



CNC Electric Discharge Machine

# SMART DEM

## High-Performance Electric Discharge Machine

for high-precision formed parts and electrodes

- superior surface quality
- high chip-removal rate
- quick and easy creation of programs
- CAD/CAM software included
- E-Pulse technology
- PC Control



SMART DEM



www.knuth-usa.com

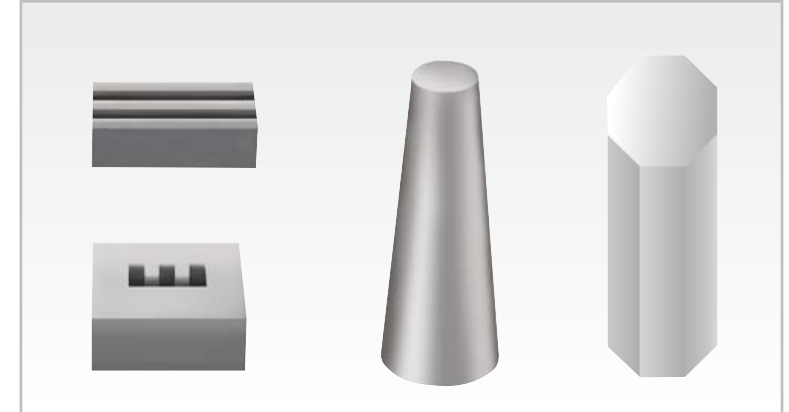


# SMART DEM

## DESCRIPTION



- high chip-removal rate
- excellent surface quality due to advanced cutting technology
- high cutting accuracy ensured by constant wire diameter, the cutting wire passes through only once
- removal rate 70 mm<sup>2</sup>/min
- independent programming of X/Y and U/V axes
- 14" color monitor
- automatic positioning
- copying, turning, mirroring, scaling, rotating
- processing of DXF files
- test run feature
- diagnostic feature and much more
- programming is possible during program execution
- quick and easy creation of programs
- CAD/CAM software included
- E-Pulse technology
- PC control



### Stamp Cutting

material	tool steel
height	0.75"
production time	90 min.
number of cuts	2 (1 rough, 1 finish)
surface quality	0.000047" Ra

### Taper Cutting

material	tool steel
height	3.125"
angle	± 5°
production time	170 min.
number of steps	1 rough

### Octagon Cutting

material	tool steel
height	1.18"
production time	45 min.
number of steps	2 (1 rough, 1 finish)
surface quality	0.000047" Ra





### Specifications SMART DEM

#### Working Area

part length (max.)	17.7"
workpiece thickness (max.)	7.9"
workpiece width (max.)	13.8"
workpiece weight (max.)	660 lbs
X axis travel	9.8"
Y axis travel	13.8"
U axis travel	1.2"
V axis travel	1.2"
wire diameter	0.010"
cutting capacity (max.)	0.1 in <sup>2</sup> /min
cutting angle (max.)	± 5°/100 mm
wire tensile strength (max.)	1600 N
wire coil, max. weight	13 bs
wire guide	diamond

#### CNC Control

software	ELAPT 3.2
controlled axes	X, Y, U, V
input increment (min.)	0.00004"

#### Dielectric System

dielectric fluid	deionized water
filter	paper filter 10μ
dielectric tank capacity	100 l

#### Drive Capacities

machine drive power	3 kW
power supply	400 V

#### Accuracy

positioning accuracy	0.0008"
surface roughness (best)	0.000047" Ra

#### Dimensions/Weight

weight	4400 lbs
Part No.	180 455

### Standard Equipment

- CAD/CAM software
- 0.010" wire
- diamond guides
- paper filter
- operating tools
- RS-232 Schnittstelle und Kabel
- 14" color monitor
- operating manual and programming instructions

### Training

- free 1-day training in Wasbek
- including accommodations for 1 night in our guest house

# CNC Control

## High Performance for Excellent Productivity



- 14" color monitor
- CAD/CAM software included
- PC control
- RS232 interface
- Disk drive

**We provide prompt and proficient support, when you need it.**

### A wealth of world-class functions in the Basis CNC ensures maximum productivity:

- This machine features an easy to use user interface.
- Programming is done directly at the PC using the included software.
- Alternatively, the program can be generated via DIN-ISO or existing drawings.
- Processing of a drawing via DXF files is also possible.
- Data and files can be transferred to the machine through the RS232 interface, or via disk.
- Simulation and graphical display of programs is possible.
- Easy creation of programs for conical cuts.
- Control offers multiple display languages.