

MD3-2060

DISTRIBUÉ PAR / DISTRIBUTED BY:

QUEBEC
164, St-Jean-Baptiste
Mercier, QC J6R 2C2
T: (450) 691-9090ONTARIO
275 Sheldon Drive, Unit 3
Cambridge, ON N1T 1A3
T: (519) 894-9069www.qnde.ca

Multi-Directional Magnetic Wet Bench for AC, HWDC or 1-Phase FWDC Magnetization

The MD3-2060 multi-directional magnetic bench offers 5,000 amps of Alternating Current, 6,000 amps of Half Wave Direct Current and 6,000 amps of 1-phase Full Wave Direct Current for time-saving multidirectional magnetization which can find defects in all orientations with one mag-cycle.

The three outputs (contact, coil and Flux-Flo coil) each offer AC, HWDC or 1-Phase FWDC, and are independently adjustable to balance the magnet field intensity.

BENEFITS

Maximize part throughput

- Maximize throughput by magnetizing a part in all directions in a single shot
- Reduce processing time with operator-enabled automatic Double-Mag Shot
- Generate 300+ shots per hour at maximum unit output
- Optional Database System with advanced touch screen operating interface and barcode scanner eliminates time spent on manual inputs
- Optional automated conveyer system minimizes part handling by transporting parts directly to the inspection booth

Easy to use and maintain

- Make quick operational adjustments using the simple, user-friendly operator interface with touch-screen controls
- External pump system provides fast access for easy cleaning and service

Advanced process control

- Maximize consistency between tests with 1,000 customer-programmable techniques
- Track productivity using the automatic parts counter
- Prevent accidental and unauthorized alterations with multiple user profiles and varying tiers of control for a range of operator experience levels
- Daily reminder alarms help ensure measurements are compliant with process specification requirements

Real-world dependability for minimal downtime

- Allen-Bradley PLC provides reliable controls and off-the-shelf replacements
- Advanced agitator system helps prevent blockages and clumping by keeping magnetic particles well suspended
- Rely on our industry leading warranty with best in-class service delivered by a global network of trained Magnaflux authorized service centers

STANDARD FEATURES

- 5% duty cycle of 0.5 seconds on, 10 seconds off at maximum output
- Allen-Bradley PLC
- Advanced touch-screen operator interface
- 1,000 customer-programmable techniques
- Automatic parts counter
- User-controlled security systems with password protection, supervisor locks and customizable operator access profiles
- Daily reminder alarms to verify UV light, visible light and particle bath concentration for process control requirements
- Dimmable UI display helps reduce operator eye fatigue and keeps ambient light below required minimums
- External pump system for particle bath agitation, circulation and application
- Integrated rapid-reversing FWDC or decaying-AC demagnetization with 1-touch control
- Low-voltage output minimizes electrical exposure for operator safety
- Adjustable mag shot time from 0.5 to 2 seconds
- Automatic Double-Mag Shot with 1-touch control
- Mag-shot-activating front push bar with 1-touch control to enable/disable this feature
- Three large, easy-to-read digital ammeters confirms amperage sent through the part
- Current assurance alarm with visual and audible alerts and alarm log to confirm magnetizing current delivery
- Solid state circuitry increases lifetime and performance of machinery

PRODUCT PROPERTIES

Magnetizing Current Capacity	AC	5,000 A
	HWDC	6,000 A
	1-Phase FWDC	6,000 A
Maximum Part Length*	41 in / 104 cm <i>(89 in / 226 cm, 133 in / 337 cm)</i>	
Maximum Unsupported Part Weight Capacity	300 lb / 136 kg	
Maximum Supported Part Weight Capacity* (using rail-mounted steady rests)	700 lb / 317 kg <i>(1,500 lb / 680 kg)</i>	
Maximum Part Diameter*	16 in / 40 cm <i>(20 in / 50 cm)</i>	
Available Voltages	230, 380, 415, 460, 575 V	
Available Frequencies	50 or 60 Hz	

* Optional feature configurations shown in italics

CONFIGURATION OPTIONS

- Long & Extra-Long Part Capacity to increase max clamping length to 89 in / 226 cm or 133 in / 337 cm
- 20 in / 50 cm Coil or 19.5 in / 49 cm Clam-Shell Coil (instead of 16 in / 40 cm coil)
- Reinforced Rail for heavier part load, 1,500 lb / 680 kg part capacity
- Dual-Touch Sensor eliminates risk of injury during pinch points

UPGRADE OPTIONS

- Database System upgrade with advanced touch screen operating interface and barcode scanner for quality control traceability, record automation and reporting
- Auto-Bath upgrade with 22 in / 55 cm capacity decreases processing time by

automatically clamping, bathing, magnetizing and unclamping the part

- XG-Series conveyer inspection booth maximizes throughput by automatically transferring inspection-ready parts to an adjacent inspection booth
- Inspection Enclosure Hood with ventilation fan for a darkened inspection area without sacrificing function and operator comfort, includes an EV6000 LED UV lamp, flame resistant curtains and visible lighting
- ST700 stationary overhead LED UV lamp, 100-240 V, 50-60 Hz

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Multi-Directional Magnetic Wet Bench for AC, HWDC or 1-Phase FWDC Magnetization

The MD-2060 multi-directional magnetic bench offers 5,000 amps of Alternating Current, 6,000 amps of Half Wave Direct Current and 6,000 amps of 1-phase Full Wave Direct Current for time-saving multidirectional magnetization which can find defects in all orientations with one mag-cycle.

The two outputs (contact and Flux-Flo coil) each offer AC, HWDC or 1-Phase FWDC, and are independently adjustable to balance the magnet field intensity.

BENEFITS

Maximize part throughput

- Maximize throughput by magnetizing a part in all directions in a single shot
- Reduce processing time with operator-enabled automatic Double-Mag Shot
- Generate 300+ shots per hour at maximum unit output
- Optional Database System with advanced touch screen operating interface and barcode scanner eliminates time spent on manual inputs
- Optional automated conveyer system minimizes part handling by transporting parts directly to the inspection booth

Easy to use and maintain

- Make quick operational adjustments using the simple, user-friendly operator interface with touch-screen controls
- External pump system provides fast access for easy cleaning and service

Advanced process control

- Maximize consistency between tests with 1,000 customer-programmable techniques
- Track productivity using the automatic parts counter
- Prevent accidental and unauthorized alterations with multiple user profiles and varying tiers of control for a range of operator experience levels
- Daily reminder alarms help ensure measurements are compliant with process specification requirements

Real-world dependability for minimal downtime

- Allen-Bradley PLC provides reliable controls and off-the-shelf replacements
- Advanced agitator system helps prevent blockages and clumping by keeping magnetic particles well suspended
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- Dimmable UI display helps reduce operator eye fatigue and keeps ambient light below required minimums
- External pump system for particle bath agitation, circulation and application
- Integrated rapid-reversing FWDC or decaying-AC demagnetization with 1-touch control
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- Adjustable mag shot time from 0.5 to 2 seconds
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- ST700 stationary overhead LED UV lamp, 100-240 V, 50-60 Hz

CONFIGURATION OPTIONS

- Long Part Capacity to increase max clamping length to 89 in / 226 cm
- 16 in / 40 cm Coil (instead of Flux-Flo Coil)
- Reinforced Rail for heavier part load, 1,500 lb / 680 kg part capacity
- Dual-Touch Sensor eliminates risk of injury during pinch points

MD-2030

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Multi-Directional Magnetic Wet Bench for AC, HWDC or 1-Phase FWDC Magnetization

The MD-2030 multi-directional magnetic bench offers 2,500 amps of Alternating Current, 3,000 amps of Half Wave Direct Current and 3,000 amps of 1-phase Full Wave Direct Current for time-saving multidirectional magnetization which can find defects in all orientations with one mag-cycle.

The two outputs (contact and Flux-Flo coil) each offer AC, HWDC or 1-Phase FWDC, and are independently adjustable to balance the magnet field intensity.

BENEFITS

Maximize part throughput

- Maximize throughput by magnetizing a part in all directions in a single shot
- Reduce processing time with operator-enabled automatic Double-Mag Shot
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- Optional Database System with advanced touch screen operating interface and barcode scanner eliminates time spent on manual inputs
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- Solid state circuitry increases lifetime and performance of machinery

PRODUCT PROPERTIES

Magnetizing Current Capacity	AC	2,500 A
	HWDC	3,000 A
	1-Phase FWDC	3,000 A
Maximum Part Length	41 in / 104 cm	
Maximum Unsupported Part Weight Capacity	300 lb / 136 kg	
Maximum Supported Part Weight Capacity* (using rail-mounted steady rests)	700 lb / 317 kg <i>(1,500 lb / 680 kg)</i>	
Available Voltages	230, 380, 415, 460, 575 V	
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- ST700 stationary overhead LED UV lamp, 100-240 V, 50-60 Hz

CONFIGURATION OPTIONS

- 16 in / 40 cm Coil (instead of Flux-Flo Coils)
- Reinforced Rail for heavier part load, 1,500 lb / 680 kg part capacity
- Dual-Touch Sensor eliminates risk of injury during pinch points

GE-Series

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Inspection Hoods

Magnaflux® has worked hard to create a very functional inspection environment while keeping operator comfort and convenience in mind. Our durable curtains darken the inspection area to levels that meet all standards. The unit is easy to access through a “theater style” curtain, that can be folded and hung for ventilation in warmer environments. The overhead frame can also be opened so that inspection parts can be loaded by crane if necessary.



STANDARD FEATURES

- EV6000 hand held LED UV lamp with Quick Mount
- Adjustable overhead frame opens enclosure for service or parts loading
- Easy access through front curtain (“theater style”)
- Adjustable length curtain
- Flame resistant curtains
- White light and ventilation fan
- White light control from operator interface
- Fan on/off switch on operator interface



CONFIGURATION OPTIONS

Unit	Footprint (Length x Depth x Height)	Size
GE-54	Closed 89" x 63" x 90" Open 89" x 41" x 122"	Standard
GE-96	Closed 136" x 63" x 90" Open 136" x 41" x 122"	Long
GE-144	Closed 180" x 63" x 90" Open 180" x 41" x 122"	Extra Long



Get Control of Inspection Productivity

New HMI Touch Screen Interface for Wet Bench Units



Automatically clamps the part, magnetizes the part, then unclamps the part

Automatically clamps the part, bathes the part with magnetic particle bath, magnetizes the part, then unclamps the part

Allows the operator to set magnetization time from 0.5 to 2 seconds

Automatically initiates two magnetizing shots



Improve Productivity

Increase Inspection Quality

Decrease Processing Time



Efficiency Upgrades Available

Time-Saving Standard Features

Intuitive Equipment Controls

New Time-Saving Standard Features

	Target User	Function	Benefits
HMI Touch Screen Interface	Companies looking for a high-value wet bench unit to help increase processing time	Provides operator with better ease of use and more intuitive controls with a robust design	Improves productivity Increases inspection quality Decreases processing time Easy upgrades available
Adjustable Mag-Shot Timer	Companies who inspect parts for multiple customers	Allows the operator to set magnetization time from 0.5 to 2 seconds	Increases productivity by making the adjustment simple and readily accessible
Double Mag-Shot	Companies who must adhere to specifications which require two magnetizing shots for testing	Automatically initiates two magnetizing shots Operator enables this feature once instead of remembering to press the MAG button or push bar twice each time a part is tested	Increases repeatability Better inspection quality Increases productivity



New Versatile Efficiency Upgrade Options

	Target User	Function	Benefits
Auto-Bath	Companies looking to decrease processing time for parts up to 22 inches long	Automatically clamps the part, bathes the part with magnetic particle bath, magnetizes the part, then unclamps the part	Decreases processing time by automating the magnetizing process
Auto-Mag	Companies looking to decrease processing time	Automatically clamps the part, magnetizes the part, then unclamps the part	Decreases processing time by automating part of the magnetizing process
Pneumatic Tailstock	Companies who inspect lengthy parts and require a long or extra-long frame	Automatically moves the tailstock along the rail for easy positioning	More ergonomic for the operator Reduce time to set tailstock Faster processing
Low-End Current Control	Companies who process small parts at lower amps and need tighter tolerances Companies who want to process a wide variety of parts on the same wet bench unit	Tightens the dial range for more precise amp control. Example: D-2060 low-end contact current range is 0-1500 amps (Range varies based on unit)	Versatile for many different inspection specification Efficient

		A-2030	AD-2045	ADH-2045	D-2060	D-2100
Contact Current Capacity	AC	3,000 amps	4,000 amp	4,000 amp	-	-
	HWDC	-	-	5,000 amp	-	-
	FWDC, 1 phase	-	5,000 amp	-	-	-
	FWDC, 3 phase	-	-	-	6,000 amp	10,000 amp
Demagnetizing		AC, decaying	AC, decaying	AC, decaying	DC, reversing	DC, reversing
Duty Cycle		ON: 0.5 sec OFF: 10 sec	ON: 0.5 sec OFF: 10 sec	ON: 0.5 sec OFF: 10 sec	ON: 0.5 sec OFF: 10 sec	ON: 0.5 sec OFF: 20 sec
HMI Touch Screen Interface		✓	✓	✓	✓	✓
Adjustable Mag-Shot Timer		✓	✓	✓	✓	✓
Double Mag-Shot		✓	✓	✓	✓	✓
Auto-Bath		new option	new option	new option	new option	new option
Auto-Mag		new option	new option	new option	new option	new option
Pneumatic Tailstock		new option	new option	new option	new option	-
Low-End Current Control		-	-	-	new option	new option

Magnaflux A- and D-Series Wet Bench Units with **HMI Touch Screen Interface** offer intuitive equipment controls, time-saving standard features like adjustable mag-shot timer and double-mag shot, and productivity upgrade options like auto-bath or auto-mag to automate the magnetizing process. The result is an easy-to-use, durable, dependable Wet Bench Unit ideal for companies looking for a high-value solution to improve productivity, increase inspection quality, and decrease processing time.

If your company is looking for a **value solution** to improve productivity contact your local Magnaflux Regional Sales Manager or find additional details on A- and D-Series Wet Bench Units with HMI Touch Screen Interface on our website at magnaflux.com.

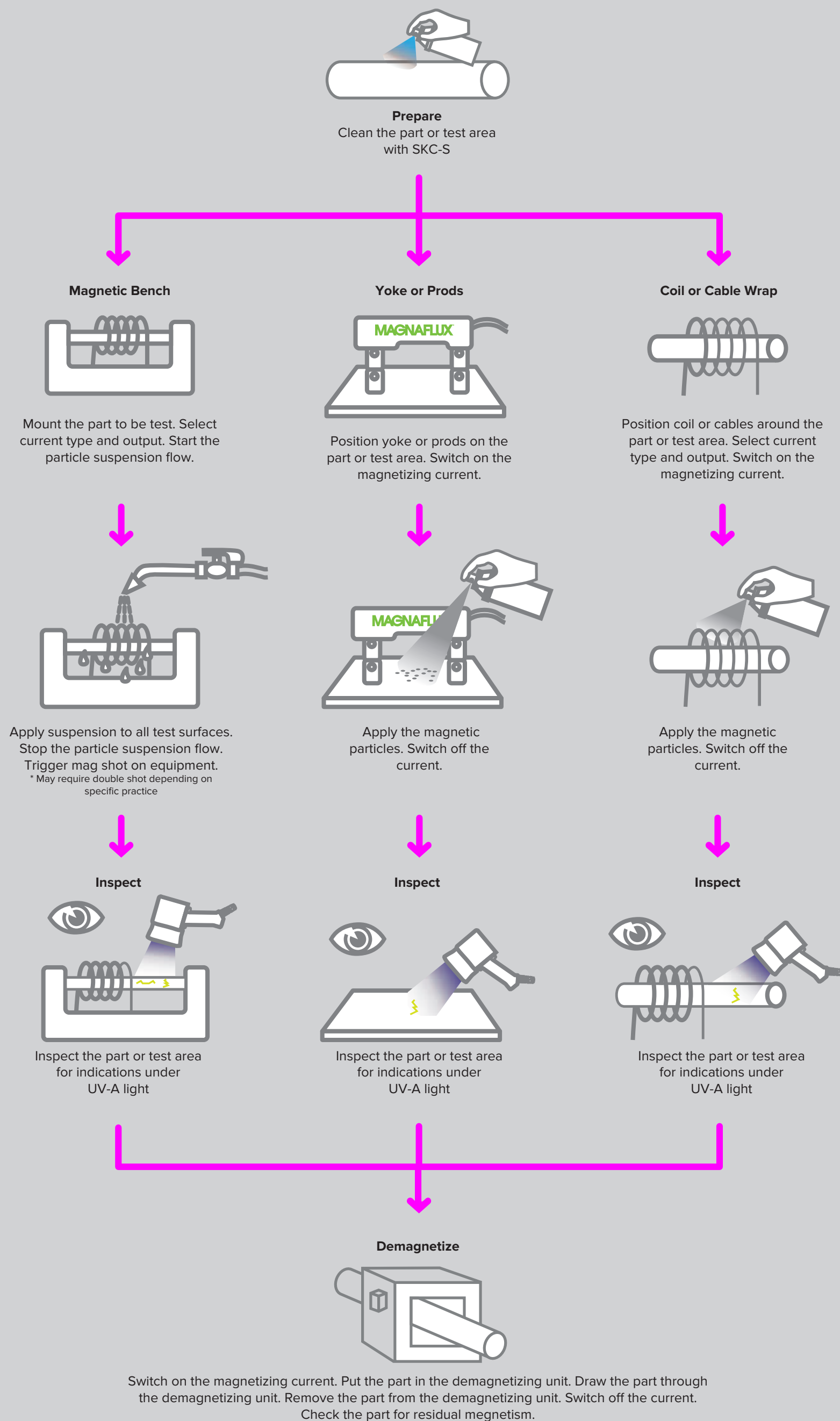
Don't know your Magnaflux Regional Sales Manager? Contact us at (847) 657-5300 or email cs@magnaflux.com.



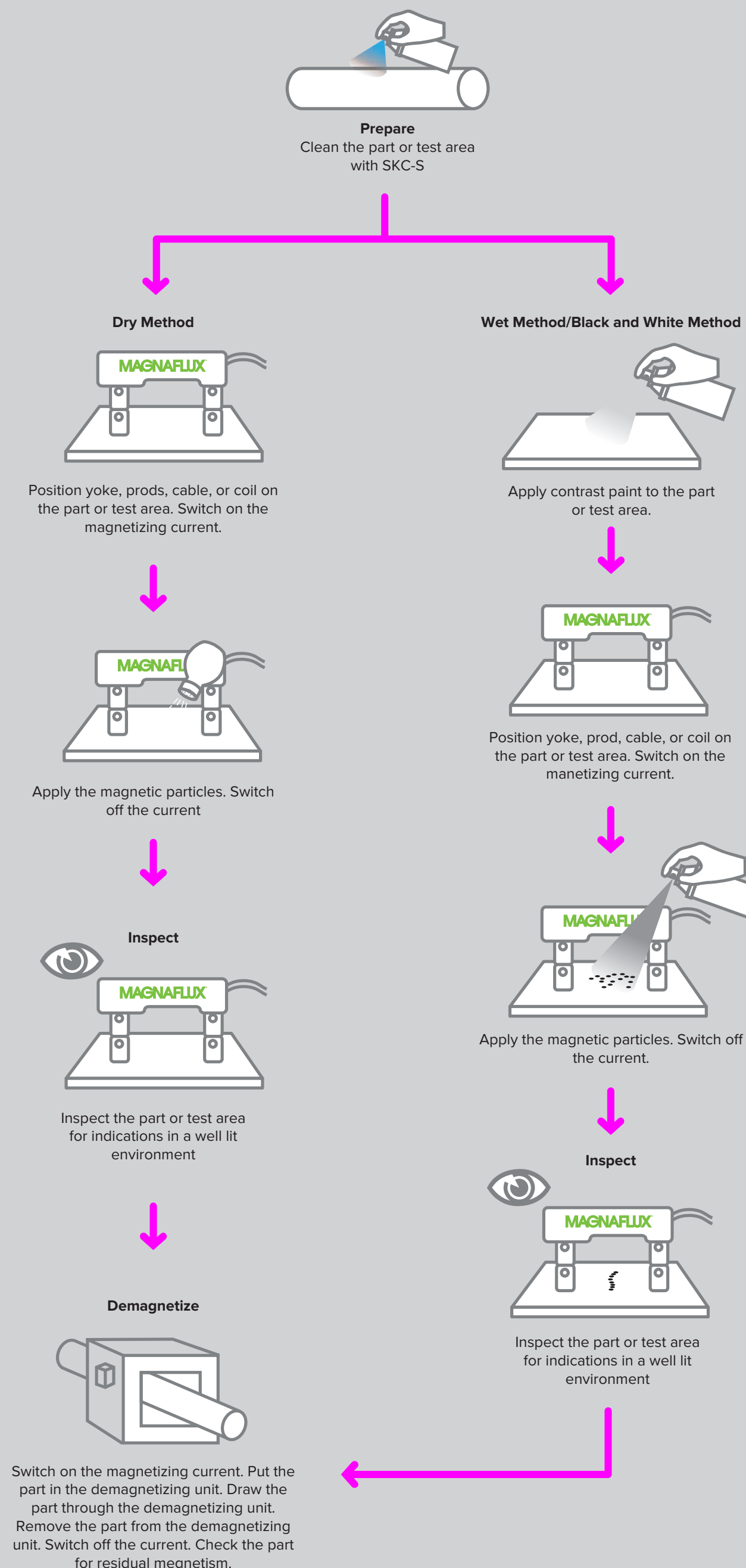
Magnetic Particle Process Guide



Fluorescent



Nonfluorescent/Visible Color



Six Tips for Magnetic Particle Testing

1. Check required specifications before beginning magnetic particle inspection.
2. Certifications, SDS, PDS, and instructions are available at www.magnaflux.com
3. Verify that parts to be magnetic particle tested are clean and dry before applying magnetic particles.
4. The settling volume of magnetic particle baths should be tested anytime the bath is started up, changed out, adjusted (particles or carrier added), and at least once per shift.
5. Using a tool steel ring, QQI, or other known defect standard is recommended to confirm proper equipment and material performance.
6. Demagnetization can also be performed by using a yoke in AC mode by energizing it, then removing it from the part while energized.