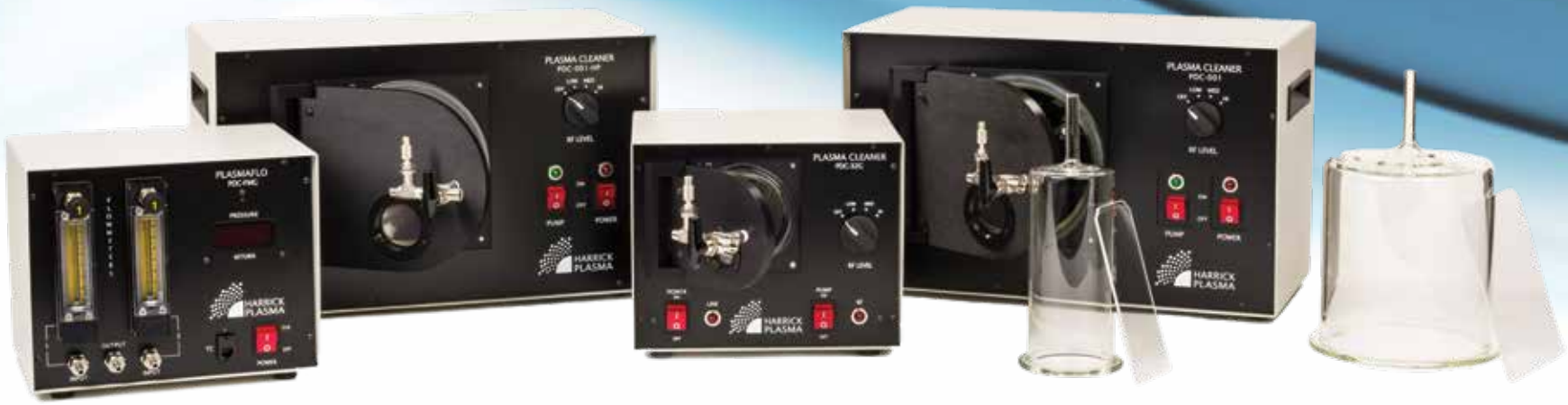
HARRICK PLASMA

Harrick Plasma is a leading supplier of plasma equipment to the research community.

We have been providing quality, low-cost, tabletop plasma devices specifically designed for laboratory, R&D and office use for over 30 years.



BENEFITS OF PLASMA

AN INDUSTRY LEADER

Harrick Plasma has been providing high quality, low-cost, tabletop plasma devices specifically designed for laboratory, R&D and office use for over 30 years.

VALIDATED EXPERIENCE

Harrick Plasma products have been cited in nearly 2,300 technical references in more than a dozen research and application areas, as listed in our technical reference library.

ADVANTAGES OF PLASMA

Our tabletop models can be used for ultraclean surfaces, sterilization, wettability alteration, enhanced surface properties, enhanced bonding.

PLASMA SURFACE TREATMENT USES

Plasma Cleaning

- Remove nanoscale contamination
- Enhance adhesion to other surfaces

Plasma Activation

- Render surfaces hydrophilic or hydrophobic

Plasma Modification

- Introduce functional groups on surfaces

Plasma Sterilization

- Remove microbial contaminants

Plasma Polymerization

- Deposit polymer with functional end groups
- Graft polymers onto plasma-activated surfaces

RESEARCH AREAS

Materials Science

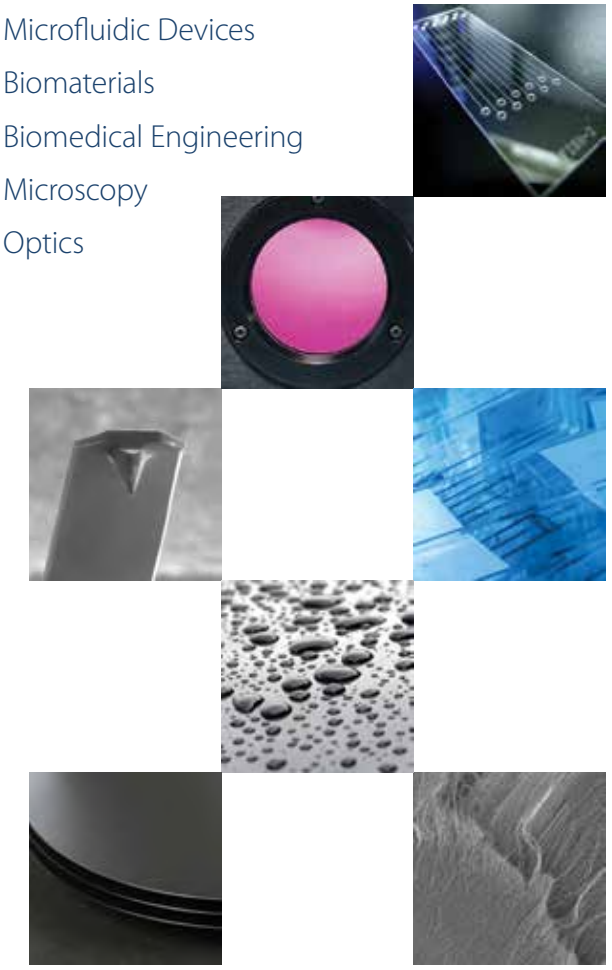
Microfluidic Devices

Biomaterials

Biomedical Engineering

Microscopy

Optics



HARRICK PLASMA

www.harrickplasma.com | info@harrickplasma.com | 800-640-6380 | 607-272-5070

PLASMA CLEANER FEATURES

Compact, tabletop units • Inductively coupled plasma • Valve assembly to control gas flow

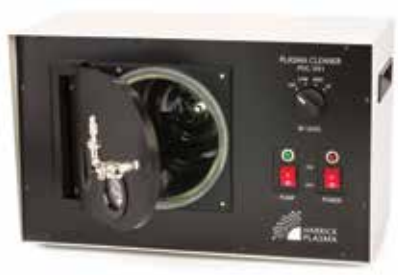
Hinged door with viewing window • Active fan cooling • Quick setup and easy to use

BASIC PLASMA CLEANER

PDC-32G (115V) | PDC-32G-2 (230V)

A compact, inexpensive tabletop plasma instrument with a redesigned hinged door and viewing window, active fan cooling and improved metering valve, suitable for nanoscale surface cleaning and activation of small samples.

3" Dia. x 6.5" L Chamber
18 W Maximum RF Power
13 Lbs., 9" H x 10" W x 8" D

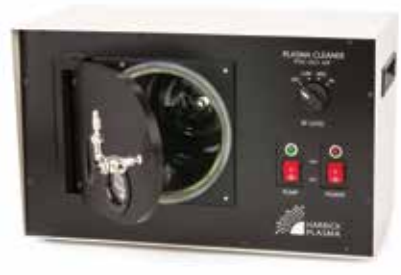


EXPANDED PLASMA CLEANER

PDC-001 (115V) | PDC-002 (230V)

Our Expanded Plasma Cleaner is a larger tabletop plasma instrument with four times the capacity of the Basic Plasma Cleaner, extensively used for nanoscale surface cleaning and surface activation.

6" Dia. x 6.5" L Chamber
30 W Maximum RF Power
37 Lbs., 11" H x 18" W x 9" D



HIGH POWER EXPANDED PLASMA CLEANER

PDC-001-HP (115V) | PDC-002-HP (230V)

With twice the cleaning rate as the Expanded Plasma Cleaner, the High Power Expanded Plasma Cleaner is a versatile instrument, suitable for etching organic thin films (10-100 nm) as well as surface activation and modification.

6" Dia. x 6.5" L Chamber
45 W Maximum RF Power
37 Lbs., 11" H x 18" W x 9" D

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REQUIREMENTS & ACCESSORIES

MINIMAL REQUIREMENTS

- Gas-compatible vacuum pump with 23 L/min minimum pump speed and ≤ 200 mTorr ultimate total pressure

OPTIONAL ACCESSORIES

- Quartz Chambers
- Quartz and Pyrex Sample Trays
- PlasmaFlo Gas Flow Mixer

QUARTZ CHAMBERS

PDC-00Q | PDC-32Q

- Recommended for use with reactive and fluorinated gas (e.g. CF_4) and for applications sensitive to trace impurities in Pyrex

SAMPLE TRAYS

Quartz: PDC-00T | PDC-32T
Pyrex: PDC-00T-P | PDC-32T-P

- Facilitates loading and unloading of small samples for batch processing

OIL-BASED VACUUM PUMPS

PDC-VP/VP-2 | PDC-VPE/VPE-2

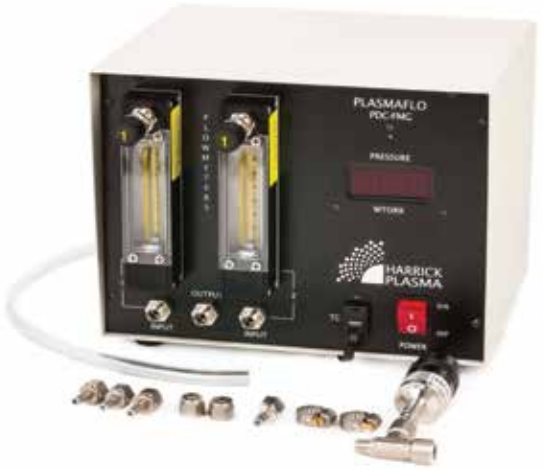
- Use hydrocarbon pump oil
- Compatible with air and inert gases (Ar, N_2), but NOT with O_2 gas

OXYGEN SERVICE PUMPS

PDC-OPD/OPD-2 | PDC-OPE/OPE-2 | PDC-OPF/OPF-2

- Required to avoid hazardous combination of O_2 with hydrocarbon oil in oil-based pumps
- Compatible with O_2, air, and inert gases (Ar, N_2)
- Fomblin-based pump (PDC-OPF/OPF-2) uses Fomblin fluid instead of hydrocarbon oil
- Dry oxygen service pumps (PDC-OPD/OPD-2, PDC-OPE/OPE-2) use no oil or fluid
  - No risk of oil contamination into chamber
  - Beneficial even if not using O_2 but require a clean system for plasma processing

All vacuum pumps include necessary accessories (vacuum hose, pump inlet adapter, clamps and seals) to connect plasma cleaner to pump inlet



PLASMAFLO

PDC-FMG (115V) | PDC-FMG-2 (230V)

- Recommended for more precise, quantitative control of gas flowrate and monitoring of vacuum pressure
- Two gas inputs into flowmeters for gas mixing or independent control of two gases
- Vacuum gauge and digital meter to monitor vacuum pressure
- Beneficial for adding a second gas source without needing to manually swap gas lines

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