

ASPI

ultrapure



**FLUID
HANDLING
PRODUCTS**



NORTON

≡ **NORTON PERFORMANCE PLASTICS** ≡

The facility The company Our policy



NORTON ASTI is a leading supplier of products to the semiconductor industry for critical fluid handling applications.

These include pumps, tubing, fittings, valves and flowmeters.

Products like TEFLON® PFD pumps and Chemfluor® tubing are industry standards because of their reputation for purity, quality and high performance.



Our mission is to offer you highest quality and innovative products optimal for your process.

Whatever your application - wet bench, chemical delivery or CMP slurry system, bulk chemical or acid waste - we have the right product for the job.



Pulsation dampers Products line

Circulating and
High temperature and CMP pumps

Better than diaphragm pumps for high purity applications

Our pumps are pneumatically operated: two bellows reciprocate horizontally. Their pumping frequency is much lower than an equivalent diaphragm pump and results in extended life. Due to this low frequency and amplitude of bellows pumps, NORTON ASTI guarantees a lower level of particle contamination.

Better than other bellows pumps

PFA HP is recognized by the semiconductor industry as being the best material to guarantee fluids integrity in terms of particle and ionic contamination. Most parts in our pumps are injection molded from PFA HP, and the fluid path is designed to eliminate particle entrapment.

Circulating Pumps



The first pump with no internal or external metal parts, eliminating ionic contamination.

- All wetted parts are injection molded PFA HP and PTFE.

- For liquid temperatures from 0°C up to 100°C.

- Easy maintenance.

- Pneumatically operated.

- Self-priming, bigger suction head.

- Light weight.

- Adjustable flow rate.

- Maximum discharge pressure: 4 bar.

P-D1	0-10 l/m
P-D2	0-20 l/m
P-D3	0-50 l/m
P-D4	0/100 l/m

High Temperature Pumps



The first high temperature pump with absolutely no metal parts, eliminating ionic contamination.

- All wetted parts are injection molded PFA HP and PTFE.

- For liquid temperatures from 0°C up to 180°C.

- Easy maintenance.

- Pneumatically operated.

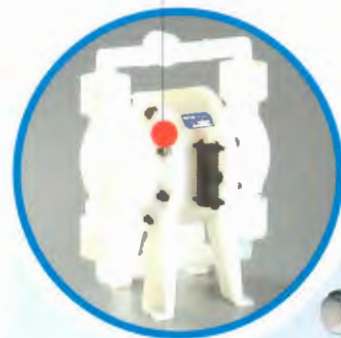
- Self-priming, bigger suction head.

- Light weight.

- Adjustable flow rate.

P-H2	0-20 l/m
P-H3	0-50 l/m

CMP Pumps



The largest installed base for ultrapure handling of CMP slurries.

- Our uniquely designed bellows last up to four times longer than diaphragms.

- All ultrapure engineered plastic construction.

- Stalling-free operation.

- Pneumatically driven.

- Self-priming, bigger suction head.

- Light weight.

- Adjustable flow rate.

- Maximum discharge pressure: 4 bar.

P-S1	0-10 l/m
P-S2	0-20 l/m
P-S3	0-50 l/m
P-S4	0-100 l/m

dosing pumps

Pump Driver



These control units replace the pneumatic valve installed on the D, H and S pump models, and allow a remote control for the pump.

Control unit Type E

To obtain an electro-pneumatic remote control of the pump and an interface with a PLC system.

Air pressure: 5 bar
Power supply: 24 VDC

Control unit Type I

To interface the pump with any piloting system following Japanese standard.

Air pressure: 5 bar
Power supply: 24 VDC

Pump Controller



This control unit for PFD pumps enables to control the flow rate of the pump according to various elements which have been set up, independently of external conditions (back pressure or viscosity modifications).

This unit fits with our range of chemical, high temperature and slurry pumps.

Following parameters and alarms are controlled:

- Flow rate
- Volume
- Pressure
- Defect
- Leakage

This controller can be connected to a PLC System and it acts as a remote control unit.

Pulsation Dampers



It absorbs up to 70% of the pulsations generated by the PFD pumps allowing a longer lifetime of the filter and reducing particle contamination.

The pulsation damper is placed at the delivery side of the pump with the same fittings and air/nitrogen supply.

All wetted parts are made of PFA HP and PTFE resin.

There are no metal parts avoiding the risk of corrosion or ionic contamination.

Operating temperature according to our pump range: from 0°C up to 180°C.

Same spare parts as for the pump.

Dosing Pump



This dosing pump is based on the same "ultrapure" concept used in the circulating pumps.

The bellow's stroke is adjustable to deliver reproducible and variable doses.

All wetted parts are molded from PFA HP and PTFE resin.

For liquid temperatures from 0°C up to 100°C.

Easy maintenance.

Pneumatically operated.

Self-priming.

Adjustable dose from 6 up to 40 ml.

Reproducibility: +/- 0,5%

Must be used with a control unit.

Valves Tubes and Fittings

Products line

Flowmeters Accessories, Service

Valves



Wide range of accessories...

We have been supplying pumps for ultrapure and corrosive fluids for more than 20 years. This experience helped us in developing an extended line of accessories to bring the right solution for your need.

...with the highest quality

Developed and produced with the same quality and cleanness requirements that we put in our pumps, these accessories are essential to secure your process.

All wetted parts are molded from PFA HP.

Unique diaphragm molding technology for longer lasting diaphragm.

Optimized for use with CMP slurries and aggressive chemicals.

More than fifty different executions covering 1/4" to 1" ports are available.

Connections are customized for Flare fittings, fusion welded tubes and threaded sockets.

All kind of actuators are offered: pneumatic actuators, 1/4 turn manual and multi-turn manual.

Leak detection and electronic position indicator are also available.

Tubes



We offer a complete line of fluoropolymer tubing including:

- Chemflour 367
- Superior clarity and surface smoothness as compared to other fluoropolymers.
 - Very low extractables with deionized water and acids.
 - Resistant to virtually all chemicals.
 - Excellent mechanical properties.

Chemflour PFA tubing

- High level of purity.
- Excellent chemical resistance.

- Retains higher mechanical strength at elevated temperatures compared to PTFE.
- High resistance to stress cracking.

Chemflour FEP tubing

- Excellent physical and electrical properties.
- Outstanding chemical resistance.
- Wide range of working temperature, -240°C to 204°C.

Fittings



Leak proof and reliable under a large scale of temperatures.

Small dead volume, in order to avoid any contamination of ultrapure fluids.

High resistance to vibrations and pressure variations.

Easy assembling and disassembling.

Metric sizes or inches: tubes are connected with the same fittings.

The body is made of PFA HP, the retaining nut is in PVDF or PFA.

Working temperature from -100°C up to 180°C.

1/4" to 1" OD tubing range.

We also have a complete range of fuse bond fittings from 1/2" to 1".

Flowmeters



We offer a complete line of flowmeters to control handling of your corrosive and ultrapure chemicals, and slurries.

•
Paddle wheel flow transmitter

•
Rotameter flowmeter

•
Ultrasonic flowmeter

•
Vortex flowmeter

•
Most of them can be equipped with interface unit, data display, and connected to a PLC system.

In Line Heater



Our range of ILH In Line Heater is designed for use when high flow rates and fast temperature are needed.

•
Three to six short wave length IR halogen lamp provide the energy for heating the processed liquid.

•
Replace bonded and immersion type heating elements.

•
Reduce particulate, thanks to ALL quartz/TEFLON® fluid path.

•
No thermal overshoot due to low thermal inertia of the heater.

•
Low MTTR (below 30 mn).

•
High power rating reducing downtime.

•
Easy and simple integration in a recirculation loop.

•
6, 12 and 18 Kw available.

Accessories



Our complete line of fluid handling valves includes :

•
Two-way, three-way and panel mount stop cock valves.

•
Drain valves.

•
Check valves.

•
Pressure relief valves.

•
Customized products to meet your special requirements.

•
We also supply a line of TEFLON® PTFE circulating and dosing pumps for industrial and laboratories applications using corrosive chemicals.

Service



On site customer training.

•
Technical evaluations and repairs at various service centers located worldwide:

- North America: San Francisco
- Europe: Charnay-Lès-Mâcon (France)
- Asia: Suwa (Japan)

•
One year standard warranty on pumps.

•
Renewed warranty on pumps installed (curative maintenance).

•
Five-year warranty on new pumps supplied with a preventive maintenance program.

•
Warranty on CMP slurry applications.



Worldwide Network

NORTON ASTI has a well established sales, marketing and technical support network all over the world (Europe, North America and Asia) that ensures commercial and technical (maintenance) follow up of our products.



Headquarters

NORTON ASTI
41 boulevard des Bouvets
F-92741 NANTERRE Cedex - France
Phone: 33 / (0) 1 55 68 59 59
Fax: 33 / (0) 1 55 68 59 68

USA

NORTON ASTI
130 Produce Avenue, Suite G
SOUTH SAN FRANCISCO, CA 94080
Phone: 1 / (650) 244 4800
Fax: 1 / (650) 244 4805

JAPAN

NORTON ASTI
3F Ichibancho NN bldg.
15-5 Ichibancho, Chiyoda-ku
TOKYO 102-0082
Phone: 81 / 3 3263 0285
Fax: 81 / 3 3263 0286



Worldwide Support

Find us on the www for instant technical support and questions.

<http://www.nortonasti.com>

NORTON

≡ NORTON PERFORMANCE PLASTICS ≡

Chemfluor® Norton co. Reg. TM - Teflon® DuPont Reg. TM

SAINT-GOBAIN
INDUSTRIAL CERAMICS

Specifications are subject to change without notice.