ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Comdel ESC-2* at our website: ***Click HERE***

COMDEL

Comdel, Inc.
11 Kondelin Road
Gloucester, MA 01930

p: 978.282.0620
f: 978.282.4980

www.comdel.com

ESC Series Electrostatic Chuck Power Supplies

1, 2, 3 & 5 kV Models
Available with Selectable Features and Flexible Packaging Options



Performance:

Comdel's ESC suite of electrostatic chuck power supplies offer the most stable electrical design with the ultimate in package flexibility. These compact, lightweight supplies come complete with NRTL product safety marks, built in RF filters for device protection and unsurpassed clamping for electrostatic wafer processing applications.

Applications:

The ESC series voltage sources provide stable power for electrostatic chucks used in semiconductor wafer transfer.

Features:

- **Reduced risk of permanent charge on chuck through output polarity reversal**
- **Low stored energy and built-in current limitations to safeguard from surges and arcs**
- **Short circuit and open circuit proof design for enhanced reliability**
- **ETL Marked for product safety and CE compliant**
- **Built in RF filtering**

Options:

Flexible packaging options available

- **ESC OEM** Imbedded model
- **ESC Dual** Single output connector and built-in voltage and current monitor
- **ESC Mini** X-small package design (2.5"H x 4.75"W x 9.5"D)
- **ESC 5** 5kV unipolar output (available in positive or negative polarity)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



ESC “Standard” Specifications:

- Output to input isolation: > 500 Meg Ohm
- Output voltage/current:

	ESC 1	ESC 2	ESC 3	ESC 5
Bipolar	+/- 500V	+/- 1000V	+/- 1500V	N/A
Unipolar	1kV	2kV	3kV	5kV
Max Current	10mA	3mA	2mA	1mA

- Output regulation: 0.1% or better of output from 0 to full load
- Output ripple: Less than 0.2%
- Output linearity: Better than 0.1% full scale
- Output voltage balance: Better than 0.5% for matched loads
- Line input requirements: Single 24VDC @ 0.5A typical (1A maximum)
- DC power input: 3-pin Molex type, non-reversible quick disconnect
- DC output: MHV connectors on HV terminals, BNC on center tap
- Remote interface: 25-pin D type female (DB-25f)
- Cooling: None required
- Compliance: ETL Marked for product safety and CE compliant

Controls:

- All control features are available local (front panel) and remote (25-pin D type connector)
- All analog setpoint and monitor signals are available as 0-10V full scale, fully differential. Inputs are 200k Ohm minimum. Outputs are capable of driving 1k Ohm at 10V maximum.
- All command lines and status indicators are uncommitted, optically isolated digital signals.
- Continuously variable output voltage and output current limit
- Hi-voltage enable command and enabled indicator
- Output polarity reversal command and discharge command (auto or manual)
- Output voltage (differential) monitor and center tap voltage monitor
- Positive and negative terminal output current monitors
- Output protection: active voltage and current limits in addition to passive output limiting impedance
- RS-232c serial interface for all remote control functions; nine-pin D type male connector

Mechanical Specifications:

- Size: 3.5"H x 8"W x 6.25"D (9cm x 20.3cm x 16cm)
- Weight: < 2 lbs. (0.9 kg)



Flexible Packaging Options:

Refer to "Standard" model specifications for input line requirements, output voltage, current, regulation and cooling for all of the following:

ESC OEM

- 1, 2 & 3 kV models available
- Imbedded model with analog control and RS-232
- ETL Marked for product safety and CE compliant

ESC Dual

- 1, 2 & 3 kV models available
- Single output for connection simplicity
- Automatic or manual polarity reversal switching
- Built-in voltage and current monitor
- Optional bias/offset feature
- ETL Marked for product safety and CE compliant

ESC Mini

- 1, 2 & 3 kV models available
- Imbedded model with analog control and RS-232
- X-small package design (2.5"H x 4.75"W x 9.5"D / 6.4cm x 12cm x 24cm)
- 15-pin D type connector for power input and control

ESC 5

- 5kV power output
- Small package design (3 1/2" half rack)
- Unipolar output (available in positive or negative polarity)
- ETL Marked for product safety and CE compliant

ET 10K External Filter:

- 1 to 10 kW external RF filter (1000V RMS)
- Can be mounted close to chamber while controls can be accessed from 50' cable length away
- Standard packaging for rack-mount and chassis-mount applications (3.5"H x 8"W x 6.25"D / 9cm x 20.3cm x 16cm)
- Ultra-small packaging for buried applications (1.65"H x 5.45"W x 4.35"D / 4.2cm x 13.8cm x 11cm)
- MHV connectors

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP