

PROCESS ONE™ HTC 8030 CLEANING SYSTEM

A safe and reliable cleaning system with built-in flexibility

The HTC 8030 process consists of separate cleaning and drying cycles. In the cleaning cycle, products are sprayed with a cleaning solution and rinsed to remove particulate contamination. In the drying cycle, products are thoroughly dried by a combination of both pressurized and heated air.

Cleaning Cycle

The cleaning solution of filtered DI water and optional surfactant flows through the HTC 8030's PFA piping system. It is dispensed onto the parts through spray arms located at both the top and bottom of the process chamber. This solution removes particle contamination from the products. The cleaning cycle consists of a high-pressure wash followed by a spray mist and two high-pressure rinses. The duration of each cycle is user selectable.

Drying Cycle

Low-pressure heated air is filtered and recirculated through the chamber during the drying cycle. Programmable rotating air knives provide a sweeping effect across the product using ambient temperature nitrogen or compressed air to dissipate moisture. The recirculated heated air, combined with the air knives, provide an effective and safe method for removing any residual water from the previous wash/rinse steps.

Cooldown Cycle

A cooldown cycle is employed at the end of the drying cycle to dissipate excess heat before the chamber opens.

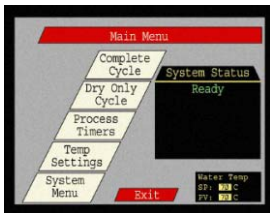


Flexible Configuration

By utilizing specifically engineered process racks, the Process One™ HTC 8030 cleans and dries a variety of product sizes. Switching from one type of product to another is easy. Just drop in a different rack and start the cleaning process. Easy-to-use touchscreen controls provide status information and allow operators to select process recipes, which can be customized and stored for future use.

Exceptional Cleaning Performance

The HTC 8030 provides excellent cleaning performance utilizing a spray process that yields consistent results and avoids contamination carry-over seen in immersion cleaners. The optional Halar® process chamber, along with high-purity PFA fluid handling components, eliminate metallic particle contamination found in less robust systems.



Simple Operation

To operate the HTC 8030, simply load your carrier products onto specially configured process racks, open the process chamber door, insert the racks and close the chamber door. Using touchscreen controls, select the appropriate recipe and start the cycle. The touchscreen provides status information throughout the process until the cycle is complete. The touchscreen also provides an interface for other operator functions, including pass code protection of machine settings, process recipe storage and automatic monitoring of maintenance schedules.

Compatible Products and Throughput

The HTC 8030 can be used to clean a wide range of products, including:

- Wafer carriers and shippers
- Storage boxes
- Pods
- Disk carriers and shippers
- Bare die trays and accessories
- Mask and reticle carriers

Throughput varies based on the type of product being cleaned and the rack used. Contact Poly-Flow Engineering, LLC for specific throughput information.



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POLY-FLOW
ENGINEERING, LLC

10800 Gibson Blvd. SE, Albuquerque, NM 87123 T (505) 338-8400 F (505) 338-8499 www.polyflow.com
Specifications subject to change without notice. 05/108

HTC 8030 Specifications

Standard compliance

- CE Mark
- SEMI[®] S2, S8 (self-assessment or optional third party inspection available)

Approximate consumption per 30–45 minute process cycle

- DI water: 12.5 gallons (47.4 l)
- CDA/N2: 1200 ft³ (34 m³)
- Energy: 5.4 kWh
- Surfactant: 0.23 oz (6.8 ml)

Overall size

- Width: 52" (131.9 cm)
- Depth: 48" (122 cm)
- Height: 73" (185.4 cm)

Approximate weight

- 1300 lbs (590 kg)

Shipping package specifications

- Weight (w/tool): 1,600 lbs (726 kg)
- Crate size: 106"× 48"× 88"



Internal Water Heater Specifications (optional)

- 316L Electropolished stainless steel reservoir

Capacity

- 8 gallons (30 liters)

Heating element

- 13.5 kWh Incoloy[®] material

DI water

- Inlet DI water temperature must be a minimum of 15°C

External Water Heater Specifications (optional)

- Must be located within 25ft. (7.6 m) of the machine
- Available at 480 VAC only, transformer optional for other voltages
- High purity PVDF/Teflon[®] heater available

Cold DI supply

- Line: 3/4" (19 mm) Flaretek[®] fitting or 3/4" (19 mm) MNPT fitting
- Flow rate and pressure: 2–6 gpm @ 20–50 PSIG (7.6–22.7 l/min @ 138–345 kPa)
- Temperature: Inlet DI water temperature can be a minimum of 15°C

Hot DI outlet

- Line: 3/4" (19 mm) Flaretek[®] fitting or 3/4" (19 mm) MNPT fitting
- **Over-pressure relief drain port**
- Line: 1/2" to 3/4" (13 mm to 19 mm) Flaretek[®] fitting or 1/2" to 3/4" (13 mm to 19 mm) MNPT fitting
- Inlet temperature: 30 PSIG (211 kPa) minimum **Over-pressure drain**
- 1/2" to 3/4" Line (13 mm to 19 mm) **Electrical systems control**
- 80/60A @ 480/380 VAC / 3 phase 50–60 Hz
- Four wire service, (L1, L2, L3 and ground)
- Operating at 380/400 VAC will lower heater output **Electrical conduit**
- Supplied with 25ft. (7.6 m)

Overall size

- Width: 39" (99 cm)
- Length: 13" (33 cm)
- Height: 37" (94 cm)

Approximate weight

- Empty: 200 lbs. (100 kg)
- Full: 260 lbs. (118 kg)

Low Cost Purchase and Ownership

Poly-Flow cleaning systems offer the lowest total cost of ownership by:

- Minimizing process supervision leading to better time management
- Providing high throughput per unit area
- Lowering utility consumption (electricity, DI water, CDA/N2)
- Providing exceptional reliability
- Engineered with high value components and ultrapure materials
- Offering an attractive purchase price

Options

By utilizing the following options, the HTC 8030 can be configured to meet your specific application requirements.

Process chamber options

- Halar[®] material
- Natural PVDF or natural polypropylene
- 316 Electropolished stainless steel

DI water heater options

- External, Teflon[®]
- Internal, 316L Stainless Steel/Incoloy[®]
- None

Process racks

- Product-specific racks for optimal performance and throughput

Preventative maintenance contracts

- Maintain optimum system performance by using Poly-Flow Engineering, LLC trained service engineers

For a listing of standard safety features please refer to the Poly-Flow Engineering Product Safety Guide.