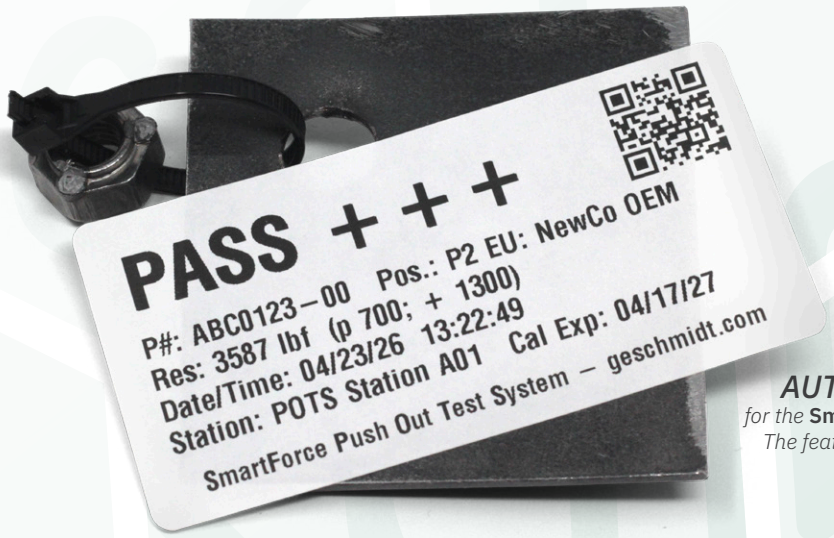
G.E. SCHMIDT INDUSTRIAL CATALOG



AUTO LABEL PRINTING
for the **SmartForce Push-Out Test System***:*
The feature you ~~never~~ knew you needed.
Page 15

PROLINE™ SEKI FEEDER, INC. DO'CERAM KYOKUTOH

RWMA® MEMBER

Kyokutoh Cutters & Holders
Page 23

Ceramic components (above) and MIG/TIG welding nozzles (right)
Page 30 *and* ***Page 35***

Nut and stud welding electrodes
Page 18

Entron Hi5 Weld Monitor
Page 36

Index

NEW/EXPANDED

Let's Talk.

Call us at **(513) 489-5130**, email us at **sales@geschmidt.com**, or book an appointment with us using the QR code below to discuss your application.

SCAN TO BOOK

PROLINE™

SEKI FEEDER, INC.

DOCERAM

KYOKUTOH

ENTRON

RoMan Manufacturing Inc.

CHILLWORX

LEER EN ESPAÑOL

INDEX

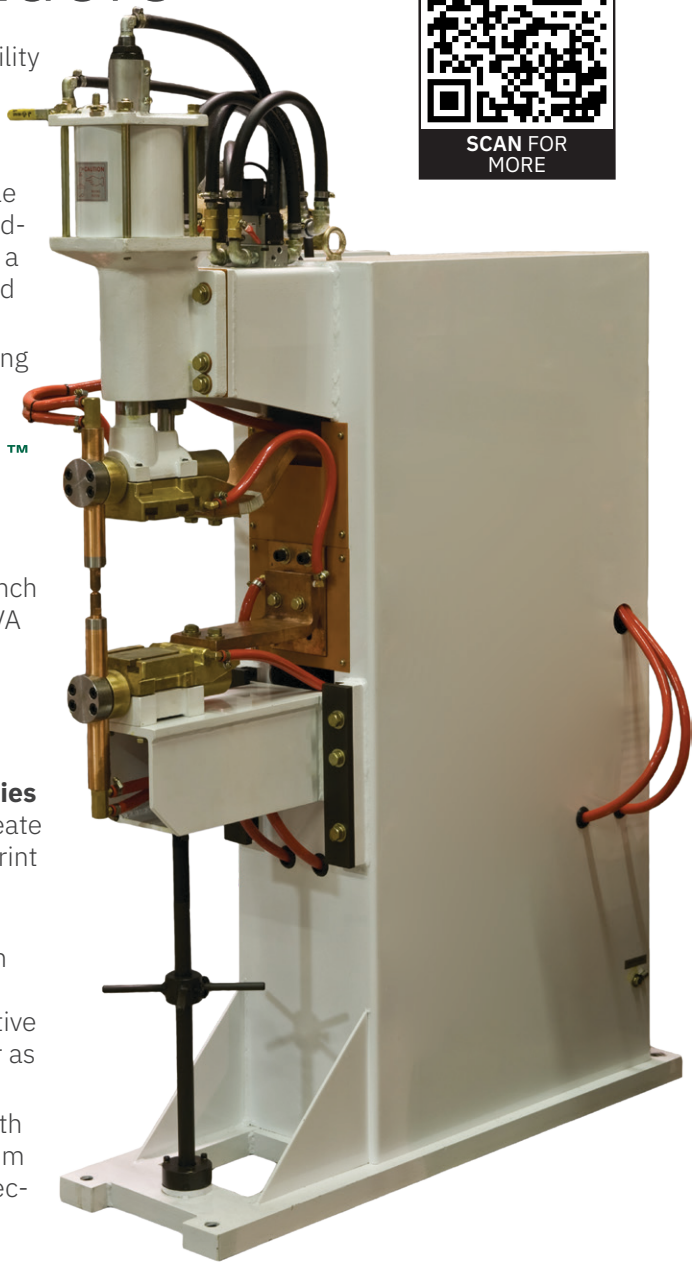
SERVING THE MANUFACTURING INDUSTRY SINCE 1960

Revision 2026-2

PROLINE™ Pedestal Welders

SCAN FOR MORE

The ProLine family of welders are designed for maximum flexibility to match the needs of most resistance welding applications.



STANDARD SERIES

The ProLine **Size 1 Welder** (pictured right) is a classic body style with mounting space on either side of the welder for controls, feeders and other accessories. Size 1 welders are available with up to a 150 KVA transformer, in AC and MFDC configurations. All Standard Series welders feature dual platen/horn mounts.

The Size 1 is also available in a **Dual-Head Configuration** sharing a weld control and transformer for multi-stage operations while using minimal floor space.

The **Size 2 Welder** is for resistance welding applications that demand more. The standard Size 2 features a 6.25-inch bore cylinder and a larger frame, capable of housing up to 200 KVA transformers, plus a throat depth up to 36 inches.

ADAPTIVE SERIES

Engineers designed the **ProLine Adaptive Series** (pictured left) welder with two goals in mind: Create a versatile, precision machine with a small footprint to maximize efficiency.

The result was the perfect modular pedestal welder, with fast and easy reconfiguration, within a compact unit that uses less than half the floor space of competitive flexible welders. The Adaptive Series may be used with a dedicated pedestal or as a **Bench-Top** unit.

The Adaptive Series can even be **Reversed**, with the cylinder head approaching the workpiece from below to decrease cycle time in automated projection welding applications.

PROLINE WELDER SPECIFICATIONS

Specifications	SIZE 1	SIZE 2	DUAL-HEAD	ADAPTIVE	BENCH
Throat Depth (in.)	18, 24, or 36	18, 24, or 36	18	15.5	15.5
Horn Diameter (in.)	2.75	2.75	2.75	2.75	2.75
Std. Cyl Diameter (in.)	5.5	6.25	5.5	5.5	5.5
Std. Cyl Stroke (in.)	3.0–6.0	3.75–6.0	3.0 or 4.0	3.0 or 4.0	3.0 or 4.0
Platen Size (in.)	4.7 x 4.0	7.0 x 6.3	4.7 x 4.0	4.7 x 4.0	4.7 x 4.0
Max Frame Force	1900 lbs.	2400 lbs.	1900 lbs.	3800 lbs.	1900 lbs.
Electrode Holders	RWMA or Metric				
Dimensions (W x D x H, in.)	14 x 47 x 70	15 x 54 x 78	36 x 46 x 70	22 x 27 x 75	14 x 23 x 49
Transformer Power (KVA)	50–150	100–200	50–150	80–120	80–150
Electrical Input	220 or 440 VAC / 50 or 60 Hz				

NOTE: Example configuration. Shown with mounted e-stop and initiation button, both sold separately.

PROLINE™ Guarding System

This fully enclosed guarding system uses physical fencing and light curtains to protect manual operators and prevents objects from reaching the pinch point during the weld cycle.

A rigid and stable aluminum extrusion frame with 1/8-inch PVC-dipped steel mesh panels protects the sides, back, top and bottom of the pinch point, while the front is guarded by Keyence GL-R Series light curtains to prevent intrusion. Steel cover plates protect the light curtains from accidental damage.

Also available for retrofit on ProLine™ and other welders

The basic guarding is sized to allow for tooling and accessories, including SEKI Feeders, and medium-sized workpieces without inhibiting the operator. The sturdy extrusion frame can also be used to mount accessories *(not included)* such as lights, signals, buttons, part chutes, expulsion guards and more.

When purchased with a new ProLine™ welder, the guarding comes fully assembled and integrated into the weld control. The ProLine™ Guarding System is also available for retrofit on ProLine™ welders and welders from other manufacturers.

Example light curtain and cover

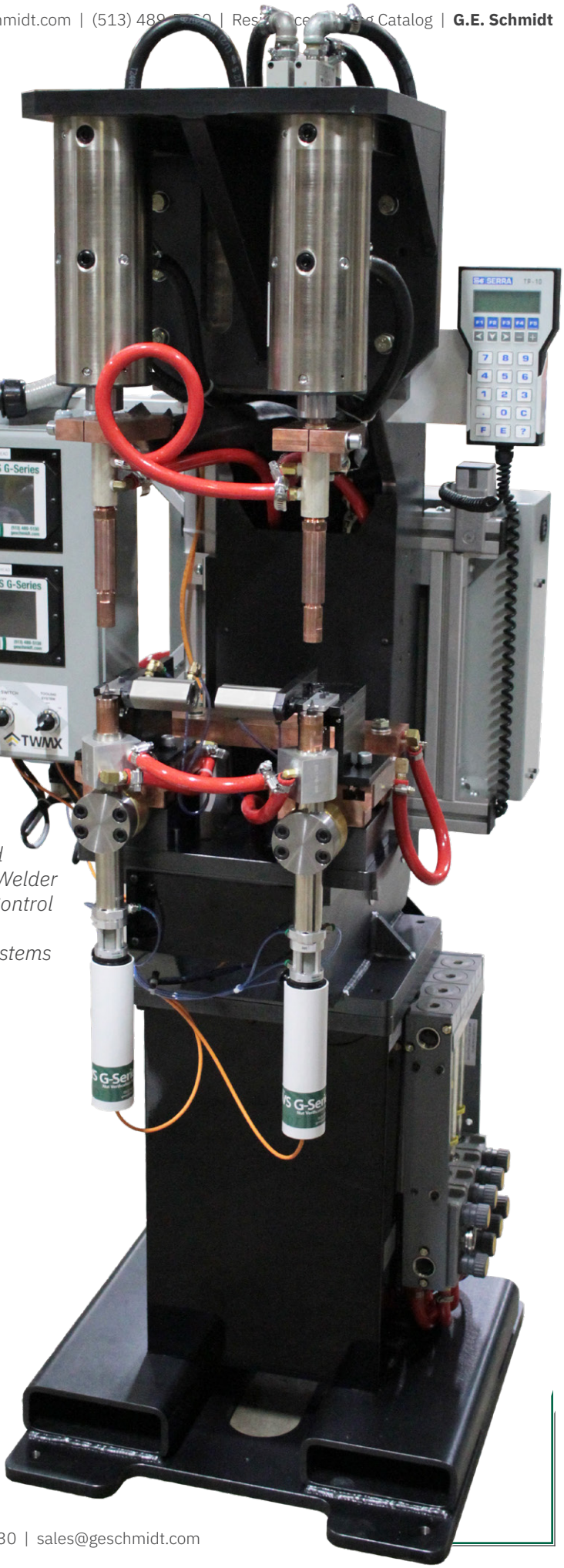
Heavy-duty steel mesh fencing

STANDARD GUARDING SPECS	
External Dimensions	43 × 31 × 24 in. *(1090 × 785 × 613mm)*
Face Opening	35 × 25 in. *(888 × 635mm)*
Curtain Resolution	0.98 in. *(25mm)*

Welder Examples

Additional pictures available upon request

Size 1 bare frame



Dual-Head Adaptive Series Welder with Serratron Control and two NVS G-Series systems

Size 1 Projection Welder with Entron EN 6001

Size 2 Dual-Head Spot Welder with WTC weld control

Size 2 Spot Welder with Unitrol Soft Touch

Welders and components from:

PROLINE™

ENTRON

wtc WELDING TECHNOLOGY CORP

RoMan Manufacturing Inc.

Rexroth Bosch Group

And many other high-quality manufacturers.

Size 2 Nut Welder with PLC, guarding and WTC weld control

ProLine Adaptive Series SD welder bare frame

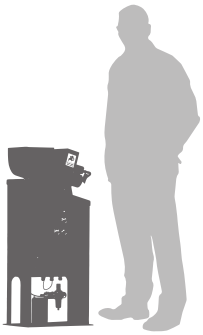
SCAN FOR MORE

SEKI FEEDER, INC. Nut & Bolt Feeders

The SEKI Feeder family of nut and bolt feeding systems provide unique solutions for reliable, repeatable placement in projection and clinch welding applications.

The common component between the three systems is **SEKI's Selector Unit** (*right*). In place of a vibratory bowl, the standard Selector Unit uses magnets and a selector gate — without requiring constant vibration or tuning — to send aligned nuts and bolts to the feed head.

- **Non-vibratory operation**. Rotating magnets *(pictured below)* draw oriented fasteners through selector gate
- **Small footprint(10"x19"x42")** vs. vibratory bowls
- Feeds 50 M6 square nuts per minute to tube (6,000 M6 square nut hopper capacity)
- Few moving parts; easy to maintain



ProLine™ Power Hopper

The ProLine™ Power Hopper is an extension built for SEKI Feeder Selector Unit, doubling capacity and reducing the likelihood of filling errors. An electronic lock is ready for integration into your PLC system to limit access to authorized users, to integrate scanners, or more.

The hopper features full stainless steel construction, with no drilling required for installation.

In addition to installation on new units, the Power Hopper can be retrofit onto any existing SEKI Feeder; physical installation takes minutes.

NOTE: *The customer is responsible for integrating the electronic lock operation into their own PLC system; the lock is not integrated into SEKI's onboard PLC.*

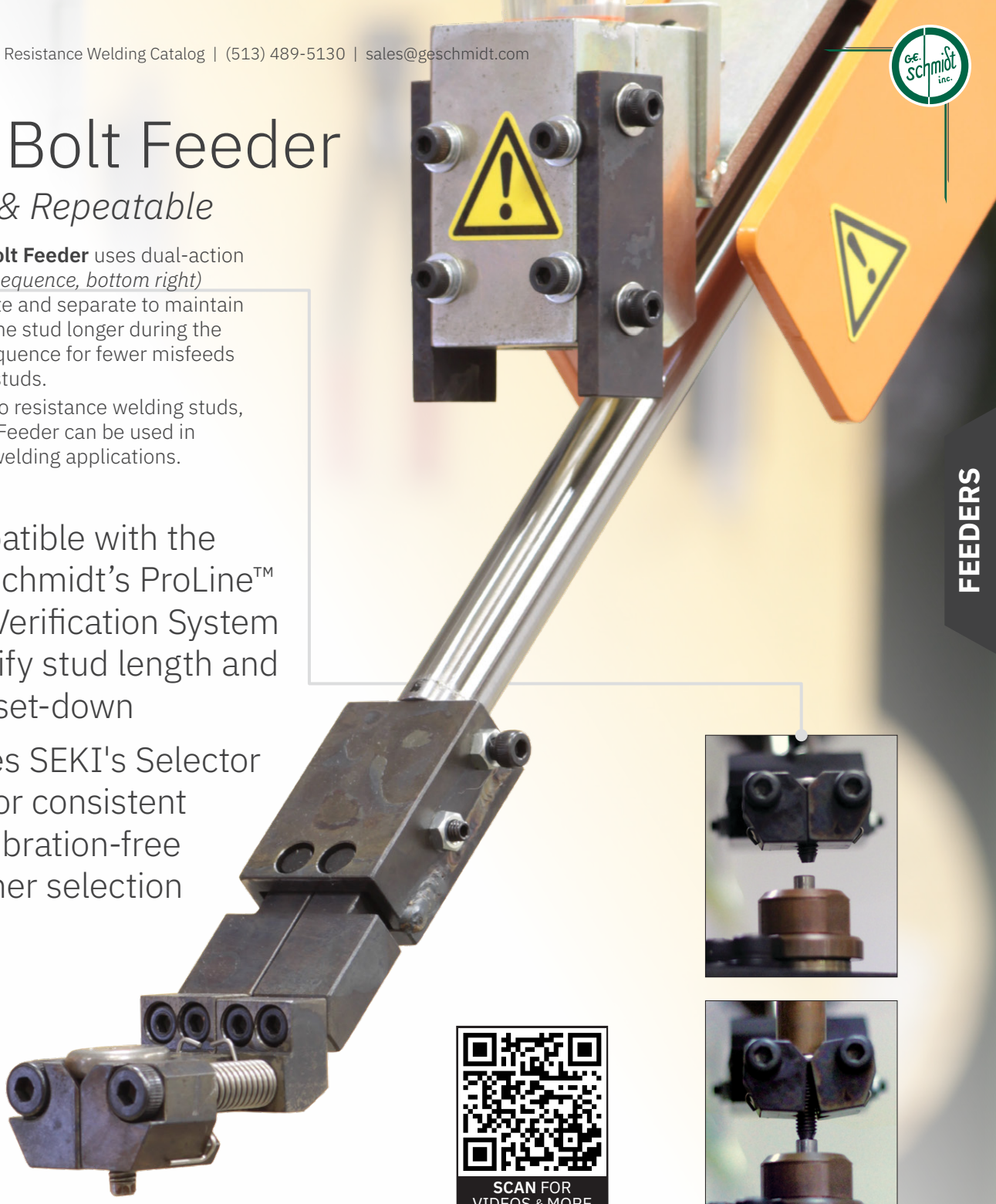
SEKI Bolt Feeder

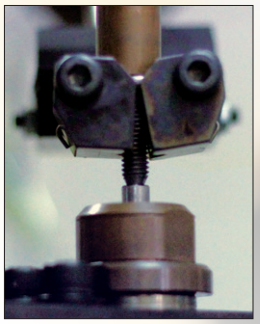
Precise & Repeatable

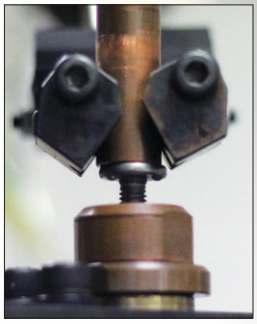
The **SEKI Bolt Feeder** uses dual-action jaws *(picture sequence, bottom right)* that both rotate and separate to maintain contact with the stud longer during the placement sequence for fewer misfeeds and dropped studs.

In addition to resistance welding studs, the SEKI Bolt Feeder can be used in select clinch welding applications.

- Compatible with the G.E. Schmidt's ProLine™ Stud Verification System to verify stud length and weld set-down
- Utilizes SEKI's Selector Unit for consistent and vibration-free fastener selection







SCAN FOR VIDEOS & MORE

Bolt Feeder Specifications	
Power Supply	110/220 V – 50/60 Hz
Air Pressure	0.4-0.5 Mpa
Control	Mitsubishi, OMRON, Allen-Bradley
Bolt Sizes	M5-M12 diam.; 12-50 mm length
Supply Tube Length	2.5–10 m

SEKI Air Rod Feeder

Reliable & Consistent Feeds

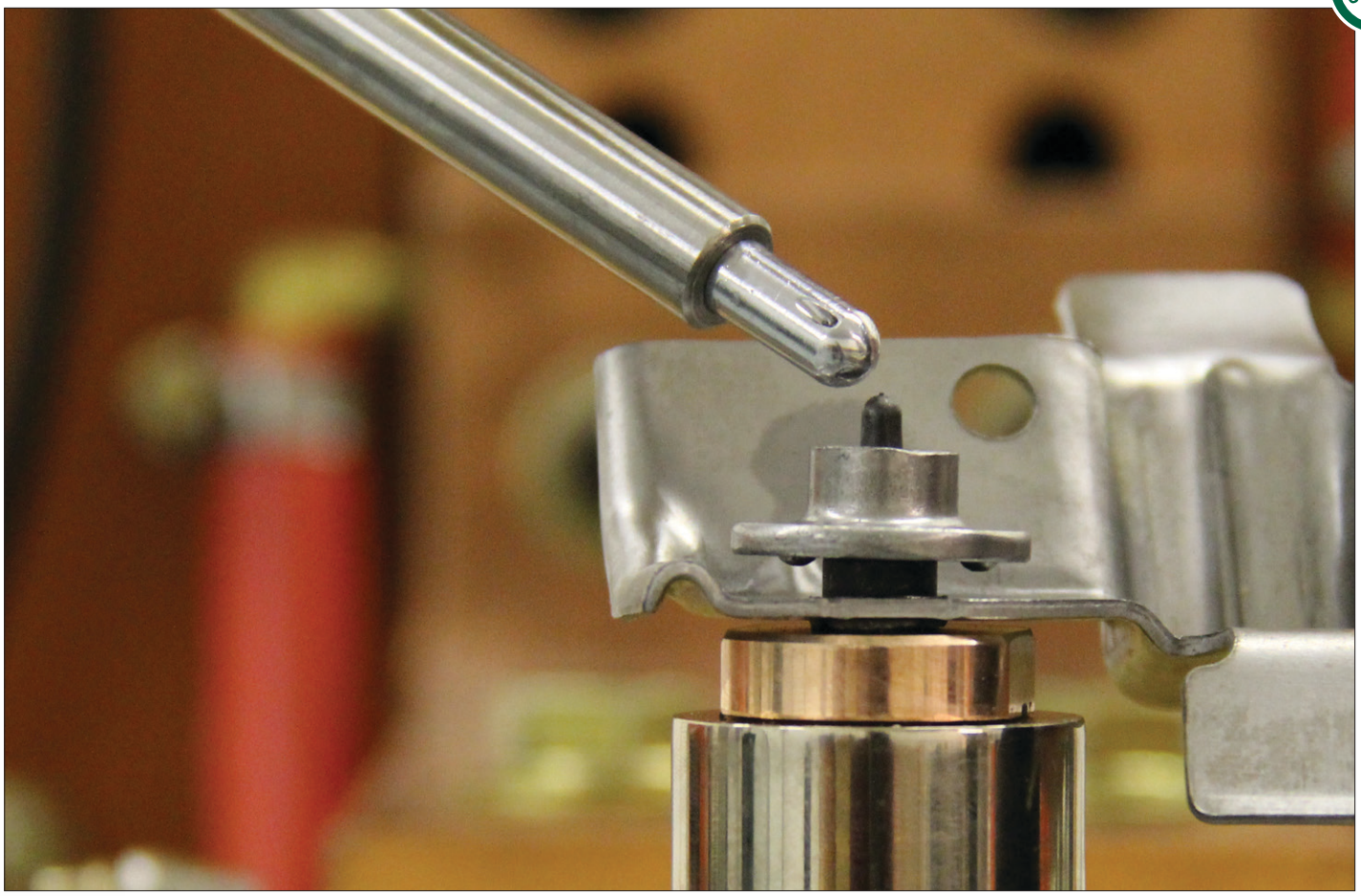
The **SEKI Air Rod Feeder** uses its unique Jet Pin™ technology, not electromagnetism, to secure the fastener to the end of the stroke *(see the picture at right)*.

As a result, the Air Rod Feeder places — doesn't "throw" — the nut onto the weld pin, giving SEKI Feeders more reliable performance than the competition.

The pneumatic wall of air doesn't fade over time, and does not require adjustments.

That's what makes SEKI Feeders a standard for OEMs, and Tier 1 and 2 manufacturers throughout the North American automotive industry.

- Uses air, not magnetism, to secure the fastener during delivery to the weld pin
- Can operate on a wider range of angles than other feeders, from nearly **0° to 90°**
- Works with any amount of fasteners in the hopper, no tuning required
- Standard 200 & 300 mm shooting unit stroke lengths *(custom-length strokes also available)*
- Compatible with the ProLine™ NVS G-Series
- Uses SEKI's magnetic Selector Unit technology



SEKI Jet Pin technology

The **SEKI Air Rod Feeder's** robust design makes it a favorite of maintenance and operations staff; faster and easier cleaning means less down time and manpower.

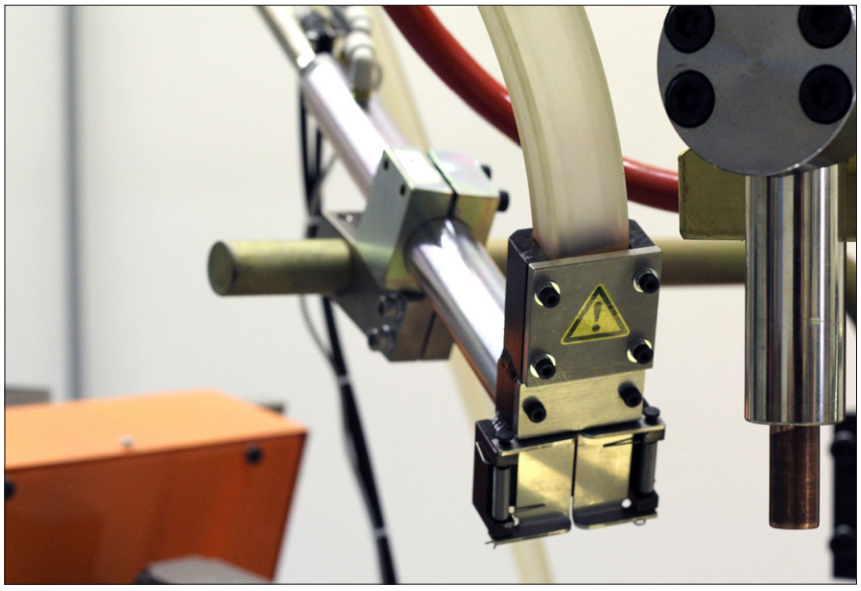
Common-wear items — and many other components — are kept in stock in the United States for responsive shipment.

The SEKI Air Rod Feeder is also compatible with fasteners that require orientation during placement on the stamping; clinch welding nuts; inverted nuts for feeding into deep channels and recesses; and many other challenging applications.

SEKI Feeders are imported via air freight for shorter, more consistent lead times and fewer uncontrollable delays.

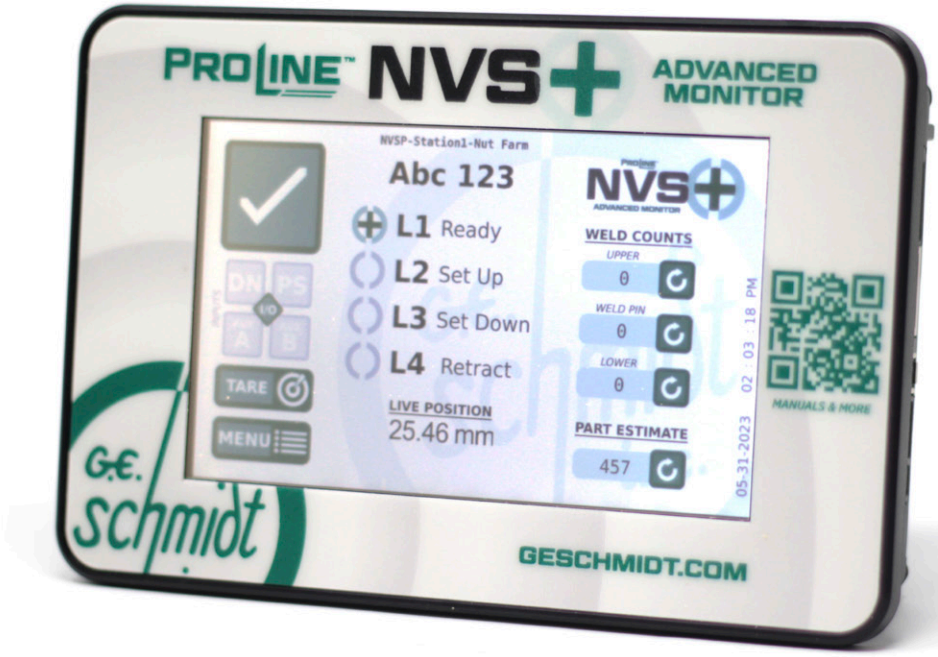
Air Rod Feeder Specifications	
Power Supply	110/220 V – 50/60 Hz
Air Pressure	0.4-0.5 Mpa
Control	Mitsubishi, OMRON, Allen-Bradley
Nut Sizes	M5–M14
Supply Tube Length	2.5–12 m

SCAN FOR VIDEOS & MORE

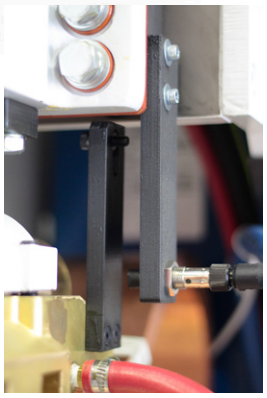


Air Rod Feeder shooting unit mounting

ProLine NVS+ Advanced Monitor



Standard Lower Barrel Unit (shown with Cooling Ring, optional)



Double-Nut Sensing Kit (optional)

Light Tower (optional)

NEMA Steel Enclosure (included)

The **ProLine™ NVS+ Advanced Monitor** is a patent-pending device that gives manufacturers confidence with the best in-line process improvement and error reduction system in projection welding. The NVS+ provides a comprehensive check and production log without slowing down production.

The NVS+ builds on the success and popularity of the NVS line. In addition to the features of previous generations, the NVS+ works with a host of secondary sensors, alongside the standard LVDT, for extra protection for your system.

SCAN FOR VIDEO IN ACTION

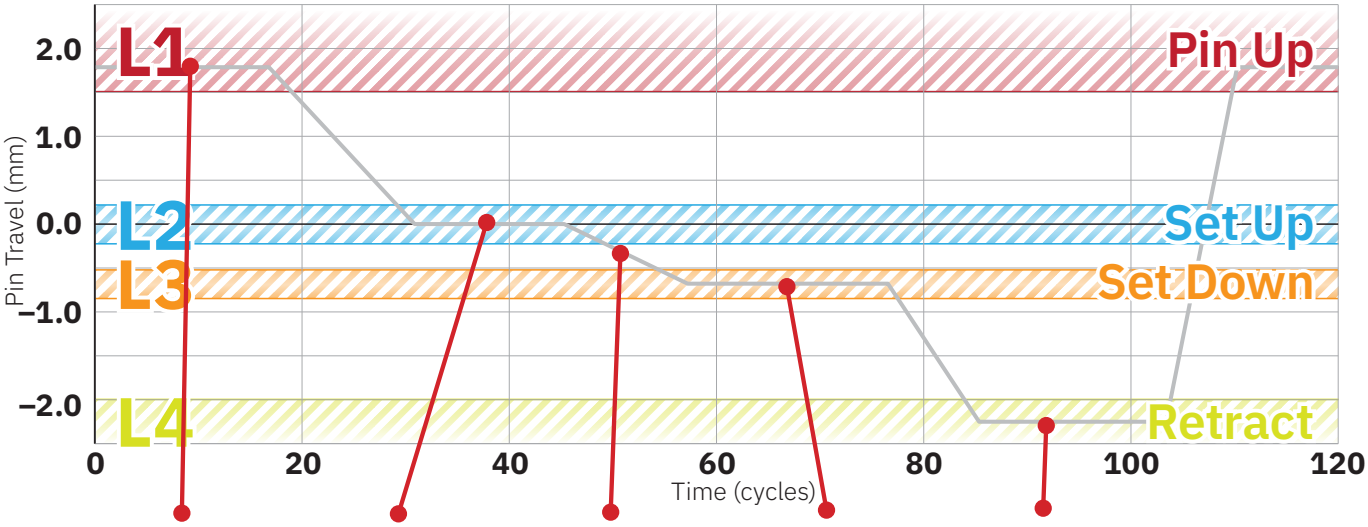
With the power of the NVS+, manufacturers can catch issues in real time – before bad parts are sent downstream – and make informed decisions about their weld systems, from consumable stocking and weld control settings, to production scheduling.

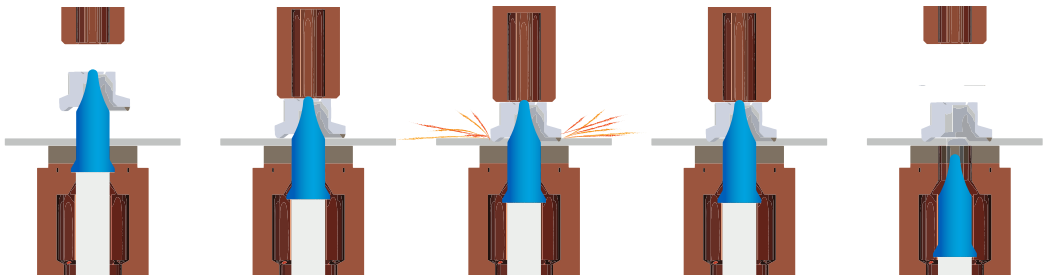
The NVS+ works natively with the optional ProLine Power Hopper *(see **Page 8**)*, Double-Nut Sensor Kit, the Light Tower (right). The NVS+ includes additional I/O for other sensors, such as part orientation sensors, and actions, such as opening finished part bin doors.

	NVS G-Series (Second Gen.)	*NEW NVS+ Advanced Monitor*
Weld Cycle Tracking	✔	✔
Weld Profile Storage	✔	✔
Quick Teach Function	✔	✔
Password Protection	✔	✔
Weld Data Logging	✔	✔
Error/Alarm Logging	✘	✔
Production Counter	✘	✔
Consumables Tracking	✘	✔
Instant Part RFQ	✘	✔
Remote Tare	✔	✔
Binary I/O	✔	✔
Ethernet Comms	✘	✔
Simple Data Output	✘	✔
Steel Enclosure	○	✔
Double-Nut Sensor	✘	○
Light Tower	✘	○
Power Hopper	✘	○
XL Screen Option	✘	○
Platen-Style Lower	○	○

✔ *Included* ✘ *Not Available* ○ *Optional*

NVS+: How It Works





Pin Up
The weld pin is ready for nut feeding

Set Up
The head lowers onto the nut and stamping

Weld
The current fires, welding nut to stamping

Set Down
The welded nut collapses into stamping

Pin Retract
Weld pin retracts for protection as stamping moves

ISSUES IDENTIFIED
Missing Nuts/Bolts
Upside-Down Nuts/Bolts
Incorrect, Inconsistent or Damaged Parts
Pin and Electrode Wear
Inconsistent Weld Collapse
Pin Movement Failures
Stacked/Double Fasteners *(with optional double-nut sensing kit)*

ModulMaster EVO

Doceram® ModulMaster

The Doceram® ModulMaster is a modular lower holder system that adds capability and precision to any nut welding application.

Just introduced: The **ModulMaster EVO** *(pictured left)*, a compact and versatile arrangement capable of replacing many platen-mount holders in the field without complete retooling.

SCAN FOR MORE

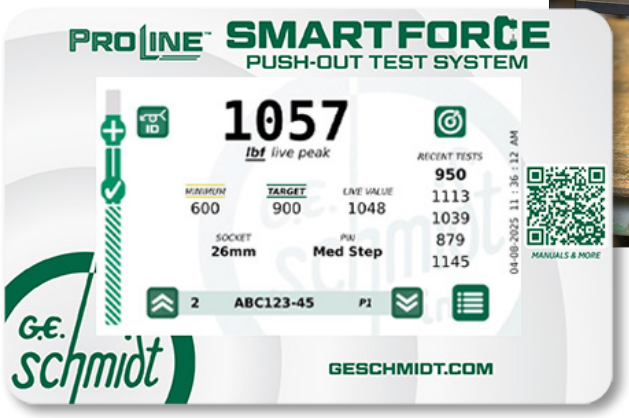
The ModulMaster includes integrated cooling, air inputs and a linear sensor to measure pin travel and position, alongside quick-change electrodes and Doceram® ceramic weld pins. Changing the pin and cap takes only a minute and requires only standard tools.

The NVS+ Advanced Monitor *(opposite page)* is natively compatible with the Doceram® ModulMaster welding system to measure and record welds.

PROLINE™ SMARTFORCE
PUSH-OUT TEST SYSTEM

The **ProLine™ SmartForce Push-Out Test System** sets a new standard in destructive quality testing for nut and bolt weld verification. Built on G.E. Schmidt's proven experience with the ProLine Push-Out Test Stand, the SmartForce introduces a comprehensive set of new features and improvements, including an improved C-frame design, to make weld testing faster, simpler, and fully traceable.

A new touchscreen meter with an intuitive interface, customizable part testing profiles, onboard data logging, and a range of additional critical features make this system as capable as it is easy to use.



ABOVE: *The SmartForce™ Push-Out Test System, shown with modular tooling base and tooling plates (optional). The SmartForce is available in a variety of configurations to meet the needs of your applications.*
LEFT: *The SmartForce running interface, with tooling guidance, live test readings and selectable profiles for accurate and consistent tests.*

STANDARD* SPECIFICATIONS

Frame: 10,000 lbf rated C-Frame (2.5x+ safety factor)
Operating Weight: Approx. 190 lbs. (86kg)
Dimensions: *Frame:* 10x18x28"; *Enclosure:* 10x5x8"; *Pump:* 6x21x18"
Power Input: 120V power for meter; hand-powered hydraulic ram (+ air line for pneumatic-hydraulic foot pedal)
Meter: 5" touchscreen meter with buttons and EtherNet** port

** Additional capacity, depth and other options available as required*
*** No network connection required for normal operation*

Step pins and sockets are available in many standard sizes and configurations, custom on request.

Schedule a 30-minute virtual demo and see the SmartForce running in real time — no slides, no scripts. Ask questions, get live answers.

Want to see your own parts tested? Ship us some samples ahead of time and we'll run them during the demo session.

SmartForce Printing

Stop struggling to read someone's Sharpie-written result on tested parts. The SmartForce Push-Out Test System is compatible with off-the-shelf label printers *(sold separately)* that connect and configure in minutes, direct connect or via a network. Once set up, the system can be configured to print automatically after each completed test, or the operator can trigger a print manually with a single button press — putting accurate part labeling entirely within the workflow.

Printed labels give quality teams and auditors an immediate, physical record tied directly to each tested part, supporting traceability requirements without additional documentation burden. Whether parts are staged for re-inspection, moved to a separate audit area, or held for disposition, labeled parts eliminate ambiguity at every stage.

The **SmartForce Push-Out Test System** sets the new industry standard with a huge set of standard features, with power-ups available to meet the needs of any workflow or application you can throw at it.

Can your current push-out tester do this? Are you satisfied with that?

STANDARD FEATURES

On-Board Data Logging ☑
The data log stores the critical measures, including date and time, measurements, profiles, parts and end users, for easy analysis with standard software or for import into a database. *See* ***Page 16*** *for more.*

5" Touchscreen Interface ☑
The interface gives tooling guidance and a live reading to support test accuracy and readability.

200+ Weld Profiles with WeldID Maps ☑
Standardize goals and tooling for repeatable tests. Store and recall part diagrams with weld identifiers to give the user confidence in the specs of their tests: shift to shift, month to month, project to project.

12+ Standard Sockets and 5+ Standard Pins ☑
Choose from a large selection of standard test tooling and OEM spec tooling to ensure tests are performed in a repeatable, optimal way. Sold individually.

Password Protection ☑
Set a password to prevent unauthorized access to the data log, profiles, and settings. Standard users can switch profiles, view part maps, test and tare, but they cannot make changes to testing specifications.

Adjustable, Movable Meter Mount ☑
The flexible meter mount can be placed on either side of the tester, or on a nearby benchtop, etc.

Physical Profile Select, Tare & Part Map Buttons ☑
Keep users' hands (and gloves) off the screen for high-traffic operations such as tare and profile switching.

Dual-Speed Hand Pump ☑
Fast approach with high-force "gear" for tests that are 70+% faster than a single-speed pump

OPTIONS & UPGRADES

Modular Tooling Base & Plates ↑
A stable and sturdy base with holes and slots for standard tooling and 45mm extrusions — Build modular part rests, hold-downs and other tooling to make testing easier. *See* ***Page 16*** *for more.*

Label Printer for Test Labeling ↑
Auto-print adhesive test result labels for accurate and complete sample labeling. *See above for more.*

Additional Initiation Options ↑
In addition to the two-speed hand-operated hydraulic ram, users can also specify a pneumatic-hydraulic foot pedal, useful for higher-force operation.

Custom Test Tooling and Fixtures ↑
Need help with tooling or rests, for specialty or difficult-to-access parts? Contact us today to discuss our engineering capabilities.

High Force (20k+ lbf) and Deep Clearance Frames ↑
The standard SmartForce frame is a robust C-frame for a balance of accessibility, safety and strength, but some extreme applications require even more — We can help you with that.

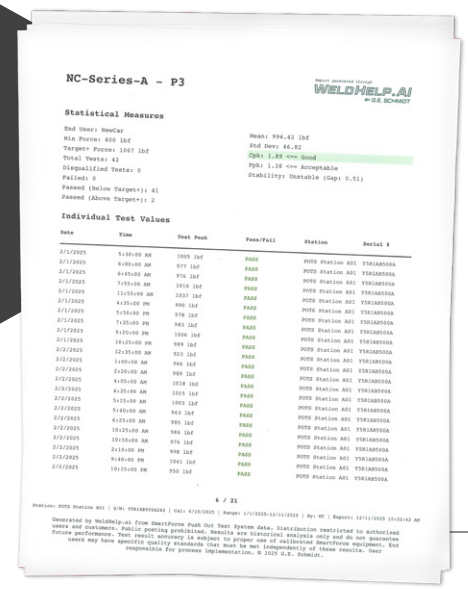
Additional Calibration Certifications ↑
Advanced certifications, such as A2LA, to make sure you stay compliant.

Stack Lights for Alert Visibility ↑
Increase test result visibility with stack lights.

7" Touchscreen Interface ↑
A larger screen for easier readability at a distance.

SmartForce Data Logging

Every SmartForce Push-Out test writes to a standard CSV file, readable by any spreadsheet software *(pictured right)*, no proprietary platform or subscription required. Get it out three ways: email it, export to microSD, or let it transfer automatically after each test over an EDS connection to an external controller. The data is yours, the data is accessible, when you need it.


NC-Series-A - P3

WELDHELP.AI

Statistical Measures

Individual Test Values

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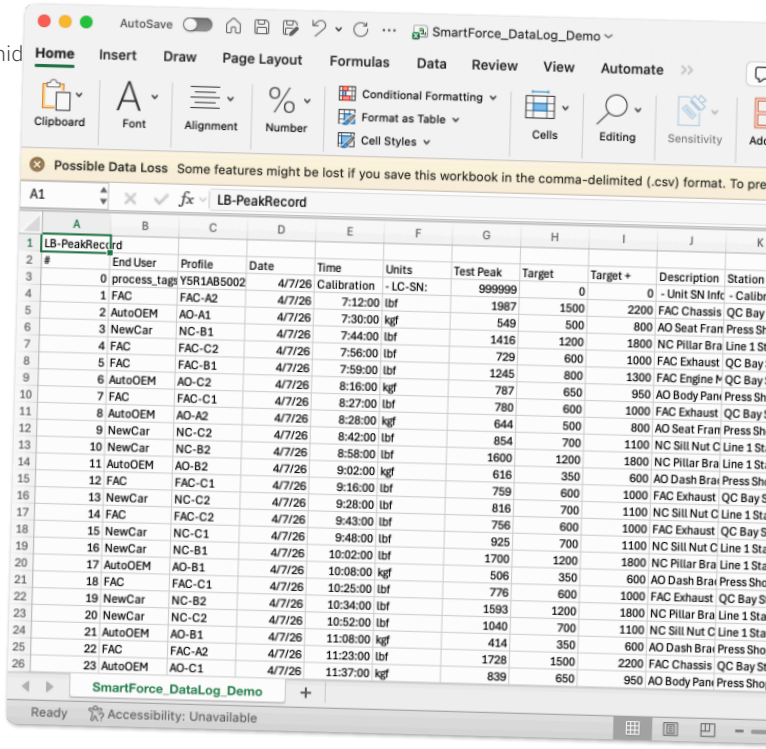
Each record locks in the full picture — profile, tooling, results, date and time — every time, with no gaps and no transcription. That's the difference from a paper log: a handwritten notebook depends on someone remembering to write it down correctly.


AutoSave

SmartForce_DataLog_Demo

Home Insert Draw Page Layout Formulas Data Review View Automate

Clipboard Font Alignment Number Conditional Formatting Format as Table Cell Styles Cells Editing Sensitivity

Possible Data Loss Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To pre

A1 LB-PeakRecord

	A	B	C	D	E	F	G	H	I	J	K
1	LB-PeakRecord										
2	#	End User	Profile	Date	Time	Units	Test Peak	Target	Target +	Description	Station
3	0	process_tags	Y5R1AB5002	4/7/26	Calibration	- LC-SN:	999999	0	0	- Unit SN Info	- Calibr
4	1	FAC	FAC-A2	4/7/26	7:12:00	lbf	1987	1500	2200	FAC Chassis	QC Bay
5	2	AutoOEM	AO-A1	4/7/26	7:30:00	kgf	549	500	800	AO Seat Fran	Press Sh
6	3	NewCar	NC-B1	4/7/26	7:44:00	lbf	1416	1200	1800	NC Pillar Bra	Line 1 St
7	4	FAC	FAC-C2	4/7/26	7:56:00	lbf	729	600	1000	FAC Exhaust	QC Bay
8	5	FAC	FAC-B1	4/7/26	7:59:00	lbf	1245	800	1300	FAC Engine M	QC Bay
9	6	AutoOEM	AO-C2	4/7/26	8:16:00	kgf	787	650	950	AO Body Pane	Press Sh
10	7	FAC	FAC-C1	4/7/26	8:27:00	lbf	780	600	1000	FAC Exhaust	QC Bay
11	8	AutoOEM	AO-A2	4/7/26	8:28:00	kgf	644	500	800	AO Seat Fran	Press Sh
12	9	NewCar	NC-C2	4/7/26	8:42:00	lbf	854	700	1100	NC Sill Nut C	Line 1 St
13	10	NewCar	NC-B2	4/7/26	8:58:00	lbf	1600	1200	1800	NC Pillar Bra	Line 1 St
14	11	AutoOEM	AO-B2	4/7/26	9:02:00	kgf	616	350	600	AO Dash Brac	Press Sh
15	12	FAC	FAC-C1	4/7/26	9:16:00	lbf	759	600	1000	FAC Exhaust	QC Bay
16	13	NewCar	NC-C2	4/7/26	9:28:00	lbf	816	700	1100	NC Sill Nut C	Line 1 St
17	14	FAC	FAC-C2	4/7/26	9:43:00	lbf	756	600	1000	FAC Exhaust	QC Bay
18	15	NewCar	NC-C1	4/7/26	9:48:00	lbf	925	700	1100	NC Sill Nut C	Line 1 St
19	16	NewCar	NC-B1	4/7/26	10:02:00	lbf	1700	1200	1800	NC Pillar Bra	Line 1 St
20	17	AutoOEM	AO-B1	4/7/26	10:08:00	kgf	506	350	600	AO Dash Brac	Press Sh
21	18	FAC	FAC-C1	4/7/26	10:25:00	lbf	776	600	1000	FAC Exhaust	QC Bay
22	19	NewCar	NC-B2	4/7/26	10:34:00	lbf	1593	1200	1800	NC Pillar Bra	Line 1 St
23	20	NewCar	NC-C2	4/7/26	10:52:00	lbf	1040	700	1100	NC Sill Nut C	Line 1 St
24	21	AutoOEM	AO-B1	4/7/26	11:08:00	kgf	414	350	600	AO Dash Brac	Press Sho
25	22	FAC	FAC-A2	4/7/26	11:23:00	lbf	1728	1500	2200	FAC Chassis	QC Bay St
26	23	AutoOEM	AO-C1	4/7/26	11:37:00	kgf	839	650	950	AO Body Pane	Press Sho

SmartForce_DataLog_Demo

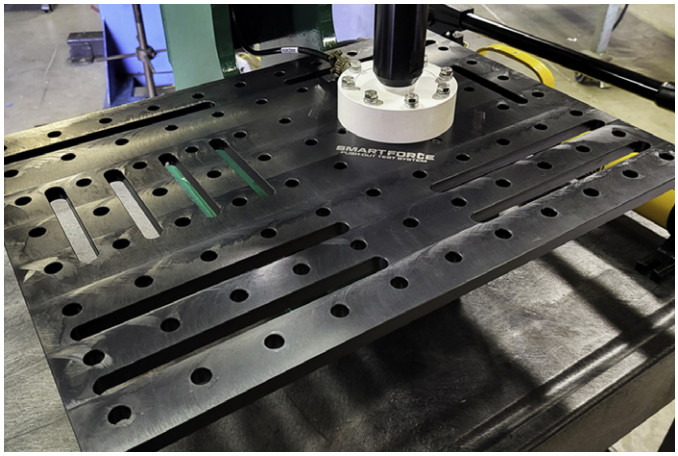
Ready Accessibility: Unavailable

The SmartForce captures it automatically, consistently, and completely, giving you a dataset you can actually trust for process analysis and quality improvement.

Plus, coming soon: Plug the data log into the statistical analysis and PDF report generation tool at G.E. Schmidt's **WeldHelp.AI** platform to decode, define, and communicate how each welding process is performing. *(Report pictured left.)*

Tooling Base »

A secure, precise work surface bolted to the frame, machined with hole and slot patterns that accommodate your part-holder setup. Sized for standard workholding tools and 45x45 extrusion, so configuring tooling around your application is straightforward rather than something you have to engineer around. The base holds position test after test, which means the fixture stays put and the result reflects the part, not a shift in setup. That repeatability is what makes test data worth comparing over time.



« Modular Tooling Plates

Mounted on stand-offs for fast tooling changes, letting you switch between part holders and tooling setups without reworking the base underneath. When you're running multiple part numbers through the same station, that speed matters, but it doesn't come at the cost of accuracy: each setup locates the same way every time, so a changeover doesn't introduce variation into your results. Operators move between jobs quickly while the test stays just as secure and repeatable as it was before the switch. (Standoffs available in different lengths.)

Industrial Water Chillers

WELDING & METALFORMING • POLYMER PROCESSING • SCIENTIFIC • FOOD PROCESSING • BREWERIES, WINERIES & DISTILLERIES • CHEMICAL & PHARMACEUTICAL •

Resistance welding generates heat that has to go somewhere. Process cooling isn't a peripheral concern — it's part of the weld system, and an undersized or unreliable chiller shows up directly in weld quality, consistency, and electrode life. Temperature control even shows up in the lifespan and reliability of the system itself.

G.E. Schmidt/Chillworx represents MTA industrial chillers throughout North America, giving welding operations a single source for both the process equipment and the cooling infrastructure that keeps it running.

CHILLERS

HELP! Many standard units are kept **IN STOCK**. Need it now?
Email: asap@geschmidt.com

STANDARD FEATURES

HIGH-EFFICIENCY COIL EVAPORATOR Saves cooling energy costs throughout the life of the chiller. Uses copper tubes and aluminum fins inside tank to reduce ambient heat gain; process fluid flows in contact with finned surface, cooled by refrigerant

DYNAMIC SETPOINT CAPABILITY

Link chiller output to the ambient temperature to avoid catastrophic damage from condensation

R-410A REFRIGERANT High-efficiency, bromine and chlorine free; zero ozone depletion potential

NON-FERROUS WATER CIRCUIT Copper and stainless steel components (water tank, pump, exchanger) resist corrosion

INDOOR/OUTDOOR UNIT Standard features include powder-coated steel case with IP44 protection against dust and water; extreme hot/cold weather adaptations optional

HERMETIC SCROLL COMPRESSORS Orbiting scrolls, mounted on anti-vibration dampers with protection against overheating, excessive currents and high exhaust temperatures

OPTIONS & ACCESSORIES

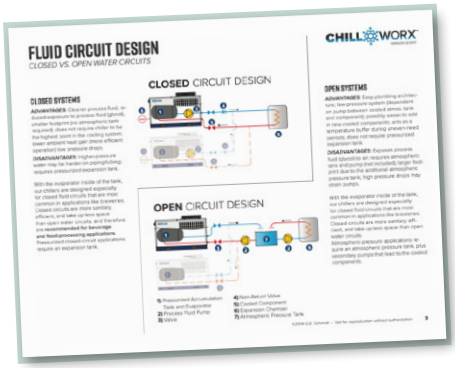
REMOTE CONTROL PANEL

CLOSED/AUTO-FILL OR ATMOSPHERIC EXPANSION TANKS

PUMP UPGRADES P3 (43 psig) pump is standard; P5 (72 psig) available

... AND MANY MORE FOR YOUR APPLICATION

CHILLWORX
POWERED BY MTA



*Ask for our **primer on chillers in resistance welding** and other industrial applications via sales@geschmidt.com*

are kind of a

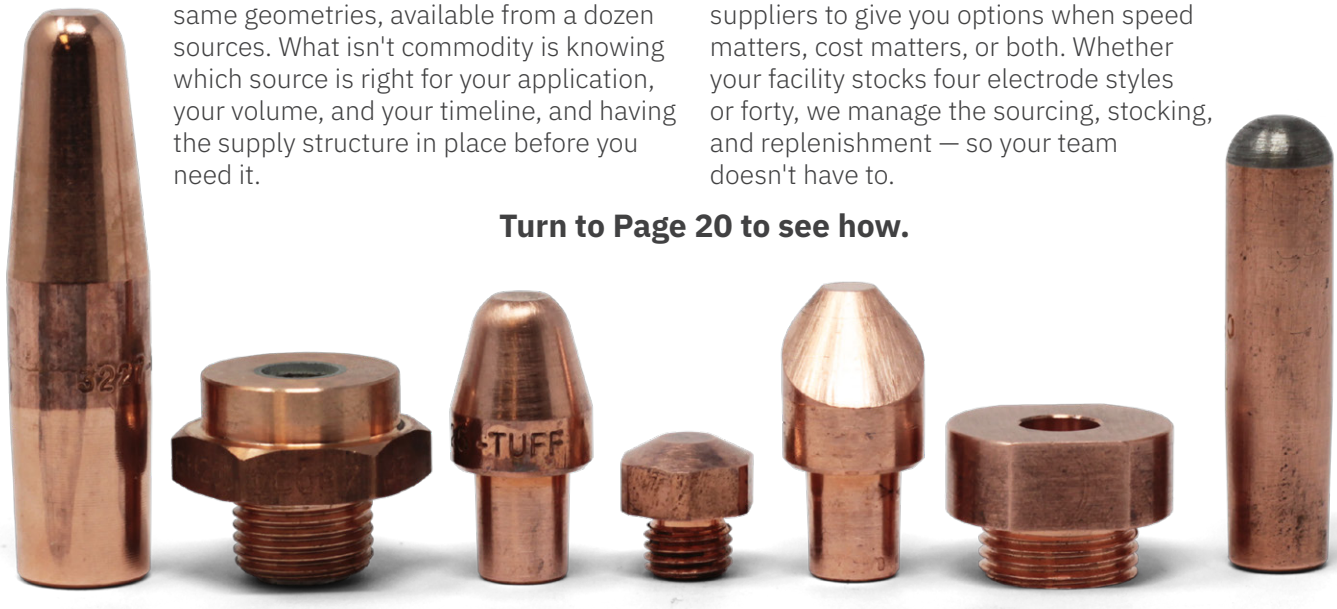
BIG DEAL.

Don't let a missing electrode idle your production.

Resistance welding electrodes are commodity parts — the same alloys, the same geometries, available from a dozen sources. What isn't commodity is knowing which source is right for your application, your volume, and your timeline, and having the supply structure in place before you need it.

G.E. Schmidt can source from both domestic and high-quality international suppliers to give you options when speed matters, cost matters, or both. Whether your facility stocks four electrode styles or forty, we manage the sourcing, stocking, and replenishment — so your team doesn't have to.

Turn to Page 20 to see how.



Copper Consumables

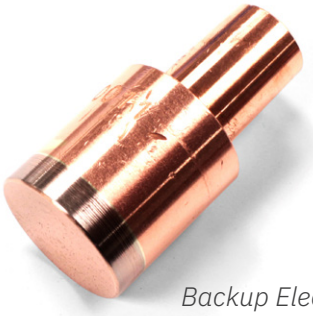
In addition to standard welding components, G.E. Schmidt also offers a variety of other copper consumables:

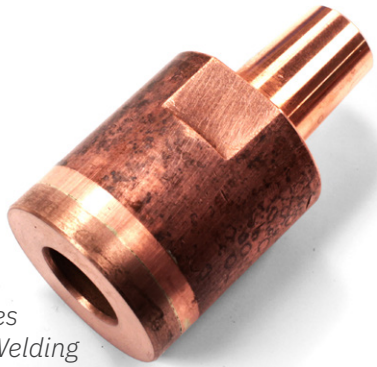
Standard & Custom Projection Welding Heads • Backup Electrodes for Spot & Projection Welding • Single-Bend Electrodes • Double-Bend Electrodes • Adapters • Specialty Electrodes • Copper Barstock • Tungsten Alloy (Elkonite) Barstock • Weld Gun Arms • Custom Shapes, Tooling & Components •

Send your part number and/or part drawing to **sales@geschmidt.com** for a fast and competitive quote.

GH-Series Electrodes/Weld Heads

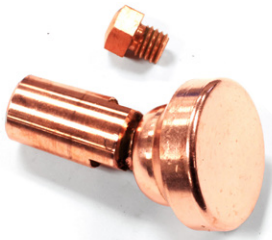
Asian-Style CNM Projection Weld Heads





Backup Electrodes for Spot & Projection Welding

Copper & Elkonite Barstock



Threaded Button, Swivel Head & Other Special Electrodes

Single-Bend & Dual-Bend Electrodes

Standard & Custom Gun Arms & Adapters

WHIP // WELDHELP™ INVENTORY PROGRAM

Resistance welding consumes more copper, ceramics, and tooling than most operations track carefully. The WeldHelp™ Inventory Program (WHIP) gives your facility a managed and stable supply structure built around the items that keep your lines running.

Two core program paths cover every arrangement: **WHIP // LOCK** for supply agreements, and **WHIP // VEND** for managed vending inventory. Specific terms depend on volumes, credit, and application — any formal arrangement begins with a conversation. Contact your GES representative to find out what this could look like for your operation.

- // **Stable unit pricing and availability** against raw material and tariff volatility
- // **Simplified replenishment** — no fresh purchase approvals required
- // **Single-source management** across your full consumables program
- // **Priority fulfillment** over spot buyers, including during supply disruptions

WHIP // LOCK

Price Stability & Quick Ship

This program covers operations that want supply certainty and price stability through a formal arrangement — blanket orders, stocking programs, forward pricing, and quick-ship.

With copper prices and tariff exposure both unpredictable, locking unit costs against a committed volume is one of the most direct steps a purchasing team can take to protect program margins.

- // Annual **blanket orders** with periodic releases
- // **Price locks** against raw material volatility (6–24 months)
- // **Reserved inventory** at GES's Cincinnati facility with defined fulfillment commitments
- // **Quick-ship programs** for critical tracked components

Any arrangement is subject to review of volumes, credit, and application. GES does not guarantee acceptance of any specific terms. Start the conversation with your GES account representative.

WHIP // VEND

Remotely Managed Inventory

Managed inventory on your floor without GES personnel in your building. A vending unit in your MRO tool crib handles access control, quantity tracking, and automatic restock triggers — without routine involvement from your purchasing team.

MRO cribs run lean and turn over staff; the machine requires no institutional knowledge. A new employee pulls by badge the same way a 10-year veteran does. Consumption data supports charge-back by line, shift, or department for operations that track MRO costs internally.

- // **Access control by user badge** — Restrict high-value items by role or need
- // **Shared tool library:** Items such as tip dressers, weld current monitors, and force gauges check out and back in with full traceability
- // **Auto restock triggers** at defined minimums
- // Regular digital **consumption reports** to your MRO coordinator on a defined schedule
- // Optional **scale-based counting** for small-format/high-value items — no manual counts

Arrangements are configured to your facility — stocking levels, reporting cadence, and program structure are part of the discussion.

HELPS YOU MANAGE:

Weld Electrodes
Ceramic & Coated Pins/Locators
Tip Dressing Cutters & Holders
Common Machine Wear Parts
Shared Maintenance Tool Library
Critical Spare Components
Consignment PPE

AND MORE

The vending machines record every pull by user, time, and quantity, with the ability to restrict products by a user's needs. When any item reaches its minimum level, a restock is triggered automatically — no purchase order, no count, no phone call.

Consumption data (trends, levels, spend rates) flows to your MRO coordinator on a defined schedule to help them make informed, timely decisions.

What changes are the number of stockouts your lines see, the time your team spends managing and counting consumables, and the number of vendors on your inventory list.

Let's start the discussion.
Tell us what works for you.

KYOKUTOH Tip Dressers

CDK-R
Electric Dresser

Kyokutoh automatic tip dressers utilize high-speed, high-torque motors to dress copper welding electrodes, promoting weld consistency and quality.

The upper and lower electrode caps are dressed simultaneously, ensuring tip alignment and extending the consumables' life span.

Kyokutoh tip dressing systems are available with native accessories, including chip vacuums, rotation sensors, stands and swing arms.

The CDK-R *(pictured left)* is Kyokutoh's standard dresser, but styles including servo-drive, short gear for tight clearances, lightweight servo-drive and tip dresser and changer combinations are also available to meet a variety of project specifications.

Kyokutoh tip dressers are also available in pre-assembled, plug-and-play systems, including wiring (*accessories sold separately*).

What's next: For future projects, talk to us about the Kyokutoh CDF (*pictured right)* with 60% higher rotational speed for a cleaner cut. For more on the CDF, see **Page 24.**

CDF High-
Speed Dresser

CVC-5 Chip Vacuum

The Kyokutoh CVC-5 Chip Vacuum *(shown right mounted to Kyokutoh's CDK-R)* keeps the floor and surfaces in the weld cell clear of copper shavings and debris. An open design allows access to the cutter and holder without removing the chip vac.

The Chip Vac hose can extend from either side of the head unit. Half-units are also available to allow weld guns side entry.

Cutters & Holders: Sharpen Your Game

Selection of cutters and holders for various tip dressers and manufacturers; TiN blade (gold, above right) and carbide blades (right).

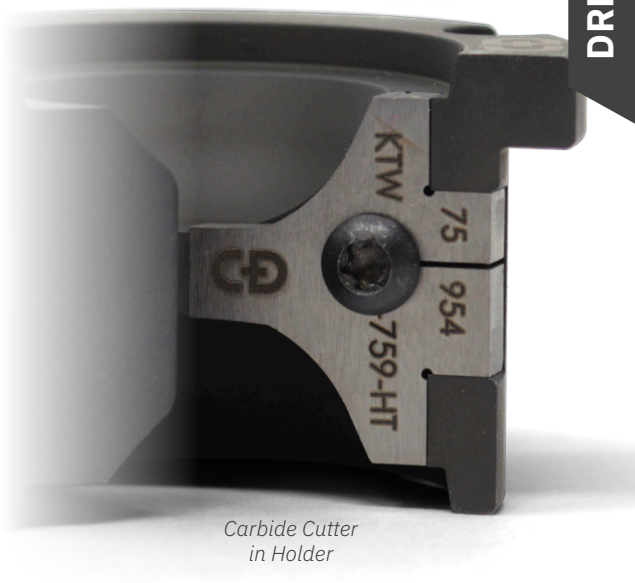
Kyokutoh carbide cutters outlast standard TiN-coated steel cutters by more than 2.5x — delivering a cleaner, more consistent electrode face dress cycle after cycle.

Manufactured in the United States to exacting tolerances, every cutter is precision-ground to restore electrode geometry with the accuracy your process demands.

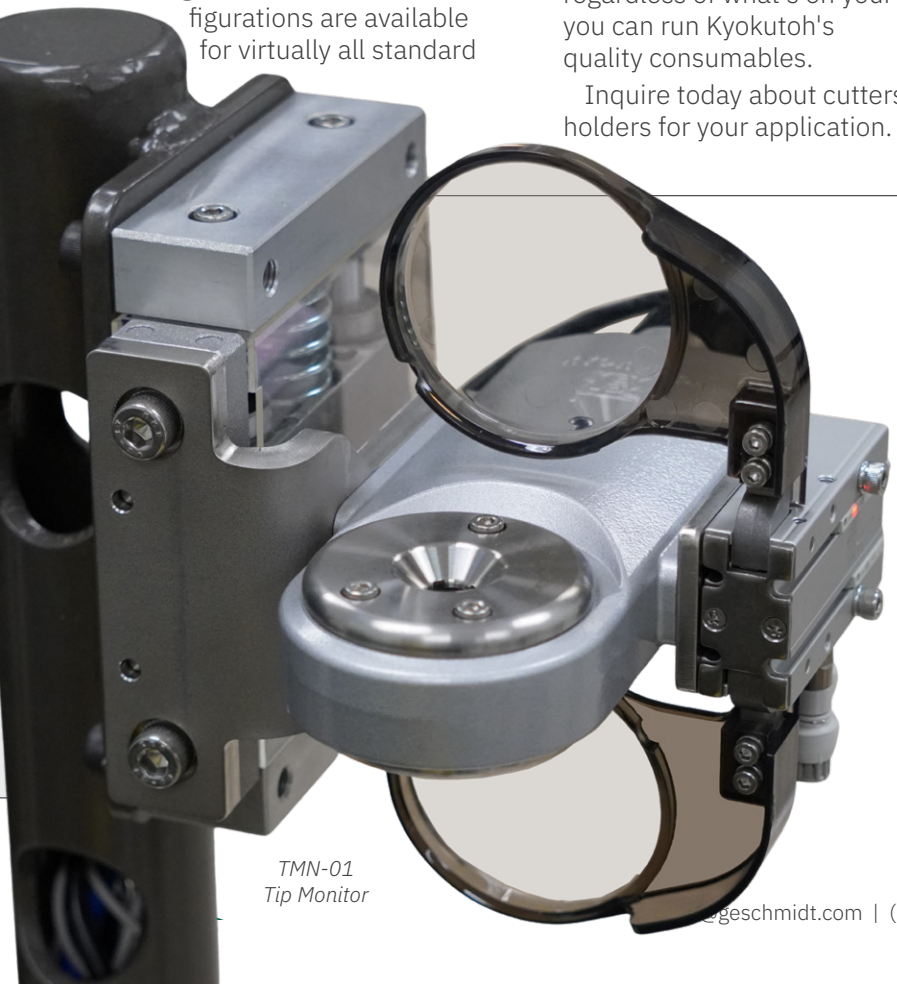
Single- and dual-cutter configurations are available for virtually all standard cap geometries, so there's a Kyokutoh cutter for nearly every electrode in your cell.

Holders are engineered to match, with service life that can extend well beyond the cutter in demanding applications. Both are available for Kyokutoh tip dressers and for many other tip dresser manufacturers — so regardless of what's on your floor, you can run Kyokutoh's quality consumables.

Inquire today about cutters and holders for your application.



Carbide Cutter in Holder



TMN-01 Tip Monitor

TMN-01 Tip Monitor

A missed or incomplete tip dress means the next weld is already compromised — and without verification, you'll never know until there's a problem.

The TMN-01 Tip Monitor mounts directly to your tip dresser and captures a refractive image of the electrode face after every dress cycle, automatically confirming geometry and surface condition before the robot returns to the part. The loop is closed — Every cycle.

XCD Dual Unit

The XCD combines automatic tip dressing and tip changing in a single 3-phase AC motor unit. Its vertically mounted motor delivers a compact footprint for tight robotic cells, with compatibility for both X-type and C-type welding guns. A cylinder brake system provides high-force tip removal, and the dual-ratio gearbox independently optimizes dressing and extraction performance. Compatible with both XR rotary and STC straight-track tip magazine systems.

XCD Electric Dresser/ Changer Combo Unit

CDF Dresser

The CDF *(pictured on **Page 22**)* is a high-speed tip dresser rotating at 435 RPM — approximately 60% faster than the CDK-R — for a cleaner, sharper tip face in approximately one second. Upper and lower electrodes are dressed simultaneously with a KTW cutter, ensuring face alignment on every cycle. A standard compliance unit protects the gun and dresser from overload forces. An IP67-rated one-touch connector simplifies field wiring, and a built-in QR code links directly to product support.

CD-SVR (Servo)

The CD-SVR is a compact, servo-driven tip dresser designed for flexible robotic cell installation. A high-quality small motor delivers full dressing performance in a space-efficient package, and the multi-functional gearbox can be oriented 30 degrees right or left to accommodate varied gun approach angles. The servomotor enables continuous monitoring of rotation speed and motor current for process verification. Uses a tool-free one-touch holder and accepts virtually any robot maker's servomotor.

NOTE: Also see the CDEL compact servo dresser for tight-quarter dressing and robot-mounted kits.

CD-SVR Servo Dresser

DH-SVR2S (Dual Unit)

The DH-SVR2S integrates tip dressing and tip changing in a single compact unit with flexible servo drive capability. Compatible with motors from virtually any robot manufacturer, it can be controlled directly via the robot controller for adaptive dressing with real-time monitoring of motor current, speed, and rotation direction. Accommodates electrode tips from φ13 to φ20mm. An alternate drive version is available for installations where robot axis control is not preferred.

DH-SVR2 Servo Dresser/Changer

Hand-Held Tip Dresser

"New ETD" Stingray Dresser

Kyokutoh's Stingray ("New ETD") is a pneumatic manual tip dresser built for spot welding production environments. Powered by compressed air (0.5–0.7 MPa) and connecting to a shop air line, it simultaneously dresses upper and lower electrodes in a single operation — restoring tip geometry and maintaining proper face alignment on both caps without separate dressing passes.

Because both electrodes are dressed concurrently under controlled gun force, the Stingray corrects tip misalignment and keeps weld contact geometry consistent across the electrode set, supporting stable weld quality over time.

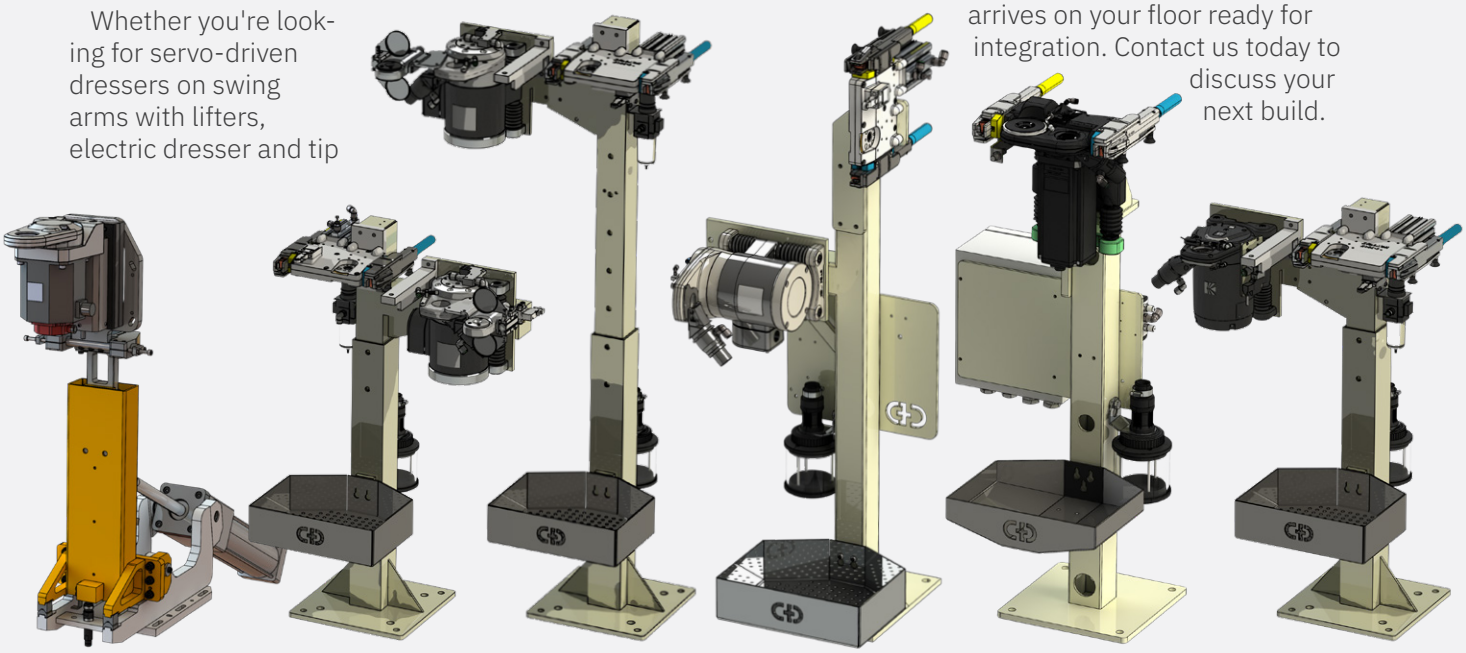
A one-side pressureless dressing mode is also available for single-electrode applications. Selectable cutters and holders accommodate a range of tip profiles up to φ18mm diameter caps, with indexed cutter orientation ensuring correct installation.

At 120 RPM, the Stingray delivers consistent, repeatable results at 2.3 kg — compact and light enough for sustained use on the production line without operator fatigue.

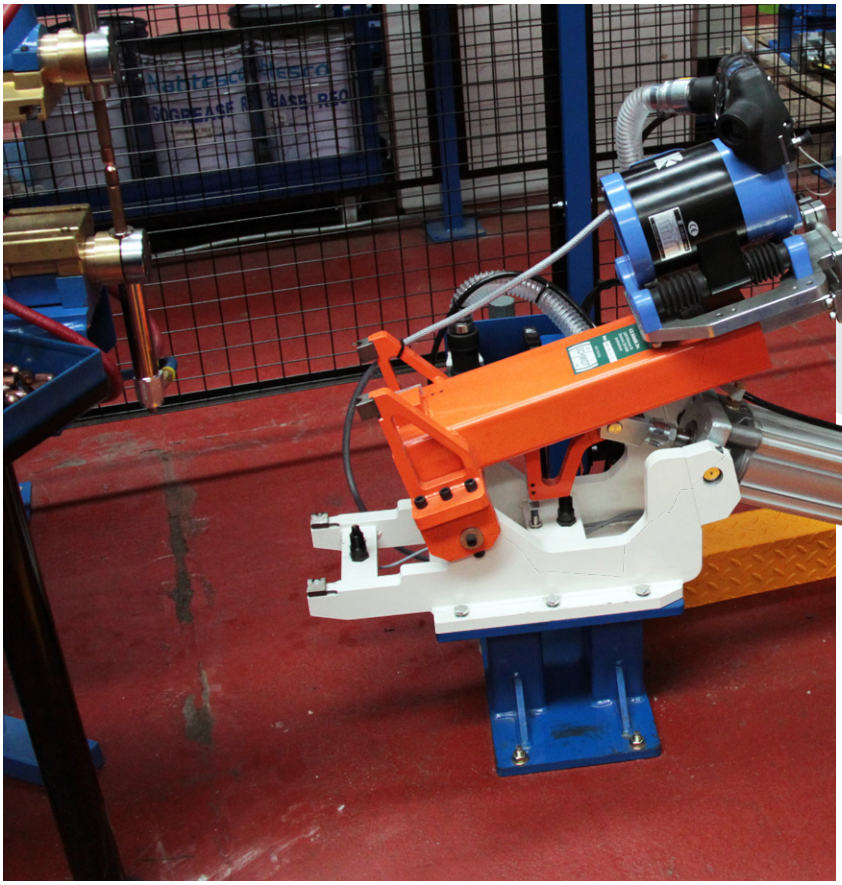
This Is How We Do It

Tip dressing systems are just that — systems. We are experts at helping integrators and linebuilders customize and specify the right tip dressing configurations for their program.

Whether you're looking for servo-driven dressers on swing arms with lifters, electric dresser and tip changer combinations on adjustable stands, or the next generation of technology like the dual-head XCD with I/O link components, we can help you understand and spec the equipment you need so that it arrives on your floor ready for integration. Contact us today to discuss your next build.



ProLine™ Swing Arm



The ProLine™ Swing Arm has become a standard in the automotive industry for good reason — It gives engineers and weld cell designers a durable, purpose-built tool that saves design time and removes critical uncertainty.

Maintenance managers (and plant managers) love it, too: Standard, flexible designs mean fewer spare parts to keep on the shelf and less variation on the shop floor.

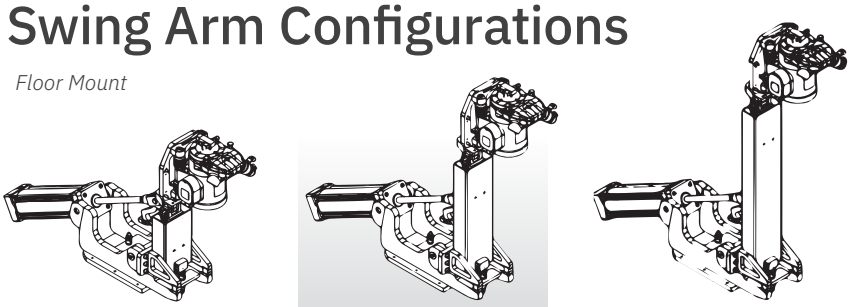
Installation and positional adjustments after tooling changes are stable and precise, no shims required. (For more information on the adjustability and flexibility of the Tip Dresser mounting plate, see the opposite page.)

The ProLine™ Swing Arm comes in several styles, including floor-mount *(left)*, side-mount and servo-drive *(below)* styles, with a large number of common parts. Each variation also comes in several tube lengths for fit into any weld cell, compatible with air cylinders from SMC, Parker and Festo.

SCAN FOR VIDEOS & MORE

Swing Arm Configurations

Floor Mount

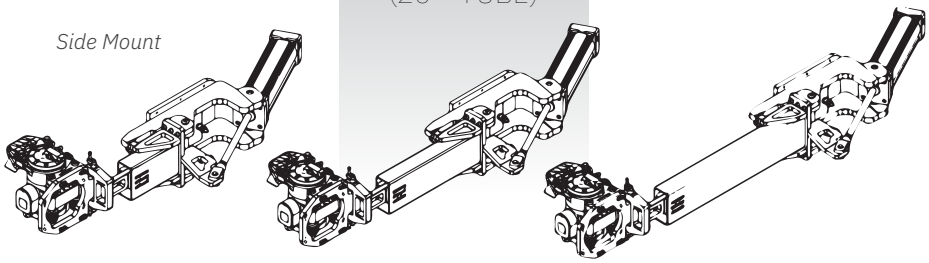


SHORT (10″ TUBE)

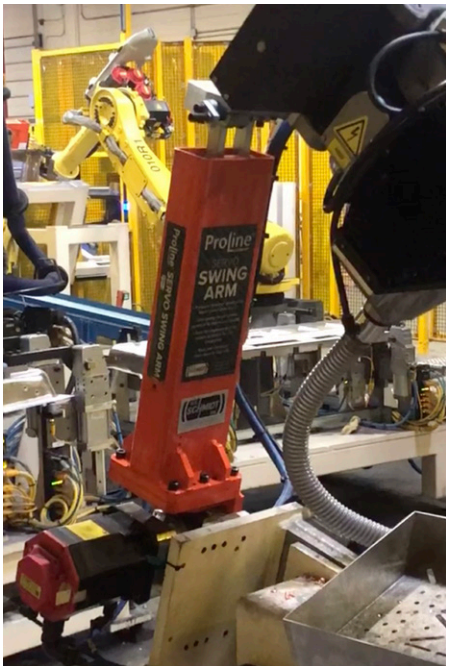
STANDARD (20″ TUBE)

LONG (30″ TUBE)

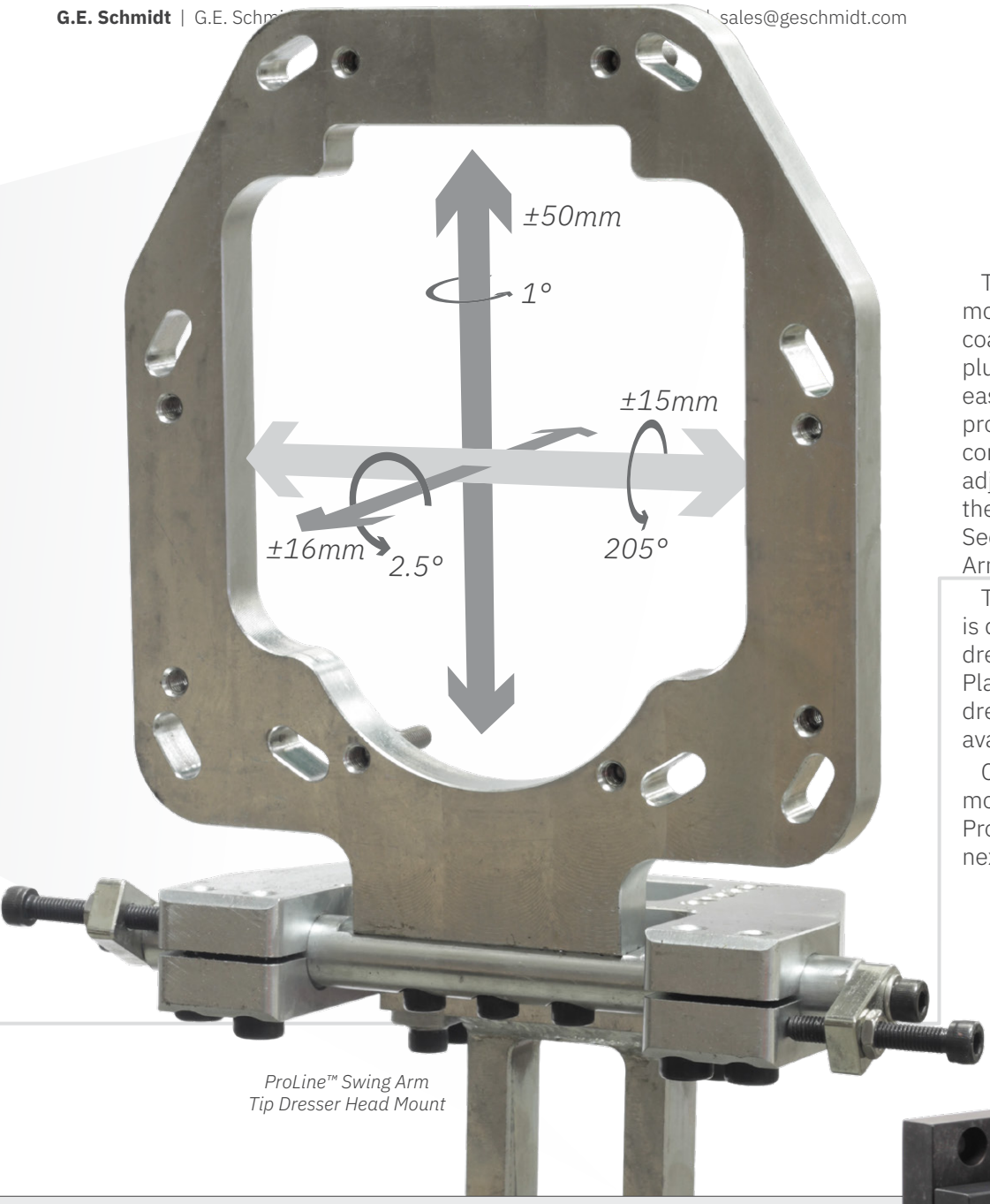
Side Mount



CAD models available for easy integration



Servo Swing Arm



ProLine™ Swing Arm
Tip Dresser Head Mount

The ProLine™ Swing Arm head mount includes three axes of coarse and fine adjustments — plus roll, pitch and yaw — for easy weld cell design. Place the provided Swing Arm models with confidence, knowing that field adjustments will help you find the perfect dresser placement. See the adjustability of the Swing Arm head at **geschmidt.com**.

The standard mounting pattern is designed for Kyokutoh CDK-R dressers and the ProLine™ Lifter Plate, but mounts for other tip dressers and manufacturers are available on request.

Contact G.E. Schmidt today for more on how you can build the ProLine™ Swing Arm into your next weld cell design.

ProLine™ Lifter Plate

The patented ProLine™ Lifter Plate improves tip dress quality by positioning the swing-arm mounted tip dresser close to the stationary cap.

SCAN FOR LIFTER DEMO

With the Lifter Plate, the tip dress force is even on both top and bottom caps leading to **fewer tip changes**, **less downtime** and **longer cutter life**.

The ProLine™ Lifter Plate is designed for Kyokutoh CDK-R dressers, but can be made with mounting patterns for other tip dresser models and manufacturers.

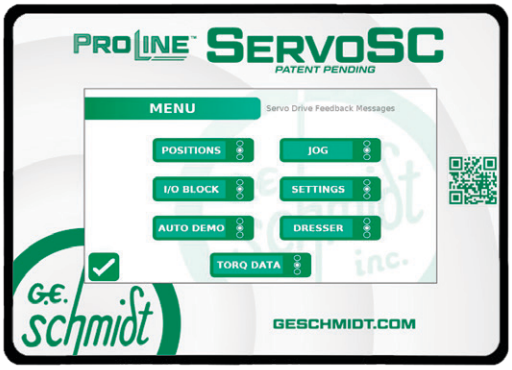
The ProLine™ Lifter Plate package includes reed switches to detect the cylinder in the home and work positions. Valve, tubes and fittings not included.

PROLINE™ SERVOSC SWING ARM

The ServoSC Swing Arm is G.E. Schmidt's patent-pending factory pre-assembled, servo-driven coordination system that replaces pneumatic actuation, contributing to fully airless weld cell operation.

The 85–90% energy-efficient ServoSC motor manages all motion logic internally — acceleration, deceleration, torque limits, and component timing are configurable parameters within the onboard controller, drastically reducing highly specialized time and hours of integration. The electric drive saves on energy and maintenance over an inefficient compressed air system that needs to be sized for the highest-usage moments.

The cell PLC issues only position commands and receives simple status feedback from the ServoSC controller; no servo programming is required at the cell level. The arm indexes through four defined positions — Home, Service, Pounce, and Work — for precise, repeatable tip dresser placement.



The integrated EVA-01 vacuum unit collects chips electrically, eliminating the air blowoff circuit. One controller supports multiple arms. Communicates via EtherNet/IP or discrete I/O.

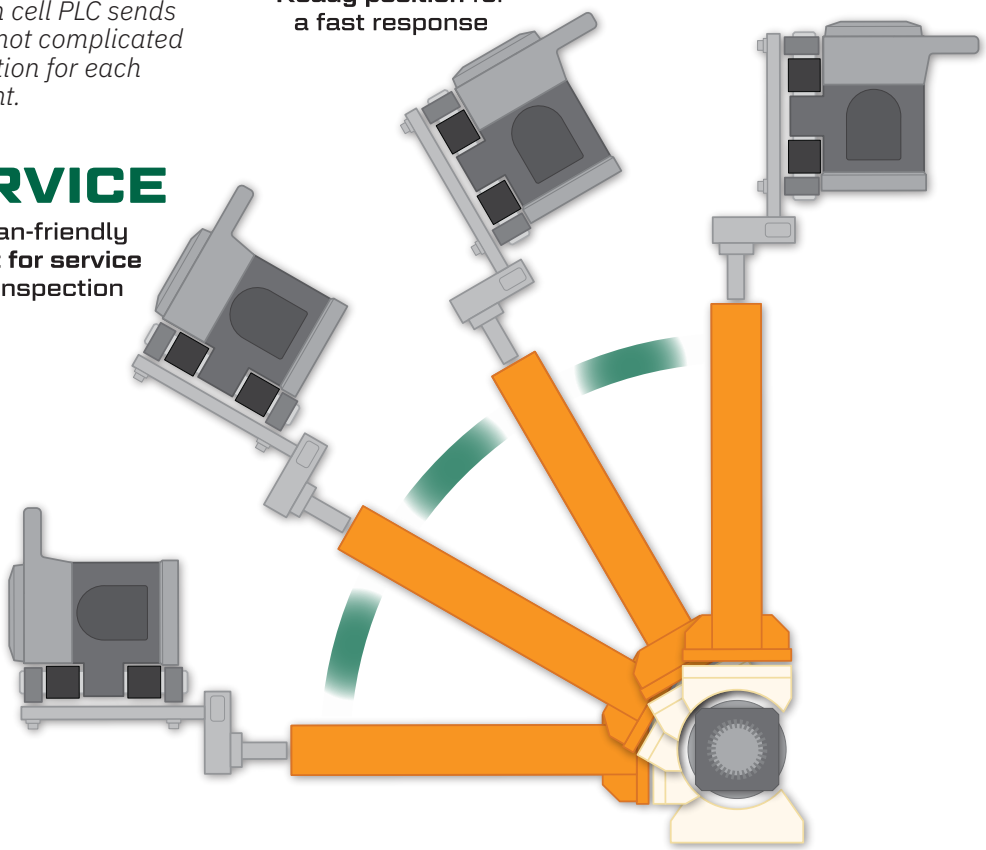
Set these four positions in the ServoSC controller, and the main cell PLC sends simple run commands, not complicated movement coordination for each component.

WORK
Precision positioning at the weld head

POUNCE
Ready position for a fast response

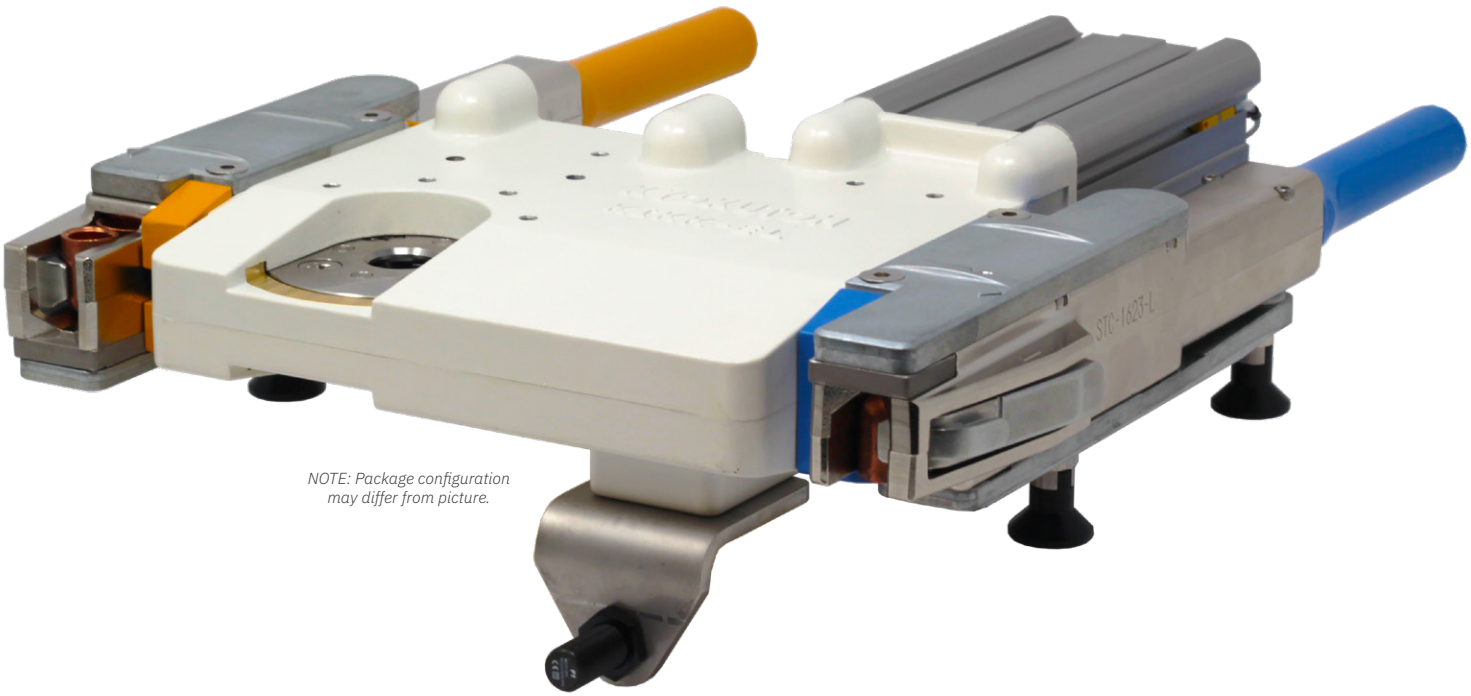
SERVICE
Human-friendly height for service and inspection

HOME
Out of the way and saving space



KYOKUTOH Tip Changer

Efficient and safe cap changes



NOTE: Package configuration may differ from picture.

The Kyokutoh Automatic KIKK Tip Changer is the safer and more efficient alternative to manual cap changes.

Instead of an estimated 5–10 minute manual tip change, the Tip Changer cycles in 35–40 seconds, including automated removal and cap placement verification. Operators do not need to enter the weld cells for each tip change cycle, improving safety.

The tip changer can be mounted on a stand or on an end effector to service multiple weld guns.

Each magazine holds 12 pieces of 16 mm or 13 mm tips or 10 pieces of 19 mm tips, and is secured by a toolless poka-yoke locking system. Spare magazine cartridges are available to minimize reload time.

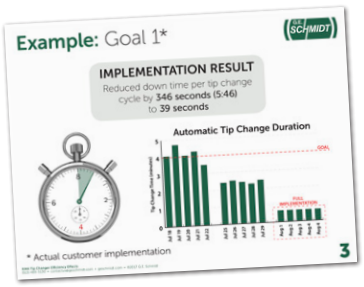
Kyokutoh also offers a servo-driven tip changer and dresser in one unit, the DH-SVR2S *(See **Page 24**)*.

SCAN FOR VIDEOS & MORE

SPECS	
Exterior Dimensions (mm)	310(W) × 363(D) × 156(H) (Incl. cylinder)
Air Pressure (MPa)	0.5
Weight (kg)	10.7
Installation Pitch (mm)	70(H) × 58(V)
Cylinder Type	CDQ-2BS-63-60, DCMZ-A93L-XB1
Cylinder Force (kgF)	125
Cylinder Switch Type	TOH, Reed String 1m

Efficiency

Kyokutoh tip changers lower tip change time from 5–10 minutes to 35–40 seconds. See the **KIKK Efficiency Presentation** on **geschmidt.com**.



Labor and Safety

Operators fill and replace the changers' magazines, but are not required to stop and enter the weld cell for every tip change.

Maximize Cap Life

Caps can be switched when they need to be, not subject to an operator's schedule.

DOCERAM Industrial Ceramics

Locating Pins • Resistance Welding Pins • Screw Insulation • Dowel Pins • Insulating Plates • Barrel Connectors • Wire Guides • Weld Nozzles •

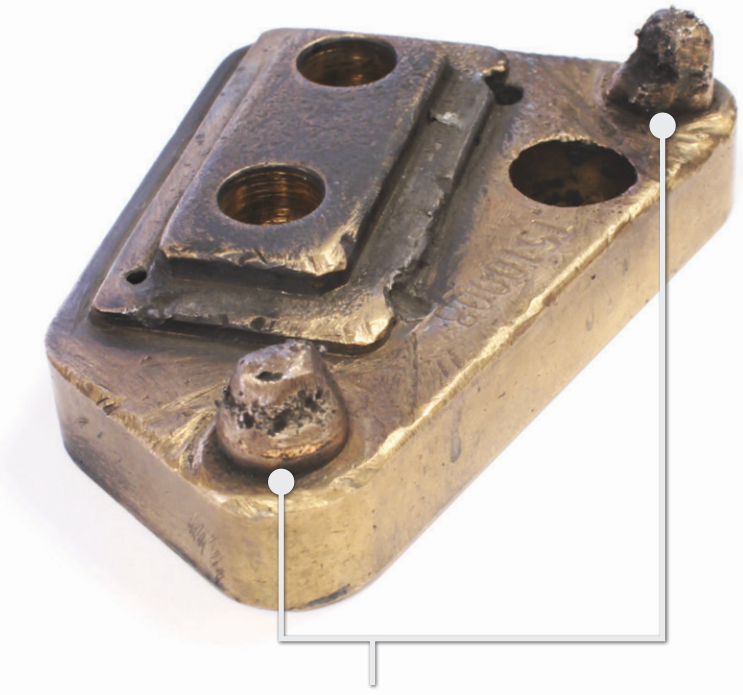
DOCERAM industrial ceramics deliver the electrical isolation and wear resistance that resistance welding locating applications demand.

Nut welding pins and stamping locators machined from DOCERAM materials maintain dimensional accuracy under repeated thermal cycling, resist current leakage between the workpiece and fixture, and outlast steel alternatives in high-volume production.

SCAN FOR MORE

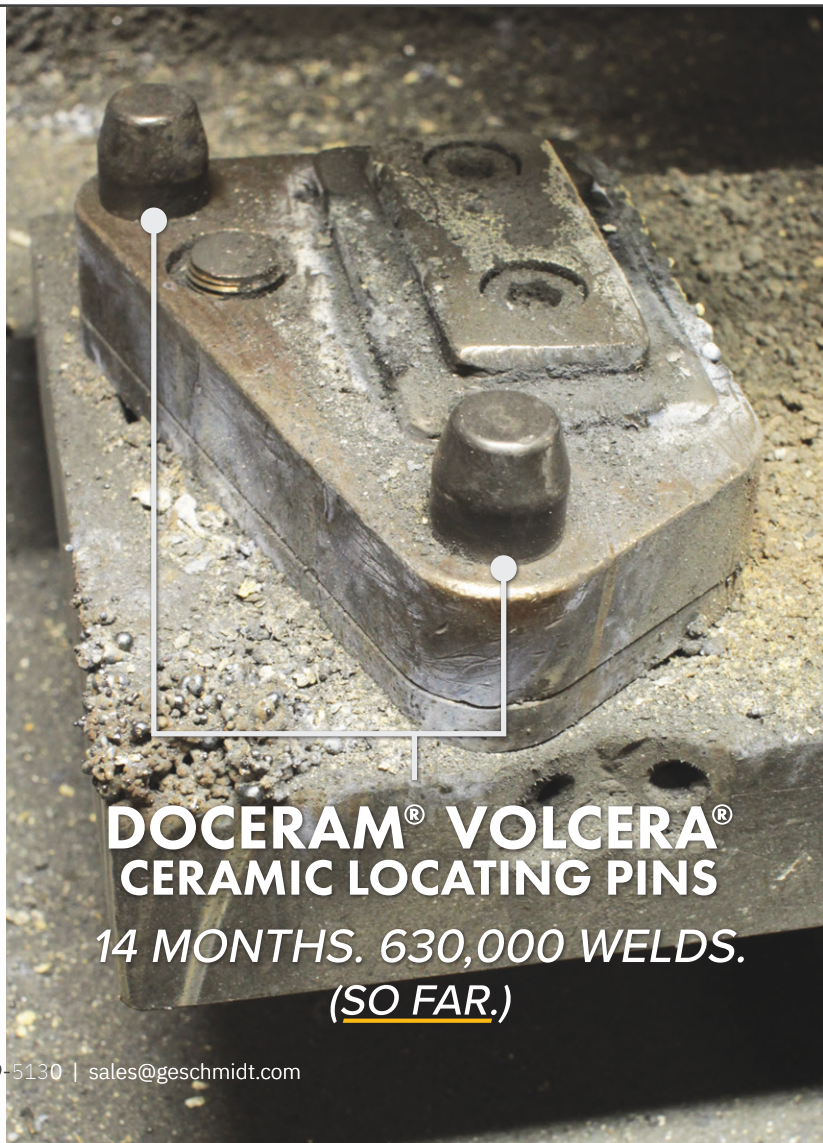
G.E. Schmidt is proud to represent DOCERAM in a variety of industries and applications, from battery and electronics to chemical manufacturing. For these industries and much more in depth on ceramics, visit our new site at **endurance-ceramics.com** to find how ceramics work in your industry.

ENDURANCE CERAMICS™ BY G.E. SCHMIDT



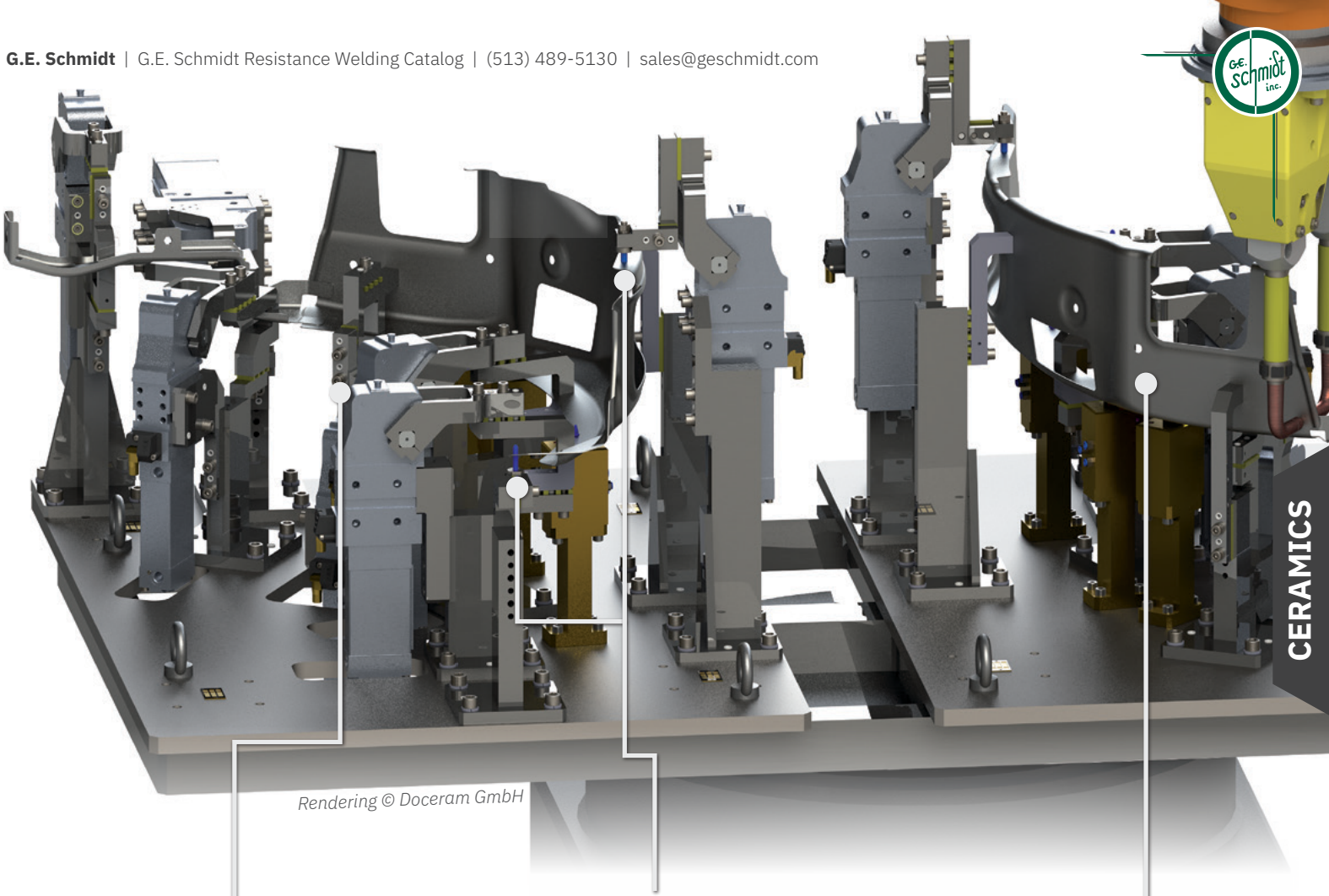
HARDENED STEEL LOCATING PINS

1 MONTH. 45,000 WELDS.



DOCERAM® VOLCERA® CERAMIC LOCATING PINS

14 MONTHS. 630,000 WELDS. (SO FAR.)



Rendering © Doceram GmbH

Z-101 Dowel Pins

(for fixture construction)

- Sizes from 1.5x5 mm (dia. x length) to 14x40 in stock
- Available in h6, m5, and m6 tolerances per DIN 6325 and m6 tolerance per ISO 2338
- Pull dowel pins with female threads also available (m6 tolerance per DIN 7979-D)

Cerazur® Location Pin

(with threaded steel base)

- Available in tolerances as fine as +0/–0.05 mm
- Developed based on European vehicle standards
- Flexible modular system
- Ready-for-use in production process (e.g. body-in-white)
- Standard components for quick availability

Cerazur® Centring Pin

(nut welding pin)

- Cerazur has 40x operating life of steel
- Standard M4–M12 designs
- Multiple nose styles available in standard catalog items
- Standards available for stamping hole diameters in 0.1 mm steps
- Weld pins available in Cerazur or Volcera

NOTE: *Doceram® products available from G.E. Schmidt in North America and Belgium; other products and materials available in those locations and elsewhere*

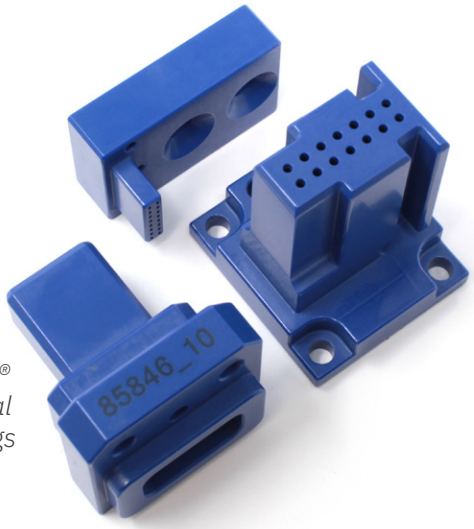
CERAMICS

Doceram®
Volcera

Doceram®
Cerazur

You guys realize tha
that doesn't w

Z-101®
Fixture Dowels



Cerazur®
Electrical
Test Plugs

Doglas®
Screw Head
Insulators

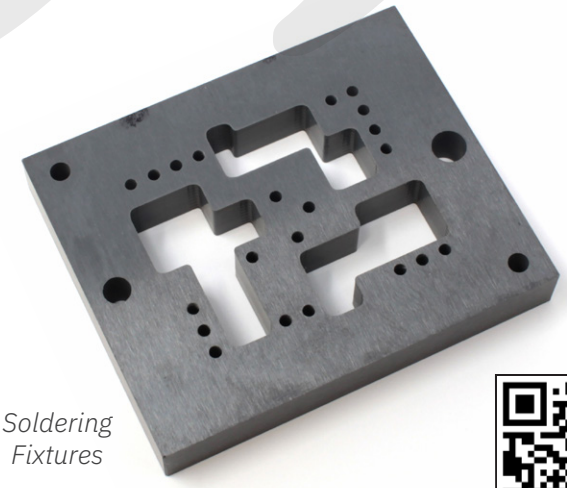
Cinceram™ White

Cinceram™ Gray

at you sold me a pin ear out, right?

– Confused, Happy Customer at a Tier 1 Automotive Plant

Volcera® Forming Wheels



Soldering Fixtures

Not in metalforming? Ceramics are critical in many applications, and we can help. Visit endurance-ceramics.com for application and design guidance.

SCAN TO VISIT **E // C**

CERAMIC MATERIALS SPECIFICATIONS					
		Doceram® Volcera®	**Doceram® Cerazur®**	**Cinceram™ White**	**Cinceram™ Gray**
Color		Medium Gray	Royal Blue	Off-White	Gray/Brown
Technical Description		Silicon Nitride *(Si_3N_4)*	Zirconium Oxide Partially Stabilized w/Yttria *(ZrO_2 Y-PSZ)*	Cerium-Stabilized Zirconia Toughened Alumina *(Alumina-CeTZP)*	Alumina-Toughened Zirconia Composite *(Alumina-nZirconia)*
Density	*g/cc*	3.2	6.0	5.4	5.65
Elastic Modulus	*GPa*	320	205	260	236
Biaxial Strength	*MPa*	750	1300	1036	1000
Fracture Toughness	*$MPa * M^{1/2}$*	6.7	12.0	10	10
Hardness	*HV*	1650	1150	1130	1300
Weibull Modulus	*GPa*	15	25	16.8	15.6
Thermal Conductivity	*W/m°K*	22	< 2.0	10	6.5
Thermal Expansion	*$x10^{-6}°K^{-1}$*	3.4	10.0	9.3	7.5
Common Applications		Weld nozzles; high-temp location pins; high-temp weld pins	Low- and Moderate-Temp location pins; weld pins; headed dowels; high abrasive wear applications	Weld pins; low- to high-temp location pins; medical; high abrasive wear applications; high-volume applications	Weld pins; location pins

Why ceramics? Aren't they breakable?

These are not traditional ceramics. Our materials, with an advanced zirconia or alumina base, have a very high impact resistance and bend strength, with abrasion resistance far superior to hardened steel and coated pins. Industrial ceramics won't break from falling on the concrete floor — in fact, they chip the concrete first. Ceramics are used in industries throughout the world, from welding to textiles to electronics manufacturing.

What drives the pin costs?

The materials can be difficult to produce and work with. Some need to be sintered and hardened before they're machined, meaning they require special tools and cutters. Others have extremely complicated steps to create the precursor powders. But in some applications, a ceramic pin that costs 4-10x that of steel has 20x+ the operating life, so it saves money over the medium and long term. With ceramics, there's also less down time for pin changes and fewer wasted parts on account of steel or coated pins wearing beyond tolerance.

Do these actually out-perform steel?

In many applications, yes. Industrial ceramics' extreme abrasion resistance, toughness and resistance to weld spatter mean the pins and parts can often be wiped clean with a cloth after a long shift (or week ... or month ...) and come out good as new. There are some applications, however, where steel or ceramic-coated steel is more appropriate, such as specialty weld pins making a small number of welds over the project life. G.E. Schmidt is ready to offer risk-free trials to new ceramics customers.

How do I select the right material?

Different ceramic materials have strengths and weaknesses depending on the application's specs. Some materials, for example, work better than others at sustained high temperatures and in the face of weld spatter. Others excel at ambient temperatures, but not as well at sustained high temps. Some materials are tougher against impact, and/or abrasive wear. Some are more economical. We'll help you select the right material for your application.

Ceramic-Coated & DLC Components

G.E. Schmidt can provide both Ceramic-Coated and DLC (diamond-like carbon) coated components for durable and economical solutions in demanding applications. DLC coated pins are the locator of choice for extremely soft materials such as cast aluminum.

Pins are available in standard configurations and custom configurations at cost-effective prices.

Best Pin™ ceramic coating

Custom application DLC-coated steel pins

Ceramic Weld Nozzles

Solid-ceramic MIG and TIG weld nozzles from Doceram help combat weld spatter buildup in even the most challenging automated applications. Made from Volcera®, Doceram's high-purity Silicon Nitride (Si_3N_4), these weld nozzles wipe clean with a rag or soft brush.

Less buildup inside the nozzle — especially in high-heat, inverted and high-current applications — means more consistent gas flow and weld quality.

Provide samples of your weld nozzle to G.E. Schmidt, and we'll design an adapter to help you get started. Email us or follow the QR code below to get started.

SCAN FOR MORE

DOCERAM

Entron Hi5 In-Line Weld Monitor

5 Key Parameters. Every Weld, in Real Time.

Destructive testing remains the gold standard for resistance weld quality verification — but it only tells you about the welds you tested. The Entron Hi5 bridges that gap.

By simultaneously monitoring secondary current, voltage, resistance, electrode force, and displacement on every weld cycle, the Hi5 gives operators and engineers real-time visibility into process consistency between destructive test intervals. When your destructive tests confirm that a defined parameter set produces acceptable welds, the Hi5 ensures those parameters are actually being maintained — weld after weld, shift after shift. Process drift, electrode wear, fitup variation, and power supply inconsistency all leave signatures in the data. The Hi5 catches them before they become scrap or, worse, escape to the field.

Compatible with MFDC, AC, AC inverter, and capacitive discharge power supplies, the Hi5 integrates into virtually any resistance welding environment without compromise. Its touchscreen interface supports both live Measurement Mode for real-time process monitoring and Hold Mode for detailed waveform analysis — including cursor-based data interrogation and side-by-side comparison of up to ten weld curves simultaneously. Envelope curves generated from your qualified weld population serve as dynamic alarm boundaries, giving you statistically grounded process control without external software.

Configuration depth matches your application. Up to 1,000 individual measurement schedules can be programmed and assigned by weld point or workpiece cycle, with each schedule supporting up to ten current pulses, independent alarm thresholds for all five parameters, and five user-defined custom data fields for part traceability.

All weld records — full waveform data, pulse summaries, and alarm history — are stored onboard and exportable to your MES or cloud platform via USB, Ethernet, RS232/485, or HTTP.

Destructive testing tells you your process works. The Hi5 tells you it's still working.

Simultaneous 5-parameter monitoring for current, voltage, resistance, force, and displacement: *Most monitors track one or two parameters. The Hi5 captures the complete process signature of every weld, giving you the full picture rather than a partial one.*

Compatible with MFDC, AC, AC inverter, and capacitive discharge power supplies: *One monitor works across your entire facility, regardless of equipment mix.*

Millisecond-resolution waveform capture on every weld: *Not sampled averages. Actual weld dynamics, time-stamped and stored, so you can see exactly what happened and when.*

Envelope curve generation from qualified weld populations: *Build your alarm boundaries from real good-weld data, not guesswork. The system learns what your process looks like when it's right.*

Configurable upper/lower limit alarms — per parameter, per pulse, per weld point: *Alarm sensitivity is matched to your actual process requirements, not a one-size-fits-all threshold.*

Data export via USB, Ethernet, RS232/485, and HTTP: *Connects to whatever your facility uses, from a USB drive on the shop floor to a cloud-based MES system.*

NEW! Also available as a portable lunchbox (pictured left): *Take the process monitoring where it's needed, for spot checks, issue remediation and process verification.*

Maintenance Accessories

Tuffaloy & APS Force Gauges

The weld schedule sets the force target. The air regulator approximates it. The gauge tells you what's actually at the tip.

Weld force is one of the three fundamental variables in resistance welding — and the one most often verified by assumption. Too high produces undersized or stuck welds. Too low produces expulsion, cracks, and holes. The gap between a dialed-in process and a chronic quality problem is often a gauge check that never happened.

The Tuffaloy DLC features field-selectable units (lb, kg, N, kN), a sealed 5-digit LCD with peak hold, 150% overload capacity, and a large landing pad sized for the electrode pinch point — fits in a gap of just 9/16". Gauges available up to 15,000 lbs., analog or digital, with calibration certificates. **NIST-certified recalibration services available for most brands.**

Force gauges from Tuffaloy (left) and APS (below). NOTE: Force gauges not to scale.

Entron WA2 Weld Analyzer

Most resistance welding problems get blamed on the wrong variable. The WA2 tells you what's actually happening in the weld.

The Entron WA2 measures secondary current on AC and MFDC systems — giving engineers and maintenance teams a portable, calibrated tool for process verification, schedule development, and troubleshooting. It captures peak, average, and lowest RMS current; total weld time; pulse time and number; and average conduction angle. Not sampled estimates — actual weld data, with full traceability.

Rechargeable, toolbox-portable, USB and oscilloscope output. Includes 6-foot flexible coil, carrying case, and calibration certificate. Optional attenuator extends range to 300 kA; 10-meter extension cable available.

ENTRON

SCAN FOR VIDEOS & MORE

Supplier Spotlight:

Trusted Partners. Proven Products.

Our goal is simple to state and hard to deliver: bring the highest-value solutions to our customers — not just a change in suppliers or a swap of nameplates. Doing that requires something more than a line card. It requires a genuine understanding of what each product does, where it excels, and how it fits a specific application.

That's why G.E. Schmidt builds long-term relationships with a carefully chosen set of vendors, invests in deep product knowledge, and stays engaged with customers from first conversation through installation, training, and ongoing support.

The partners here aren't on our shelf because they were available. They're here because we know them — their products, their engineering philosophy, and their track record — well enough to stake our own reputation on the recommendation.

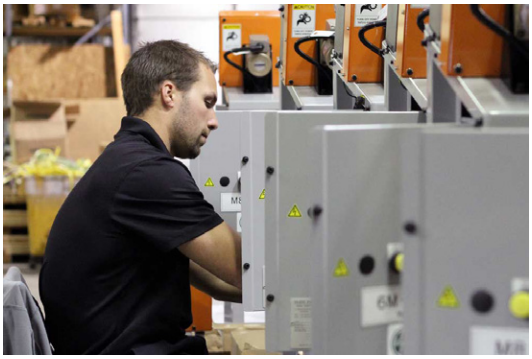
SEKI Feeder

Nut and Bolt Feeding Systems

We didn't find SEKI — we *pursued* them. Nearly 20 years ago, G.E. Schmidt encountered SEKI Feeder's nut and bolt feeders in the field. The product
was so far ahead of anything else in reliability and performance that we made it our mission to represent them. We approached SEKI, made the case for a partnership.

They said no thanks.

But we pressed, understanding the strength of a great product, and finally earned the partnership. We repaid them by making their high-quality, reliable feeders a specification throughout the automotive industry.



That origin story says everything about how we evaluate vendors: We start with the product, not the line card.

What makes SEKI stand out is deceptive in the best sense: elegant simplicity. Fewer moving parts. Designs that just work — and keep working. In a category where complexity is often mistaken for capability, SEKI's engineering philosophy delivers reliability that speaks louder than specifications on paper.

Today, that nearly two-decade relationship gives our customers access to the global standard in automatic electrode feeding, backed by application expertise that goes far beyond placement and price.

We work directly with SEKI on application fit, integration, and setup — so the system works right from day one.

Kyokutoh

Tip Dressers and Electrode Management

For more than 25 years, G.E. Schmidt has been Kyokutoh's partner in North America — and in that time, we've helped pilot their tip dressing technology into the production standards of major automotive accounts.

That's not a passive role. It means sitting across from process engineers, making the technical case, and putting our own credibility behind the product in manufacturers in the US, Canada, and the United Kingdom.

What has made that easy is Kyokutoh's range and reliability. Whether a customer needs a single handheld dresser for a small shop or 200-plus stand- and swing-arm-mounted units across an automotive production floor, Kyokutoh delivers consistent quality at every scale.

Kyokutoh has proven themselves as a reliable partner for manufacturers of every size — and that scalability, combined with long-term product stability, is exactly what engineers and purchasing are looking for when they're making a standard.

Our deep knowledge of Kyokutoh's lineup means we help customers select the right cutter geometry, configure the right dressing interval, and integrate tip management into their broader weld process discipline — not just hand over a box.

Tuffaloy / Entron

An American Standard in Welding

Our relationship with Tuffaloy goes back as far as the company itself — and in a meaningful sense, even further. Tuffaloy acquired CMW, which had previously absorbed Mallory, one of the original names in resistance electrode manufacturing. G.E. Schmidt has worked with these product lines across every iteration of that consolidation, following the brand from its copper manufacturing roots through its continued evolution and technological advancement. That continuity of knowledge — across decades, ownership changes, and product line expansions — is something no newer distributor relationship can replicate.

Tuffaloy has become a North American standard, and for good reason: the breadth of their product offering covers an extraordinary range of electrode geometries, alloy classes, and cap configurations. We know that range in depth — the distinctions that matter for a given alloy, the geometry choices that extend tip life, and how the right electrode pairs with the right control. From the foundational copper alloy days to today's advanced offerings, we've been there for all of it.

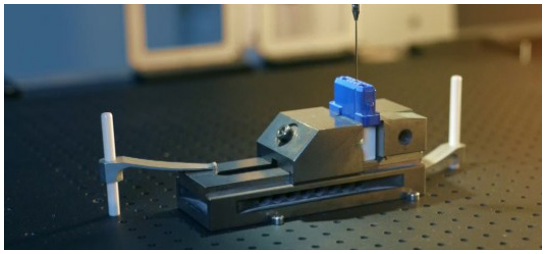
Entron weld controls are a different kind of story — not the flashiest name in the room, but exactly the kind of product that earns a reputation over decades. Workhorse reliability, long service life, and a name that means stability to the people who depend on it. We've serviced Entron controls that we sold 30 years ago — and some that were already in the field before that. That's not a footnote. That's a track record.

Doceram

Advanced Ceramics

Doceram is Europe's leading manufacturer of technical ceramics — and G.E. Schmidt introduced them to the North American market, building their presence application by application, starting more than a decade ago.

That kind of market development requires more than a product brochure. It requires deep technical knowledge, customer trust, and the confidence to put your own reputation behind something new. With Doceram, that confidence has always been well-placed: when the product performs as consistently as theirs does, demonstrating its value becomes straightforward.



Most of our work with Doceram thus far has been in resistance welding, in nut welding pins and stamping locators. But Doceram's capabilities extend well beyond resistance welding, and so does our representation of them. For applications outside the welding cell — including emerging opportunities in test plug applications — we're proud to bring Doceram's full range to market through our Endurance Ceramics platform. **Learn more at endurance-ceramics.com.**

A supplier change is easy to make and easy to regret. G.E. Schmidt's standard for a vendor relationship isn't whether we can sell the product — it's whether we know it well enough to genuinely serve the customer who buys it. That means understanding the application, fitting the right solution, configuring it correctly, and supporting it after the sale. **It means years of accumulated knowledge that doesn't show up on a spec sheet but makes all the difference when something needs to work.**

That's the commitment behind every partner on these pages — and behind every vendor relationship we maintain, named here or not.

WeldHelp Troubleshooting Guide

*— See the full **WeldHelp Resistance Welding Troubleshooting Guide** at geschmidt.com —*

WELDHELP

Relationships between issues and causes:
● » Strong
○ » Weak

CAUSES	ISSUES: Missing Weld	Undersized Weld	Stuck Weld	Excessive Indentation	Expulsion/ Burn-Thru	Cracks and Holes	Mislocated or Edge Welds	Sheet Metal Distortion	Extra Welds	Inconsistent Weld Quality	Brittle Weld	Non-Round Weld	Poor Class A Appearance	Sticking or Stuck Tips	Interfacial Separation
Weld Current Low	●	●	●									●			
Weld Current High				●	●	●							●	●	
Weld Force Low					○	●							○	●	
Weld Force High		●	●	●									●		
Weld Time Short	●	●	○									●			
Weld Time Long				●	○								○	○	
Squeeze Time Short					○	●							○		
Hold Time Short					○	●					○		●		●
Hold Time Long											●			●	○
Wrong Tips		●	●	○	○	○	●	○				●	○	●	
Incorrect Alignment		●			○	○	●	○				●	●		
Electrode Wear	○	●	●		○							●	○		
Electrode Skidding		●		○	○			○		●		●	○		
Wrong Tip Dressing	○	○	○	○	○	●				○	○	●	●	○	
Wrong Shank	○	○	○	○	○	○	○	○				○	○		
Insufficient Cooling		●	○			●				○				○	
Poor Connection		●	○		○	○				●			○		
Insuff. Air/Hydraulics		●	○	○	○	●				○				○	
Incorrect Cylinder		●	○	○	○	○				○		○	●	○	
Incorrect Hoses					○	○		○					○	○	
Poor Elect. Connex	●	●	○							●		●			
Wrong Transformer	○	○	○	○	○	○				○		○	○	○	
Wrong Cables/Shunts	○	○	○				○	○		●		○	○	○	
Poor Weld Access		●	○				●	●					●		
Shunting Welder/Parts		●	○							●		●	●		
Incorrect Material		●	○		○	○				○		○	○	●	
Dirty Material		●	○		○	○				●		●	●		
Excessive Sealer	●	●	○	●	●	○				●		●		○	
Poor Part Fit-Up	○	●	○	●	●	○	●	●		●		●	●		
Damaged Part		●			○	○	○	●		○		○	●		
Weld Flange Small					●	○	●								
Welds Mislocated	●			○	○		●	●	●	●			●		
Tips Not Parallel		●		●	○			○				●	●	●	
Bad Gun Equalization				○				●					●		
Incorrect Tests	○	●		○			○	○	○	○	●	●	○		●
Incorrect Workpiece	●	○	○	○	○	○	●	●	●	○	○	○	○	○	○
Poor Tip Follow-Up		○			●					●		○	●	○	