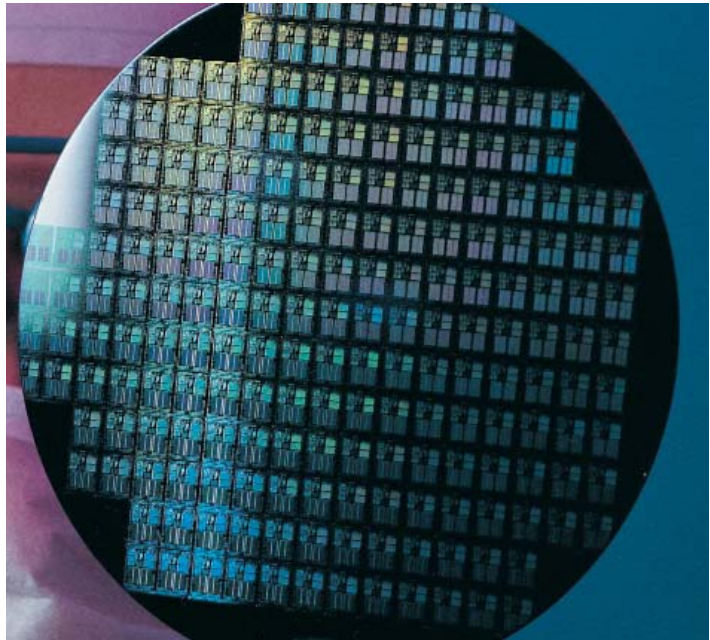


CMP Wastewater Treatment, Recovery and Reclaim Methods

Water Technologies

SIEMENS

Siemens is a leader in CMP Treatment Technology



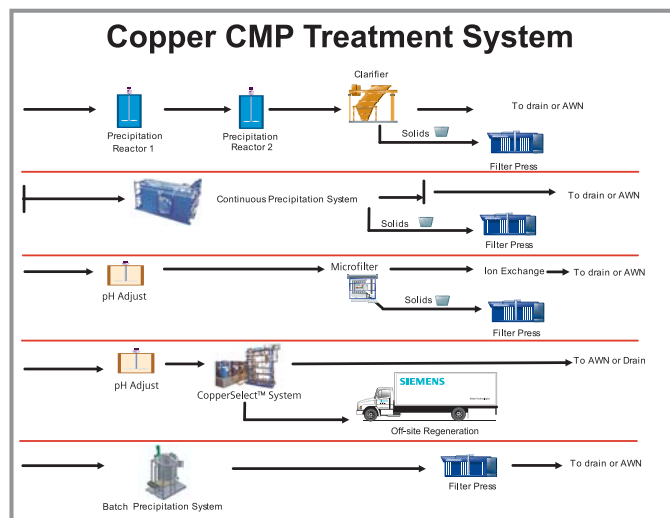
Our most popular offerings include:

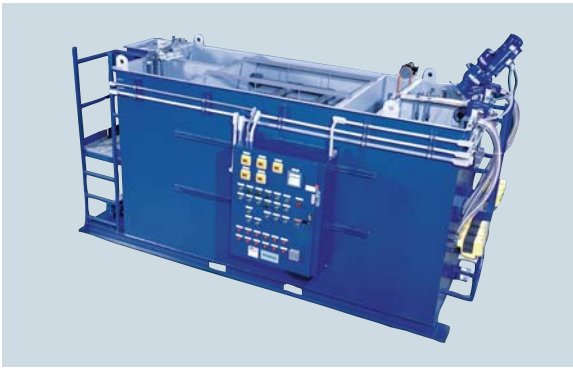
Microelectronics facilities demand large volumes of water – as much as two thousand gallons per minute – to manufacture product. As the industry continues to expand and develop more advanced technologies, an even greater burden is being placed on limited water resources and local water support infrastructures. Environmental regulations are getting tougher and the cost of water usage, treatment and discharge is rising. At Siemens Water Technologies, we help you control costs, meet production water demands and environmental regulations by managing every aspect of your facility's water. We approach water treatment and usages as a single, integrated system-encompassing point-of-use water purification, distribution, water reclaim and recycle, and wastewater treatment.

Chemical Mechanical Planarization (CMP) is the largest user of ultrapure water at semiconductor fabrication facilities. Siemens has been providing treatment equipment for CMP wastewater since the CMP process was developed. Several options are available. Our systems range from classical precipitation processes to full reclamation systems. Each system can be customized to adjust for differing slurry chemistries. Siemens is the industry leader in the development of treatment systems for copper CMP wastewater.

Our standard designs for CMP treatment systems are equipped to provide N+1 redundancy for process critical equipment and instrumentation. Fully-automated systems are designed to communicate with a facility management system, as well as provide options for touch screen interface and advanced software control.

Copper CMP Waste





Continuous Precipitation System (CPS)

Siemens Water Technologies offers skid-mounted designs of this classic treatment method in sizes ranging from 10 to 100 gpm. Reaction chambers, flocculation chamber, clarification, and sludge storage are all contained in one compact unit. Higher flow rates can be accommodated through the use of individual tanks and clarifier. Oxide, tungsten and copper CMP are all candidates for continuous precipitation.



Copper CMP Wastewater Treatment

The Copper Select™ process removes copper from the CMP slurry using a combination of activated carbon and ion exchange resin. The carbon and resin are treated off site. The copper is removed, stored and transported in a single DOT-approved vessel. This simple process requires minimal capital investment, reduces labor costs and its ease of use makes Copper Select an ideal choice for point-of-use treatment.



Ceramic Microfiltration

These robust systems remove suspended solids present in copper, tungsten and oxide CMP. Microfiltration provides a physical barrier against solids making it an ideal choice for meeting total suspended solids (TSS) limits and as a pretreatment step in water reclamation systems. In copper CMP, copper can be precipitated ahead of the microfilter or removed afterwards with ion exchange.



Water Reclaim

With Siemens Water Technologies' proven design, up to 80% of CMP wastewater can be reclaimed by using microfiltration. A combination of pH adjust, flocculation, microfiltration and reverse osmosis are used to reclaim the wastewater coming from the CMP process.

Trust the world's experts in water treatment to help you design the CMP water and wastewater system that is right for your fabrication facility. Trust Siemens Water Technologies.

Copper Select is a trademark of Siemens,
its subsidiaries or affiliates

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actual case of use do not always apply as described or which may
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