



Miller offers an array of versatile submerged arc components, including power sources, controls, wire drives, torches, tractors and a variety of other accessories.

SubArc Digital Series

See literature AD/7.3

The SubArc Digital Series of power sources, interface controls and accessories include digital control and communication electronics designed to improve weld performance and simplify the integration of the equipment in more advanced applications.



Heavy industrial ●
 CC CV AC/DC DC 3 Phase SubArc DC Series is DC only.

- Processes**
- Submerged arc (SAW)
 - Electroslag (ESW)
 - Air carbon arc cutting and gouging (CAC-A)
- Most popular accessories**
- 14-pin Insight Core™ Module 301072 (pg 70)
Requires Insight Core to SubArc Digital Series Adapter Kit (301295)
 - Insight ArcAgent™ Auto 301346 (pg 71)
 - 15 ft. (4.6 m) SubArc Parallel Cable 260775015 (pg 123)
 - 15 ft. (4.6 m) SubArc Tandem Cable 260878015 (pg 123)
- Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Two DC power source models and one AC/DC power source model. Power sources have sufficient power capacity to cover applications from traditional DC single-arc to multi-wire tandem welding. In the case of electroslag welding or other high-current demand, two or more power sources can easily be paralleled (both DC and AC/DC machines).

Low-voltage accessory operation and improved environmental protection. The Digital Series accessories are powered with 24 VAC control voltage from the power source. All power sources, interface controls and wire drives are IP23 rated providing a high level of protection for harsh environments.

Easy to integrate. Our SubArc power sources are easy to integrate by using a standard Modbus® connection.

All power sources feature thermal overload protection, line voltage compensation and Fan-On-Demand.™

*While idling.

Model/Stock Number	Amperage Range (CC Mode)	Voltage Range (Sub Arc Mode)	Rated Output	Amps Input at Rated Output, 60 Hz					Max Open-Circuit Voltage	Dimensions (Includes lift eye, but not strain relief)	Net Weight
				230 V	460 V	575 V	KVA	KW			
SubArc DC 650 Digital (907622) 230/460/575 V	50-815 A	20-44 V	650 A at 44 V, 100% duty cycle	126 3.8*	63 1.9*	50.4 1.4*	50 1.52*	34.8 0.76*	75 Vpk	H: 30 in. (762 mm) W: 23 in. (584 mm) D: 38 in. (965 mm)	593 lb. (269 kg)
SubArc DC 1000 Digital (907624) 230/460/575 V	100-1,250 A	20-44 V	1,000 A at 44 V, 100% duty cycle	180 5.8*	90 2.9*	72 2.4*	73 3.2*	53 0.5*	68 Vpk		682 lb. (309 kg)
SubArc AC/DC Digital (907620) 460 V	300-1,250 A	20-44 V	1,000 A at 44 V, 100% duty cycle	-	122	-	98	53	93 Vpk	H: 43 in. (1,092 mm) W: 28 in. (711 mm) D: 48 in. (1,219 mm)	1,187 lb. (538 kg)

SubArc Interface Control

See literature no. AD/7.3



Easier setup and operation. The SubArc Interface Digital control recognizes the power source and wire drive connected, and automatically configures the system for proper operation.

Internal terminal strip is able to integrate with positioners, sidebeams, turning rolls and other peripheral equipment.

Most popular accessories

- SubArc Control Cables (pg 123)
 - 260622030 30 ft. (9.1 m)
 - 260622050 50 ft. (15 m)
 - 260622060 60 ft. (18.3 m)
 - 260622080 80 ft. (24.4 m)
 - 260622100 100 ft. (30.5 m)
 - 260622120 120 ft. (36.6 m)
 - 260622200 200 ft. (61.0 m)

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Stock Number	Input Power from Welding Power Source	Welding Power Source Type	Weld Voltage and Amperage Capacity	Dimensions	Net Weight
SubArc Interface Digital (300936)	24 VAC, 1-phase, 25 A, 50/60 Hz	Constant voltage (CV), AC or DC, with remote contactor and output control capabilities	0-100 V 0-1,500 A	H: 11.5 in. (292 mm) W: 12 in. (305 mm) D: 7 in. (178 mm)	15.8 lb. (7.2 kg)

SubArc Remote Operator Interface

See literature AD/7.3



Motor Control Digital



Remote Pendant Digital

Point-of-use installation. Remote Pendant can be handheld or secured at point of use to improve operation.

Remote installation. Motor Control can be remotely installed, resulting in reduced cables at the operator workstation.

Side handles on Remote Pendant provides option for handheld operation with full functionality of a traditional SubArc Interface.

Most popular accessories

- SubArc Control Cables (see pg 123 for complete list)
 - 260622030 30 ft. (9.1 m)
 - 260622050 50 ft. (15 m)
 - 260622080 80 ft. (24.4 m)
- Continuum™ Control/Motor Cables (see pg 123 for complete list)
 - 263368015 15 ft. (4.6 m)
 - 263368025 25 ft. (7.6 m)
 - 263368050 50 ft. (15 m)

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Model/Stock Number	Input Power from Welding Power Source	Welding Power Source Type	Weld Voltage and Amperage Capacity	Dimensions	Net Weight
SubArc Motor Control Digital (301425) (requires SubArc Remote Pendant Digital below and Continuum control/motor cable)	24 VAC, 1-phase, 25 A, 50/60 Hz	Constant voltage (CV), AC or DC, with remote contactor and output control capabilities	0-100 V 0-1,500 A	H: 11.5 in. (292 mm) W: 12 in. (305 mm) D: 7 in. (178 mm)	15.8 lb. (7.2 kg)
SubArc Remote Pendant Digital (301424) (requires SubArc Motor Control Digital above and Continuum control/motor cable)	42 VDC, 1 A			H: 11 in. (279 mm) W: 10.63 in. (270 mm) D: 3.125 in. (80 mm)	3 lb. (1.4 kg)



Miller recommends



Customers count on Hobart® to provide an exceptional level of expertise and commitment in developing unique filler metal and flux solutions with them to meet current and future challenges.

Rely on Hobart for submerged arc applications and all your welding needs.

Visit HobartBrothers.com or your local distributor to learn more.

Questions? Hobart is here to help.



Submerged Arc

SubArc Wire Drive 400 Digital Low Voltage

See literature AD/7.3



SubArc Wire Drive 400 Digital Low Voltage is a standard-speed, right-angle wire drive assembly.

Most popular accessories

- Motor Extension Cables (pg 123)
254232005 5 ft. (1.5 m)
254232010 10 ft. (3 m)
254232025 25 ft. (7.6 m)
254232065 65 ft. (19.8 m)
- Drive Rolls (pg 123)
- Single-Wire Straightener 199733 (pg 123)
- Twin-Wire Straightener 301160 (for twin-wire torches only) (pg 123)
- Manual Single Slide (pg 123)

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Stock Number	Input Power	Input Power Cord	Rating	Wire Feed Speed	Wire Diameter Capacity	Net Weight
(300938)	38 VDC	4 ft. (1.2 m)	1/5 hp, 85 rpm	30-400 ipm (0.8-10.2 m/min.)	3/32-3/16 in. (2.4-4.8 mm)	26 lb. (11.8 kg)

SubArc Torches

See literature AD/7.3



OBT 600 torch has concentric flux flow nozzle. 600 amps at 100 percent duty cycle. For use with 1/16-5/32 inch (1.6-4.0 mm) wire.

OBT 1200 torch has concentric flux flow nozzle. 1,200 amps at 100 percent duty cycle. For use with 1/16-5/32 inch (1.6-4.0 mm) wire. OBT 1200 features a replaceable breakaway adapter end to prevent costly damage should torch run into an obstruction.

1200-Amp Twin-Wire Torch (long). 1,200 amps at 100 percent duty cycle. For use with 3/64-3/32 inch (1.2-2.4 mm) wire.

Most popular accessories

- OBT 600 Torch Body Extensions (pg 123)
043967 1 inch (25.4 mm)
043969 2 inch (50.8 mm)
043973 4 inch (101.6 mm)
043975 6 inch (152.4 mm)
- OBT 1200 Torch Body Extension 043981 (pg 123)
- Contact Tips (pg 123)

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Model/Stock Number	Rated Output	Wire Diameter Capacity	Single/Twin	Torch Body Length
OBT 600 (043923)	600 A at 100% duty cycle	1/16-5/32 in. (1.6-4.0 mm)	Single	10.25 in. (260.4 mm)
OBT 1200 (043900)	1,200 A at 100% duty cycle	1/16-5/32 in. (1.6-4.0 mm)	Single	17.25 in. (438.2 mm)
1200-Amp Twin-Wire Torch (long) (301144)	1,200 A at 100% duty cycle	3/64-3/32 in. (1.2-2.4 mm)	Twin	16.97 in. (431 mm)

SubArc Flux Hopper Digital Low Voltage

See literature AD/7.3



Improved flux delivery system. Our SubArc Flux Hopper Digital Low Voltage utilizes a flux valve mechanism that assures continuous delivery of flux to the arc.

Sight glass allows the weld operator to visually monitor the remaining flux in the hopper.

Versatile opening is sized to allow hookup of any flux-hopper-mounted recovery system.

Includes slag screen to capture fused slag particles from entering the flux hopper.

Most popular accessories

- Flux Hopper Extension Cables (pg 123)
260623010 10 ft. (3 m)
260623025 25 ft. (7.6 m)
260623065 65 ft. (19.8 m)

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Stock Number	Input Power	Input Power Cord	Flux Capacity	Net Weight
(300942)	12 VDC (PWM signal from SubArc Interface)	11 ft. (3.3 m)	25 lb. (11 kg)	11 lb. (5 kg)

SubArc 3-Wheel Tractor

See literature AD/7.7



Easy-to-use foot- or hand-operated clutch allows for easy engagement of tractor drive and disengagement to move tractor into position.

Flexible mast configuration allows torch to be positioned in multiple weld zones and adapts to your weld application.

SubArc Tractor Interface Digital provides easy-to-operate single control for power source and tractor operation.

Regulated travel speed ensures your actual and set travel speeds are consistent, improving weld quality.

Locking front wheel can be set in place to desired travel path.

Easily accommodates a 60-pound (27 kg) wire reel for fewer time-consuming wire changeovers.

Low-voltage operation and improved environmental protection. The new digital series accessories are powered with 24 VAC control voltage from the power source. All power sources, interface controls and wire drives are IP23 rated providing a high level of protection for harsh environments.

Package includes

- SubArc 3-Wheel Tractor
- SubArc Tractor Interface Digital
- SubArc Wire Drive 400 Digital Low Voltage
- 10 lb. (4.5 kg) capacity flux hopper with manual valve
- 60 lb. (27 kg) wire reel
- OBT 600 torch
- Wire straightener

Required power source

- SubArc Digital Series (pg 86)

Most popular accessories

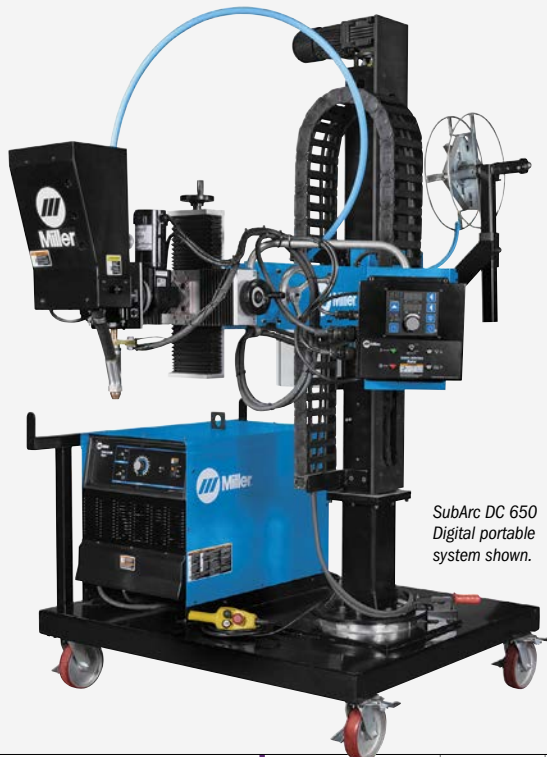
- SubArc Control Cables (pg 123)
- Contact Tips (pg 123)
- Drive Rolls (pg 123)

Visit MillerWelds.com or your distributor for other Miller® options and accessories.

Stock Number	Input Power from Welding Power Source	Wire Feed Speed	Wire Diameter Capacity	Gun Positioning Slides	Drive Motor	Travel Speed	Dimensions	Net Weight
(951755)	24 VAC, 1-phase, 50/60 Hz, 25 A	30-400 ipm (0.8-10.2 m/min.)	1/16-5/32 in. (1.6-4.0 mm)	3.5 in. (88.9 mm)	38 VDC	5-70 ipm (0.13-1.75 m/min.)	H: 36 in. (914 mm) W: 43.25 in. (1,149 mm) D: 31.63 in. (803 mm)	120 lb. (54.4 kg) without flux or wire

SubArc Portable Welding System

See literature AD/7.6



SubArc DC 650 Digital portable system shown.

Self-contained system for pressure vessel, pipe and general welding applications. Houses a power source, column and boom on a mobile platform.

Built-in fork pockets and caster wheels allow welding system to be brought to the joint.

Easy positioning of the weld head through use of integrated motorized column, manual telescoping boom, slide and 360-degree column rotation.

Motorized column with pendant control and manual telescoping boom provides 44 inches (1,117 mm) of vertical travel and 31 inches (787 mm) of horizontal travel respectively.

Manual slide provides 7.87 inches (200 mm) of fine vertical and horizontal torch adjustment.

Systems include

- Portable column and boom
- SubArc Digital power source
- SubArc Interface Digital and control cable
- SubArc Wire Drive 400 Digital Low Voltage
- 25 lb. (11.3 kg) capacity flux hopper with valve
- 60 lb. (27 kg) wire reel and support assembly
- OBT 600 torch (650 system) or OBT 1200 torch (1000 system)
- Wire straightener
- Manual slide

Most popular accessories

- 14-pin Insight Core™ Module 301072 (pg 70)
Requires Insight Core to SubArc Digital Series Adapter Kit (301295)
- Insight ArcAgent™ Auto 301346 (pg 71)
- Contact Tips (pg 123)
- Drive Rolls (pg 123)

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Stock Number	Supply Voltage	Column Stroke	Column Travel	Boom Stroke	Boom Travel	Base Rotation	Minimum Working Height	Maximum Working Height	Overall Height
(951675) w/SubArc DC 650 Digital (951676) w/SubArc DC 1000 Digital (see page 86 for power source specs)	120 V, 1-phase, 60 Hz (see page 86 for power source requirement)	44 in. (1,117 mm)	Constant speed	31 in. (787 mm)	Manual	360°	DC 650: 33.5 in. (851 mm) DC 1000: 26.25 in. (667 mm)	DC 650: 77.5 in. (1,969 mm) DC 1000: 70.25 in. (1,784 mm)	102 in. (2,590 mm)