

TECHNICAL DATA SHEET

UPW PUMPS

NPC MODEL

GENERAL INFORMATION

UPW PUMPS – NPC MODEL

PURPOSE	<ul style="list-style-type: none"> The UPW Pumps are designed and manufactured for Ultrapure water applications (cold and hot UPW processes) and especially for the final polishing sections of a state-of-the-art semiconductor fabrication facility.
INSTALLATION	<ul style="list-style-type: none"> UPW Pumps are mounted on base plate and shall be installed indoor on ground level. Coupling alignment must be checked during commissioning or before the pump is put into operation for the first time.
OPERATION	<ul style="list-style-type: none"> Service life of the mechanical seal and roller bearings may vary depending on the operation conditions. Intermittent operation, high temperatures, aggressive ambient and process conditions reduce the service life.

MATERIALS

PUMPS CASING	PVDF (Polyvinylidene fluoride)*
IMPELLER	PVDF (Polyvinylidene fluoride)*
MECHANICAL SEAL	<ul style="list-style-type: none"> Stationary and rotating seal rings : EKasic® C (SiC - Silicon carbide) Spring: coated with Fluoroplastic
SHAFT SLEEVE	Stainless Steel (1.4571) with Fluoroplastic coating
CAST IRON PARTS	<p>Highly resistant surface coating on cast iron parts:</p> <ul style="list-style-type: none"> Primary coat, single layer powder coating on epoxy resin basis, dry film thickness 40 – 50 µm Top coat, double layer powder coating on polyurethane basis, Pantone 2607C, dry film thickness 40 – 60 µm Total dry film thickness: 120 – 170 µm

*PVDF-HP (Polyvinylidene fluoride high-purity) is also available on special request.



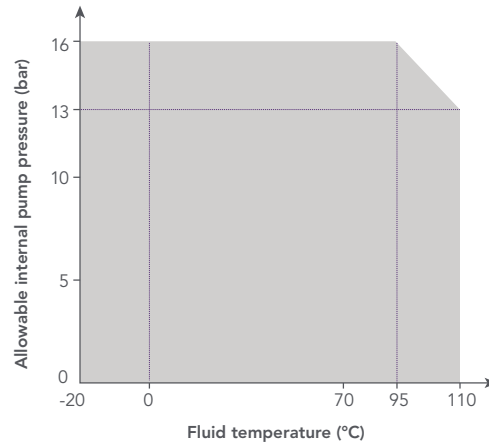
TECHNICAL SPECIFICATIONS

GENERAL PROPERTIES

- UPW Pumps are mounted on base plate with motor, mechanical seal and coupling.
- UPW Pumps are equipped with M8 threads on the bearing bracket for vibration monitoring.

UPW PUMPS – NPC MODEL		
FLOW	m ³ /h gpm	up to 120 up to 528
DIFFERENTIAL HEAD	m ft	up to 90 up to 295
NOMINAL PRESSURE		PN10
MOTOR RATING	kW hp	up to 30 up to 40.2
MEDIA TEMPERATURE	°C °F	-20 ... +110 -4 ... +230

Performance data for standardized pumps; extended performance ranges available on request.



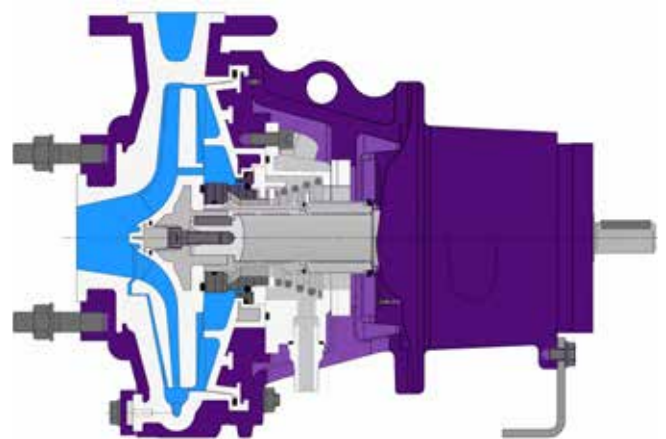
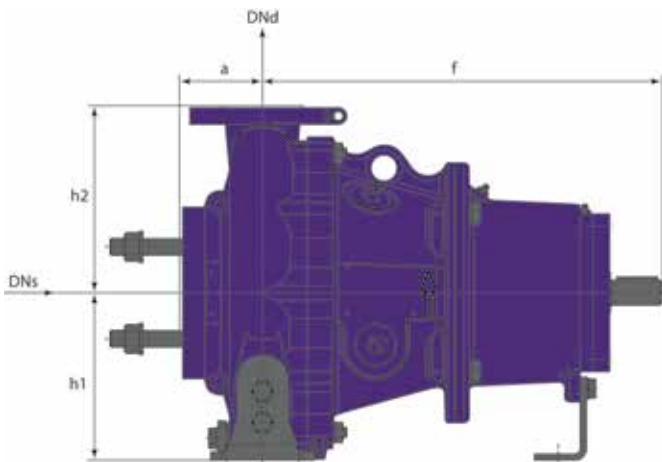
DRIVE CHARACTERISTICS

- Three-phase AC motor (IEC or NEMA frame).
- Fixed speed or driven by Variable Frequency Drive (VFD).
- Several types of protection and voltage available.

MECHANICAL SEAL CHARACTERISTICS

- Optimized metal-free mechanical seal.
- One single size for all UPW Pumps models.
- Diamond coated for high resistance.

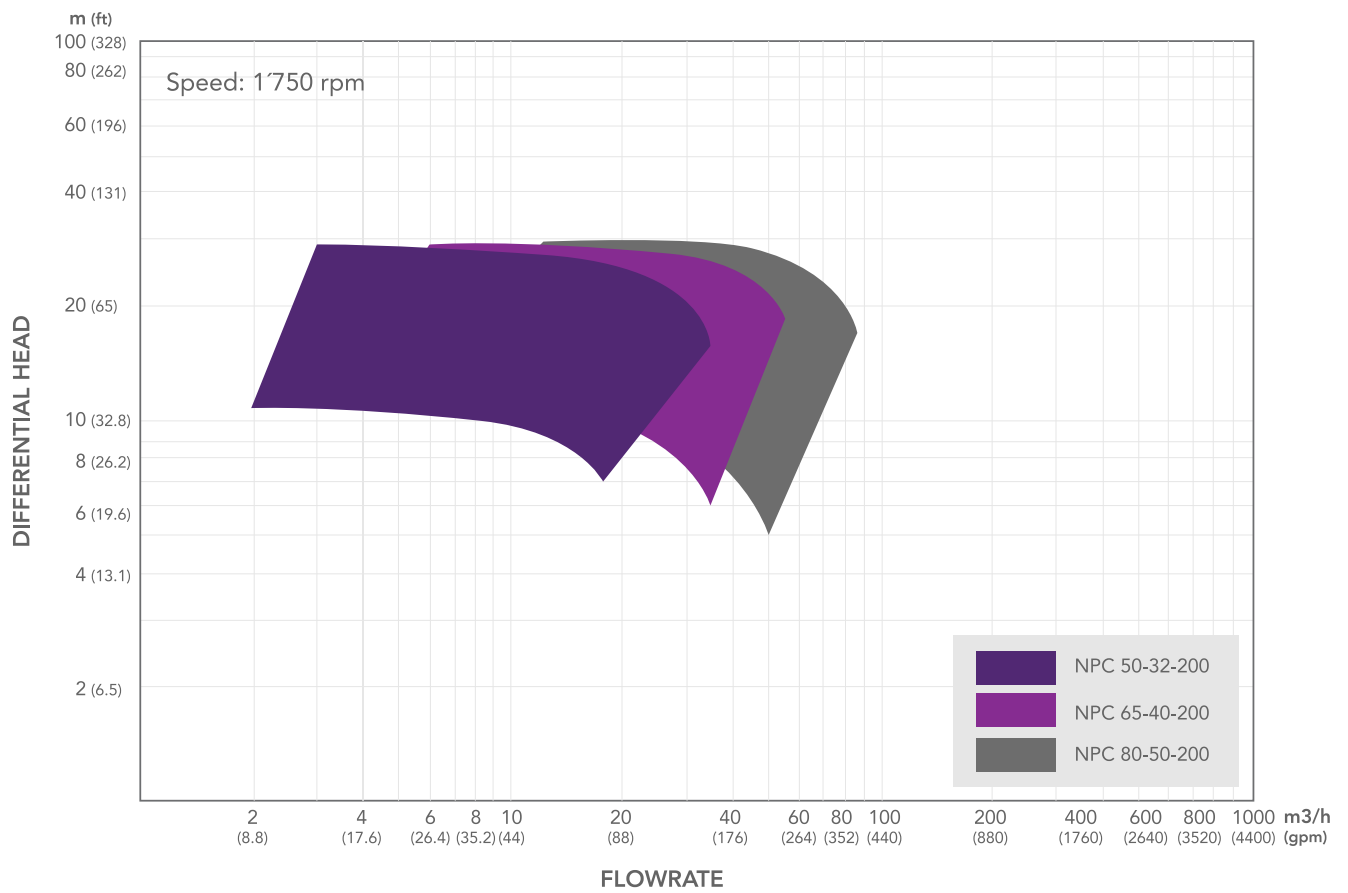
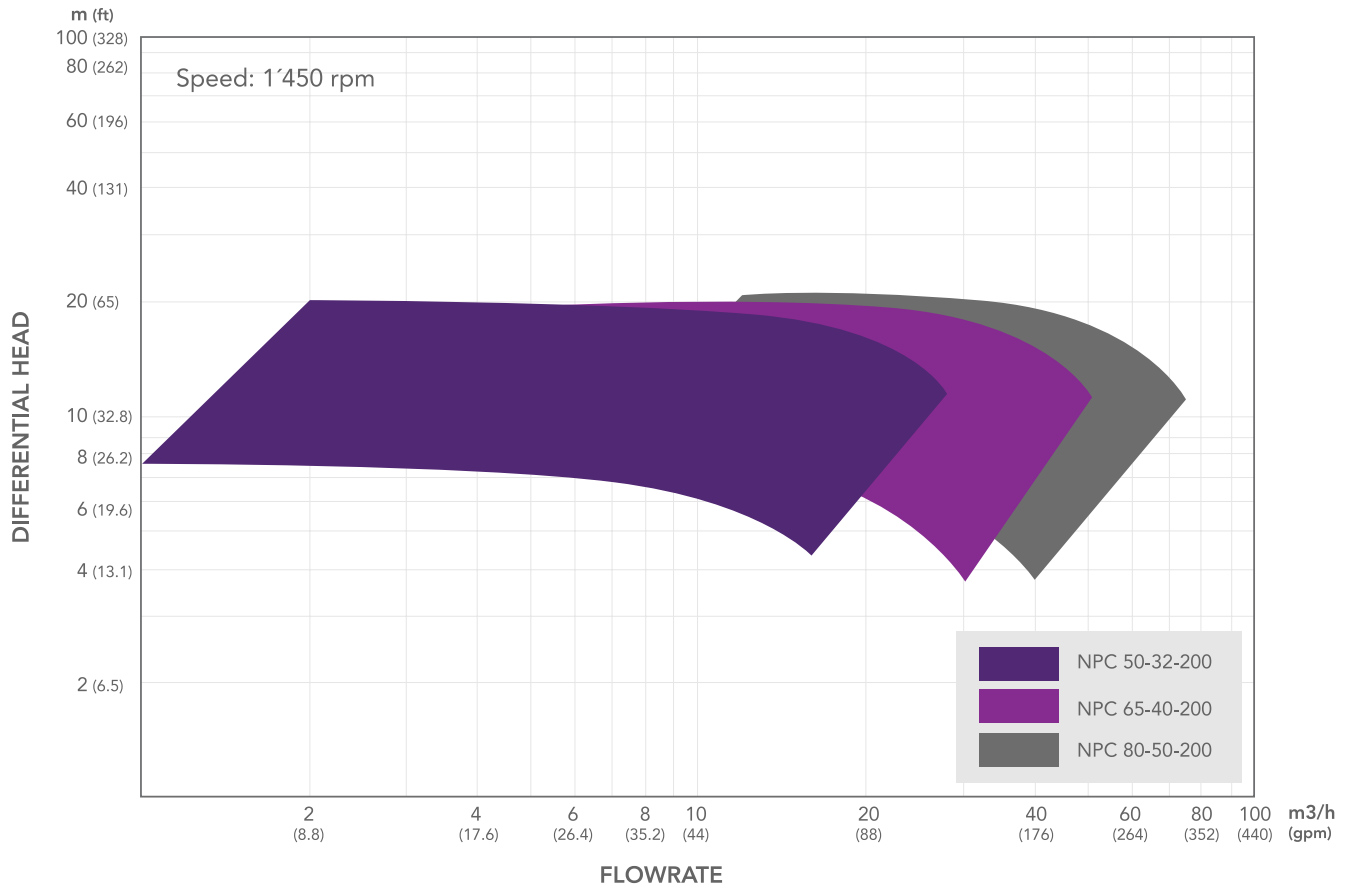
DIMENSIONS, WEIGHT AND CONNECTIONS



SIZE	DN _s	DN _d	a	f	h ₁	h ₂	WEIGHT kg
			mm	mm	mm	mm	
50-32-200	50	32	80	385	160	180	67
65-40-200	65	40	100	385	160	180	71
80-50-200	80	50	100	385	160	200	72

Flange Standard: DIN 2533, PN 16; Suction-side studs as per DIN 938.

PERFORMANCE RANGE



Higher speeds are available, performance curves for 2'950 rpm and 3'550 rpm on request.

QUALITY

EC DECLARATION OF CONFORMITY

- Designed, developed and manufactured in accordance with the EU standards for health, safety and environmental protection and is in conformity with the Machinery Directive - 2006/42/EC.

LOW VOLTAGE DIRECTIVE

- Designed, developed and manufactured in accordance with the Low Voltage Directive - 2014/35/EU.

OTHERS

- All PVDF parts are cleaned as per the special semiconductor-grade cleaning procedure.

OTHER INFORMATION

DISPOSAL	<ul style="list-style-type: none">• Disposal must be in accordance with the appropriate local regulations.• See additional information in the operation manual.
SAFETY ADVICE	<ul style="list-style-type: none">• The pumps have been constructed according to the latest technology and established technical safety rules. Nevertheless, as per all rotating equipment, potential hazard to the operator's health or other persons, or damage to the pumps and other property cannot be completely excluded.• Unauthorized modification of the UPW Pump – NPC model will void warranty. We recommend using only original spare parts for system maintenance.
GLOBAL KNOWLEDGE CENTRE	Ovivo Switzerland AG Benkenstrasse 262 4108 Witterswil Switzerland

