

EdmDrill<sup>™</sup> Product Catalog

# EdmDrill™ Precision EDM Drilling Machines

Current EDM, Inc. offers a complete line of high-speed, Electrical Discharge drilling machines to meet your most critical requirements. From entry-level models to automated production cells, our technology and expertise will enable you to produce high-quality, close-tolerance parts.

The majority of our machines are built in the USA using premium parts and components. We feature Siemens™ and Fanuc™ CNC Controllers, both standards in the industry, and software and applications development for these machines are conducted at our Technical Center in Minnesota. All machines feature comprehensive drilling technology that simplifies complex setup and programming, and we use our extensive production experience to develop machines that operate reliably and consistently, with minimal downtime. Count on us to get the job done right the first time.

Current EDM machines can be found in many of the finest companies, laboratories, and schools. Some of the diverse industries we serve include:

- Aviation & Aerospace
- Automotive
- Communications
- Electronics
- Hydraulics

- Medical
- Mold Making
- Power Generation
- Research & Development
- Tool & Die

Current EDM warrants its machine systems against defects in materials and workmanship for a period of one year from the date of installation.



## EdmDrill™ SD22

### **Compact Manual EDM Drilling Machine**

The SD22 is an affordable, compact-size manual EDM driller that comes complete with a water filtration tank and an interactive touch-screen controller that takes the guesswork out of selecting power settings. Simply enter the part material and electrode diameter- the controller chooses the best power setting for you!

See page 5 for more details.



### EdmDrill™ SD4030

## **Mid-Size Manual EDM Drilling Machine**

The SD4030 is an affordable mid-size manual EDM Driller. Standard features include an interactive touch-screen controller with pre-loaded power settings and a water filtration tank.

See page 13 for more details.



### EdmDrill™ SD4030 CNC

### **Mid-Size CNC EDM Drilling Machine**

The SD4030 CNC is a mid-size CNC EDM driller with an interactive touch-screen controller that programs in simple G and M codes. Referencing routines and programmable power settings greatly simplify machine operation. The SD4030 CNC comes standard with a water filtration tank.

See page 13 for more details.



### EdmDrill™ ST300

### **Compact Manual EDM Drilling Machine**

The ST300 is an extremely precise manual EDM driller capable of drilling with a wide range of electrode sizes. The standard version uses water dielectric fluid. The optional HC version uses EDM oil dielectric fluid and is primarily used for drilling tungsten carbide and powdered metals.

See page 12 for more details.



## EdmDrill™ CT400

## Mid-Size CNC EDM Drilling Machine

The CT400 is a versatile mid-size CNC EDM driller that can be configured with Siemens™ or FANUC™ CNC controllers. The standard 3-Axis model can be upgraded with a tilt-rotary table to create a powerful 5-Axis production machine.

See page 6 for more details.



## EdmDrill™ CT500

### **Mid-Size CNC EDM Drilling Machine**

The CT500 is a high precision, mid-size CNC driller ideal for job shops, tool rooms and production work. Its fixed-bridge design is extremely stable and enables accurate positioning and drilling of critical parts. The CT500 can be easily upgraded to 5-Axis drilling.

See page 8 for more details.



### EdmDrill™ SD6040

### Mid-Size Manual EDM Drilling Machine

The SD6040 is an affordable large capacity manual EDM Driller. Standard features include an interactive touch-screen controller with pre-loaded power settings and a water filtration tank.

See page 14 for more details.



# EdmDrill™ SD6040 CNC

#### **Mid-Size CNC EDM Drilling Machine**

The SD6040 CNC is a large capacity CNC EDM driller with an interactive touch-screen controller that programs in simple G and M codes. Referencing routines, programmable power settings and the ability to read DXF files greatly simplifies drilling in a wide range of materials. The SD6040 CNC comes standard with a water filtration tank.

See page 14 for more details.



### EdmDrill™ SD1310

#### **High-Capacity EDM Drilling Machine**

The SD1310 EDM driller is designed for very large and heavy parts. XY table travels are  $51 \times 39$  in. (1,300 x 1,000mm) and worktable weight capacity is 3.8 tons. The SD1310 is available in manual or CNC configuration and comes standard with a water filtration tank.

See page 14 for more details.

# **EdmDrill**<sup>™</sup> Precision EDM Drilling Machines



## EdmDrill™ MT40S

#### **Component EDM Drilling System**

The MT40S is a component system for adding EDM drilling capability to a standard milling machine or the machine base of your choice. The system includes a drilling head, power supply/controller unit and a high-pressure dielectric fluid pump.

See page 12 for more details.



### EdmDrill™ FT300

### Mid-Size CNC EDM Drilling Machine

The FT300 is a 5-Axis EDM driller designed for production facilities. Its compact footprint enables multiple machines to be placed side-by-side to maximize floor space. Standard features include a NIKKEN™ tilt-rotary table and the AEC24 automatic electrode changer.

See page 7 for more details.



# EdmDrill™ RT3038

### **High-Capacity CNC EDM Drilling Machine**

The RT3038 is a high-capacity, 5-Axis EDM driller for use in the automotive, aerospace and power generation industries. All operator functions take place at floor-level including replenishing the electrode changer during machine operation.

See page 9 for more details.



# EdmDrill™ RT1800

### **Special Purpose CNC EDM Drilling Machine**

The EdmDrill™ RT1800 is designed for drilling long and narrow parts. With X-Axis travel of 70 inches and Y-Axis travel of 12 inches, the RT1800 can handle perforation dies, long tubes and cylinders, and multiple fixtures mounted side-by side.

See page 10 for more details.



# EdmDrill™ RT6050

### **High-Capacity CNC EDM Drilling Machine**

The RT6050 is a large 5-Axis EDM drilling machine for use in the automotive, aerospace and power generation industries. It is available with single or dual drilling heads making the RT6050 one of the most advanced and versatile EDM drillers available.

See page 11 for more details.



### **Accessories**

Customize your Current EDM machine with accessories to optimize production. These include:

- Rotary Tables
- Electrode & Guide Changers
- Water Filtration Tanks
- Robotics
- Automatic Part Loading

See page 16-19 for more details.

# EdmDrill<sup>™</sup> SD22 Compact Manual EDM Drilling Machine

The EdmDrill™ SD22 is an affordable manual EDM drilling machine designed for general toolroom use. It is ruggedly built and packed with features that greatly simplify operation. The interactive touch-screen controller takes the guess-work out of power setting selection. Simply enter the part material, thickness and electrode diameter—the controller chooses the appropriate power setting.

The controller graphically displays DXF files to visualize multi-hole part programs. It is nearly impossible to drill holes out of location because the controller indicates when you are correctly in position.

X-Axis Travel	11.8 in. (300 mm)
Y-Axis Travel	7.8 in. (200 mm)
Z-Axis Travel	14.7 in. (375 mm)
W-Axis Travel	10.8 in. (275 mm)
Electrode Diameter Range	0.012 - 0.118 in. (0.3 - 3.0 mm)
Maximum Table Weight Capacity	550 lbs. (250 kg)
Machine Weight	1,452 lbs. (660 kg)
Machine Footprint	48 W x 48 L in. (1,200 x 1,200 mm)
Guide Shoe to Granite Table (min.)	1 in. (25 mm)
Guide Shoe to Granite Table (max)	11.8 in. (300 mm)
Worktable Material	Stainless Steel
Worktable Size	17.7 W x 8.2 L in. (450 x 210 mm)
Hold Down Inserts	30 x M8
Controller	Castek™
Display Size	15 in. (381 mm)





# EdmDrill™ CT400 Mid-Size CNC EDM Drilling Machine



The EdmDrill™ CT400 series is a highly versatile and capable platform for tool room, job shop and production environments. Available with a variety of options, the CT400 can be configured to tackle nearly any EDM drilling job. The CT400 can be built in 3, 4 or 5 Axis configurations.

Customers can choose between Siemens™ or FANUC™ CNC controllers which are considered "Standards" in the industry. Worldwide support for both controllers ensures a lifetime of operation. They are simple to program and fully compatible with nearly all CAM software.

For long-running, unattended operation, look to Current EDM's sturdy and reliable AEC24 Automatic Electrode Changer. Time tested in around-the-clock operation, the AEC24 automatically changes up to 24 electrodes.

X-Axis Travel	18 in. (457 mm)
Y-Axis Travel	12 in. (304 mm)
Z-Axis Travel	16 in. (406 mm)
W-Axis Travel	10.5 in. (266 mm)
Electrode Diameter Range	0.004 - 0.256 in. (0.1 - 6.5 mm)
Maximum Table Weight Capacity	1,000 lbs. (454 kg)
Machine Weight	1,800 lbs. (818 kg)
Machine Footprint mm)	53 W x 60 L in. (1,346 x 1,524
Guide Shoe to Granite Table (min.)	2 in. (50 mm)
Guide Shoe to Granite Table (max)	12.5 in. (317 mm)
Worktable Material	Granite
Worktable Size	11.8 W x 11.8 L in. (300 x 300 mm)
Hold Down Inserts	9 x M8
Controller	Siemens™ or FANUC™
Display Size	Siemens™- 19 in. (482 mm) FANUC™- 12.4 in. (314 mm)

# EdmDrill<sup>™</sup> FT300 Mid-Size CNC EDM Drilling Machine



The EdmDrill™ FT300 is a 5-Axis drilling machine for production facilities.

Main features include:

- Stationary worktable reduces operator reach for ergonomic part handling.
- 30 lb. fixture + part weight capacity at tilt-rotary table.
- Work envelope is a 7 inch tall, 6 inch diameter cylinder.
- Multiple machines can be placed side-by-side to preserve floor space and facilitate part loading and unloading. Machines are fully operable and serviceable from the front and rear of the machine.
- EDM Milling capability to create 3D shapes such as slots, gates and diffusers (ESPRIT® CAM recommended for programming).
- Advanced Servo technology for faster drilling speed, consistent electrode wear and accurate depth control.
- Exit hole break-through speed is optimized for rapid hole-to-hole cycle time.
- AEC24 Automatic Electrode Changer for reliable, high production operation.

X-Axis Travel	12 in. (304 mm)
Y-Axis Travel	6 in. (152 mm)
Z-Axis Travel	16 in. (406 mm)
W-Axis Travel	14 in. (355 mm)
Electrode Diameter Range	0.004 - 0.256 in. (0.1 - 6.5 mm)
Maximum Table Weight Capacity	30 lbs. (13.6 kg)
Machine Weight	2,900 lbs. (1318 kg)
Machine Footprint	40 W x 60 L in. (1,016 x 1,524 mm)
Guide Shoe to Granite Table (min.)	N/A
Guide Shoe to Granite Table (max)	N/A)
Worktable Material	N/A
Worktable Size	N/A
Hold Down Inserts	N/A
Controller	Siemens™
Display Size	22 in. (558 mm)

# EdmDrill<sup>™</sup> CT500 Mid-Size CNC EDM Drilling Machine

The EdmDrill™ CT500 is a precise mid-size EDM drilling machine designed for job shops as well as for production work. Available with Siemens™ or FANUC™ CNC controllers, it is ideal for tool & die work, mold making and wire EDM start-holes. Its stable casting and high quality motion control components ensure many years of consistent operation. When paired with a NIKKEN™ tilt-rotary table, the CT500 becomes one of the most advanced 5-Axis EDM drillers available. Built for accuracy, longevity and consistency, it's easy to see why hundreds of CT500 machines are being used in the most demanding production facilities worldwide.



### Main features include:

- Fixed Bridge design for optimum machining accuracy and low maintenance.
- Compatible with NIKKEN<sup>™</sup> 5AX-SW105 and 5AX-130 rotary tables.
- Precision lapped GRANITE WORKTABLE.
- Worktable can be configured for submersed or non-submersed drilling.
- "SOFT START" feature virtually eliminates entry point burr formation.
- Optional Automatic Electrode Changer (AEC24) and Automatic Guide Changer (AGC)

X-Axis Travel	22 in. (558 mm)
Y-Axis Travel	14 in. (355 mm)
Z-Axis Travel	16 in. (406 mm)
W-Axis Travel	10.5 in. (266 mm)
Electrode Diameter Range	0.004 - 0.256 in. (0.1 - 6.5 mm)
Maximum Table Weight Capacity	682 lbs. (310 kg)
Machine Weight	2,500 lbs. (1136 kg)
Machine Footprint	68 W x 71 L in. (1,727 x 1,803 mm)
Guide Shoe to Granite Table (min.)	1.25 in. (31 mm)
Guide Shoe to Granite Table (max)	11.75 in. (298 mm)
Worktable Material	Granite
Worktable Size	21.6 W x 15.7 L in. (550 x 400 mm)
Hold Down Inserts	12 x M8
Controller	Siemens™ or FANUC™
Display Size	Siemens™- 19 in. (482 mm) FANUC™- 12.4 in. (314 mm)

# EdmDrill™ RT3038 High-Capacity CNC EDM Drilling Machine



The EdmDrill™ RT3038 is a versatile, high-capacity machine designed for complex drilling of large and heavy parts common in the aerospace, automotive and power generation industries. It is ideal for drilling turbine blades and vanes, rings and tall cutting tools.

### Main features include:

- 30 x 38 inch XY travel. The longer Y-axis enables the use of large rotary tables that can be installed either horizontally or vertically to drill both flat and tall parts.
- The standard 5-Axis configuration utilizes the highlyreliable NIKKEN™ 5AX-201 tilt/rotary table which is ergonomically installed at the front of the machine for easy part loading and unloading.
- Extended Z-Axis stroke allows drilling with 24-inch long electrodes.
- EDM Milling capability to create 3D shapes such as slots, gates and diffusers (ESPRIT® CAM recommended for programming).
- Safety shields keep moving parts away from operators but enable full viewing of operation.

X-Axis Travel	30 in. (762 mm)
Y-Axis Travel	38 in. (965 mm)
Z-Axis Travel	24 in. (609 mm)
W-Axis Travel	28 in. (711 mm)
Electrode Diameter Range	0.004 - 0.256 in. (0.1 - 6.5 mm)
Maximum Table Weight Capacity	Dependent on Configuration
Machine Weight	11,200 lbs. (5,090 kg)
Machine Footprint	75 W x 111 L in. (1,905 x 2,819 mm)
Guide Shoe to Granite Table (min.)	N/A
Guide Shoe to Granite Table (max)	N/A
Worktable Material	N/A
Worktable Size	N/A
Hold Down Inserts	N/A
Controller	Siemens™ or FANUC™
Display Size	Siemens <sup>™</sup> - 19 in. (482 mm) FANUC <sup>™</sup> - 12.4 in. (314 mm)



NIKKEN 5AX-201 CNC	
A-Axis Travel	+90°
B-Axis Travel	±180°
Fixture and Part Weight at 90°	110 lbs. (50 Kg)
Accuracy of Rotary	20 Arc-Seconds
Repeatability of Rotary	4 Arc-Seconds
Accuracy of Tilt	60 Arc-Seconds
Repeatability of Tilt	±6 Arc-Seconds

# Edm Drill™ RT1800 Special Purpose CNC EDM Drilling Machine



The EdmDrill™ RT1800 is designed for drilling long and narrow parts. With X-Axis travel of 70 inches and Y-Axis travel of 12 inches, the RT1800 can handle perforation dies, long tubes and cylinders, and multiple fixtures mounted side-by side.

The moving C-Frame design enables precise positioning and the stationary worktable ensures part stability with no stacked axes overhang issues. The optional AEC24 Automatic Electrode Changer is mounted to the drilling head, minimizing tool change time.

X-Axis Travel	70 in. (1,778 mm)
Y-Axis Travel	12 in. (304 mm)
Z-Axis Travel	16 in. (406 mm)
W-Axis Travel	10.5 in. (266 mm)
Electrode Diameter Range	0.004 - 0.256 in. (0.1 - 6.5 mm)
Maximum Table Weight Capacity	2,500 lbs. (1,136 kg)
Machine Weight	6,000 lbs. (2,727 kg) )
Machine Footprint	130 W x 100 L in. (3,302 x 2,540 mm)
Guide Shoe to Granite Table (min.)	3 in. (76 mm)
Guide Shoe to Granite Table (max)	13.5 in. (342 mm)
Worktable Material	Granite
Worktable Size	80 W x 12 L in. (2,032 x 304 mm)
Hold Down Inserts	30 x M8
Controller	Siemens™ or FANUC™
Display Size	Siemens <sup>™</sup> - 19 in. (482 mm) FANUC <sup>™</sup> - 12.4 in. (314 mm)

# EdmDrill™ RT6050 High-Capacity CNC EDM Drilling Machine





The EdmDrill™ RT6050 is a high-capacity machine designed for drilling extremely large and heavy parts common in the automotive, aerospace, power generation, mold making and tool & die industries.

The RT6050's worktable is open and easily accessible to facilitate setup and part loading/unloading with an overhead crane or from the front with a loader.

The RT6050 is available in 3 and 5 Axis configurations. A tilting drilling head (Theta) is available for drilling angled holes. The versatile remote control hand pendant includes a special "Teach Mode" developed for turbine engine repair work where holes are aligned by sight. Manually position all axes from the remote controller and then start drilling with a simple push of a button. The powerful Siemens™ SINUMERIK ONE controller comes with comprehensive drilling tools and technologies to greatly simplify setup and programming. Consider the RT6050 if you are looking for one machine that can truly "do it all."

X-Axis Travel	60 in. (1,524 mm)
Y-Axis Travel	50 in. (1,270 mm)
Z-Axis Travel	16 in. (406 mm)
W-Axis Travel	30 in. (762 mm)
Electrode Diameter Range	0.004 - 0.256 in. (0.1 - 6.5 mm)
Maximum Table Weight Capacity	Dependent on Configuration
Machine Weight	12,000 lbs. (5,454 kg)
Machine Footprint	114 W x 110 L in. (2,895 x 2,794 mm)
Guide Shoe to Granite Table (min.)	N/A
Guide Shoe to Granite Table (max)	N/A
Worktable Material	N/A
Worktable Size	N/A
Hold Down Inserts	N/A
Controller	Siemens™
Display Size	19 in. (482 mm)

# EdmDrill<sup>™</sup> MT40S Component EDM Drilling Machine

The MT40S is a specially designed three component system for adding small-hole EDM drilling capability to the machine base of your choice. The MT40S is commonly installed on Bridgeport™ turret mills. The turret is rotated to move the drilling head into place over the mill's worktable.

### Components are:

- Compound Z-Axis Drilling Head with 16 inch servo stroke and 10.5 inch manual positioning slide.
- 57 Amp Power Supply and Controller with X, Y and Z Axis DRO
- High-Pressure Dielectric Fluid Pump unit.



#### Main features include:

- Programmable power settings, drilling depth and drilling retract
- Manual and semi-automatic drilling modes.
- M-Function interface for integrating part loaders, indexers and robotics.
- Casters mounted to Power Supply cabinet for portability.

#### **SPECIFICATIONS**

X-Axis Travel	N/A
Y-Axis Travel	N/A
Z-Axis Travel	16 in. (406 mm)
W-Axis Travel	10.5 in. (266 mm)
Electrode Diameter Range	0.004 - 0.256 in. (0.1 - 6.5 mm)
Maximum Table Weight Capacity	N/A
Machine Weight	500 lbs. (227 kg)
Machine Footprint	N/A
Guide Shoe to Granite Table (min.)	N/A
Guide Shoe to Granite Table (max)	N/A
Worktable Material	N/A
Worktable Size	N/A
Hold Down Inserts	N/A
Controller	Elenix™
Display Size	N/A

# EdmDrill™ ST300 Compact Manual EDM Drilling Machine



The EdmDrill™ ST300 is the highest quality manual EDM driller available. It is the ideal choice for those who don't require CNC capability but demand consistently superior drilling performance. The ST300 drills with the widest range of electrode diameters including tungsten electrodes as small as 0.003 inch in diameter, and the included M-function interface automates drilling with an indexer, robot or part loader. The compact design reduces floor space requirements and the fixed worktable offers ergonomic access for operators. An optional worktable tank is available for submersed drilling.

X-Axis Travel	11.8 in. (300 mm)
Y-Axis Travel	7.8 in. (200 mm)
Z-Axis Travel	16 in. (406 mm)
W-Axis Travel	10.5 in. (266 mm)
Electrode Diameter Range	0.004 - 0.256 in. (0.1 - 6.5 mm)
Maximum Table Weight Capacity	1,000 lbs. (454 kg)
Machine Weight	700 lbs. (318 kg)
Machine Footprint	50 W x 43 L in. (1,270 x 1,092 mm)
Guide Shoe to Granite Table (min.)	2 in. (50 mm)
Guide Shoe to Granite Table (max)	12.5 in. (317 mm)
Worktable Material	Granite
Worktable Size	11.8 W x 11.8 L in. (300 x 300 mm)
Hold Down Inserts	9 x M8
Controller	Elenix™
Display Size	N/A

# EdmDrill™ SD4030 Mid-Size Machine Available in Manual or CNC

The EdmDrill™ SD4030 is an affordable medium-sized EDM drilling machine available in Manual or CNC configuration. With features and capabilities not found anywhere near its price point, the SD4030 offers the highest level of value and performance. Closed-loop X/Y linear scales ensure accurate positioning, and the touch-screen CNC Controller accepts DXF files.

The SD4030 is suitable for job shops, tool rooms and production work. It accurately drills holes in nearly any electrically conductive material, at high rates, on angles and through threads. It is ideal for drilling start-holes, lockwire holes, venting holes in molds, and production holes in materials where conventional drilling is difficult.

X-Axis Travel	15.7 in. (400 mm)
Y-Axis Travel	11.8 in. (300 mm)
Z-Axis Travel	14.7 in. (375 mm)
W-Axis Travel	13.7 in. (350 mm)
Electrode Diameter Range	0.012 - 0.118 in. (0.3 - 3.0 mm)
Maximum Table Weight Capacity	1,000 lbs. (454 kg)
Machine Weight	2,970 lbs. (1,350 kg)
Machine Footprint	63 W x 65 L in. (1,600 x 1,650 mm)
Guide Shoe to Granite Table (min.)	2 in. (50 mm)
Guide Shoe to Granite Table (max)	15.7 in. (400 mm)
Worktable Material	Stainless Steel
Worktable Size	17.7 W x 15.3 L in. (450 x 390 mm)
Hold Down Inserts	96 x M8
Controller	Castek™
Display Size	15 in. (381 mm)



# EdmDrill™SD6040 Mid-Size Machine Available in Manual or CNC

The EdmDrill™ SD6040 is an affordable large-sized EDM drilling machine available in Manual or CNC configuration. With features and capabilities not found anywhere near its price point, the SD6040 offers the highest level of value and performance. Closed-loop X/Y linear scales ensure accurate positioning, and the touch-screen CNC Controller accepts DXF files.

**SPECIFICATIONS** 

X-Axis Travel	23.6 in. (600 mm)
Y-Axis Travel	15.7 in. (400 mm)
Z-Axis Travel	14.7 in. (375 mm)
W-Axis Travel	13.7 in. (350 mm)
Electrode Diameter Range	0.012 - 0.118 in. (0.3 - 3.0 mm)
Maximum Table Weight Capacity	1,100 lbs. (500 kg)
Machine Weight	3,080 lbs. (1,400 kg)
Machine Footprint	63 W x 69 L in. (1,600 x 1,750 mm)
Guide Shoe to Granite Table (min.)	2 in. (50 mm)
Guide Shoe to Granite Table (max)	15.7 in. (400 mm)
Worktable Material	Stainless Steel
Worktable Size	24.6 W x 16.5 L in. (625 x 420 mm)
Hold Down Inserts	150 x M8
Controller	Castek™
Display Size	15 in. (381 mm)

The SD6040 is suitable for job shops, tool rooms and production work. It accurately drills holes in nearly any electrically conductive material, at high rates, on angles and through threads. It is ideal for drilling start-holes, lockwire holes, venting holes in molds, and production holes in materials where conventional drilling is difficult.



# EdmDrill<sup>™</sup> SD1310 High-Capacity Machine Available in Manual or CNC

The EdmDrill™ SD1310 is a high-capacity EDM drilling machine for large and heavy parts. Available in Manual or CNC configuration, the machine has XY table travel of 51 by 39 inches and part weight capacity of 3.8 tons. The manual version uses electric motors to position X and Y axes eliminating the need for handwheels. Closed-loop X/Y linear scales ensure accurate positioning.

X-Axis Travel	51.1 in. (1,300 mm)
Y-Axis Travel	39.3 in. (1,000 mm)
Z-Axis Travel	21.6 in. (550 mm)
W-Axis Travel	13.7 in. (350 mm)
Electrode Diameter Range	0.012 - 0.118 in. (0.3 - 3.0 mm)
Maximum Table Weight Capacity	7,600 lbs. (3,454 kg)
Machine Weight	12,000 lbs. (5,454 kg)
Machine Footprint	94 x 127 in. (2,400 x 3,220 mm)
Guide Shoe to Granite Table (min.)	9.9 in. (250 mm)
Guide Shoe to Granite Table (max)	23.6 in. (600 mm)
Worktable Material	Stainless Steel
Worktable Size	27.5 in. x 23.6 in. (700 x 600 mm)
Hold Down Inserts	N/A
Controller	Castek™
Display Size	15 in. (381 mm)



# Siemens™ **SINUMERIK ONE**





Siemens™ hand pendant

### **SPECIFICATIONS**

Absolute/Incremental Input	Standard
Automatic Part Referencing	Standard
Display Size	19 in. (482 mm)
Dry Run	Standard
Ethernet	Standard
Feedrate Override	Adjustable Override Knob
Hand Pendant Control	Standard
Inch/Metric Input	Standard
M & G Code Programming Format	Standard
M Function Interface	Standard
Pitch Error Compensation	Standard
Program Lockout	Standard
Programmable Cycle/Drill Timers	Standard
Programmable Power Settings	Standard
Spindle RPM Override	Adjustable Override Knob
Stack Light	Standard
USB Port	Standard

# FANUC<sup>TM</sup> Oi-MF Plus





FANUC<sup>™</sup> hand pendant

Absolute/Incremental Input	Standard
Automatic Part Referencing	Standard
Display Size	12.4 in. (314 mm)
Dry Run	Standard
Ethernet	Standard
Feedrate Override	Adjustable Override Knob
Hand Pendant Control	Standard
Inch/Metric Input	Standard
M & G Code Programming Format	Standard
M Function Interface	Standard
Pitch Error Compensation	Standard
Program Lockout	Standard
Programmable Cycle/Drill Timers	Standard
Programmable Power Settings	Standard
Spindle RPM Override	Adjustable Override Knob
Stack Light	Standard
USB Port	Standard

# **Automatic Electrode Changer**

The AEC electrode changer extends machine operation for long-running, unmanned jobs. The standard electrode changer holds 24 electrodes. 36 and 50 station changers are also available. Electrode diameters from 0.012 in. to 0.118 in. (0.3 - 3 mm) can be automatically changed. For extremely long-running jobs, additional electrodes can be manually installed on the electrode carousal while the machine is running, significantly reducing downtime. With hundreds of units installed worldwide, the AEC has been proven in the most demanding production conditions.



#### **AEC24 AUTOMATIC ELECTRODE CHANGER**

Number of Drill Chucks	24 (AEC24), 36 (AEC36), or 50 (AEC50)
Electrode Diameter Range	0.012 in 0.118 in. (0.3mm - 3.0mm)
Collets/Sizes	12 each 0.020 in. (0.5mm) 12 each 0.040 in. (1.0mm)
Maximum Electrode Length	16 in. (400mm)
Compressed Air Required	70 - 90 PSI / Dry / 2.5 CFM
Emergency Drill Chuck	0.012 in. – 0.118 in. (0.3 mm – 3.0 mm)



Precision copper collets ensure optimal electrical contact and concentricity for faster drilling and improved hole consistency.

### **COLLET RANGES**

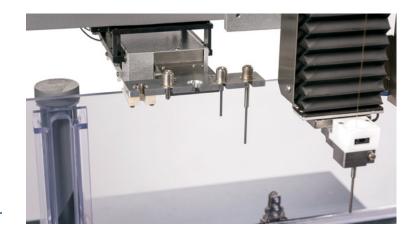
TYPE 1	.012"020" Range	Hole Size: 0.021"
TYPE 2	.020"030" Range	Hole Size: 0.031"
TYPE 3	.030"040" Range	Hole Size: 0.041"
TYPE 4	.040"050" Range	Hole Size: 0.051"
TYPE 5	.050"060" Range	Hole Size: 0.061"
TYPE 6	.060"070" Range	Hole Size: 0.071"
TYPE 7	.070"080" Range	Hole Size: 0.081"
TYPE 8	.080"090" Range	Hole Size: 0.091"
TYPE 9	.090"100" Range	Hole Size: 0.101"
TYPE 10	.100"110" Range	Hole Size: 0.111"
TYPE 11	.110"118" Range	Hole Size: 0.119"

# **Automatic Guide Changer**

The AGC guide changer is used with the AEC when different hole sizes are required in the same part. Each electrode size requires an equivalently-sized guide. For example, if a job requires three different hole diameters, three guide changes are required. The standard guide changer holds four guides. A six station guide changer is available for larger machines. The AGC is available on CT and RT series machines.

#### **AUTOMATIC GUIDE CHANGER (AGC)**

Number of Stations	4 or 6
Electrode Diameter Range	0.012 in 0.118 in. (0.3mm - 3.0mm)
Compressed Air Required	70 - 90 PSI / Dry / 2.5 CFM

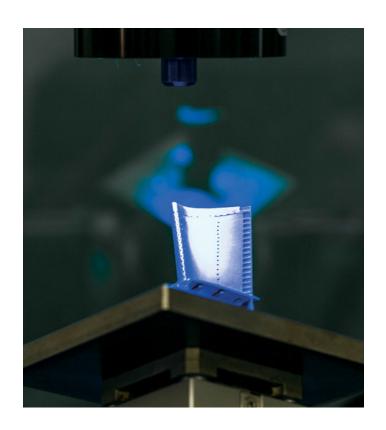


# **Vision Inspection System**

The Current EDM Vision Inspection System is used for real-time inspection and verification of production parts drilled on Current EDM machines. It can be installed near production machines to provide rapid, true position feedback for drilled holes.

The Vision Inspection System is built identically to production drilling machines. They have the same machine base, components and rotary table. This provides an accurate comparison between the drilled part and a master part program. Complex offset conversions are not required due to stack-up error or because of different machine types.

The Vision System can inspect round holes and slots. Hole location and diametrical true position data is output for each hole in a printable inspection report. After inspection, an offset file can be generated to run in the drilling machine to offset hole locations. Developed specifically for turbine engine repair work, the Vision System can also identify hole presence where existing holes could be blocked or welded shut.



# **Robotics**



The RAD™ (Robotic Assisted Drilling) system simplifies the drilling of smaller parts that are normally processed by 5-Axis drilling machines. The robot presents parts to the drilling head where holes at various angles can be easily drilled. Different end-effectors are used to grip parts, change electrodes and load/unload parts making the RAD™ system a truly flexible machining platform. The RAD™ is designed to take-up minimal floor space and can easily be configured into a cell. Up to 6 RAD™ systems can be controlled simultaneously by one CNC Controller. Please contact Current EDM to determine if your parts are suitable.

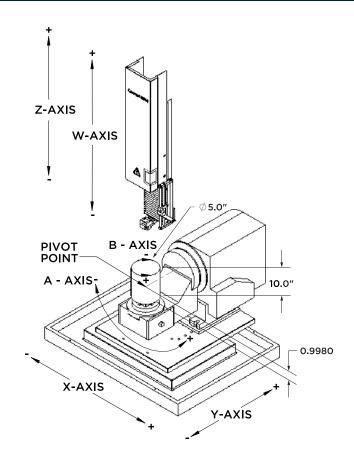
# **NIKKEN™** Indexers

# **NIKKEN<sup>TM</sup>** 5AX-SW105



### **SPECIFICATIONS**

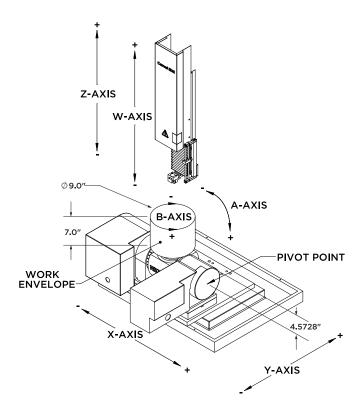
A-Axis Travel	±90°
B-Axis Travel	±180°
Max. Fixture & Part Weight	30 lbs. (13.6 kg)
Accuracy of Rotary	45 Arc-Seconds
Repeatability of Rotary	4 Arc-Seconds
Accuracy of Tilt	60 Arc-Seconds
Repeatability of Tilt	6 Arc-Seconds



# **NIKKEN<sup>TM</sup>** 5AX-130



A-Axis Travel	5° - 90°
B-Axis Travel	±180°
Max. Fixture & Part Weight	55 lbs. (25 kg)
Accuracy of Rotary	± 30 Arc-Seconds
Repeatability of Rotary	4 Arc-Seconds
Accuracy of Tilt	60 Arc-Seconds
Repeatability of Tilt	± 6 Arc-Seconds



# **CC-14** Compact Machine Filtration System



The CC-14 is a 13.2-gallon, self-contained water filtration system that provides an endless supply of water dielectric fluid for your Current EDM drilling machine. Water must be filtered and maintained at a constant temperature and conductivity level for best drilling results. The chiller maintains constant water temperature. Please Note: Customer must supply their own ion-exchange resin bottle.

# Model SHEDM-65 Compact Machine Filtration System



The SHEDM-65 is a self-contained water filtration system that provides an endless supply of water dielectric fluid for your Current EDM drilling machine. Water quality is vital for consistent drilling results. The filtration system maintains constant water conductivity and temperature, and continuously filters the water to remove machined particles. An ozone generator is used to inhibit bacteria growth.

#### **SYSTEM INCLUDES:**

- 65 Gallon Capacity
- EBBCO Hurricane™ Filter Canister with 5 micron filter
- 1 HP Stainless Steel Filter Pump
- 1.2 ft<sup>3</sup> Fiberglass Resin Bottle
- Digital Conductivity Controller
- Ozone Generator
- 6.000 BTU/HR Tank Mounted Inline Chiller

# Model SHEDM-90 Large Machine Filtration System



The SHEDM-90 is a self-contained water filtration system that provides an endless supply of water dielectric fluid for up to two Current EDM drilling machines. Water quality is vital for consistent drilling results. The filtration system maintains constant water conductivity and temperature, and continuously filters the water to remove machined particles. An ozone generator is used to inhibit bacteria growth.

#### **SYSTEM INCLUDES:**

- 90 Gallon Capacity Stainless Steel Tank
- Capacity for Two Machines
- Ebbco Hurricane™ Filter Canister with 5µm Filter
- 1 HP Stainless Steel Filter Pump
- 1.2 ft<sup>3</sup> Fiberglass Resin Bottle
- Digital Conductivity Controller
- Ozone Generator
- 6,000 BTU/HR Water Chiller

#### **OPTIONAL UPGRADE:**

• 12,000 BTU/HR Water Chiller

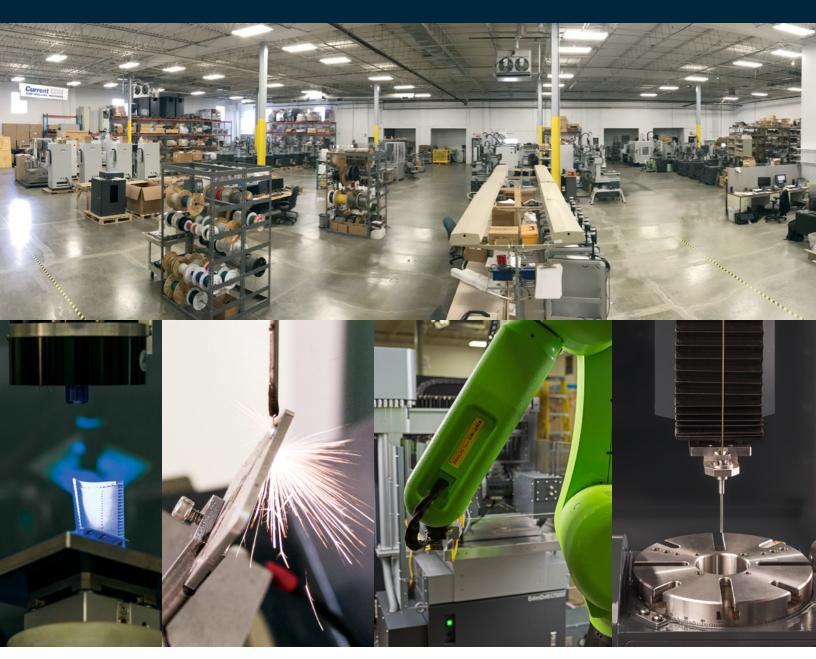
	MT40S	SD22	SD4030
STANDARD FEATURES			
X-Axis Travel	N/A	11.8 in. (300 mm)	15.7 in. (400 mm)
Y-Axis Travel	N/A	7.8 in. (200 mm)	11.8 in. (300 mm)
Z-Axis Travel	16 in. (406 mm)	14.7 in. (375 mm)	14.7 in. (375 mm)
W-Axis Travel	10.5 in. (266 mm)	10.8 in. (275 mm)	13.7 in. (350 mm)
Electrode Diameter Range	0.004 - 0.256 in. (0.1 - 6.5 mm)	0.012 - 0.118 in. (0.3 - 3.0 mm)	0.012 - 0.118 in. (0.3 - 3.0 mm)
Maximum Table Weight Capacity	N/A	550 lbs. (250 kg)	1,100 lbs. (500 kg)
Machine Weight	500 lbs. (227 kg)	1,452 lbs. (660 kg)	2,970 lbs. (1,350 kg)
Machine Footprint	N/A	48 W x 48 L in. (1,200 x 1,200 mm)	63 W x 65 L in. (1,600 x 1,650 mm)
Guide Shoe to Granite Table (min.)	N/A	1 in. (25 mm)	2 in. (50 mm)
Guide Shoe to Granite Table (max)	N/A	11.8 in. (300 mm)	15.7 in. (400 mm)
Worktable Material	N/A	Stainless Steel	Stainless Steel
Worktable Size	N/A	17.7 W x 8.2 L in. (450 x 210 mm)	17.7 W x 15.3 L in. (450 x 390 mm)
Hold Down Inserts	N/A	30 x M8	96 x M8
Controller	Elenix™	Castek™	Castek™
Display Size	N/A	15 in. (381 mm)	15 in. (381 mm)
AUTOMATION			
	NI/A	N/A	N/A
24-Position Automatic Electrode Changer	N/A N/A	N/A N/A	N/A
36-Position Automatic Electrode Changer	· · · · · · · · · · · · · · · · · · ·		
50-Position Automatic Electrode Changer Automatic Guide Changer (4 Station)	N/A N/A	N/A N/A	N/A N/A
Automatic Guide Changer (4 Station)  Automatic Guide Changer (6 Station)	N/A	N/A	N/A
24-inch Head	N/A	N/A	N/A
Theta Axis	N/A	N/A	N/A
THE COUNTY OF TH	TVA	IN/A	TVA
ROTARY TABLE			
Nikken™ 5AX-SW105	N/A	N/A	N/A
Nikken™ 5AX-130	N/A	N/A	N/A
Nikken™ 5AX-201	N/A	N/A	N/A
Nikken™ 4AX CNC105	N/A	N/A	N/A
Nikken™ 4AX CNC321	N/A	N/A	N/A
POWER SUPPLY OPTIONS			
	Ν1/Λ	Ctandard	Ctandard
50 Amp Power Supply	N/A Standard	Standard N/A	Standard
57 Amp Power Supply SF04	Standard N/A	N/A N/A	N/A N/A
57 Amp Booster	Optional	N/A N/A	N/A
	N/A	N/A N/A	N/A
Shaped Hole - EDM Milling NETL Cortification	· · · · · · · · · · · · · · · · · · ·		
NRTL Certification	N/A	N/A	N/A
CE Certification	N/A	N/A	N/A

SD6040	SD1310	ST300	<b>SD4030 CNC</b>
23.6 in. (600 mm)	51.1 in. (1,300 mm)	11.8 in. (300 mm)	15.7 in. (400 mm)
15.7 in. (400 mm)	39.3 in. (1,000 mm)	7.8 in. (200 mm)	11.8 in. (300 mm)
14.7 in. (375 mm)	21.6 in. (550 mm)	16 in. (406 mm)	14.7 in. (375 mm)
13.7 in. (350 mm)	13.7 in. (350 mm)	10.5 in. (266 mm)	13.7 in. (350 mm)
0.012 - 0.118 in. (0.3 - 3.0 mm)	0.012 - 0.118 in. (0.3 - 3.0 mm)	0.004 - 0.256 in. (0.1 - 6.5 mm)	0.012 - 0.118 in. (0.3 - 3.0 mm)m
1,100 lbs. (500 kg)	7,600 lbs. (3,454 kg)	1,000 lbs. (454 kg) )	1,100 lbs. (500 kg)
3,080 lbs. (1,400 kg)	12,000 lbs. (5,454 kg)	700 lbs. (318 kg)	2,970 lbs. (1,350 kg)
63 W x 69 L in. (1,600 x 1,750 mm)	94 x 127 in. (2,400 x 3,220 mm)	50 W x 43 L in. (1,270 x 1,092 mm)	63 W x 65 L in. (1,600 x 1,650 mm)
2 in. (50 mm)	9.9 in. (250 mm)	2 in. (50 mm)	2 in. (50 mm)
15.7 in. (400 mm)	23.6 in. (600 mm)	12.5 in. (317 mm)	15.7 in. (400 mm)
Stainless Steel	Stainless Steel	Granite	Stainless Steel
24.6 W x 16.5 L in. (625 x 420 mm)	27.5 in. x 23.6 in. (700 x 600 mm)	11.8 W x 11.8 L in. (300 x 300 mm)	17.7 W x 15.3 L in. (450 x 390 mm)
150 x M8	N/A	9 x M8	96 x M8
Castek™	Castek™	Elenix™	Castek™
15 in. (381 mm)	15 in. (381 mm)	N/A	15 in. (381 mm)
NI/A	N1/A	NI/A	N1/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
	Ci I. I	A1/A	
Standard	Standard	N/A	Standard
N/A	N/A	Standard	N/A
N/A	N/A	N/A	N/A
N/A	N/A	Optional	N/A
N/A	N/A	N/A	N/A
N/A	N/A	Optional	N/A
N/A	N/A	Optional	N/A

	<b>SD6040 CNC</b>	CT400	FT300
STANDARD FEATURES			
X-Axis Travel	23.6 in. (600 mm)	18 in. (457 mm)	12 in. (304 mm)
Y-Axis Travel	15.7 in. (400 mm)	12 in. (304 mm)	6 in. (152 mm)
Z-Axis Travel	14.7 in. (375 mm)	16 in. (406 mm)	16 in. (406 mm)
W-Axis Travel	13.7 in. (350 mm)	10.5 in. (266 mm)	14 in. (355 mm)
Electrode Diameter Range	0.012 - 0.118 in. (0.3 - 3.0 mm)	0.004 - 0.256 in. (0.1 - 6.5 mm)	0.004 - 0.256 in. (0.1 - 6.5 mm)
Maximum Table Weight Capacity	1,100 lbs. (500 kg)	1,000 lbs. (454 kg)	30 lbs. (13.6 kg)
Machine Weight	3,080 lbs. (1,400 kg)	1,800 lbs. (818 kg)	2,970 lbs. (1,350 kg)
Machine Footprint	63 W x 69 L in. (1,600 x 1,750 mm)	53 W x 60 L in. (1,346 x 1,524 mm)	40 W x 60 L in. (1,016 x 1,524 mm)
Guide Shoe to Granite Table (min.)	2 in. (50 mm)	2 in. (50 mm)	N/A
Guide Shoe to Granite Table (max)	15.7 in. (400 mm)	12.5 in. (317 mm)	N/A
Worktable Material	Stainless Steel	Granite	N/A
Worktable Size	24.6 W x 16.5 L in. (625 x 420 mm)	11.8 W x 11.8 L in. (300 x 300 mm)	N/A
Hold Down Inserts	150 x M8	9 x M8	N/A
Controller	Castek™	Siemens™ or FANUC™	Siemens™
Display Size	15 in. (381 mm)	Siemens™- 19 in. (482 mm)	22 in. (558 mm)
,	(00111111)	FANUC™- 12.4 in. (314 mm)	(000)
AUTOMATION			
24-Position Automatic Electrode Changer	N/A	Optional	Standard
36-Position Automatic Electrode Changer	N/A	N/A	N/A
50-Position Automatic Electrode Changer	N/A	N/A	N/A
Automatic Guide Changer (4 Station)	N/A	Optional	N/A
Automatic Guide Changer (6 Station)	N/A	N/A	N/A
24-inch Head	N/A	Optional	N/A
Theta Axis	N/A	N/A	N/A
ROTARY TABLE			
Nikken <sup>™</sup> 5AX-SW105	N/A	Optional	Standard
Nikken™ 5AX-130	N/A	N/A	N/A
Nikken™ 5AX-201	N/A	N/A	N/A
Nikken™ 4AX CNC105	N/A	Optional	N/A
Nikken™ 4AX CNC321	N/A	N/A	N/A
DOWED CLIDDLY ODTIONS			
POWER SUPPLY OPTIONS	Ctandard	N1/A	NI/A
50 Amp Power Supply	Standard	N/A Standard	N/A Standard
57 Amp Power Supply SF04	N/A	Standard	Standard
	N/A	Optional	Optional
57 Amp Booster	N/A	Optional	Optional
Shaped Hole - EDM Milling	N/A	N/A Optional	Optional
NRTL Certification	N/A	Optional	Optional
CE Certification	N/A	Optional	Optional

CT500	RT3038	RT1800	RT6050
	70 / (700	70 / 4 770	00. 4504
22 in. (558 mm)	30 in. (762 mm)	70 in. (1,778 mm)	60 in. (1,524 mm)
14 in. (355 mm)	38 in. (965 mm)	12 in. (304 mm)	50 in. (1,270 mm)
16 in. (406 mm)	24 in. (609 mm)	16 in. (406 mm)	16 in. (406 mm)
10.5 in. (266 mm) 0.004 - 0.256 in. (0.1 - 6.5 mm)	28 in. (711 mm) 0.004 - 0.256 in. (0.1 - 6.5 mm)	10.5 in. (266 mm) 0.004 - 0.256 in. (0.1 - 6.5 mm)	30 in. (762 mm) 0.004 - 0.256 in. (0.1 - 6.5 mm)
682 lbs. (310 kg)	Dependent on Configuration	2,500 lbs. (1,136 kg)	Dependent on Configuration
2,500 lbs. (1136 kg)	11,200 lbs. (5,090 kg)	6,000 lbs. (2,727 kg)	12,000 lbs. (5,454 kg)
68 W x 71 L in. (1,727 x 1,803 mm)	75 W x 111 L in. (1,905 x 2,819 mm)	130 W x 100 L in. (3,302 x 2,540 mm)	114 W x 110 L in. (2,895 x 2,794 mm)
1.25 in. (31 mm)	N/A	3 in. (76 mm)	N/A
11.75 in. (298 mm)	N/A	13.5 in. (342 mm)	N/A
Granite	N/A	Granite	N/A
21.6 W x 15.7 L in. (550 x 400 mm)	N/A	80 W x 12 L in. (2,032 x 304 mm)	N/A
12 x M8	N/A	30 x M8	N/A
Siemens™ or FANUC™	Siemens™ or FANUC™	Siemens <sup>™</sup> or FANUC <sup>™</sup>	Siemens™
Siemens™- 19 in. (482 mm)	Siemens™- 19 in. (482 mm)	Siemens™- 19 in. (482 mm)	19 in. (482 mm)
FANUC™- 12.4 in. (314 mm)	FANUC™- 12.4 in. (314 mm)	FANUC™- 12.4 in. (314 mm)	
Optional	Optional	Optional	Optional
Optional	Optional	N/A	Optional
N/A	N/A	N/A	Optional
Optional	Optional	Optional	Optional
Optional	Optional	Optional	Optional
Optional	Standard	Optional	Optional
N/A	N/A	N/A	Optional
Optional	N/A	N/A	N/A
Optional	N/A	N/A	N/A
N/A	Optional	N/A	Optional
Optional	N/A	N/A	N/A
N/A	N/A	N/A	Optional
N/A	N/A	N/A	N/A
Standard	Standard	Standard	Standard
Optional	Optional	Optional	Optional
Optional	Optional	Optional	Optional
Optional	N/A	N/A	N/A
Optional	Optional	Optional	Optional
Optional	Optional	Optional	Optional
Optional	Optional	Ораблаг	Optional

# EdmDrill<sup>™</sup> Product Catalog



# INTERNATIONAL HEADQUARTERS

2577 Leghorn Street Mountain View, CA 94043

(650) 966-9676 phone (650) 966-1881 fax

# SALES OFFICE & SHOWROOM

9201 Penn Avenue South, Suite 40 Bloomington, MN 55431

(763) 476-2290 phone (763) 476-2190 fax

WWW.CURRENTEDM.COM • email: INFO@ CURRENTEDM.COM

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