

Educational Resources and Product Guide



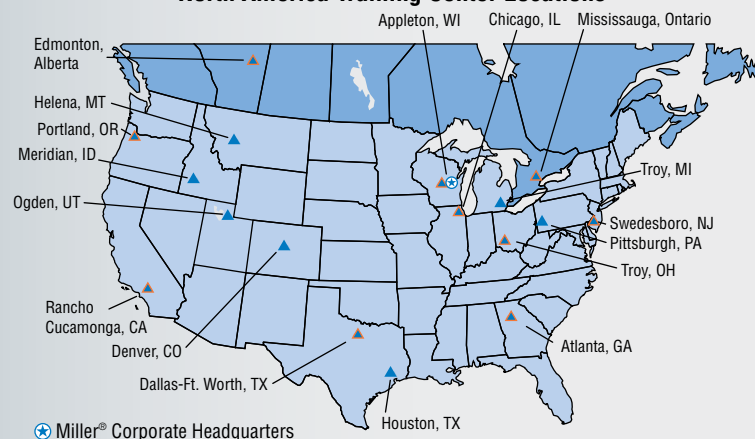
Miller and Hobart: Committed to the Future of Welding

Training in welding is mission critical — and weld instructors like you are helping the next generation of welder operators shape our future. Miller and Hobart are committed to the future of welding, just as you are. That's why we work to provide you with the resources and tools you need to educate your students for today's demands and tomorrow's needs.

From instructional classes and class materials to apps and weld training systems, you'll find a wide variety of Miller and Hobart welding educational aids within this pamphlet that can help you prepare your students for the future — and their roles in improving our world.

Welding Instructor Seminars

North America Training Center Locations



These seminars are designed to provide welding instructors in the public, private, and industrial sectors with an opportunity to learn about new innovations in welding equipment and process developments in welding. The seminars consist of a series of classroom presentations, followed by hands-on lab activities. Throughout the seminars, participants will also be able to review the latest training materials available from Miller and Hobart. These materials include books, training aids, videos, computer and Internet-based programs.

Due to the variety of programs offered, please call for a description of the course offered in the location that you wish to attend.

To register Contact Peggy Moehn, 920-735-4016 or email pmoehn@millerwelds.com

Printed Publications

Weld Process and Filler Metal Publications

Available in both English and Spanish, these full-color booklets were developed for the purpose of providing a basic set of educational materials that can be used individually or in a classroom setting that are continually updated to contain the latest technologies and developments.



Description	Part #	Pricing
Introduction To Welding	247358	\$19.00
Welding Safety*	247359	\$4.00
Basic Electricity For Welding*	247360	\$14.00
Engine Driven Welding Power Sources	247362	\$13.00
Shielded Metal Arc Welding*	247363	\$17.00
Gas Tungsten Arc Welding*	250833	\$29.00
Gas Metal Arc Welding*	250834	\$50.00
Metal Cutting	250836	\$15.00
Troubleshooting Welding Processes	250837	\$27.00
Submerged Arc Welding	265558	\$16.00
Introduction To Metals	247380	\$14.00
Low Alloy Steel	247842	\$10.00
Stainless Steel	247843	\$27.00
Aluminum	247844	\$18.00
Hardfacing	250838	\$15.00
*Educational Package	211611	\$100.00

Discounted Education Pkg.

Educational Package - #211611

- (5) Miller Process Books:
 - Welding Safety Book
 - Basic Electricity for Welding
 - Shielded Metal Arc Welding
 - Gas Tungsten Arc Welding
 - Gas Metal Arc Welding
- (6) Posters
 - Safety Warning
 - Good weld/Bad weld
 - Welding Careers
 - Welding Positions
 - Welding Joints
 - MIG Processes

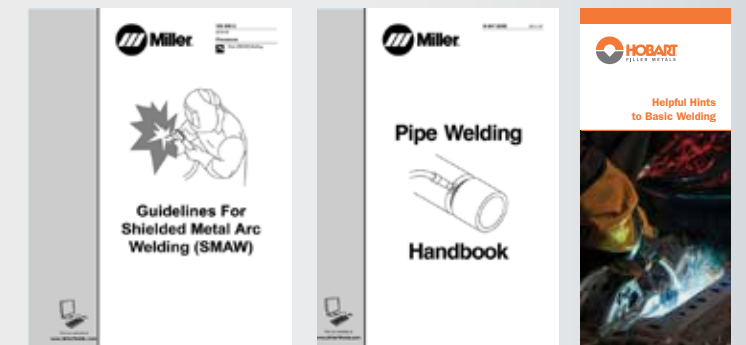
(3) Miller Calculators — Stick, MIG, and TIG

Publication ordering information

Call: 1-866-931-9732

E-mail: literature@MillerWelds.com

Free Publications



Description	Part #	Pricing
Guidelines for Shielded Metal Arc Welding (SMAW)	155 095 E	FREE
Guidelines for Gas Metal Arc Welding (GMAW)	154 557 C	FREE
Guidelines for Gas Tungsten Arc Welding (GTAW)	215 994 D	FREE
Pipe Welding Handbook	M-247 250B	FREE
Welding & World of Metals	003 336A	FREE
Hobart® Helpful Hints to Basic Welding		FREE

*Order printed copies through literature or download the pdf.

MillerWelds.com/resources/bookspamphlets

Classroom Posters

Miller Posters



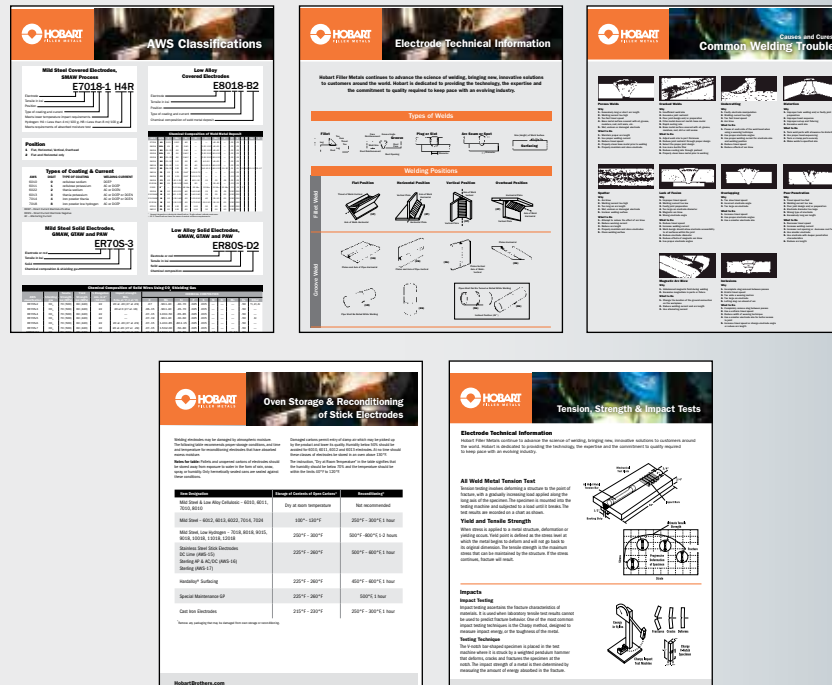
Description	Part #	Pricing
FCAW-G	363872	FREE
FCAW-S	363873	FREE
Welding Positions	261666	FREE
Welding Joint Types	261664	FREE
GMAW SCMT DRAG	363868	FREE
GMAW SCMT PUSH	363869	FREE
GMAW Spray	363870	FREE
GMAW PULSE	363871	FREE
Good & Bad Welds	211604	FREE
Good & Bad Welds—Spanish	257992	FREE
MIG Processes	261665	FREE
Safety	172103	FREE
OXY-Fuel Safety #1	270131	FREE
OXY-Fuel Safety #2	270132	FREE
OXY-Fuel Safety #3	270133	FREE
OXY-Fuel Safety #4	270134	FREE
OXY-Fuel Safety #5	270135	FREE
OXY-Fuel Safety #6	270136	FREE

Poster ordering information

Call: 1-866-931-9732

E-mail: literature@MillerWelds.com

Hobart® Posters



For Hobart Posters
Visit: hobartbrothers.com
Call: 1-888-462-2789

Multimedia Resources

iPad® and iPhone® Learning Applications



iPad and iPhone Applications

Currently available in the App Store®, there are three FREE apps that interactively discuss the fundamentals of the welding process. You will find videos, images, and interactive pages that will display information when touched. Search for *Miller Electric Mfg. Co.* in the App Store. Android™ version coming soon.

Additional Apps

- Mobile Weld Settings Calculator
- Miller Discussion Forums
- Mobile Owners Manuals

Available for Android and in the App Store

Videos



VISIT OUR YOUTUBE CHANNEL:

<https://www.youtube.com/user/nielsmiller>

Online Learning Modules



Students can learn about the basics of electricity and GMAW through online learning modules.

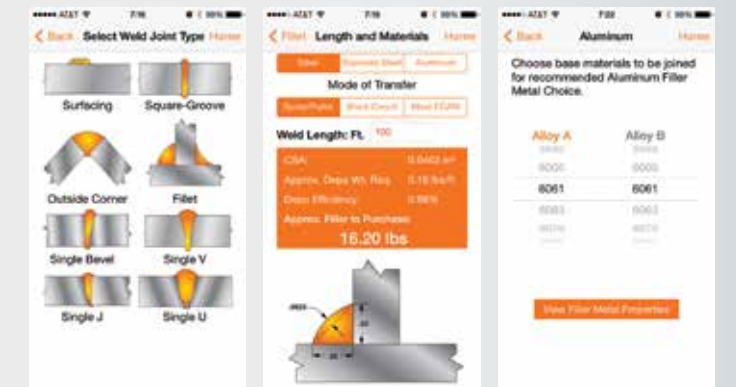
MillerWelds.com/resources/basicMIG/

MillerWelds.com/resources/basicelec/

Hobart Filler Metal Calculator

Hobart® Filler Metals Selector for iPhone and iPad now available on the App Store®. The Hobart Filler Metal Selector and Calculator is a FREE quick reference tool with a number of functions. These functions include a Filler Metal Selector for: Aluminum, Carbon Steel, Stainless Steel. A Heat input calculator, Hardfacing Product Cross Reference tool, and a Filler Metal Volume Calculator

Android version Coming Soon.



Instructor Website

The Instructor web page is a useful tool for instructors to find information and resources for the classroom and the lab. Use this site to find welding training related articles, welding resources for the classroom, sign up for the Instructor e-newsletter, and find recommended equipment and filler metals for the classroom.



Find best practices and welding training related articles.



Find welding resources for the classroom.

MillerWelds.com/interests/instructors/



Sign up for the Instructor e-newsletter.

Find products for the classroom, and search for a local Authorized Miller Distributor to see if you can save using the Educational Discount.

Training Solutions

LiveArc™ Welding Performance Management System



The LiveArc™ System is warranted for one year, parts and labor.

The solution for industrial, manufacturing and educational markets for developing better welding skills, faster and more cost-effectively than ever before.



Better training

- Utilizes live arc
- Intuitive system promotes user independence
- Provides objective, quantitative feedback on key performance parameters
- Miller-designed assignments included with ability to customize
- Flexible for recruiting, screening, training and performance management



Faster results

- Independent usage accelerates personal development
- Accelerated training times put trainees in production lines faster
- Shorter educational periods allow trainees to focus on additional learning opportunities



More cost effective

- Pre-weld simulation saves money on coupons, wire and gas
- Reduces poor-quality welding and defects, rework and downtime
- Trainers and educators have more time to focus on other tasks

LiveArc equipment ordering information

LiveArc Workstation	#301 233
LiveArc Workstation with Welding Positioning Arm	#301 233-001
Welding Positioning Arm (includes software)	#301 234

Specifications (Subject to change without notice.)

Processes	Joint Types	Positions	Multi-Pass	Input Power	Rated Output	Weight	Dimensions (H x W x D)	Computer	Monitor
GMAW	Butt	2F	Fillet only	120 VAC, 60 Hz, compatible with Miller wire feed power sources	400 A at 100% duty cycle with CO ₂ shielding gas	#301 233 366 lb. (166 kg)	Table and monitor 77.5 x 41.5 x 31 in. (1969 x 1054 x 787 mm)	Intel core i7, 128 GB SSD, fanless cooling, HDMI port supports secondary monitor (not included)	21.5 HD LCD touch screen display
GMAW-S	Lap	3F				#301 233 001 480 lb. (218 kg)	Width is 46 in. (1168 mm) with Welding Positioning Arm		
GMAW-P	Tee	4F				#301 234 (Arm) 72 lb. (33 kg)			
FCAW-G		1G 2G 3G 4G							

For more information visit: MillerWelds.com/livearc

Miller® Product Offering

Miller is committed to the future of welding and providing you with the resources and tools you need to educate your students. For special educational pricing, visit an authorized Miller welding distributor.

Miller® Product Offering

Multiprocess



XMT® Series

Portability and excellent multiprocess arc performance make the XMT family the most popular in the industry. With many models to choose from the XMT family has the right solution for your business.



PipeWorx Welding System

Simplicity-driven performance for pipe fabrication with simple process setup, and quick process changeover in a streamlined system.



Dimension™ Series

Multiprocess performance in a reliable package. Designed for demanding applications, with 100 percent duty cycle for extended arc-on time.



Shopmate™ 300 DX

An economical single-phase DC multiprocess power source that provides versatility and outstanding arc performance in CV mode (MIG) and CC mode (Stick and TIG).

Plasma Cutters



Spectrum® Series

Spectrum plasma cutters provide big cutting power in portable packages.

Welding Automation

PA 250M Automation Solution

Small footprint, high productivity and ROI makes it ideal for first-time users with a lower volume of automation projects. The manually activated table allows you to control the table index, eliminating unexpected table motion and keeping operators safe.



Welding Safety and Health Additional models available on MillerWelds.com

Stick



Maxstar® 210 STR

Provides maximum flexibility by automatically connecting to any input power while maintaining the best DC Stick welding performance in its class.



CST™ 280

Designed for Stick/TIG welding pipe and plate in the construction industry, this small, durable, goes-anywhere welder delivers 280 amps of superior Stick performance, up to 3/16" in diameter. LiftArc™ delivers smooth TIG starts without high frequency.

TIG



Dynasty® Series

Advanced AC/DC TIG technology for all metals. Provides faster travel speeds, optimum arc and puddle control in a compact and mobile design.



Maxstar® Series

Industry standard DC TIG/ Stick for exceptional welding performance. Compact designs offer superior arc performance and control that set new standards for productivity and weld quality, while lowering the cost of installation and operation.

HEAD & FACE



Classic Series

Helmets for the value minded welder. Models feature a 5.15 sq. in. viewing area, variable lens shades, industry-leading graphics and auto-on/off circuitry. Backed by Miller's 2 year warranty.

HAND & BODY



MIG (Unlined)

TIG

Work

Performance Gloves

Three-dimensional pattern provides an excellent fit, resulting in unprecedented comfort and dexterity. Premium materials enhance wear, extending glove life.

MIG



Millermatic® Series

Millermatic all-in-one MIG welders come in a variety of packages to fit your needs and budget in the classroom.

Engine Drive



Bobcat™ Series

Cost-effective multiprocess machine with dependable power and weld output. Available in gas (EFI), LP, & diesel.



Trailblazer® Series

Unbeatable, smooth, stable arc performance and an independent welder and generator power system. Available in gas (EFI), LP, & diesel.

WELD FUME



FILTAIR 130



FILTAIR Capture 5



FILTAIR SWX

FILTAIR® Fume Extraction

The complete line Miller FILTAIR fume extractors are designed specifically for welding – drawing weld fumes away from the welder's breathing zone and keeping your facility clean. We offer many types of Fume Extraction equipment to best fit your environment and fume control needs.



N95 Disposable Masks

Features a flame retardant outer layer that offers necessary protection for welding applications.



Classic Cloth Apparel

Protect your welders with preshrunk, flame-resistant garments that features finished hems and reinforced stitching for enhanced durability. Barracuda style stand-up collar provides necessary neck protection. Available in jackets, sleeves, cape sleeves, bibs and aprons.



Starter & Performance Paks

Arc Armor Protection Paks group welding protection products into ultra-convenient packages appropriate for the hobbyist to the professional welder.

Hobart® Product Offering

Products Include:

- ▶ Hobart is pleased to support educational facilities with a measurable discount on filler metals through the distributor of their choice. This program includes stick electrodes, tubular wires and solid wires. Contact your distributor for full product list.



Hobart 418 Stick Electrode

Provides low-hydrogen, x-ray quality welds with self-peeling slag and low spatter. Excellent arc starts and re-starts. E7018



Hobart 335A Stick Electrode

Superior arc drive for deep joint penetration. Ideal for galvanized, dirty, or coated metals. E6011



Hobart 610 Stick Electrode

Delivers consistent, superior arc control without fingernailing – from the first electrode to the last. Excellent vertical down capabilities. E6010



FabCO® Excel-Arc™ 71 Gas-Shielded Flux-Cored Wire

Low-hydrogen, high-penetrating weld deposit, along with best-in-class operability and easy slag removal. E71T-1



Fabshield® XLR-8 Self-Shielded Flux-Cored Wire

Excellent mechanical properties within a wide range of heat inputs. Usable for AWS D1.8 Demand Critical Welds. E71T-8



Quantum Arc™ 6 Solid Wire

Features high deoxidizer levels to weld through light rust or mill scale. Excellent wetting characteristics and feedability. ER70S-6

It's the tie that binds

SCIENCE + PEOPLE

Filler metals are more than just a component of welding – they are **The tie that binds science and people.**

You shape the future of welding with your students, training to make them more successful welders – the **people** part of welding.

The proper filler metal can make a welding process more efficient, more productive and more cost effective. Hobart Filler Metals collaborates with our customers to develop the right solutions. We provide the strength of **science** behind the weld.

Contact your distributor for more information about our educational program. Let us collaborate with you!

Bernard™ and Tregaskiss™ Product Offering

MIG Gun Product Offering



Equip your students with the same industrial-duty, semi-automatic MIG guns from Bernard that are used by top companies in agriculture, ship-building and fabrication shops across North America. For special educational pricing, visit an authorized Bernard welding distributor.



BTB MIG Guns

Our rugged, flexible BTB MIG Guns are designed with maximum configuration options and the industrial grade performance that our customers depend on.

One year manufacturer's warranty.

Amperages: 200, 300, 400, 500, and 600 amps

Cable lengths: 8, 10, 12, 15, 20, and 25 feet

Wire size range: 0.023" (0.6 mm) to 1/8" (3.2 mm)

See Bernard literature no. SP-BTB or visit BernardWelds.com/BTB



Bernard Dura-Flux™ Self-Shielded Flux-Cored Guns

For structural steel applications, bridge construction and heavy equipment repair, Bernard offers its 350 amp Bernard Dura-Flux Guns.

See Bernard literature no. SP-DF or visit BernardWelds.com/Dura-Flux



Fume Extraction MIG Guns

Maintaining a clean working environment is important and Bernard understands the need for a reliable fume extraction solution. Extract fumes at the weld using Bernard FILTAIR® or Clean Air™ Fume Extraction MIG Guns.

See Bernard literature no. SP-FFE (FILTAIR) & SP-CLA (Clean Air) or visit BernardWelds.com/FumeGuns

Automation Products



Teach your students about the importance of uptime and throughput in today's industrial manufacturing plants by equipping your facility's robotic cells with Tregaskiss Robotic MIG Guns and Peripherals. For special educational pricing, visit an authorized Tregaskiss welding distributor.



TOUGH GUN™ CA3 MIG Guns

TOUGH GUN CA3 Robotic Air-Cooled MIG Guns are designed for dependable performance in high volume production environments. The new replaceable uncable increases uptime through faster replacement and extended service life.

See Tregaskiss literature no. SP-CA3 or visit Tregaskiss.com/CA3



TOUGH GUN TA3 MIG Guns

Designed for today's through-arm style robots, the TOUGH GUN TA3 Robotic Air-Cooled MIG Gun is designed for durability and ease of maintenance to ensure maximum production uptime and throughput.

See Tregaskiss literature no. SP-TA3 or visit Tregaskiss.com/TA3



TOUGH GUN TT3 Reamer

This robotic nozzle cleaning station is tough on spatter and operates reliably in even the harshest welding environments. Featuring plug and play replacement parts with smart-keyed connections for quick in-cell troubleshooting/repair and simplified internal wiring via a centralized terminal strip.

Visit Tregaskiss.com/TT3



ITW Welding

MillerWelds.com



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Android is a registered trademark of Google Inc.

