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MemGEN™ water generation solution

Innovation that keeps you growing

Fast track your growth with the MemGEN™

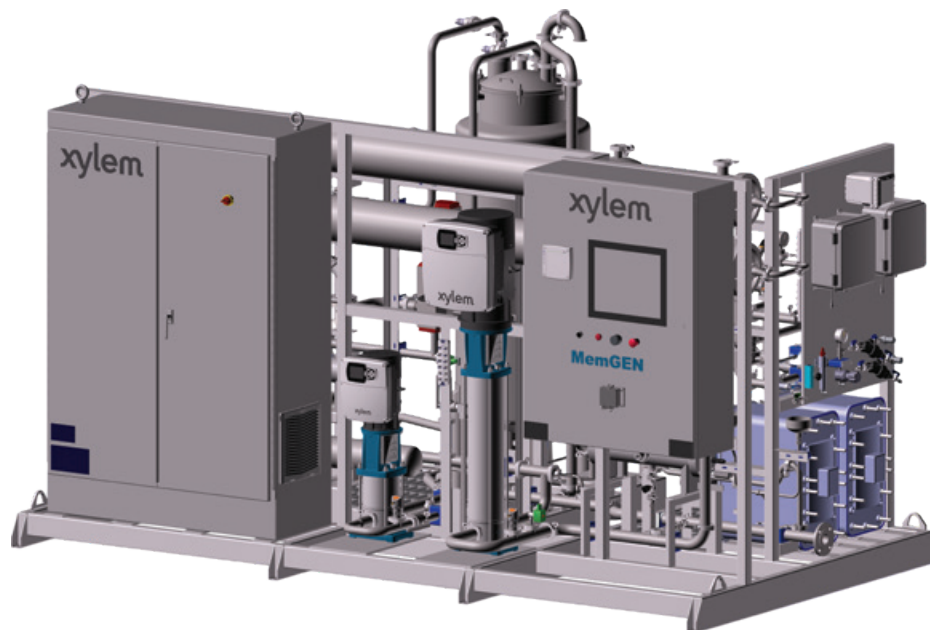
Water Generation Solution

Growing pharmaceutical companies need a reliable water purification system that meets strict regulatory standards. Leveraging our deep expertise, we've developed a new standard that overcomes common challenges and helps you move faster.

The MemGEN™ water generation solution is engineered for process and performance efficiency, integrating regulatory design expertise to facilitate compliance with Global Pharmacopeia Standards for Purified Water (PW) and Water for Injection (WFI). This robust solution is backed by Xylem's industry-leading service and support for improved performance and enhanced lifecycle value.

MemGEN solution benefits

- Provides reliable Purified Water (PW) and Water for Injection (WFI)
- Designed for process and performance efficiency
- Facilitates compliance with Global Pharmacopeia Standards
- Backed by industry-leading service and support



MemGEN solution features

- Standardized pharmaceutical water system with three flow rate options
- Comprehensive GAMP compliant validation documentation package and protocols including detailed engineering/design documents and certifications
- High quality stainless steel sanitary tubing, RO vessels, and frame
- Chlorinated break tank to reduce bacterial growth
- Modular programming with premium PLC/HMI
- Premium IO link instrumentation and devices
- Fully operational wet Factory Acceptance Test (FAT) performed on all systems for fast start-up
- Single point electrical and pneumatic connections for ease of installation
- 24/7 remote monitoring available with access to production, water quality and system performance data

The MemGEN™ Water Generation Solution provides advanced efficiency and increasing value throughout its lifecycle



Process and performance efficiency

- Save time with streamlined design, quoting, delivery, and installation
- Reduce effort with faster setup, ease of operation and maintenance
- Meet sustainability goals with integrated features that facilitate energy and water conservation
- The result is improved end-to-end efficiency and dependable uptime to support business goals



Regulatory rigor

- The MemGEN solution is designed to facilitate compliance with Global Pharmacopeia Standards for Pure Water and Water For Injection
- Engineered for reliability, the MemGEN solution reduces microbial risk with multiple microbial barriers and thermal sanitization
- Stay audit-ready with a water solution engineered to facilitate compliance with USP, EP, cGMP requirements and 21 CFR Part 11 solutions



Expert service and support

- Xylem provides industry-leading service and support backed by direct access to technical experts with deep knowledge of pharma water applications
- Choose the service level that aligns with your financial and operational goals—from preventative maintenance to full-service contracts
- Improve uptime with available digitally enabled service for 24/7 monitoring and predictive insights
- Xylem AQUA pro service professionals are strategically positioned to meet your needs



Lifetime value

- The MemGEN solutions features a pre-engineered, scalable design with high-quality components for long-life
- Engineered for sustainability, the MemGEN solution facilitates energy and water conservation
- Ease of operation and maintenance improves the efficiency of your operations
- Xylem's expert lifetime customer support improves performance and extends the system's longevity

General specifications

Description	Model 8 (coming soon)	Model 25	Model 45 (coming soon)
Nominal product gpm (m ³ /hr)	8 gpm (1.82 m ³ /hr)	25 gpm (5.68 m ³ /hr)	45 gpm (10.2 m ³ /hr)
Nominal recovery %	75%		
Inlet pressure	20–100 psig (1.3–6.8 Bar)		
Inlet feed water temperature	47°F–77°F (8.3°C–25°C)		
Nominal product pressure	20 psig (1.3 bar)		
Frame construction	304 stainless steel—box tube and channel		
Electrical and power panels	Carbon steel or stainless steel		
Physical dimensions*	144" (L) × 78" (W) × 94 1/4" (H)		

*Dimensions do not include the PXC, pretreatment, or required clearances

Process components

Process water equipment

Chlorinated break tank with spray ball	Water entry point for the MemGEN system is a stainless steel break tank which is chlorinated by a metering pump and solution tank on either feed or recirculated water
Booster pump	Stainless steel vertical multi-staged centrifugal VFD controlled pump
Electric heat exchanger	Stainless immersion heater for hot water sanitization and water tempering
Dechlorination	Two options are available; granular activated carbon, or bisulfite injection
Pre-filter	Stainless steel housing with 5.0 micron filter
RO pump	Stainless steel vertical multi-staged centrifugal VFD controlled pump
Pressure vessels	Stainless steel vessels, rated for 600 psid
RO membranes	Full fit thin film composite, hot water sanitizable membranes
CEDI modules	CDI-LX® hot water sanitizable modules
Controls panel	IP65 rated controls enclosure
Power panel	IP54 rated fan cooled enclosure
Process piping	Stainless steel tube sanitary, <25 Ra interior finish
PLC/HMI	Allen-Bradley CompactLogix PLC with 15" touch screen

Optional process water components

Cooling exchanger	Stainless steel fusion-bonded heat exchanger for water tempering
Activated carbon filter	Stainless steel vessel, 100 psig with optional chlorine analyzer
Bisulfite chemical injection	Feed forward design, metering pump, solution tank and mixer, low level switch and 2 chlorine analyzers with automatic rate controlled by the PLC
Pre RO-ultra violet lamp	Stainless steel chamber with 254 nm lamp (minimum 30 mJ/cm ²)
Caustic chemical injection	pH adjustment unit including metering pump, solution tank and pH monitor with automatic rate control by system control
Final UV unit	Stainless steel chamber with 254 nm lamp (minimum 30 mJ/cm ²)
Final filter 0.1/.05 UF	Sanitary stainless steel housing sized for either 0.1 micron cartridge filter or a 0.05 micron cartridge ultra filter

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Let's Solve Water