cable connection
- Fully insulated
- Rugged and reliable design
- Extra insulators included in electrode holder package



MSY PA532MS



MSY PA316MS



MSY PA732MS



MSY PA14HDMS

Ordering Information

Part Number	Amperage	Body Alloy	Length
MSY PA532MS	200	Brass Alloy	8-1/4"
MSY PA316MS	250	Brass Alloy	9-1/4"
MSY PA732MS	300	Brass Alloy	10"
MSY PA14HDMS	400	Copper Alloy	12"

Tweco Style Copper Ground Clamps

Features:

- Copper cast upper and lower jaws
- Heavy duty spring providing the clamping force to the work surface
- Insulated spring
- Ball-point screw secures the welding cable to the ground clamp
- Rugged and reliable designs



MSY PGC200MS



MSY PGC300MS



MSY PGC500MS

Ordering Information

Part Number	Amperage	Jaw Opening	Jaw Depth	Cable	Length
MSY PGC200MS	200	1"	2-1/2"	Through 1/0	6"
MSY PGC300MS	300	1-1/2"	3-1/2"	Through 2/0	8-1/4"
MSY PGC500MS	500	2"	4-7/8"	Through 3/0	10"

Tweco Style Steel Ground Clamps

Features:

- Steel upper and lower levers
- Heavy duty spring providing the clamping force to the work surface
- Rugged and reliable design



MSY EG300MS



MSY EG500MS

Ordering Information

Part Number	Amperage	Jaw Opening	Jaw Depth	Cable	Length
MSY EG300MS	300	2"	2-1/2"	Through 3/0	7-3/4"
MSY EG500MS	500	2-1/4"	3"	Through 4/0	9-1/2"



Tweco Style Cable Connectors

Features:

- Connectors machined from a brass alloy extrusion
- Positive cam action locking design, which optimizes interface between connector halves
- Heat and oil resistant covers
- Furnished with zinc plated cover and ball-point screws



MSY 4MBPMS

Ordering Information

Part Number	Description	Standard Package	Cable
MSY 1MBPMS	No. 1 MBP Cable Connector Set - Male & Female	1	4, 2, 1
MSY 1MBP1MS	No. 1 MBP Cable Connector - Male	2	4, 2, 1
MSY 1MBP2MS	No. 1 MBP Cable Connector - Female	2	4, 2, 1
MSY 2MBPMS	No. 2 MBP Cable Connector Set - Male & Female	1	1/0, 2/0, 3/0
MSY 2MBP1MS	No. 2 MBP Cable Connector - Male	2	1/0, 2/0, 3/0
MSY 2MBP2MS	No. 2 MBP Cable Connector - Female	2	1/0, 2/0, 3/0
MSY 4MBPMS	No. 4 MBP Cable Connector Set - Male & Female	1	3/0 or 4/0
MSY 4MBP1MS	No. 4 MBP Cable Connector - Male	2	3/0 or 4/0
MSY 4MBP2MS	No. 4 MBP Cable Connector - Female	2	3/0 or 4/0

Crimp Lugs for Welding Cable

Features:

- Lug can be crimped or soldered to the cable
- Copper alloy for maximum conductivity



MSY L62MS



MSY L120MS



MSY L3040MS

Ordering Information

Part Number	Cable	Amp Rating	Stud Hole	I.D. Solder Socket	Standard Package
MSY L62MS	6 thru 2	150	17/32"	.461"	10
MSY L120MS	1 thru 2/0	225	17/32"	.559"	10
MSY L3040MS	3/0 & 4/0	250	17/32"	.660"	10





MATHESON

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Manufactured for MATHESON by



4043 Alloy (GMAW) (MIG)

Description:

Alloy 4043 is an all-position 5% silicon alloy used to weld heat-treatable base alloys. It is most often used to weld the 6XXX series of alloys. The silicon addition improves puddle fluidity, producing an appealing bead profile. It is less crack sensitive on the 6XXX series than other welding alloys. ABS certified. Conforms to SFA/AWS A5.10 ER4043, ISO 18273 S Al 4043 (AlSi5).

Typical Application:

Welding 6XXX series alloys and most casting alloys. Automotive components such as frames, drive shafts, parts, truck trailers and bicycle frames.



4043 Alloy (GMAW) (MIG)

Aluminum Alloy • AWS ER4043

Wire Composition			Classification	Shielding Gas	Approval
	AWS ER4043 Requirements	Typical Performance			
%Al	Remainder	Remainder	SFA/AWS A5.10/A5.10M: 2012 - ER4043 ISO 18273: 2004 S Al 4043 (AlSi5) ISO 18273: 2004 S Al 4043(A) (AlSi5(A)) EN 573.3 - EN AW-Al Si5(A)	100% Argon Argon/Helium Mixtures Flow Rate: 30 - 50 CFH (14.2 - 23.6 L/min)	ABS: AWS A5.10 CWB: AWS A5.10
%Si	4.5-6.0	5.04			
%Fe	≤0.8	0.13			
%Cu	≤0.30	0.03			
%Mn	≤0.05	0.004			
%Mg	≤0.05	0.01			
%Cr	—	—			
%Zn	≤0.10	0.003			
%Ti	≤0.20	0.006			
%Be	≤0.0003	0.0001			

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 04043E1MS	4043 .030 - 1 lb. Spool	.030"	1 lb.
MSS 04043F1MS	4043 .035 - 1 lb. Spool	.035"	1 lb.
MSS 0404321MS	4043 3/64 - 1 lb. Spool	3/64"	1 lb.



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5356 Alloy (GMAW) (MIG)

Description:

Alloy 5356 is an all position, non-heat treatable MIG wire used to weld the 5XXX series alloys when 40,000 psi tensile strength is not a requirement. Alloy 5356 is a very good all purpose wire. It is the most widely used of all aluminum filler metals. ABS certified. Conforms to SFA/AWS A5.10 ER5356, ISO 18273 S AlMg5Cr(A).

Typical Application:

Welding of boat/ship structural frames, bicycle frames, formed truck panels, pressure vessels and automotive bumpers and supports.



5356 Alloy (GMAW) (MIG)

Aluminum Alloy • AWS ER5356

Wire Composition			Classification	Shielding Gas	Approval
	AWS ER5356 Requirements	Typical Performance			
%Al	Remainder	Remainder	SFA/AWS A5.10/A5.10M: 2012 - ER5356 ISO 18273: 2004 S Al 5356 (AlMg5Cr(A)) EN 573.3 - EN AW-Al Mg5Cr(A)	100% Argon Argon/Helium Mixtures Flow Rate: 30 - 50 CFH (14.2 - 23.6 L/min)	ABS: WB (0.035"-1/16") ABS: AWS A5.10 (0.030") CWB: AWS A5.10
%Si	≤0.25	0.05			
%Fe	≤0.40	0.12			
%Cu	≤0.10	0.003			
%Mn	0.05-0.20	0.13			
%Mg	4.5-5.5	5.0			
%Cr	0.05-0.20	0.11			
%Zn	≤0.10	≤0.01			
%Ti	0.06-0.20	0.09			
%Be	≤0.0003	0.0001			

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 05356E1MS	5356 .030 - 1 lb. Spool	.030"	1 lb.
MSS 05356F1MS	5356 .035 - 1 lb. Spool	.035"	1 lb.
MSS 0535621MS	5356 3/64 - 1 lb. Spool	3/64"	1 lb.



MATHESON

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Manufactured for MATHESON by



4043 Alloy (GTAW) (TIG)

Description:

Alloy 4043 is an all-position 5% silicon alloy used to weld heat-treatable base alloys. It is most often used to weld the 6XXX series of alloys. The silicon addition improves puddle fluidity, producing an appealing bead profile. It is less crack-sensitive on the 6XXX series than other welding alloys. ABS certified. Conforms to SFA/ AWS A5.10 R4043, ISO 18273 S Al 4043 (AlSi5).

Typical Application:

Welding 6XXX series alloys and most casting alloys. Automotive components such as frames, drive shafts, parts, truck trailers and bicycle frames. Also, ideally suited for brazing thin aluminum sheeting and tubing.



4043 Alloy (GTAW) (TIG)

Aluminum Alloy • AWS R4043

Wire Composition			Classification	Shielding Gas	Approval
	AWS R4043 Requirements	Typical Performance			
%Al	Remainder	Remainder	SFA/AWS A5.10/A5.10M: 2012 - R4043 ISO 18273: 2004 S Al 4043 (AlSi5) ISO 18273: 2004 S Al 4043(A) (AlSi5(A)) EN 573.3 - EN AW-Al Si5(A)	100% Argon Argon/Helium Mixtures Flow Rate: 20 - 40 CFH (9.4 - 18.9 L/min)	ABS: AWS A5.10 CWB: AWS A5.10
%Si	4.5-6.0	5.04			
%Fe	≤0.8	0.13			
%Cu	≤0.30	0.03			
%Mn	≤0.05	0.004			
%Mg	≤0.05	0.01			
%Cr	—	—			
%Zn	≤0.10	0.003			
%Ti	≤0.20	0.006			
%Be	≤0.0003	0.0001			

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 40433011MS	4043 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS 0404330MS	4043 1/16 x 36 - 10 lb. Package	1/16" x 36"	10 lb.
MSS 40435011MS	4043 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS 0404350MS	4043 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS 40436011MS	4043 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS 0404360MS	4043 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.
MSS 0404370MS	4043 5/32 x 36 - 10 lb. Package	5/32" x 36"	10 lb.



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5356 Alloy (GTAW) (TIG)

Description:

Alloy 5356 is an all position, non-heat treatable TIG wire used to weld the 5XXX series alloys when 40,000 psi tensile strength is not a requirement. Alloy 5356 is a very good all-purpose wire. It is the most widely used of all aluminum filler metals. ABS certified. Conforms to SFA/AWS A5.10 R5356, ISO 18273 S AlMg5Cr(A).

Typical Application:

Welding of boat/ship structural frames, bicycle frames, formed truck panels, pressure vessels and automotive bumpers and supports.



5356 Alloy (GTAW) (TIG)

Aluminum Alloy • AWS R5356

Wire Composition			Classification	Shielding Gas	Approval
	AWS R5356 Requirements	Typical Performance			
%Al	Remainder	Remainder	SFA/AWS A5.10/A5.10M: 2012 - R5356 ISO 18273: 2004 S Al 5356 (AlMg5Cr(A)) EN 573.3 - EN AW-Al Mg5Cr(A)	100% Argon Argon/Helium Mixtures Flow Rate: 20 - 40 CFH (9.4 - 18.9 L/min)	ABS: AWS A5.10 CWB: AWS A5.10
%Si	≤0.25	0.05			
%Fe	≤0.40	0.12			
%Cu	≤0.10	0.003			
%Mn	0.05-0.20	0.13			
%Mg	4.5-5.5	5.0			
%Cr	0.05-0.20	0.11			
%Zn	≤0.10	≤0.01			
%Ti	0.06-0.20	0.09			
%Be	≤0.0003	0.0001			

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 53563011MS	5356 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS 0535630MS	5356 1/16 x 36 - 10 lb. Package	1/16" x 36"	10 lb.
MSS 53565011MS	5356 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS 0535650MS	5356 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS 53566011MS	5356 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS 0535660MS	5356 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.
MSS 0535670MS	5356 5/32 x 36 - 10 lb. Package	5/32" x 36"	10 lb.



Low-Fuming Flux Coated Bronze

Description:

A quality, economically priced, low-fuming alloy used for maintenance, repair and fabrication applications. The flux coating provides excellent wetting action with no objectionable fuming. The porosity-free deposits yield excellent color match to the yellow brasses. Conforms to AWS A5.8 RBCuZn-C.

Typical Application:

Brazing repair and fabrication on steel, cast iron, copper, copper alloys, nickel and nickel alloys. May be used with standard oxy-fuel torch.

Features:

- Tensile strength - Up to 71,000 psi
- Brinell Hardness - 96
- Melting Point - 1630°F (888°C)
- Working Temperature - 1600°F - 1720°F (871°C - 938°C)
- Flux coating provides excellent wetting action with no objectionable fuming
- Brazing temperature range - 1595°F to 1630°F
- Excellent machinability
- Porosity-free deposits
- Color matches yellow brass

Procedure:

- Clean braze area
- Remove all rust, oil and grease
- Heavy sections should be beveled
- The alloy should be applied by a brazing technique with a neutral flame
- Flux residue should be removed by wire brushing with hot water



Low-Fuming Flux Coated Bronze

Bronze Alloy • AWS RBCuZn-C

Wire Composition		Classification	Shielding Gas	Brazing Temperature Range	Tensile Strength
	AWS Requirements*				
%Si	0.04-0.15	AWS A5.8 RBCuZn-C	Neutral Flame	1595°F to 1630°F	71,000 psi
%Mn	0.01-0.50				
%Al	0.01				
%Sn	0.80-1.10				
%Fe	0.25-1.20				
%Pb	0.05				
%Cu	56.0-60.0				
% Other	0.50				
%Zn	Remainder				

*Single values are maximum

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 015FC500MS	Flux Coated Bronze 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS 015FC50MS	Flux Coated Bronze 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS 015FC600MS	Flux Coated Bronze 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS 015FC60MS	Flux Coated Bronze 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.



Low-Fuming Bare Bronze

Description:

A quality, yet economically priced, low-fuming alloy designed for repair, fabrication applications on steel, copper, copper alloys, nickel and nickel alloys. Conforms to AWS A5.8 RBCuZn-C.

Typical Application:

Brazing repair and fabrication on steel, cast iron, copper, copper alloys, nickel and nickel alloys. May be used with standard oxy-fuel torch.

Features:

- Tensile strength - Up to 71,000 psi
- Brinell hardness - 96
- Melting point - 1630°F (888°C)
- Working temperature - 1600°F - 1720°F (871°C - 938°C)
- Brazing temperature range - 1595°F to 1630°F
- Excellent machinability
- Porosity-free deposits
- Color matches yellow brass

Procedure:

- Clean braze area
- Remove all rust, oil and grease
- Heavy sections should be beveled
- When applying bare rod, use a brazing technique with a neutral flame and flux
- Flux residue should be removed by wire brushing with hot water



Low-Fuming Bare Bronze

Bronze Alloy • AWS RBCuZn-C

Wire Composition		Classification	Shielding Gas	Brazing Temperature Range	Tensile Strength
	AWS Requirements*				
%Si	0.04-0.15	AWS A5.8 RBCuZn-C	Neutral Flame	1595°F-1630°F	71,000 psi
%Mn	0.01-0.50				
%Al	0.01				
%Sn	0.80-1.10				
%Fe	0.25-1.20				
%Pb	0.05				
%Cu	56.0-60.0				
% Other	0.50				
%Zn	Remainder				

*Single values are maximum

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 00015300MS	Bare Bronze 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS 00015500MS	Bare Bronze 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS 00015510MS	Bare Bronze 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS 00015600MS	Bare Bronze 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS 00015610MS	Bare Bronze 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.
MSS 00015805MS	Bare Bronze 3/16 x 36 - 5 lb. Package	3/16" x 36"	5 lb.
MSS 00015810MS	Bare Bronze 3/16 x 36 - 10 lb. Package	3/16" x 36"	10 lb.



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Silicon Bronze (GTAW) (TIG)

Description:

Silicon-Bronze welding alloy. Conforms to AWS A5.7 ERCuSi-A.

Typical Application:

This silicon-bronze alloy is used to weld similar composition base metals, brass and copper alloys to steel. Silicon-bronze is frequently used in GTAW "brass welding" of coated sheet steels.

Features:

- Tensile strength - 50,000 minimum psi
- Solidus - 1780°F (971°C)
- Liquidus - 1866°F (1019°C)
- Brinell Hardness - 80 - 100 HB (500 kg load)
- All position



Procedure:

- Silicon bronze base metals generally do not require pre-heat. Brass or copper base metals may require some pre-heat depending on copper content and thickness.
- Use DC+ or AC current
- Use Argon shielding gas

Silicon Bronze (GTAW) (TIG)

Silicon Bronze Alloy • AWS ERCuSi-A

Wire Composition		Classification	Shielding Gas	Solidus	Liquidus	Tensile Strength
	AWS Requirements*					
%Zn	1.00	ANSI/AWS A5.7 ERCuSi-A ASME SFA A5.7 ERCuSi-A	Argon	1780°F (971°C)	1866°F (1019°C)	50,000 psi
%Sn	1.00					
%Mn	1.50					
%Fe	0.50					
%Si	2.8-4.0					
%Al	0.01					
%Pb	0.02					
%Cu (with Ag)	Remainder					
Other	0.50					

*Single values are maximum

Polarity	Material Thickness	Filler Wire Diameter	Welding Current (AMPS DC)	Welding Current (AMPS AC)	Gas Cup	Argon (CFH)	2% Tungsten Ceriated
DC+ or AC Current and a 2% Ceriated Tungsten	1/16"	1/16"	70 - 150	70 - 150	3/8" - 1/2"	15	1/16"
	3/32" - 1/8"	3/32"	150 - 200	140 - 230	7/16" - 1/2"	15	3/32"
	3/16" - 1/2"	3/32" - 1/8"	230 - 400	225 - 320	7/16" - 1/2"	20	1/8"
	1/2" - 1"	3/16" - 1/4"	325 - 500	290 - 485	1/2"	25	3/16"

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 03SIB301MS	Silicon Bronze 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS 03SIB30MS	Silicon Bronze 1/16 x 36 - 10 lb. Package	1/16" x 36"	10 lb.
MSS 03SIB501MS	Silicon Bronze 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS 03SIB50MS	Silicon Bronze 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS 03SIB60MS	Silicon Bronze 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.



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ER70S-6 (GMAW) (MIG)

Description:

A general purpose welding wire for fabrication of mild steel. Contains deoxidizers that provide better wetting, yielding a flatter bead shape and the capability of faster travel speeds. Usually used with 75/25 (Argon/CO₂) shielding gas or with higher contents of Argon, such as 90/10. Can also be used with 100% CO₂. Conforms to AWS A5.18 ER70S-6. Drums (550 lb.) and spools (33 lb. and 44 lb.) are ABS certified as well as CWB certified to CSA W48.

Typical Application:

Repairs on a variety of mild and low alloy steels, small diameter pipe and tubing and sheet metal applications. Primarily used for single pass on steels where rusty and dirty surfaces are not cleaned before welding.



ER70S-6 (GMAW) (MIG)

Mild Steel Alloy • AWS ER70S-6

Wire Composition		Classification	Shielding Gas	Tensile Strength
	AWS Requirements*			
%C	0.06-0.15			
%Mn	1.40-1.85			
%Si	0.80-1.15			
%Pb	0.025			
%S	0.035			
%Ni	0.15			
%Cr	0.15			
%Mo	0.15			
%V	0.03			
%Cu	0.5			
		AWS A5.18/A5.18M:2005 ASME SFA A5.18	75% Argon / 25% CO ₂ 98% Argon / 2% CO ₂ 100% CO ₂	77,000 psi

*Single values are maximum

Polarity	Wire Diameter	Welding Current (AMPS)	Welding Position	Volts	Argon/CO ₂	Wire Feed lpm
DC Reverse Positive Spray Transfer	0.023	85 - 170	All	23 - 27	25	360 - 620
	0.03	135 - 230	All	24 - 28	25	390 - 670
	0.035	165 - 300	All	24 - 28	30	360 - 520
	0.045	200 - 375	All	24 - 30	30 - 35	210 - 360
	1/16"	275 - 500	All	24 - 32	40	150 - 360
	3/32"	300 - 600	All	24 - 33	50	75 - 125

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS E70S612MS	ER70S-6 .023 - 2 lb. Spool	.023"	2 lb.
MSS E70S615MS	ER70S-6 .023 - 11 lb. Spool	.023"	11 lb.
MSS E70S6E2MS	ER70S-6 .030 - 2 lb. Spool	.030"	2 lb.
MSS E70S6E5MS	ER70S-6 .030 - 11 lb. Spool	.030"	11 lb.
MSS E70S6F2MS	ER70S-6 .035 - 2 lb. Spool	.035"	2 lb.
MSS E70S6F5MS	ER70S-6 .035 - 11 lb. Spool	.035"	11 lb.
MSS 70S603533	ER70S-6 .035 - 33 lb. Spool	.035"	33 lb.
MSS 70S603544	ER70S-6 .035 - 44 lb. Spool	.035"	44 lb.
MSS 70S6035550	ER70S-6 .035 - 550 lb. Drum	.035"	550 lb.
MSS E70S6H5MS	ER70S-6 .045 - 11 lb. Spool	.045"	11 lb.
MSS 70S604533	ER70S-6 .045 - 33 lb. Spool	.045"	33 lb.
MSS 70S604544	ER70S-6 .045 - 44 lb. Spool	.045"	44 lb.
MSS 70S6045550	ER70S-6 .045 - 550 lb. Drum	.045"	550 lb.



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Self-Shielding Steel Alloy

Description:

Self-shielding (no shielding gas needed) carbon steel welding wire for single pass fillet and lap welds on mild and low carbon steel. It has exceptional arc stability, low spatter and excellent operator appeal. Conforms to AWS A5.20 E71T-GS.

Typical Application:

Ideal for home, workshop and auto body repair. It especially works well on galvanized sheet. Can be used in all positions. It is popular for home workshops.

Features:

- DC straight polarity is recommended
- Minimizes burn-through on thin sheet metal
- Excellent for plain and galvanized steels
- A good choice for 110 volt welding machines – no shielding gas required
- Wide weld range of steel thickness, 18 gauge (0.048") to 1/4" (0.125")
- All position capability – excellent on vertical down welding
- No shielding gas means reduced welding costs and the ability to weld in windy conditions
- Easily removed slag



Self-Shielding Steel Alloy

Self-Shielding Welding Wire • AWS E71T-GS

Wire Composition		Classification	Shielding Gas	Tensile Strength
	AWS Requirements*			
%C	0.18			
%Mn	0.65			
%Si	0.40			
%P	0.01			
%S	0.01			
%Al	1.30			
%Fe	Remainder			
		AWS A5.20 E71T-GS	None Required	70,000 psi min

*Single values are maximum

Polarity	Wire Size	Welding Position	Welding Current (AMPS)	Welding Position	Arc Voltage
DC Straight (DC-)	.030"	All	40 - 100	All	14 - 16
	.035"	All	100 - 130	All	16 - 18
	.045"	All	140 - 160	All	18 - 20

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS E71TGSE2MS	Self Shielding E71T-GS .030 - 2 lb. Spool	.030"	2 lb.
MSS E71TGSE5MS	Self Shielding E71T-GS .030 - 10 lb. Spool	.030"	10 lb.
MSS E71TGSF2MS	Self Shielding E71T-GS .035 - 2 lb. Spool	.035"	2 lb.
MSS E71TGSF5MS	Self Shielding E71T-GS .035 - 10 lb. Spool	.035"	10 lb.



ER70S-2 (GTAW) (TIG)

Description:

ER70S-2 is a premium, triple-deoxidized wire that provides high quality, defect-free, weld deposits when properly used on most carbon steels. Conforms to AWS A5.18 ER70S-2.

Typical Application:

Repairs on a variety of mild and low alloy steels, small diameter pipe and tubing, sheet metal applications, and root pass pipe welding.



ER70S-2 (GTAW) (TIG)

Mild Steel Alloy • AWS ER70S-2

Wire Composition		Classification	Shielding Gas	Tensile Strength
	AWS Requirements*			
%C	0.07	AWS A5.18/A5.18M:2005 ASME SFA A5.18:ER70S-2	75% Argon / 25% CO ₂ 98% Argon / 2% O ₂	79,000 psi
%Mn	0.90-1.40			
%S	0.40-0.70			
%P	0.025			
%Si	0.035			
%Ni	0.15			
%Cr	0.15			
%Mo	0.15			
%V	0.03			
%Cu	0.50			
%Ti	0.05-0.15			
%Zr	0.02-0.12			
%Al	0.05-0.15			
%Fe	Remainder			

*Single values are maximum

Polarity	Material Thickness	Tungsten Diameter	Filler Wire Diameter	Welding Current (AMPS)	Welding Position	Gas Cup	Argon (CFH)
Direct Current Electrode Negative	1/16"	1/16"	1/16"	100 - 140	All	3/8"	20
	3/32"	1/16"	1/16"	100 - 160	All	3/8"	20
	1/8"	3/32"	1/16"	125 - 200	All	7/16"	20
	3/16"	3/32"	3/32"	150 - 250	All	7/16"	25
	1/4"	1/8"	1/8"	150 - 250	All	1/2"	25
	3/8"	1/8"	1/8"	150 - 275	All	1/2"	25
	1/2"	1/8"	1/8"	150 - 300	All	1/2"	25

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS E70S2300MS	ER70S-2 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS E70S230MS	ER70S-2 1/16 x 36 - 10 lb. Package	1/16" x 36"	10 lb.
MSS E70S2500MS	ER70S-2 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS E70S250MS	ER70S-2 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS E70S2600MS	ER70S-2 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS E70S260MS	ER70S-2 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.
MSS E70S270MS	ER70S-2 5/32 x 36 - 10 lb. Package	5/32" x 36"	10 lb.



ER70S-6 (GTAW) (TIG)

Description:

A general purpose welding wire for fabrication of mild steel. Contains more deoxidizers that provide better wetting, yielding a flatter bead shape and the capability of faster travel speeds. Conforms to AWS A5.18 ER70S-6.

Typical Application:

Repairs on a variety of mild and low alloy steels, small diameter pipe and tubing and sheet metal applications. Primarily used for single pass on steels where rusty and dirty surfaces are not cleaned before welding.



ER70S-6 (GTAW) (TIG)

Mild Steel Alloy • AWS ER70S-6

Wire Composition		Classification	Shielding Gas	Tensile Strength
	AWS Requirements*			
%C	0.06-0.15	AWS A5.18/A5.18M:2005 ASME SFA 5.18	75% Argon / 25% CO ₂ 98% Argon / 2% CO ₂ 100% CO ₂	77,000 psi
%Mn	1.40-1.85			
%Si	0.80-1.15			
%Pb	0.025			
%S	0.035			
%Ni	0.15			
%Cr	0.15			
%Mo	0.15			
%V	0.03			
%Cu	0.5			

*Single values are maximum

Polarity	Material Thickness	Tungsten Diameter	Filler Wire Diameter	Welding Current (AMPS)	Welding Position	Gas Cup	Argon (CFH)
DCSP 2% Ceriated Tungsten Electrode Negative	1/16"	1/16"	1/16"	80 - 120	All	3/8"	20
	3/32"	1/16"	1/16"	145 - 205	All	3/8"	20
	1/8"	3/32"	1/16"	300 - 350	All	7/16"	20
	3/16"	3/32"	3/32"	515 - 640	All	7/16"	25
	1/4"	1/8"	1/8"	70 - 150	All	1/2"	25
	3/8"	1/8"	1/8"	150 - 200	All	1/2"	25
	1/2"	1/8"	1/8"	230 - 400	All	1/2"	25

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS E70S6300MS	ER70S-6 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS E70S630MS	ER70S-6 1/16 x 36 - 10 lb. Package	1/16" x 36"	10 lb.
MSS E70S6500MS	ER70S-6 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS E70S650MS	ER70S-6 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS E70S6600MS	ER70S-6 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS E70S660MS	ER70S-6 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.
MSS E70S670MS	ER70S-6 5/32 x 36 - 10 lb. Package	5/32" x 36"	10 lb.



RG45 Solid Wire (OAW) Oxy-Fuel Welding Rods

Description:

A general purpose, copper coated, low carbon steel rod that is widely used on mild steel. It offers good ductility and machinability. Conforms to AWS A5.2, R45.

Typical Application:

Used for welding low carbon steel, automotive repair and ornamental art.

Procedure:

- Use a neutral flame; however, a very slight excess of acetylene assures the absence of an oxidizing flame that adversely influences weld quality.
- Flux is not needed, but "puddling" of the molten weld metal will bring any scale or impurities to the surface.



RG45 Solid Wire (OAW) Oxy-Fuel Welding Rods

Carbon Steel Alloy • AWS R45

Wire Composition		Classification	Shielding Gas	Tensile Strength
	AWS Requirements*			
%C	0.08	AWS A5.2, R45	None	45,000 psi
%Mn	0.50			
%Si	0.10			
%P	0.035			
%S	0.04			
%Cu	0.30			
%Cr	0.20			
%Ni	0.30			
%Mo	0.20			
%Al	0.02			

*Single values are maximum

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS W1060300MS	RG45 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS W1060310MS	RG45 1/16 x 36 - 10 lb. Package	1/16" x 36"	10 lb.
MSS W1060500MS	RG45 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS W1060510MS	RG45 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS W1060600MS	RG45 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS W1060610MS	RG45 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.



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RG60 Solid Wire (OAW) Oxy-Fuel Welding Rods

Description:

A high strength, bright finish, steel welding rod that responds to heat treatment, flame hardening and cyaniding. Conforms to AWS A5.2, R60.

Typical Application:

Widely used for welding carbon steel pipes in power plants, process piping and other conditions of severe services. Use where minimum tensile strength of the steel does not exceed 60,000 psi.



Procedure:

- Use a neutral flame; however, a very slight excess of acetylene assures the absence of an oxidizing flame that adversely influences weld quality.
- Flux is not needed, but "puddling" of the molten weld metal will bring any scale or impurities to the surface.

RG60 Solid Wire (OAW) Oxy-Fuel Welding Rods

Carbon Steel Alloy • AWS R60

Wire Composition		Classification	Shielding Gas	Tensile Strength
	AWS Requirements*			
%C	0.15	AWS A5.2, R60	None	60,000 psi
%Mn	0.90-1.40			
%Si	0.10-0.35			
%P	0.035			
%S	0.035			
%Cu	0.30			
%Cr	0.20			
%Ni	0.30			
%Mo	0.20			
%Al	0.02			

*Single values are maximum

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS W1200300MS	RG60 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS W1200500MS	RG60 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS W1200600MS	RG60 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS W1200610MS	RG60 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.



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308L (GTAW) (TIG)

Description:

Stainless Steel TIG welding alloy. Conforms to ANSI/AWS A5.9 ER308/308L.

Typical Application:

Most frequently used to weld base metals of similar composition. The 0.03% maximum carbon content increases resistance to intergranular corrosion avoiding carbide precipitation.



Features:

- Tensile strength - 88,000 psi
- Yield strength - 59,000 psi
- Elongation - 39% min
- Brinell hardness - 160 HB
- Rockwell B hardness - 85 HRB
- Charpy V - 100 ft./lb. @ room temperature
- Reduction of area - 56%
- All position

308L (GTAW) (TIG)

Stainless Steel Alloy • AWS ER308/308L

Wire Composition		Classification	Shielding Gas	Tensile Strength
	AWS Requirements*			
%C	0.03	ANSI/AWS A5.9 ER308/308L ASME SFA 5.9 ER308/308L	100% Argon	88,000 psi
%Cr	19.5 - 22.0			
%Ni	9.0 - 11.0			
%Mo	0.75			
%Mn	1.0 - 2.5			
%Si	0.30 - 0.65			
%P	0.03			
%S	0.03			
%Cu	0.75			
%Fe	Remainder			

*Single values are maximum

Polarity	Material Thickness	Filler Wire Diameter	Welding Current (AMPS)	Welding Position	Gas Cup	Argon (CFH)	2% Tungsten Certified
DCSP Electrode Negative	1/16"	1/16"	80 - 120	All	3/8"	20	1/16"
	3/32"	1/16"	100 - 130	All	3/8"	20	1/16"
	1/8"	1/16"	120 - 150	All	7/16"	20	3/32"
	3/16"	3/32"	150 - 250	All	7/16"	25	3/32"
	1/4"	1/8"	200 - 350	All	1/2"	25	1/8"
	1/2"	1/8"	235 - 375	All	1/2"	25	1/8"

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 308LTF0MS	308L .035 x 36 - 10 lb. Package	.035" x 36"	10 lb.
MSS 308LTH0MS	308L .045 x 36 - 10 lb. Package	.045" x 36"	10 lb.
MSS 308LT300MS	308L 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS 308LT30MS	308L 1/16 x 36 - 10 lb. Package	1/16" x 36"	10 lb.
MSS 308LT500MS	308L 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS 308LT50MS	308L 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS 308LT600MS	308L 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS 308LT60MS	308L 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.
MSS 308LT70MS	308L 5/32 x 36 - 10 lb. Package	5/32" x 36"	10 lb.

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309L (GTAW) (TIG)

Description:

Stainless Steel TIG welding alloy. Conforms to ANSI/AWS A5.9 ER309/309L.

Typical Application:

Used to weld base metals of similar composition in wrought or cast iron. Also used to weld type 304 and similar base metals where severe conditions may exist. Sometimes it is used to weld dissimilar steels. The lower carbon content of 0.03% maximum increases resistance to intergranular corrosion avoiding carbide precipitation.



Features:

- Tensile strength - 85,000 psi
- Yield strength - 58,000 psi
- Elongation - 40%
- Brinell hardness - 160 HB
- Rockwell B hardness - 85 HRB
- Charpy V - 105 ft./lb. @ room temperature
- Reduction of area - 60%
- All position

309L (GTAW) (TIG)

Stainless Steel Alloy • AWS ER309/309L

Wire Composition		Classification	Shielding Gas	Tensile Strength
	AWS Requirements*			
%C	0.03	ANSI/AWS A5.9 ER309/309L ASME SFA 5.9 ER309/309L	100% Argon	85,000 psi
%Cr	23.0-25.0			
%Ni	12.0-14.0			
%Mo	0.75			
%Mn	1.0-2.5			
%Si	0.30-0.65			
%P	0.03			
%S	0.03			
%Cu	0.75			
%Fe	Remainder			

*Single values are maximum

Polarity	Material Thickness	Filler Wire Diameter	Welding Current (AMPS)	Welding Position	Gas Cup	Argon (CFH)	2% Tungsten Certified
DCSP Electrode Negative	1/16"	1/16"	80 - 120	All	3/8"	20	1/16"
	3/32"	1/16"	100 - 130	All	3/8"	20	1/16"
	1/8"	1/16"	120 - 150	All	7/16"	20	3/32"
	5/32"	3/32"	150 - 250	All	7/16"	25	3/32"
	1/4"	1/8"	200 - 350	All	1/2"	25	1/8"
	1/2"	1/8"	235 - 375	All	1/2"	25	1/8"

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 309LT300MS	309L 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS 309LT30MS	309L 1/16 x 36 - 10 lb. Package	1/16" x 36"	10 lb.
MSS 309LT500MS	309L 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS 309LT50MS	309L 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS 309LT60MS	309L 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.
MSS 309LT70MS	309L 5/32 x 36 - 10 lb. Package	5/32" x 36"	10 lb.



316L (GTAW) (TIG)

Description:

Stainless Steel TIG welding alloy. Conforms to ANSI/AWS A5.9 ER316/316L.

Typical Application:

Most often used to weld base metals of similar composition containing 2 - 3% molybdenum with 0.03% maximum carbon content. Sometimes used to weld similar base metals in elevated temperature service applications.



Features:

- Tensile strength - 86,000 psi
- Yield strength - 58,000 psi
- Elongation - 36% min
- Brinell hardness - 160 HB
- Rockwell B hardness - 85 HRB
- Charpy V - 80 ft./lb. @ room temperature
- Reduction of area - 40%
- All position

316L (GTAW) (TIG)

Stainless Steel Alloy • AWS ER316/316L

Wire Composition		Classification	Shielding Gas	Tensile Strength
	AWS Requirements*			
%C	0.03	ANSI/AWS A5.9 ER316/316L ASME SFA 5.9 ER316/316L	100% Argon	86,000 psi
%Cr	18.0 - 20.0			
%Ni	11.0 - 14.0			
%Mo	2.0 - 3.0			
%Mn	1.0 - 2.5			
%Si	0.30 - 0.65			
%P	0.03			
%S	0.03			
%Cu	0.75			
%Fe	Remainder			

*Single values are maximum

Polarity	Material Thickness	Filler Wire Diameter	Welding Current (AMPS)	Welding Position	Gas Cup	Argon (CFH)	2% Tungsten Certified
DCSP Electrode Negative	1/16"	1/16"	80 - 120	All	3/8"	20	1/16"
	3/32"	1/16"	100 - 130	All	3/8"	20	1/16"
	1/8"	1/16"	120 - 150	All	7/16"	20	3/32"
	3/16"	3/32"	150 - 250	All	7/16"	25	3/32"
	1/4"	1/8"	200 - 350	All	1/2"	25	1/8"
	1/2"	1/8"	235 - 375	All	1/2"	25	1/8"

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 316LTF0MS	316L .035 x 36 - 10 lb. Package	.035" x 36"	10 lb.
MSS 316LTH0MS	316L .045 x 36 - 10 lb. Package	.045" x 36"	10 lb.
MSS 316LT300MS	316L 1/16 x 36 - 1 lb. Package	1/16" x 36"	1 lb.
MSS 316LT30MS	316L 1/16 x 36 - 10 lb. Package	1/16" x 36"	10 lb.
MSS 316LT500MS	316L 3/32 x 36 - 1 lb. Package	3/32" x 36"	1 lb.
MSS 316LT50MS	316L 3/32 x 36 - 10 lb. Package	3/32" x 36"	10 lb.
MSS 316LT600MS	316L 1/8 x 36 - 1 lb. Package	1/8" x 36"	1 lb.
MSS 316LT60MS	316L 1/8 x 36 - 10 lb. Package	1/8" x 36"	10 lb.
MSS 316LT70MS	316L 5/32 x 36 - 10 lb. Package	5/32" x 36"	10 lb.

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E6010 Mild Steel Stick Electrodes

Description:

E6010 is an all position, cellulosic electrode that has a quick-starting, steady, and deep penetrating arc. It produces x-ray quality welds in flat, horizontal, overhead, vertical-up, and vertical-down positions. Conforms to ANSI/AWS A5.1 & ASME SFA 5.1 E6010.

Typical Application:

Used for general-purpose fabrication, repair, maintenance welding, out-of-position x-ray welds, construction and ship building, pipe welding as well as vertical and overhead plate welding.

Features:

- Tensile strength - 60,000 psi minimum
- Yield strength - 48,000 psi minimum
- Elongation - 22% min
- All position
- Slag is thin and easily removable



E6010 Mild Steel Stick Electrodes

AWS E6010 (SMAW)

Wire Composition		Classification	Tensile Strength
	AWS Requirements*		
%C	0.20	ENISO 2560-A, 2560-B ANSI/AWS A5.1 E6010 ASME SFA 5.1 E6010	60,000 psi
%Mn	1.20		
%Si	1.00		
%P	N/S**		
%S	N/S**		
%Ni	0.30		
%Cr	0.20		
%Mo	0.30		
%V	0.08		
%Fe	Remainder		

*Single values are maximum

**Not Specified

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
DC Reverse (DC+)	3/32" x 12"	50-85	Flat
	3/32" x 12"	50-85	Vertical Up & Overhead
	1/8" x 14"	75-135	Flat
	1/8" x 14"	75-135	Vertical Up & Overhead
	5/32" x 14"	100-175	Flat
	5/32" x 14"	100-175	Vertical Up & Overhead

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 6010505MS	6010 3/32 Electrode - 5 lb. Package	3/32"	5 lb.
MSS 60105010MS	6010 3/32 Electrode - 10 lb. Package	3/32"	10 lb.
MSS 6010605MS	6010 1/8 Electrode - 5 lb. Package	1/8"	5 lb.
MSS 60106010MS	6010 1/8 Electrode - 10 lb. Package	1/8"	10 lb.
MSS 6010705MS	6010 5/32 Electrode - 5 lb. Package	5/32"	5 lb.
MSS 60107010MS	6010 5/32 Electrode - 10 lb. Package	5/32"	10 lb.



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E6011 Mild Steel Stick Electrodes

Description:

A versatile, deep penetrating, steel electrode with smooth and stable arc characteristics. The coating produces a forceful, spray-type arc, resulting in deep penetrating welds. Conforms to ANSI/AWS A5.1 & ASME SFA 5.1 E6011.

Typical Application:

Used for welding mild, galvanized and some low-alloy steels. Suited for structural, ship building and repair, rail cars, piping, pressure vessel fittings, boilers and general fabrication.

Features:

- Tensile strength - 60,000 psi
- Yield strength - 48,000 psi
- Elongation - 22% min
- All position
- Slag is thin and easily removable



E6011 Mild Steel Stick Electrodes

AWS E6011 (SMAW)

Wire Composition		Classification	Tensile Strength
	AWS Requirements*		
%C	0.20	ENISO 2560-A, 2560-B ANSI/AWS A5.1 E6011 ASME SFA 5.1 E6011	60,000 psi
%Mn	1.20		
%Si	1.00		
%P	N/S**		
%S	N/S**		
%Ni	0.30		
%Cr	0.20		
%Mo	0.30		
%V	0.08		
%Fe	Remainder		

*Single values are maximum

**Not Specified

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
DC Reverse (DC+)	3/32" x 12"	50 - 80	Flat
	3/32" x 12"	40 - 70	Vertical Up & Overhead
	1/8" x 14"	70 - 110	Flat
	1/8" x 14"	60 - 100	Vertical Up & Overhead
	5/32" x 14"	110 - 160	Flat
	5/32" x 14"	90 - 140	Vertical Up & Overhead

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 6011505MS	6011 3/32 Electrode - 5 lb. Package	3/32"	5 lb.
MSS 60115010MS	6011 3/32 Electrode - 10 lb. Package	3/32"	10 lb.
MSS 6011605MS	6011 1/8 Electrode - 5 lb. Package	1/8"	5 lb.
MSS 60116010MS	6011 1/8 Electrode - 10 lb. Package	1/8"	10 lb.
MSS 6011705MS	6011 5/32 Electrode - 5 lb. Package	5/32"	5 lb.
MSS 60117010MS	6011 5/32 Electrode - 10 lb. Package	5/32"	10 lb.



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E6013 Mild Steel Stick Electrodes

Description:

A general purpose electrode for mild steel that produces a smooth, quiet, medium-penetrating arc that is readily maintained with minimal spatter loss. Conforms to ANSI/AWS A5.1 & ASME SFA 5.1 E6013.

Typical Application:

Ideally suited for general purpose welding, even with small AC power sources having low open-circuit voltage. Used for vehicles, ship building and repair, sheet metal, build-up of over-machined and worn mild steel surfaces and general light fabrication.

Features:

- Tensile strength - 60,000 psi
- Yield strength - 48,000 psi
- Elongation - 17% min
- All position
- Slag lifts easily, revealing a finely rippled bead contour
- Quick freezing slag provides optimum performance in the vertical down welding position



E6013 Mild Steel Stick Electrodes

AWS E6013 (SMAW)

Wire Composition		Classification	Tensile Strength
	AWS Requirements*		
%C	0.20	ANSI/AWS A5.1 E6013 ASME SFA 5.1 E6013	60,000 psi
%Mn	1.20		
%Si	1.00		
%P	N/S**		
%S	N/S**		
%Ni	0.30		
%Cr	0.20		
%Mo	0.30		
%V	0.08		
%Fe	Remainder		

*Single values are maximum

**Not Specified

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
DC Reverse (DC+)	3/32" x 12"	60 - 90	Flat
	3/32" x 12"	50 - 80	Vertical Up & Overhead
	1/8" x 14"	100 - 120	Flat
	1/8" x 14"	80 - 100	Vertical Up & Overhead
	5/32" x 14"	110 - 160	Flat
	5/32" x 14"	100 - 150	Vertical Up & Overhead

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 6013505MS	6013 3/32 Electrode - 5 lb. Package	3/32"	5 lb.
MSS 60135010MS	6013 3/32 Electrode - 10 lb. Package	3/32"	10 lb.
MSS 6013605MS	6013 1/8 Electrode - 5 lb. Package	1/8"	5 lb.
MSS 60136010MS	6013 1/8 Electrode - 10 lb. Package	1/8"	10 lb.
MSS 6013705MS	6013 5/32 Electrode - 5 lb. Package	5/32"	5 lb.
MSS 60137010MS	6013 5/32 Electrode - 10 lb. Package	5/32"	10 lb.



E7014 Mild Steel Stick Electrodes

Description:

An all position electrode for mild and low alloy steels with an iron powder covering. The iron powder yields a high deposition rate. The welds reflect smooth beads with fine ripples. Conforms to ANSI/AWS A5.1 & ASME SFA 5.1 E7014.

Typical Application:

Heavy sheet metal, frames, shelving, general maintenance and fabrication.

Features:

- Tensile strength - 70,000 psi
- Yield strength - 58,000 psi
- Elongation - 17% min
- All position
- Slag is easily removed, often self-lifting
- Particularly advantageous when poor fit-up exists



E7014 Mild Steel Stick Electrodes

AWS E7014 (SMAW)

Wire Composition		Classification	Tensile Strength
	AWS Requirements*		
%C	0.15	ANSI/AWS A5.1 E7014 ASME SFA 5.1 E7014	70,000 psi
%Mn	1.25		
%Si	0.90		
%S	0.035		
%P	0.035		
%Cr	0.20		
%Ni	0.30		
%Mo	0.30		
%V	0.08		
%Fe	Remainder		

*Single values are maximum

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
AC, DCEN or DCEP	3/32" x 12"	100 - 110	Flat
	3/32" x 12"	80 - 90	Vertical Up & Overhead
	1/8" x 14"	130 - 140	Flat
	1/8" x 14"	120 - 130	Vertical Up & Overhead
	5/32" x 14"	190 - 200	Flat
	5/32" x 14"	150 - 160	Vertical Up & Overhead

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 7014505MS	7014 3/32 Electrode - 5 lb. Package	3/32"	5 lb.
MSS 70145010MS	7014 3/32 Electrode - 10 lb. Package	3/32"	10 lb.
MSS 7014605MS	7014 1/8 Electrode - 5 lb. Package	1/8"	5 lb.
MSS 70146010MS	7014 1/8 Electrode - 10 lb. Package	1/8"	10 lb.
MSS 7014705MS	7014 5/32 Electrode - 5 lb. Package	5/32"	5 lb.
MSS 70147010MS	7014 5/32 Electrode - 10 lb. Package	5/32"	10 lb.



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E7018 & E7018AC Mild Steel Stick Electrodes

Description:

A high deposition electrode for low and medium carbon steels. It is an efficient, iron powder, low hydrogen electrode with excellent mechanical properties that are crack resistant and provide x-ray quality welds. Conforms to ANSI/AWS A5.1 & ASME SFA 5.1 E7018/E7018-1.

Typical Application:

Ship hull construction, pressure vessels, boilers, piping, heavy duty equipment, general maintenance and/or production fabrication.

Features:

- Tensile strength - 70,000 psi
- Yield strength - 58,000 psi
- Elongation in 2" - 22% min
- All position



E7018

E7018AC

- Provides a quiet, stable, low penetration, spatter-free arc
- Produces moderate to heavy slag that is easily removed, revealing a bead with distinct ripples
- Operator appeal is a plus factor

E7018 & E7018AC Mild Steel Stick Electrodes

AWS E7018/E7018-1 (SMAW)

Wire Composition		Classification	Tensile Strength
	AWS Requirements*		
%C	0.15	ANSI/AWS A5.1 E7018/E7018-1 ASME SFA 5.1 E7018/E7018-1	70,000 psi
%Mn	1.60		
%Si	0.75		
%S	0.035		
%P	0.035		
%Cr	0.20		
%Ni	0.30		
%Mo	0.30		
%V	0.08		
%Fe	Remainder		

*Single values are maximum

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
AC, DCEN or DCEP	3/32" x 12"	65 - 85	Flat
	3/32" x 12"	50 - 80	Vertical Up & Overhead
	1/8" x 14"	90 - 130	Flat
	1/8" x 14"	85 - 120	Vertical Up & Overhead
	5/32" x 14"	130 - 180	Flat
	5/32" x 14"	110 - 160	Vertical Up & Overhead

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 7018505MS	7018 3/32 Electrode - 5 lb. Package	3/32"	5 lb.
MSS 70185010MS	7018 3/32 Electrode - 10 lb. Package	3/32"	10 lb.
MSS 7018605MS	7018 1/8 Electrode - 5 lb. Package	1/8"	5 lb.
MSS 70186010MS	7018 1/8 Electrode - 10 lb. Package	1/8"	10 lb.
MSS 7018705MS	7018 5/32 Electrode - 5 lb. Package	5/32"	5 lb.
MSS 70187010MS	7018 5/32 Electrode - 10 lb. Package	5/32"	10 lb.
MSS 7018AC505MS	7018AC 3/32 Electrode - 5 lb. Package	3/32"	5 lb.
MSS 7018AC5010M	7018AC 3/32 Electrode - 10 lb. Package	3/32"	10 lb.
MSS 7018AC605MS	7018AC 1/8 Electrode - 5 lb. Package	1/8"	5 lb.
MSS 7018AC6010M	7018AC 1/8 Electrode - 10 lb. Package	1/8"	10 lb.



Nickel 55 Electrodes

Description:

A general purpose, nickel-iron electrode for production, salvage and repair of all cast irons. Conforms to AWS A5.15, ENiFeCl.

Typical Application:

Suited to joining, filling and buildup of gray and alloyed cast irons. It can be used for fabrication and repair of pump housings, valves, castings, cast and malleable fittings, and for general repair of all cast irons.

Features:

- Tensile Strength - 58,000-84,000 psi
- Close color match
- All position
- Deposits have high strength

Procedure:

- Use AC or DC reverse polarity
- Vee out cracks
- Pre-heat heavy castings to approximately 350°F for best results
- Direct the arc upon deposited metal with the electrode at a slight angle in the direction of travel
- Lightly peen between passes and use a skip or back-step welding technique
- Allow casting to cool slowly



Nickel 55 Electrodes

Nickel Electrodes • AWS ENiFe-Cl

Wire Composition		Classification	Tensile Strength
	AWS Requirements*		
%C	2.0	AWS A5.15 ENiFe-Cl	58,000 - 84,000 psi
%Mn	2.5		
%Si	4.0		
%S	0.03		
%Ni	45 - 60		
%Cu	2.5		
%Al	1.0		
%Fe	Remainder		
%Other	1.0		

*Single values are maximum

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
AC or DC Reverse	3/32" x 12"	70 - 85	Flat
	3/32" x 12"	65 - 75	Vertical Up & Overhead
	1/8" x 14"	85 - 110	Flat
	1/8" x 14"	80 - 90	Vertical Up & Overhead
	5/32" x 14"	110 - 140	Flat
	5/32" x 14"	110 - 120	Vertical Up & Overhead

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS NLW59500MS	Nickel 55 3/32 Electrode - 1 lb. Package	3/32"	1 lb.
MSS NLW59505MS	Nickel 55 3/32 Electrode - 5 lb. Package	3/32"	5 lb.
MSS NLW59600MS	Nickel 55 1/8 Electrode - 1 lb. Package	1/8"	1 lb.
MSS NLW59605MS	Nickel 55 1/8 Electrode - 5 lb. Package	1/8"	5 lb.



Nickel 99 Electrodes

Description:

A general purpose, high-nickel electrode for production and repair of cast iron. Conforms to AWS A5.15, ENiCl.

Typical Application:

Building up, joining, filling holes, breaks and cracks in all types of cast iron. It has very good out-of-position welding characteristics. Parts are frequently repaired without dismantling.

Features:

- Tensile Strength - 40,000-65,000 psi
- Yield Strength - 38,000-60,000 psi
- Elongation - 3-6% min
- Close color match
- Excellent machinability
- All position

Procedure:

- Use AC or DC reverse or straight polarity
- Clean the weld area
- Bevel breaks and cracks deep enough so the first pass ties in the bottom of the crack
- In most cases, pre-heating is not necessary, but heavy sections should be pre-heated to approximately 350°F
- Use a short arc - Stringer beads are recommended
- Skip or back-step weld and peen to relieve stresses
- Allow casting to cool slowly



Nickel 99 Electrodes

Nickel Electrodes • AWS ENi-CI

Wire Composition		Classification	Tensile Strength
	AWS Requirements*		
%C	2.00	AWS A5.15, ENi-CI	40,000 - 65,000 psi
%Mn	2.50		
%Si	4.0		
%S	0.03		
%Ni	85 min		
%Cu	2.5		
%Al	1.0		
%Fe	8.0		
%Other	1.0		

*Single values are maximum

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
AC or DC Reverse or Straight	3/32" x 12"	70 - 85	Flat
	3/32" x 12"	65 - 75	Vertical Up & Overhead
	1/8" x 14"	85 - 110	Flat
	1/8" x 14"	80 - 90	Vertical Up & Overhead
	5/32" x 14"	110 - 140	Flat
	5/32" x 14"	110 - 120	Vertical Up & Overhead

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS NLW99500MS	Nickel 99 3/32 Electrode - 1 lb. Package	3/32"	1 lb.
MSS NLW99505MS	Nickel 99 3/32 Electrode - 5 lb. Package	3/32"	5 lb.
MSS NLW99600MS	Nickel 99 1/8 Electrode - 1 lb. Package	1/8"	1 lb.
MSS NLW99605MS	Nickel 99 1/8 Electrode - 5 lb. Package	1/8"	5 lb.
MSS NLW99705MS	Nickel 99 5/32 Electrode - 5 lb. Package	5/32"	5 lb.



MS3000 Welding Electrodes for Dissimilar Steels

Description:

The ultimate maintenance and repair steel electrode for welding steels with the highest strength and maximum ductility (AC/DC). It's considered the maintenance and repair "stand-by" in every industry throughout the world.

Typical Application:

Assures non-cracking welds on "problem" steels such as high carbon, tool, stainless, spring, manganese and dissimilar steels. Particularly advantageous when the alloy content of the steel to be welded is unknown. This unique electrode is so versatile that its applications are virtually too numerous to specify.



Features:

- Tensile strength - Up to 120,000 psi
- Yield strength - Up to 85,000 psi
- Ductility - Up to 35% elongation in 2"
- Reduction of area - 30%
- Charpy V notch - 75 ft./lb. @ room temperature
- Rockwell B hardness - 93 - 102 HRB
- Brinell hardness - 200 - 300 HB
- Frictional resistance - Excellent
- Abrasive resistance - Mild
- Will not respond to heat treatment
- All position, except vertical down

Procedure:

- Use either AC or DC reverse polarity
- Clean weld area
- Bevel heavy sections
- For high carbon steels, a preheat of 400°F is recommended
- Hold a short arc
- Run stringer beads
- Peening will help relieve stresses
- Let each pass cool and slag will peel off easily

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
AC or DC Reverse	3/32" x 9"	40 - 80	All, Except Vertical Down
	1/8" x 14"	70 - 110	All, Except Vertical Down
	5/32" x 14"	95 - 145	All, Except Vertical Down
	3/16" X 14"	145 - 200	All, Except Vertical Down

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 00SMW500MS	MS3000 Steel 3/32" Electrode - 1 lb. Package	3/32"	1 lb.
MSS 00SMW600MS	MS3000 Steel 1/8" Electrode - 1 lb. Package	1/8"	1 lb.



MS6000 Aluminum Electrode

Description:

Aluminum Electrode features a precise combination of core wire and coating, providing high speed deposition of dense, machinable welds.

Typical Application:

Used in fabrication and repair of cast and wrought aluminum, foundry defects, machining errors and salvage work. Also, widely used on sheets, tubes and extrusions. Well suited for torch applications.

Features:

- Tensile strength - Up to 34,000 psi
- Good electrical conductivity
- Good color match
- Machinable
- Good corrosion resistance
- All position

Procedure:

- Clean weld area
- Bevel sections greater than 1/4"
- Pre-heat to 500°F is recommended on sections greater than 1/8"
- DC - reverse polarity
- Hold electrode in a vertical position
- Remove flux between passes
- Clean with hot water; add 10% sulfuric acid to water if additional cleaning is required



Aluminum Electrode (SMAW)

Wire Composition		Classification	Tensile Strength
	AWS Requirements*		
%Si	4.5-6.0	AWS A5.3	32,000 psi
%Cu	0.30		
%Fe	0.80		
%Mg	0.05		
%Mn	0.05		
%Zn	0.10		
%Be	0.0008		
%Ti	0.20		
%Al	Remainder		

*Single values are maximum

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
DC Reverse	3/32" x 14"	50- 85	Vertical
	1/8" x 14"	85 - 135	Vertical
	5/32" x 14"	110 - 165	Vertical

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 00026500MS	MS6000 Aluminum 3/32 Electrode - 1 lb. Package	3/32"	1 lb.
MSS 00026600MS	MS6000 Aluminum 1/8 Electrode - 1 lb. Package	1/8"	1 lb.



MS7000 General Purpose Hard Surface Electrode

Description:

Chromium carbide electrode for economical smooth overlays.

Typical Application:

Used for protecting most iron base surfaces against severe abrasive wear and moderate impact. In the as-welded condition, the microstructure consists of an austenitic alloy matrix (bulk hardness RC57) and chromium/complex carbides (hardness RA77).



Features:

- Ripple free surface doubles "grip resistance" to fine abrasive media
- 3/32" and 1/8" provide position capability
- Special formula totally eliminates the "work tracking" type porosity common to this alloy group
- Gray flux color
- Flat and horizontal welding positions, but smaller diameters can be used out of position

Procedure:

- Use a stringer or wide weave technique
- Deposit a maximum of 2 to 3 passes to achieve full hardness
- DC Reverse (+), AC recommended current

General Purpose Hard Surface Electrode

Chromium Carbide Electrode (SMAW)

Wire Composition		Classification
	AWS Requirements*	
%C	.65	None
%Mn	.5	
%Si	1.2	
%S	.04	
%P	.03	
%Cr	9.3	
%Fe	Remainder	

*Single values are maximum

Polarity	Electrode Diameter	Welding Current (AMPS)	Welding Position
DC Reverse (+), AC	3/32" x 14"	65 - 95	Flat, Horizontal**
	1/8" x 14"	110 - 140	Flat, Horizontal**
	5/32" x 14"	160 - 200	Flat, Horizontal**
	3/16" x 14"	210 - 270	Flat, Horizontal**

**Smaller diameters can be used out of position

Ordering Information

Part Number	Description	Wire Diameter	Weight
MSS 00180500MS	MS7000 Gen Purpose Hard Surface 3/32 Electrode - 1 lb. Package	3/32"	1 lb.
MSS 00180600MS	MS7000 Gen Purpose Hard Surface 1/8 Electrode - 1 lb. Package	1/8"	1 lb.



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Flashback Arrestors – Oxygen/Fuel Gas

Features:

- Fits all "B" size 9/16"-18 fittings (regulators, torches & hoses)
- Built-in check valve prevents reverse gas flow
- Stainless steel sintered element stops multiple flashbacks (no resetting required)
- U/L listed and 100% tested
- 2 PSI minimum pressure for gas flow



Ordering Information

Part Number	Description
MSF FA10MS	Oxygen/Fuel Gas Set, Torch Style
MSF FA30MS	Oxygen/Fuel Gas Set, Regulator Style
Flashback Arrestor Components	
MSF FA100PMS	Flashback Arrestor, Oxygen, Torch Style Only
MSF FA200PMS	Flashback Arrestor, Fuel Gas, Torch Style Only
MSF FA130PMS	Flashback Arrestor, Oxygen, Regulator Style Only
MSF FA230PMS	Flashback Arrestor, Fuel Gas, Regulator Style Only

Quick Connects for Gas Welding Equipment

Features:

- Durable brass construction provides for long service life
- Designed for "B" size 9/16"-18 fittings (regulators, torches & hoses)
- Design guided by ISO 7289 safety standards
- Non-interchangeable oxygen/fuel gas connectors to prevent cross connections
- Built-in demand valves shut down upstream gases when disconnected



MSF QDB10MS



MSF QDB20MS

Ordering Information

Part Number	Description
MSF QDB10MS	Oxygen/Fuel Gas Quick Connect Set, Torch to Hose Style
MSF QDB20MS	Oxygen/Fuel Gas Quick Connect Set, Hose to Hose Style
MSF QDB30MS	Oxygen/Fuel Gas Quick Connect Set, Regulator to Hose Style
Quick Connect Components	
MSF QDB11MS	Torch to Hose, Fuel Gas
MSF QDB12MS	Torch to Hose, Oxygen
MSF QDB21MS	Hose to Hose, Fuel Gas
MSF QDB22MS	Hose to Hose, Oxygen
MSF QDB31MS	Regulator to Hose, Fuel Gas
MSF QDB32MS	Regulator to Hose, Oxygen



Hose Repair Kits

Features:

- Includes assortment of hose nuts, nipples, splicers, couplers and ferrules
- Crimping tool with two hole jaw for use on 3/16" and 1/4" hose
- Clear, sectioned plastic case
- Fittings chart with photos and descriptions

Ordering Information

Part Number	Description
MSF CK24MS	Hose Repair Kit with Crimping Tool for 3/16" & 1/4" Hose, "B" Size Only
MSF CK26MS	Hose Repair Kit with Crimping Tool for 1/4" Hose, "B" Size Only
MSF CK5MS	Hose Repair Kit with Crimping Tool for 3/16" & 1/4" Hose, "A" & "B" Size



Crimping Tool

Features:

- Hand held ferrule crimping tool
- No hammer, vise or other tool needed
- Two hole jaw
- 1/2" wide to crimp hoses from 3/16" to 1/4"

Ordering Information

Part Number	Description
MSF C5MS	Crimping Tool for Use on 3/16" and 1/4" Hose



Cylinder Adaptors

Features:

- Adaptors connect a regulator to a cylinder or other equipment when different CGA threads on the mating parts make a direct connection impossible
- Solid brass or brazed construction



Ordering Information

Part Number	Adapts from Cylinder Service	To Regulator Service
MSF 51MS	CGA 510 POL Acetylene	CGA 300 Commercial Acetylene
MSF 61MS	CGA 300 Commercial Acetylene	CGA 510 POL Acetylene
MSF 306MS	CGA 520 "B" Cylinder Acetylene	CGA 200 "MC" Acetylene
MSF 315MS	CGA 510 POL Acetylene	CGA 520 "B" Acetylene
MSF 317MS	CGA 520 "B" Cylinder Acetylene	CGA 510 POL Acetylene
MSF 806MS	CGA 320 Carbon Dioxide	CGA 580 Nitrogen (Inert Gases)
MSF 810MS	CGA 580 Nitrogen (Inert Gases)	CGA 320 Carbon Dioxide
MSF 319MS	CGA 520 "B" Cylinder Acetylene	CGA 300 Commercial Acetylene



Hose Nuts

Features:

- For pressures up to 200 PSIG
- "A" & "B" Size
- Oxygen & Fuel Gas
- Material: Brass



MSF 7MS



MSF 8MS

Ordering Information

Part Number	Description	Thread Size	Gas Service	Quantity per Bag
MSF 7MS	Oxygen, RH, "B" Size	9/16"-18 RH	CGA 022	2
MSF 8MS	Fuel Gas, LH, "B" Size	9/16"-18 LH	CGA 023	2
MSF 9MS	Oxygen, RH, "A" Size	3/8"-24 RH	CGA 020	2
MSF 10MS	Fuel Gas, LH, "A" Size	3/8"-24 LH	CGA 021	2
MSF 7BMS	Oxygen, RH, "B" Size	9/16"-18 RH	CGA 022	25
MSF 8BMS	Fuel Gas, LH, "B" Size	9/16"-18 LH	CGA 023	25
MSF 9BMS	Oxygen, RH, "A" Size	3/8"-24 RH	CGA 020	25
MSF 10BMS	Fuel Gas, LH, "A" Size	3/8"-24 LH	CGA 021	25

Barbed Hose Nipples

Features:

- For pressures up to 200 PSIG
- "A" & "B" Size
- For 1/4" or 3/16" Hose
- Oxygen & Fuel Gas
- Material: Brass



Ordering Information

Part Number	Size	Length	For Hose Size	Quantity per Bag
MSF 17MS	"B" Size	1-7/16"	1/4" I.D.	2
MSF 18MS	"B" Size	1-7/16"	3/16" I.D.	2
MSF 19MS	"A" Size	1-3/16"	3/16" I.D.	2
MSF 20MS	"B" Size	1-7/16"	3/8" I.D.	2
MSF 17BMS	"B" Size	1-7/16"	1/4" I.D.	25
MSF 18BMS	"B" Size	1-7/16"	3/16" I.D.	25
MSF 19BMS	"A" Size	1-3/16"	3/16" I.D.	25
MSF 20BMS	"B" Size	1-7/16"	3/8" I.D.	25

Hose Couplers

Features:

- For pressures up to 200 PSIG
- "B" Size
- Oxygen & Fuel Gas
- Material: Brass



MSF 30MS



MSF 31MS

Ordering Information

Part Number	Description	Inlet Thread Size	Outlet Thread Size	Quantity per Bag
MSF 30MS	Oxygen Hose Coupler, "B" Size	9/16"-18 RH	9/16"-18 RH	2
MSF 31MS	Fuel Gas Hose Coupler, "B" Size	9/16"-18 LH	9/16"-18 LH	2
MSF 30BMS	Oxygen Hose Coupler, "B" Size	9/16"-18 RH	9/16"-18 RH	25
MSF 31BMS	Fuel Gas Hose Coupler, "B" Size	9/16"-18 LH	9/16"-18 LH	25



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Regulator Outlet Bushings

Features:

- For pressures up to 200 PSIG
- "B" Size
- Oxygen & Fuel Gas
- Material: Brass



Ordering Information

Part Number	Description	Inlet Thread Size	Outlet Thread Size	Quantity per Bag
MSF 32MS	Oxygen Regulator Outlet Adaptor	1/4" Male NPT	9/16"-18 RH	2
MSF 33MS	Fuel Gas Regulator Outlet Adaptor	1/4" Male NPT	9/16"-18 LH	2
MSF 32BMS	Oxygen Regulator Outlet Adaptor	1/4" Male NPT	9/16"-18 RH	25
MSF 33BMS	Fuel Gas Regulator Outlet Adaptor	1/4" Male NPT	9/16"-18 LH	25

Hose Splicers

Features:

- For pressures up to 200 PSIG
- Hexagon, round, spiral or no center stop
- Material: Brass



MSF 34MS



MSF 37MS



MSF 44MS



MSF 54MS

Ordering Information

Part Number	Description	Style	Quantity per Bag
MSF 34MS	1/4" to 1/4" I.D. Hose	Spiral Hex	2
MSF 37MS	1/4" to 1/4" I.D. Hose	Barb Hex	2
MSF 44MS	1/4" to 1/4" I.D. Hose	Barb Round	2
MSF 45MS	3/16" to 3/16" I.D. Hose	Barb Round	2
MSF 46MS	5/16" to 5/16" I.D. Hose	Barb Round	2
MSF 47MS	3/8" to 3/8" I.D. Hose	Barb Round	2
MSF 54MS	1/4" to 1/4" I.D. Hose	No Center Stop	2
MSF 37BMS	1/4" to 1/4" I.D. Hose	Barb Hex	25
MSF 44BMS	1/4" to 1/4" I.D. Hose	Barb Round	25
MSF 45BMS	3/16" to 3/16" I.D. Hose	Barb Round	25
MSF 47BMS	3/8" to 3/8" I.D. Hose	Barb Round	25
MSF 54BMS	1/4" to 1/4" I.D. Hose	No Center Stop	25



Hose Barb Adaptors

Features:

- For pressures up to 200 PSIG
- NPT x Hose Barb
- Material: Brass


MSF 541BMS

MSF 555MS
Ordering Information

Part Number	Description	Inlet Thread Size	Hose Size	Quantity per Bag
MSF 541BMS	Hose Barb Male NPT Thread	1/4" Male NPT	1/4" I.D.	20
MSF 543BMS	Hose Barb Male NPT Thread	1/4" Male NPT	3/8" I.D.	20
MSF 555MS	Hose Barb Female NPT Thread	1/4" Female NPT	1/4" I.D.	1

Swivel Nut Adaptor

Features:

- For pressures up to 200 PSIG
- Material: Brass


Ordering Information

Part Number	Description	Inlet Thread	Hose Connection
MSF 123MS	Swivel Hose Nut Adaptor, "B" Size	1/4" Male NPT	9/16"-18 RH

Plug & Chain Assemblies

Features:

- For pressures up to 200 PSIG
- Gas tight seal
- Two piece nut and blind nipple
- Material: Brass


Ordering Information

Part Number	Description	Thread Size	Gas Service
MSF 927MS	Oxygen, Female Nut & Plug, "B" Size	9/16"-18 RH	CGA 022
MSF 928MS	Fuel Gas, Female Nut & Plug, "B" Size	9/16"-18 LH	CGA 023



Inert Arc Gas Fittings

Inert Arc Nuts (TIG)

Features:

- For pressures to 200 PSIG
- Use with all "B" Size inert arc nipples
- Material: Brass


Ordering Information

Part Number	Description	Thread Size	Gas Service	Quantity per Bag
MSF AW14MS	Water, Male LH	"B" Size - 5/8"-18	CGA 033	2
MSF AW14AMS	Inert Gas, Male RH	"B" Size - 5/8"-18	CGA 032	2
MSF AW14BMS	Water, Male LH	"B" Size - 5/8"-18	CGA 033	25
MSF AW14ABMS	Inert Gas, Male RH	"B" Size - 5/8"-18	CGA 032	25

Inert Arc Nipples (TIG)

Features:

- For pressures to 200 PSIG
- Use with all "B" Size inert arc nuts
- Material: Brass


Ordering Information

Part Number	Description	Size	Hose Size	Quantity per Bag
MSF AW17MS	Inert Arc Nipple, 2-7/32" Long	"B" Size, 5/8"-18	1/4" I.D.	2
MSF AW17BMS	Inert Arc Nipple, 2-7/32" Long	"B" Size, 5/8"-18	1/4" I.D.	25
MSF AW18MS	Inert Arc Nipple, 2-7/32" Long	"B" Size, 5/8"-18	3/16" I.D.	1
MSF AW19MS	Inert Arc Nipple, 2-7/32" Long	"B" Size, 5/8"-18	3/8" I.D.	1



Inert Arc Gas Fittings

Air – Water Adaptor

Features:

- For pressures up to 200 PSIG
- Male to female adaptor
- Material: Brass

**Ordering Information**

Part Number	Description
MSF AW15AMS	1/4" NPT Male to "B" Size 5/8"-18 Female RH Water

Inert Arc Hose & Torch Adaptor

Features:

- For pressures up to 200 PSIG
- Male x Male Adaptor
- Material: Brass

**Ordering Information**

Part Number	Description
MSF AW427MS	5/8"-18 RH Male to 1/4" NPT Male

Inert Arc Hose Coupler

Features:

- For pressures up to 200 PSIG
- Female x Female Coupler
- Material: Brass

**Ordering Information**

Part Number	Description
MSF AW430MS	5/8"-18 RH Female to 5/8"-18 RH Female

"Y" Connectors without Shut-Off Valves

Features:

- For pressures up to 200 PSIG
- "B" Size 9/16"-18 Thread
- Swivel Nut Inlet
- Material: Brass



Ordering Information

Part Number	Inlet	Outlets	Gas Service
MSF 101MS	Oxygen, RH Female, Swivel Nut	9/16" -18 RH Male	CGA 022
MSF 102MS	Fuel Gas, LH Female, Swivel Nut	9/16" -18 LH Male	CGA 023

"Y" Connectors with Shut-Off Valves

Features:

- For pressures up to 200 PSIG
- For use with two hoses
- High precision shut-off valves
- Swivel Nut Inlet
- Material: Brass



MSF 111MS



MSF 411MS

Ordering Information

Part Number	Inlet	Outlets	Gas Service
MSF 111MS	Oxygen 9/16" -18 RH Female, Swivel Nut	9/16" -18 RH Male	CGA 022
MSF 112MS	Fuel Gas, 9/16" -18 LH Female, Swivel Nut	9/16" -18 LH Male	CGA 023
MSF 411MS	Argon, 5/8" -18 RH Male Swivel Nut	5/8" -18 RH Female	CGA 032



Brass Shut-Off Valves

Features:

- Precision shut-off valves
- Oxygen, fuel gas and non-corrosive gases



Ordering Information

Part Number	Inlet	Outlet	Gas Service	Pressure Rating
MSF 205MS	1/4" NPT Male	Oxygen, 9/16"-18 RH Male	CGA 022	200 PSIG
MSF 206MS	1/4" NPT Male	Fuel Gas, 9/16"-18 LH Male	CGA 023	200 PSIG
MSF 211MS	1/4" NPT Male	1/4" NPT Male	All Non-Corrosive	3000 PSIG

Hose Ferrules

Features:

- For pressures up to 200 PSIG
- Material: Brass

To determine proper ferrule size, measure O.D. of the hose (as a decimal) and go up to the next larger size ferrule I.D. on the chart below



Ordering Information

Part Number	Inside Diameter (inches)	Length (inches)	Quantity per Bag
MSF 620BMS	0.410	0.500	25
MSF 622BMS	0.380	0.500	25
MSF 624BMS	0.500	0.470	25
MSF 625BMS	0.525	0.500	25
MSF 626BMS	0.548	0.478	25
MSF 769BMS	0.450	0.563	25
MSF 833BMS	0.358	0.500	25
MSF 3588MS	0.562	0.750	4
MSF 3588BMS	0.562	0.750	25
MSF 4750BMS	0.475	0.688	25
MSF 7322BMS	0.500	1.000	25
MSF 7323BMS	0.525	1.000	25
MSF 7323MS	0.525	1.000	4
MSF 7325MS	0.562	1.000	4
MSF 7325BMS	0.562	1.000	25
MSF 7326MS	0.593	1.000	4
MSF 7326BMS	0.593	1.000	25
MSF 7327BMS	0.625	1.000	25
MSF 7328BMS	0.656	1.000	25
MSF 7329BMS	0.687	1.000	25
MSF 7331BMS	0.750	1.000	25
MSF KKBMS	0.575	0.484	25
MSF 7330BBMS	0.718	1.000	25



CGA Nuts & Nipples for Regulators

**MSF 62MS****MSF 63MS****MSF 82MS****MSF 83MS****MSF 92MS****MSF 153MS****MSF 152MS****MSF 5002MS****MSF CO3MS****MSF CO5MS****MSF CO6BMS****MSF 6802MS****MSF 6803SFMS****MSF 3472MS****MSF3473MS**

Ordering Information

Part Number	Part	CGA	Description	Pressure Rating	Quantity per Bag
MSF 62MS	Nut	540	Brass, .908" -14 NGO, RH Female	3000 PSIG	1
MSF 63MS	Nipple	540	Brass, 1/4" NPT, 2.06" Long	3000 PSIG	1
MSF 66MS	Nipple	540	Brass, 1/4" NPT, 2-1/2" Long	3000 PSIG	1
MSF 66SFMS	Nipple	540	Brass, 1/4 NPT, 2-1/2" Long with Filter	3000 PSIG	1
MSF 69MS	Nipple	540	Brass, 1/4" NPT, 3" Long	3000 PSIG	1
MSF 82MS	Nut	350	Brass, .830"-14 NGO, LH Female	3000 PSIG	1
MSF 83MS	Nipple	350	Brass, 1/4" NPT, 2-1/2" Long	3000 PSIG	1
MSF 92MS	Nut	580	Brass, .960"-14 NGO, RH Male	3000 PSIG	1
MSF 153MS	Nipple	500/510/580/590	Brass 1/4" NPT, 3" Long	3000 PSIG	1
MSF 153SFMS	Nipple	500/510/580/590	Brass, 1/4" NPT, 3" Long with Filter	3000 PSIG	1
MSF 154MS	Nipple	500/510/580/590	Brass, 1/4" NPT, 3-1/2" Long	3000 PSIG	1
MSF 158SFMS	Nipple	500/510/580/590	Brass, 1/4" NPT, 2-1/2" Long with Filter	3000 PSIG	1
MSF 152MS	Nut	510	Brass, .880"-14 NGO, LH Male	3000 PSIG	1
MSF 5002MS	Nut	500	Brass, .880"-14 NGO, RH Male	3000 PSIG	1
MSF CO2MS	Nut	320	Brass, .830"-14 NGO, RH Female	3000 PSIG	1
MSF CO3MS	Nipple	320	Brass, 1/4" NPT, 2" Long with Washer	3000 PSIG	1
MSF CO4MS	Nipple	320	Brass, 1/4" NPT, 2-1/2" Long with Washer	3000 PSIG	1
MSF CO5MS	Washer	320	Fiber, Flat Washer	3000 PSIG	4
MSF CO5BMS	Washer	320	Fiber, Flat Washer	3000 PSIG	50
MSF CO6BMS	Washer	320	Teflon, Flat Washer	3000 PSIG	100
MSF CO6NBMS	Washer	320	Nylon, Flat Washer	3000 PSIG	100
MSF 665BMS	Washer	660	Nylon, Washer for CGA 660	3000 PSIG	100
MSF 6802MS	Nut	680	Brass, 1.040"-14 NGO RH Male	5500 PSIG	1
MSF 6803SFMS	Nipple	680	Brass, 1/4" NPT, 3" Long with Filter	5500 psig	1
MSF 3472MS	Nut	347	Brass, .830"-14 NGO RH Female	3001-5500 PSIG	1
MSF 3473MS	Nipple	347	Brass, 1/4" NPT, 3" Long	3001-5500 PSIG	1



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Twin Welding Hoses

Features:

- Multi-ventilated pores in hose cover add safety to welding operations which permits dispersion of permeating gases

Material: Synthetic Rubber

Color: Red/Green



Part Number	Grade	Connection Type	Hose I.D.	Length
Acetylene Only				
MSG LB1004MS	R	B-B	1/4"	100 ft.
MSG LB123MS	R	B-B	3/16"	12.5 ft.
MSG LB253MS	R	B-B	3/16"	25 ft.
MSG LB254MS	R	B-B	1/4"	25 ft.
MSG LB503MS	R	B-B	3/16"	50 ft.
MSG LB504MS	R	B-B	1/4"	50 ft.
All Fuel Gases				
MSG T1004MS	T	B-B	1/4"	100 ft.
MSG T254MS	T	B-B	1/4"	25 ft.
MSG T504MS	T	B-B	1/4"	50 ft.
MSG T508MS	T	B-B	3/8"	50 ft.

Grade R Features:

- Acetylene use only where cover must resist abrasion, weather and ozone

Gas Type: Acetylene Only

Operating Temperature: -40°F - 212°F

Grade T Features:

- For use with all fuel gases where a flame and oil resistant cover is required

Gas Type: All Fuel Gases

Operating Temperature: -40°F - 212°F



Tip Cleaners

Features:

- Aluminum case

Material: Spring Steel



Part Number	Includes	Length
MSG KTCMS	(13) Extra Long Cleaners	5"
MSG STCMS	(13) Standard Size Cleaners	3"

Single Flint Torch Lighter

Features:

- Universal single round lighter
- Replaceable flint



Part Number
MSG 3001MS

Triple Flint Torch Lighter

Features:

- Tri-Flint lighter
- Replaceable 3-way flint



Part Number
MSG 4501MS

Flints for Spark Lighters

Features:

- Easy sparking flints

Part Number	Type	Package
MSG 2001FCMS	Single Flint	5 per pack
MSG 4501FC5MS	Triple Flint	5 per pack



Single Flint



Triple Flint



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Round Soapstones

Features:

- No. 1 select soapstone
- Uniform size
- Top quality

Color: White

Shape: Round

Quantity: 10 per pack


Part Number	Length	Width
MSG RD5MS	5"	1/4"

Flat Soapstones

Features:

- No. 1 select soapstone
- Uniform size
- Top quality

Color: White

Shape: Flat

Quantity: 6 per pack


Part Number	Length	Width
MSG FL5MS	5"	1/2"

Soapstone Holders

Features:

- Pocket clip
- Positive lock adjustment
- Spring tension friction guide for soapstone

Color: Silver

Includes: Soapstone


Round Soapstone Holder



Flat Soapstone Holder

Part Number	Shape	Material	Used With
MSG RH30MS	Round	Aluminum	Round Soapstone
MSG SH10MS	Flat	Steel	Flat Soapstone



Chipping Hammer

Features:

- Heat treated head for longer use
- Hammer assembly is welded for maximum strength and safety
- The impact resistance of these molded handles outlasts wood handles
- Reduced impact sting

Handle Type: Coil

Handle Material: Steel



Part Number	Head Type	Head Width	Overall Length
MSG CH200MS	Cone & Chisel	6"	11"

Chipping Hammer with Brush

Features:

- Dual models feature welded brush boxes and top quality replaceable wire brushes

Head Material: Steel

Handle Type: Coil

Handle Material: Steel



Part Number	Head Type
MSG AMS	Chisel

Chipping Hammers with Wood Handle

Features:

- Head design offers 50% greater handle support and protection from handle splinter caused by working over an edge
- Select hickory handles are hand fitted and secured in the head, which virtually eliminates handle loosening

Handle Type: Straight

Head Material: Steel

Handle Material: Hickory

Part Number	Head Type
MSG WH20MS	Cone & Chisel
MSG WH30MS	Cone & Cross Chisel
MSG WH4MS	Curved Cone & Cross Chisel



MSG WH20MS



MSG WH30MS



MSG WH4MS



10-Way Wrench

Features:

- Rugged forged wrench
- Socket for commercial cylinders

Used with: Acetylene cylinders**Material:** Steel

Part Number	No. of Openings	Length
MSG CW10MS	10	8 1/2 "

T Handle Wrench

Features:

- 1/4 " square

Used with: Acetylene cylinders**Material:** Steel

Part Number	Opening Size	Length
MSG TW1MS	1/4 "	5 1/2 "





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Manufactured for **MATHESON** by **WELD-AID**

Nozzle Dip

Features:

- Made from USP grade materials
- Provides a rich protective barrier which prevents spatter build up on MIG gun nozzles, tips, positioners and fixtures

Part Number	Description	Net Content
MSG NOZZLEDIP160	Premium Nozzle Tip Dip	16 fl oz



Solvent Based Anti-Spatter

Features:

- Non-flammable and quick drying
- Heat resistant for high temperature applications
- Can paint over after removing spatter

Part Number	Description	Can Size	Net Weight
MSG 62016OZMS	Heavy Duty Solvent Based Anti-Spatter	16 oz	16 oz
MSG 62024OZMS	Heavy Duty Solvent Based Anti-Spatter	24 oz	24 oz



Premium Galvanized Spray

Features:

- Quick drying, zinc rich cold galv spray that provides protective finish
- Superior protection for steel and ferrous metals in harsh, corrosive environments
- Meets or exceeds ASTM A-780 and ASTM D-1748

Part Number	Description	Can Size	Net Weight
MSG BG16AMS	Zinc Rich Spray Galv (Brilliant Finish)	16 oz	12 oz



Bulk Cable

Features:

- Rugged jacket
- Highly Flexible
- Sequentially marked
- Resists Abrasion, Cut, Tear, Flame, Grease, Oil and Water
- Copper meets SAE Standards
- National Electrical Code article 630 electric welders
- RoHS Compliant

Construction:

Highly flexible annealed 30 gauge bare copper conductor, insulated with an EPDM jacket and paper separator. Operating temperatures range from -50°C to +105°C (-58°F to +221°F). Rated to 600 volts. Also available on 250 and 500 foot reels. Shrink wrap packaging available for 25, 50 or 100 ft. lengths. *Custom lengths also available upon request. Custom indent or standard printing available.*

Application:

MATHESON Select® welding cable is designed for all welding applications where a stinger/whip, leads and grounds are used.



250 and 500 ft. reels



25, 50 and 100 ft. shrink wrap



Cable Specifications

Gauge	Stranding	O.D. Avg.	Wall	Weight/1,000 Ft.
#4	364	.360	.060	152 lbs.
#2	624	.424	.060	239 lbs.
#1	767	.510	.080	312 lbs.
1/0	962	.540	.080	382 lbs.
2/0	1196	.593	.080	455 lbs.
3/0	1534	.632	.080	573 lbs.
4/0	1950	.720	.080	736 lbs.

Suggested Amp Capacity for Welding Cable

Gauge	50'	75'	100'	125'	150'	175'	200'	225'	250'
#4 .178 lbs. per ft.	100A 9 lbs.	100A 13.5 lbs.							
#2 .263 lbs. per ft.	200A 13 lbs.	150A 20 lbs.	100A 27 lbs.	100A 33 lbs.					
#1 .344 lbs. per ft.	250A 17 lbs.	200A 25.8 lbs.	150A 34 lbs.	150A 43 lbs.	100A 52 lbs.				
1/0 .344 lbs. per ft.	350A 21 lbs.	250A 32 lbs.	200A 42 lbs.	150A 53 lbs.	150A 64 lbs.	100A 74.2 lbs.	100A 85 lbs.		
2/0 .512 lbs. per ft.	400A 26 lbs.	300A 38.4 lbs.	250A 52 lbs.	200A 64 lbs.	150A 76.8 lbs.	150A 89.6 lbs.	100A 102.4 lbs.	100A 115.2 lbs.	
3/0 .624 lbs. per ft.	500A 31 lbs.	350A 46.8 lbs.	300A 62.4 lbs.	250A 78 lbs.	200A 94 lbs.	150A 109 lbs.	150A 124.8 lbs.		
4/0 .800 lbs. per ft.	550A 40 lbs.	450A 60 lbs.	350A 80 lbs.	300A 100 lbs.	250A 120 lbs.	200A 140 lbs.	200A 160 lbs.	150A 180 lbs.	150A 200 lbs.

Ordering Information

Gauge	25'	50'	100'	250'	500'
#4	MSC 425	MSC 450	MSC 4100	MSC 4250	MSC 4500
#2	MSC 225	MSC 250	MSC 2100	MSC 2250	MSC 2500
#1	MSC 125	MSC 150	MSC 1100	MSC 1250	MSC 1500
1/0	MSC 1025	MSC 1050	MSC 10100	MSC 10250	MSC 10500
2/0	MSC 2025	MSC 2050	MSC 20100	MSC 20250	MSC 20500
3/0	MSC 3025	MSC 3050	MSC 30100	MSC 30250	MSC 30500
4/0	MSC 4025	MSC 4050	MSC 40100	MSC 40250	MSC 40500



MATHESON
Select®

Pre-Assembled: Leads, Grounds and Stingers/Whips

Features:

- Rugged jacket
- Flexible
- Resists Abrasion, Cut, Tear, Flame, Grease, Oil and Water

Construction:

Offered with all of our highly flexible standard welding cable products. Also available on 250 and 500 ft. reels. Shrink wrap packaging available for 25, 50 or 100 ft. lengths. Custom lengths also available upon request. *Custom indent or standard printing available.*



Lead



Ground



Stinger/Whip

Cable Specifications

Gauge	Stranding	O.D.	Avg. Wall	Resistance Ohms/1,000 Ft.	Weight/1,000 Ft.
#4	378/.010	.358	.060	.286	154 lbs.
#2	623/.010	.422	.060	.174	238 lbs.
#1	777/.010	.503	.080	.139	310 lbs.
1/0	988/.010	.538	.080	.110	384 lbs.
2/0	1235/.010	.591	.080	.088	470 lbs.

Suggested Ampacity for Welding Cable

Gauge	50'	75'	100'	125'	150'	175'	200'	225'
#4	100	100						
#2	200	150	100	100				
#1	250/300	200	150	150	100			
1/0	350	250	200	150	150	100	100	
2/0	400/450	300	250	200	150	150	100	100

Ordering Information

Type	Part Number	Gauge	Length	Power Source End	Work End
Ground	MSC 2502MBP1MSEG	#2	50'	2MBP1 Male Connector	500 AMP Steel Ground Clamp
Ground	MSC 250T62EG500	#2	50'	T62 Lug	500 AMP Steel Ground Clamp
Ground	MSC 1502MBP1MSEG	#1	50'	2MBP1 Male Connector	500 AMP Steel Ground Clamp
Ground	MSC 150T62EG500	#1	50'	T62 Lug	500 AMP Steel Ground Clamp
Ground	MSC 10502MBPEG50	1/0	50'	2MBP1 Male Connector	500 AMP Steel Ground Clamp
Ground	MSC 1050T120EG50	1/0	50'	T120 Lug	500 AMP Steel Ground Clamp
Ground	MSC 20502MBPEG50	2/0	50'	2MBP1 Male Connector	500 AMP Steel Ground Clamp
Ground	MSC 2050T120EG50	2/0	50'	T120 Lug	500 AMP Steel Ground Clamp
Lead	MSC 2502MBPMS	#2	50'	2MBP1 Male Connector	2MBP2 Female Connector
Lead	MSC 1502MBPMS	#1	50'	2MBP1 Male Connector	2MBP2 Female Connector
Lead	MSC 10502MBPMS	1/0	50'	2MBP1 Male Connector	2MBP2 Female Connector
Lead	MSC 20502MBPMS	2/0	50'	2MBP1 Male Connector	2MBP2 Female Connector
Stinger/Whip	MSC 2502MBP1MSPA	#2	50'	2MBP1 Male Connector	250 AMP Electrode Holder
Stinger/Whip	MSC 250T62PA316	#2	50'	T62 Lug	250 AMP Electrode Holder
Stinger/Whip	MSC 1502MBP1MSPA	#1	50'	2MBP1 Male Connector	250 AMP Electrode Holder
Stinger/Whip	MSC 150T62PA316	#1	50'	T62 Lug	250 AMP Electrode Holder
Stinger/Whip	MSC 10502MBPPA31	1/0	50'	2MBP1 Male Connector	250 AMP Electrode Holder
Stinger/Whip	MSC 1050T120PA31	1/0	50'	T120 Lug	250 AMP Electrode Holder
Stinger/Whip	MSC 20502MBPPA31	2/0	50'	2MBP1 Male Connector	250 AMP Electrode Holder
Stinger/Whip	MSC 2050T120PA31	2/0	50'	T120 Lug	250 AMP Electrode Holder

Additional gauges, lengths, power source ends, and work ends are available upon request.



MATHESON
Select®

8/3 Heavy Duty Lighted Welding Machine Cords (6-50P to 6-50R)

Features:

- Rugged jacket
- Flexible
- Receptacle lights up when the cord is powered
- Resists abrasion and water
- Unbreakable, molded-on connectors
- Every cord is tested
- Indoor/outdoor use
- Contractor approved
- Meets all UL & OSHA requirements

Construction:

Highly flexible annealed 30 gauge bare copper conductors, insulated with an STW water-resistant jacket. Operating temperatures range from -40°C to +90°C (-40°F to 194°F). The 8 gauge, 3 conductors are rated at 250V, 50A. Stocked lengths are 25 and 50ft.



Application:

Designed for indoor and outdoor heavy industrial use. These cords are flexible, durable, and manufactured to meet or exceed all UL and OSHA requirements.

Part Number	Gauge	Stranding	Rating	Length	Weight/Unit
MSC 025100	8/3	#30	50A	25 ft.	8 lbs.
MSC 050100	8/3	#30	50A	50 ft.	16 lbs.

Heavy Duty Engine Drive Adapters

8/3 Cable



S21 Plug to 1252
Receptacle, 4 ft.

Part Number: MSC 00410083



9451C Plug to 1252
Receptacle, 3 ft.

Part Number: MSC 003100

10/3 Cable



15A Plug to 20A
Receptacle, 4 ft.

Part Number: MSC 004100103



Inverter Kit: 42 Plug to 5369C
Receptacle, 4 ft.

Part Number: MSC 004103



12/3 Heavy Duty Extension Cord Set

Features:

- Rugged jacket
- Flexible
- Receptacle lights up when the cord is powered
- Stock colors (Blue, Red, Yellow) available
- -35°F Temperature range: no breaking or cracking
- Resists Abrasion, Grease, Oil and Water
- Unbreakable, molded-on connectors
- Every cord is tested
- Indoor/outdoor use
- Contractor approved
- Meets all UL & OSHA requirements

Construction:

Highly flexible annealed 30 gauge bare copper conductors, insulated with a vinyl SJTW jacket. Operating temperatures range from -37 °C to +91°C (-35°F to +195°F). The 12 gauge, 3 conductors are rated at 125V, 15A (1875W). Stocked in blue, red and yellow jacket colors. Stocked lengths are 25, 50 and 100 ft.

Application:

Designed for indoor and outdoor heavy industrial use. These cords are flexible, and durable, to meet or exceed all UL and OSHA requirements.



Part Number	Color	Gauge	Stranding	Rating	Length
MSC 025500123	Yellow	12/3	#30	15A	25 ft.
MSC 025700	Blue	12/3	#30	15A	25 ft.
MSC 025300	Red	12/3	#30	15A	25 ft.
MSC 050500	Yellow	12/3	#30	15A	50 ft.
MSC 050700	Blue	12/3	#30	15A	50 ft.
MSC 050300	Red	12/3	#30	15A	50 ft.
MSC 100500	Yellow	12/3	#30	15A	100 ft.
MSC 100700	Blue	12/3	#30	15A	100 ft.
MSC 100300	Red	12/3	#30	15A	100 ft.



12/3 Heavy Duty Extreme Weather Extension Cord Set

Features:

- Rugged jacket
- Flexible
- Receptacle lights up when the cord is powered
- Blue with a red stripe
- -94°F Temperature range: no cracking or breaking
- Maximum flexibility
- Resists Abrasion, Grease, Oil and Water
- Unbreakable, molded-on connectors
- Every cord is tested
- Indoor/outdoor use
- Contractor approved
- Meets all UL & OSHA requirements

Construction:

Highly flexible annealed 30 gauge bare copper conductors, insulated with a TPE (thermoplastic elastomer) SJEOW jacket. Operating temperatures range from -70°C to +105°C (-94°F to +221°F). The 12 gauge, 3 conductors are rated at 125V, 15A (1875W). Stocked in blue with a red striped jacket. Stocked lengths are 25, 50 and 100 ft.

Application:

Designed for indoor and outdoor heavy industrial use. These cords are flexible, and durable, to meet or exceed all UL and OSHA requirements.



Part Number	Gauge	Stranding	Rating	Length
MSC 025700EXTR	12/3	#30	15A	25 ft.
MSC 050700EXTR	12/3	#30	15A	50 ft.
MSC 100700EXTR	12/3	#30	15A	100 ft.



12/3 Heavy Duty Triple Tap Extension Cord Set

Features:

- Rugged jacket
- Flexible
- Receptacle lights up when the cord is powered
- -35°F Temperature range: no breaking or cracking
- Resists Abrasion, Grease, Oil and Water
- Unbreakable, molded-on connectors
- Every cord is tested
- Indoor/outdoor use
- Contractor approved
- Meets all UL & OSHA requirements

Construction:

Highly flexible annealed 30 gauge bare copper conductors, insulated with a vinyl SJTW jacket. Operating temperatures range from -37 °C to +91°C (-35°F to +195°F). The 12 gauge, 3 conductors are rated at 125V, 15A (1875W). Available with a yellow jacket. Stocked lengths are 2, 25, 50 and 100 ft. Triple outlet head for multiple tool convenience.

Application:

Designed for indoor and outdoor heavy industrial use. These cords are flexible, and durable, to meet or exceed all UL and OSHA requirements.



Part Number	Gauge	Stranding	Rating	Color	Length
MSC 002500	12/3	#30	15A	Yellow	2 ft.
MSC 02550025	12/3	#30	15A	Yellow	25 ft.
MSC 05050050	12/3	#30	15A	Yellow	50 ft.
MSC 100500100	12/3	#30	15A	Yellow	100 ft.

12/3 GFCI Cords

Features:

- Rugged jacket
- Flexible
- Resists Abrasion, Grease, Oil and Water
- Unbreakable, molded-on connectors
- Every cord is tested
- Indoor/outdoor use
- Contractor approved
- Meets all UL & OSHA requirements

Construction:

Highly flexible annealed 30 gauge bare copper conductors, insulated with a vinyl SJTW jacket. Operating temperatures range from -37 °C to +91°C (-35°F to +195°F). The 12 gauge, 3 conductors are rated at 125V, 15A (1875W).

Application:

Designed for construction sites. Ideal for industrial applications, marinas, etc.



Tri Tap GFCI

Tri Tap GFCI 90°

Quad Box GFCI

Part Number	Description	Amps	Volts	Watts	Length
MSC 002501	Tri Tap GFCI	15A	120V	1800W	2 ft.
MSC 002502	Tri Tap GFCI 90°	15A	120V	1800W	2 ft.
MSC 002503	Quad Box GFCI	15A	125V	1875W	6 ft.



Jumper Cables

Features:

- Rugged jacket
- Very flexible
- Resists Abrasion, Cut, Tear, Flame, Grease, Oil and Cold temperatures
- Polarity striped (red)

Construction:

Highly flexible annealed bare copper conductor 30 gauge insulated with a TPE (thermoplastic elastomer) jacket. Operating temperatures range from -40°C to +90°C (-40°F to +194°F). Rated to 600 volts. Comes in a nylon zipper bag.

Application:

Heavy duty booster cables for battery service and SB type connectors for plug in convenience.



Part Number	Gauge	Stranding	O.D. Major/ Minor	Avg. Wall	Resistance Ohms/1,000 Ft.	Length
MSC 160500	#4/2	406/.010	930/.400	.077	.264	16 ft.



Shoe Handle Scratch Brushes

Features:

- Ideal for cleaning and prepping surfaces


Ordering Information

Part Number	Block Size	Handle	Brush Length	Fill	Number of Rows	Trim Length
MSB 93890MS	10" x 1-1/8"	Wood	5"	.012 Steel	4 x 16	1"
MSB 93891MS	10" x 1-1/8"	Wood	5"	.012 Stainless	4 x 16	1"

Curved Handle Scratch Brushes

Features:

- Ideal for cleaning and prepping surfaces


Ordering Information

Part Number	Block Size	Handle	Brush Length	Fill	Number of Rows	Trim Length
MSB 93892MS	14" x 7/8"	Wood	6"	.012 Steel	3 x 19	1"
MSB 93893MS	14" x 7/8"	Wood	6"	.012 Stainless	3 x 19	1"

Small Scratch Brush

Features:

- Ideal for cleaning and prepping surfaces


Ordering Information

Part Number	Block Size	Handle	Fill	Number of Rows	Trim Length
MSB 93894MS	7-1/2" x 1/2"	Wood	.006 Stainless	3 x 7	1/2"

Acid Brushes

Features:

- Genuine horsehair


Ordering Information

Part Number	Handle	Overall Length	Fill	Width	Trim Length	Package Quantity
MSB 93899MS	Tin Ferrule	5-3/4"	Horsehair	3/8"	3/4"	4
MSB 93898MS	Tin Ferrule	5-3/4"	Horsehair	3/8"	3/4"	144



Knot Wire Cup Brushes

Features:

- Provide an aggressive brushing action for general purpose surface cleaning applications
- Intended for use on angle grinders



Ordering Information

Part Number	Wire Material	Diameter	Wire Size	Arbor Hole	Trim Length	Max RPM
MSB 93765MS	Steel	3"	.020	5/8"-11	1"	14,000
MSB 93766MS	Steel	3-1/2"	.020	5/8"-11	1-1/4"	13,000
MSB 93767MS	Steel	4"	.025	5/8"-11	1-1/4"	10,200
MSB 93768MS	Steel	6"	.025	5/8"-11	1-3/8"	6,600

Crimped Wire Cup Brushes

Features:

- Provide flexible brushing action for general purpose cleaning applications
- Intended for use on angle grinders



Ordering Information

Part Number	Wire Material	Diameter	Wire Size	Arbor Hole	Trim Length	Max RPM
MSB 93769MS	Steel	3"	.014	5/8"-11	1"	14,000
MSB 93770MS	Steel	4"	.020	5/8"-11	1-1/8"	9,000



Stringer Bead Wheels

Features:

- Suitable for cleaning root and hot passes as well as reaching into corners
- Intended for use on angle grinders



Ordering Information

Part Number	Wire Material	Diameter	Wire Size	Arbor Hole	No. of Knots	Face Width	Trim Length	Max RPM	Package Quantity
MSB 93771MS	Steel	4"	.020	5/8"-11	30	1/4"	7/8"	20,000	5
MSB 93772MS	Steel	4"	.020	5/8"-11	30	1/4"	7/8"	20,000	1
MSB 93773MS	Stainless	4"	.020	5/8"-11	30	1/4"	7/8"	20,000	5
MSB 93774MS	Stainless	4"	.020	5/8"-11	30	1/4"	7/8"	20,000	1
MSB 93775MS	Steel	6"	.020	5/8"-11	48	1/4"	1-1/4"	12,500	10
MSB 93776MS	Steel	6"	.020	5/8"-11	48	1/4"	1-1/4"	12,500	1
MSB 93777MS	Steel	6-7/8"	.020	5/8"-11	56	3/16"	1-1/8"	9,000	1
MSB 93778MS	Stainless	6-7/8"	.020	5/8"-11	56	3/16"	1-1/8"	9,000	1

Crimped Wire Radial Wheels

Features:

- Small diameter brushing tool for a broad range of general purpose applications
- Intended for use on high-speed die grinders



Ordering Information

Part Number	Wire Material	Diameter	Wire Size	Stem Size	Face Width	Trim Length	Max RPM	Package Quantity
MSB 93779MS	Steel	3"	.014	1/4"	7/16"	13/16"	20,000	10
MSB 93781MS	Steel	3"	.014	1/4"	7/16"	13/16"	20,000	1

Knot Wire End Brushes

Features:

- Feature a hollow end and heavy duty brushing action with some flexibility
- Ideal for cleaning applications in recessed areas
- Intended for use on high-speed die grinders and drills



Ordering Information

Part Number	Wire Material	Diameter	Wire Size	Stem Size	Trim Length	Max RPM	Package Quantity
MSB 93782MS	Steel	1"	.020	1/4"	7/8"	22,000	10
MSB 93783MS	Steel	1"	.020	1/4"	7/8"	22,000	1





MATHESON
Select®

Manufactured for MATHESON by **WEILER**

Angled Style (Type 29)

Features:

- High cut rate at a value price
- Zirconia Alumina
- Intended for use on angle grinders



Ordering Information

Part Number	Diameter	Arbor Hole	Grit Size	Max RPM
MSB 93870MS	4-1/2 "	7/8 "	40	13,000
MSB 93871MS	4-1/2 "	7/8 "	60	13,000
MSB 93872MS	4-1/2 "	5/8 "-11 Nut	40	13,000
MSB 93873MS	4-1/2 "	5/8 "-11 Nut	60	13,000
MSB 93878MS	7 "	5/8 "-11 Nut	40	8,600
MSB 93879MS	7 "	5/8 "-11 Nut	60	8,600

High Density Flat Style (Type 27)

Features:

- Increased life and conformability at a value price
- Zirconia Alumina
- Intended for use on angle grinders



Ordering Information

Part Number	Diameter	Arbor Hole	Grit Size	Max RPM
MSB 93874MS	4-1/2 "	7/8 "	40	12,000
MSB 93875MS	4-1/2 "	7/8 "	60	12,000
MSB 93876MS	4-1/2 "	5/8 "-11 Nut	40	12,000
MSB 93877MS	4-1/2 "	5/8 "-11 Nut	60	12,000
MSB 93880MS	7 "	5/8 "-11 Nut	40	8,600
MSB 93881MS	7 "	5/8 "-11 Nut	60	8,600



Cutting Wheels

Features:

- Aluminum Oxide grain
- General purpose metal
- Fast cut rate and consistent performance at a value price

Ordering Information

Part Number	Diameter	Thickness	Arbor Hole	Grade	Max RPM
Type 1					
MSB 93945MS	3"	.035"	3/8"	A60T	25,000
MSB 93946MS	3"	1/16"	3/8"	A36T	25,000
MSB 93947MS	4-1/2"	.045"	7/8"	A60T	13,300
MSB 93950MS	4-1/2"	1/16"	7/8"	A60T	13,300
MSB 93954MS	5"	.045"	7/8"	A60S	12,200
MSB 93956MS	6"	.045"	7/8"	A60T	10,200



Ordering Information

Part Number	Diameter	Thickness	Arbor Hole	Grade	Max RPM
Type 27					
MSB 93948MS	4-1/2"	.045"	7/8"	A60S	13,300
MSB 93949MS	4-1/2"	.045"	5/8"-11	A60S	13,300
MSB 93951MS	4-1/2"	3/32"	7/8"	A24T	13,300
MSB 93952MS	4-1/2"	3/32"	5/8"-11	A24T	13,300
MSB 93953MS	5"	.045"	7/8"	A60S	12,200
MSB 93955MS	6"	.045"	7/8"	A60T	10,200
MSB 93957MS	6"	.045"	5/8"-11	A60T	10,200



Combo Wheels

Features:

- Aluminum Oxide grain
- General purpose metal
- Flexible and efficient when switching between cutting and grinding

Ordering Information

Part Number	Diameter	Thickness	Arbor Hole	Grade	Max RPM
Type 27					
MSB 93958MS	4-1/2"	1/8"	7/8"	A24T	13,300
MSB 93959MS	4-1/2"	1/8"	5/8"-11	A24T	13,300
MSB 93960MS	7"	1/8"	7/8"	A30S	8,500
MSB 93961MS	7"	1/8"	5/8"-11	A30S	8,500



Grinding Wheels

Features:

- Aluminum Oxide grain
- General purpose metal
- Fast cut rate and consistent performance at a value price

Ordering Information

Part Number	Diameter	Thickness	Arbor Hole	Grade	Max RPM
Type 27					
MSB 93962MS	4"	1/4"	5/8"	A24R	15,200
MSB 93963MS	4-1/2"	1/4"	7/8"	A24R	13,300
MSB 93964MS	4-1/2"	1/4"	5/8"-11	A24R	13,300
MSB 93965MS	7"	1/4"	7/8"	A24R	8,500
MSB 93966MS	7"	1/4"	5/8"-11	A24R	8,500
MSB 93968MS	9"	1/4"	5/8"-11	A24R	6,600



Chop Saw Wheel

Features:

- Aluminum Oxide grain
- General purpose metal
- Fast cut rate and consistent performance at a value price

Ordering Information

Part Number	Diameter	Thickness	Arbor Hole	Grade	Max RPM
Type 1					
MSB 93969MS	14"	3/32"	1"	A36T	4,400



Auto-Darkening Welding Helmet

Features:

- Advanced True-Color High Definition Filter Optics
- 4 Arc Sensors
- ADF Cartridge Size - 4.5" x 5.25"
- LCD Viewing Area - 3.94" x 3.28"
- Variable Shade Control 5-13
- Grind, Delay, and Sensitivity Adjustment
- 3 Memory Settings
- Battery Indicator
- Flexible Ergonomic Headgear
- Color - Black
- Weight - 19.75 oz.
- 3 Year Warranty
- Meets ANSI Z87.1, CSA and CE standards



Part Number	Description
MSG XA5122DMS	Helmet w/ Variable 5-13 True Color HD Lens
MSG HG2003MS	Replacement Headgear
MSG PL5003MS	Inner Protection Lens (5 per pack)
MSG PC45MS	Outer Lens Safety Plate

Passive 4 x 5 Welding Helmet

Features:

- Shade 10
- Viewing Area - 4.5" x 5.25"
- Color - Black
- Weight - 19.0 oz.
- 3 Year Warranty
- Meets ANSI Z87+ and CE standards



Part Number	Description
MSG HG4MS	Helmet w/ Passive Shade 10
MSG HG2001MS	Replacement Headgear
MSG PC45MS	Inner/Outer Lens Safety Plate



Cover Lens

Features:

- Meets all applicable specifications and standards
- Resistant to abrasion, pitting, spatter, chemicals and solvents
- Scratch and static resistant

Test & Approvals: OSHA

Color: Clear



2" x 4 1/4"



4 1/2" x 5 1/4"



Part Number	Width	Length	Material
MSG SP1MS	2"	4 1/4"	70% CR-39 Plastic
MSG SP35MS	4 1/2"	5 1/4"	50% CR-39 Plastic

Safety Plates

Features:

- Impact resistant
- Optically correct
- Distortion free

Test & Approvals: ANSI-Z87.1 2003; OSHA

Color: Clear

Material: Polycarbonate



2" x 4 1/4"



4 1/2" x 5 1/4"



Part Number	Width	Length
MSG PC24MS	2"	4 1/4"
MSG PC45MS	4 1/2"	5 1/4"



Filter Plates

Features:

- Filter plates offer ultimate protection against ultraviolet and infrared rays present in the welding environment
- Precisely shaded and optically correct
- Precision ground and edged to allow a safe and proper fit

Test & Approvals: ANSI-Z87.1 2003; OSHA

Color: Green

Material: Hardened Glass

Part Number	Width	Length	Shade/Contrast
MSG FS1H5MS	2"	4 1/4"	5
MSG FS1H9MS	2"	4 1/4"	9
MSG FS1H10MS	2"	4 1/4"	10
MSG FS1H11MS	2"	4 1/4"	11
MSG FS1H12MS	2"	4 1/4"	12
MSG FS5H8MS	4 1/2"	5 1/4"	8
MSG FS5H9MS	4 1/2"	5 1/4"	9
MSG FS5H10MS	4 1/2"	5 1/4"	10
MSG FS5H11MS	4 1/2"	5 1/4"	11
MSG FS5H12MS	4 1/2"	5 1/4"	12



2" x 4 1/4"



4 1/2" x 5 1/4"



Heat-Treated Gold Glass Shaded Filter Lens

Features:

- Exceeds both Federal and ANSI specifications
- Gold coating provides reliable protection against UV/IR emissions, heat, sparks and spatter
- Fits mosts welding helmets
- Durable, heat resistant material

Test & Approvals: ANSI-Z87.1 2003; OSHA

Color: Gold

Material: Glass

Part Number	Width	Length	Shade/Contrast
MSG GCP29MS	2"	4 1/4"	9
MSG GCP210MS	2"	4 1/4"	10
MSG GCP211MS	2"	4 1/4"	11
MSG GCP49MS	4 1/2"	5 1/4"	9
MSG GCP410MS	4 1/2"	5 1/4"	10
MSG GCP411MS	4 1/2"	5 1/4"	11



2" x 4 1/4"



4 1/2" x 5 1/4"



MATHESON
Select®

Magnifier Lens

Features:

- Magnifiers offer optically balanced magnification in .25 increments

Color: Clear

Material: Polycarbonate

Part Number	Width	Length	Diopter Strength
MSG MP20.75MS	2"	4 1/4"	0.75
MSG MP21MS	2"	4 1/4"	1.00
MSG MP21.25MS	2"	4 1/4"	1.25
MSG MP21.5MS	2"	4 1/4"	1.50
MSG MP21.75MS	2"	4 1/4"	1.75
MSG MP22MS	2"	4 1/4"	2.00
MSG MP22.25MS	2"	4 1/4"	2.25
MSG MP22.5MS	2"	4 1/4"	2.50



Visors

Features:

- Clear or shaded available
- Durable and high-performance

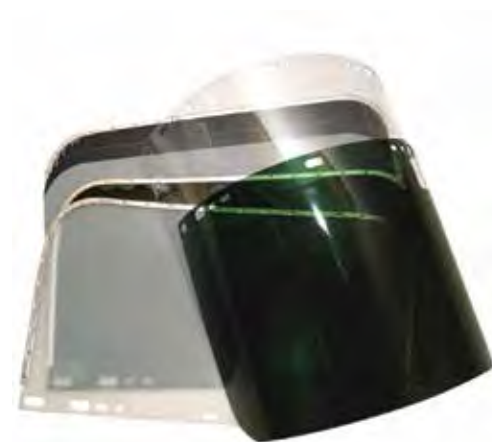
Test & Approvals: ANSI-Z87.1 2003; OSHA

Material: PETG

Thickness: 0.04"

Part Number	Color	Height	Width
Unbound			
MSG 3440UCLMS	Clear	8"	15 1/2"
MSG 3442UDGMS	Dark Green	8"	15 1/2"
Molded Unbound			
MSG 251017301MS*	Clear	8"	15"
Aluminum Bound			
MSG 3440BCLMS	Clear	8"	15 1/2"
MSG 3442BDGMS*	Dark Green	8"	15 1/2"
MSG 251017315MS	Shade 5	8"	15 1/2"

* Molded Polycarbonate, Cylindrical Universal Fit, 0.078" Thickness



Welder's Goggles

Features:

- Soft sided fixed front goggle
- Soft frame fits snugly and comfortably over face and prescription glasses
- Six plastic vents offer maximum fog-free protection
- Parts easily removable for replacement
- Will accommodate magnifier plate

Test & Approvals: Meets ANSI Z87.1+

Lens Material: Polycarbonate

Style: Stationary

Applications: Welding, Cutting



Part Number	Lens Tint	Lens Coating/Shade	Frame Material	Weight
MSG ABG2005MS	Green	IR/UV 5.0	Vinyl	0.05 lbs.

Welder's Goggles

Features:

- Lift front goggle
- Soft frame fits snugly and comfortably over face and prescription glasses
- Six plastic vents offer maximum fog-free protection
- Parts easily removable for replacement
- Will accommodate magnifier plate

Test & Approvals: Meets ANSI Z87.1+

Lens Material: Polycarbonate

Style: Lift Front

Applications: Welding, Cutting



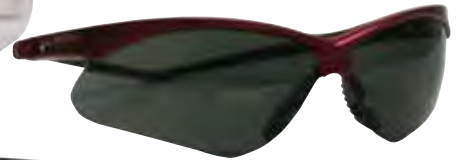
Part Number	Lens Tint	Lens Coating/Shade	Frame Material	Weight
MSG ABG2205MS	Green	IR/UV 5.0	Vinyl	0.58 lbs.



Safety Eyewear

Features:

- Nemesis style
- 9 Base curve lens
- Lightweight construction
- Sleek, sporty style
- Soft touch temples

Test & Approvals: ANSI Z87.1+ 2015**Frame Material:** Polycarbonate/PVC**Lens Material:** Polycarbonate 99.99%
UVA UVB Light Absorption**MSG 3013490MS****MSG 3013491MS****MSG 3013492MS**

Part Number	Lens Tint	Frame Color
MSG 3013490MS	Clear	Black
MSG 3013491MS	Smoke	Red
MSG 3013492MS	Indoor/Outdoor	Black







MATHESON *MasterVEND*® Point-of-Use Vending Solutions

Control and Manage: Consumables & Tools → Welding • Safety • Maintenance

MATHESON provides several proven “Smart” vending products to assist our customers with cost-effective inventory control solutions.

SmartDrawer

- 6, 7, 8, and 10 drawer models
- Multi-compartment drawer designs
- Lighted compartments for parts location
- Suitable for mid-to-smaller sized items
- Ideal for smaller “loose” parts



8-Drawer System



SmartRFID Cabinet

- RFID inventory monitoring technology
- SRFC-1X & SRFC-2X high capacity models
- Peg and removable shelf storage system
- Suitable for large, small, and odd sized items
- Ideal for packaged parts



Model SRFC-2X



SmartSystem

- Customized modular system
- Integrates “locker” and “drawer” designs
- Easily adapts to inventory changes
- Suitable for large and small items and tools
- Ideal for a broad range of inventory applications



Custom Modular System



SmartScan

- Combines handheld scanner with optional SmartStorage Cabinet
- Scanner operates with WiFi or cellular networks
- On-board barcode capability; processes all barcode formats
- Suitable for crib or storeroom inventory control applications
- Ideal for tool check-in / check-out tracking
- SmartStorage Cabinet stores many parts / tools



Hand-held Scanner

Need information or assistance with an inventory management or vending application?

Send a request to: MasterVEND@mathesongas.com



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