Challenge: A Chinese paper mill was not effectively reusing clear-leg and “super” clear-leg whitewater in their machine showers. In addition, the paper machine shower nozzles were clogging from debris.

Solution: Kadant provided Model 4040 Gravity Strainers and MegaFlo™ backwash system for a two-stage filtration concept. The system installation also included Genesis™ brush showers for its PM1 and PM2. A portion of the whitewater filtrate from the gravity strainers is used in the low-pressure brush showers and the remaining whitewater filtrate is sent to the multiple filters for polishing of high-pressure showers in the forming section.

Results: After implementing the two-stage filtration concept, the mill has:

- Saved 2,000 cubic meters of fresh water per day
- Been able to retrieve fiber
- Reduced water consumption by two tons per ton of paper
- Significantly reduced the effluent load
- Experienced heat recovery from the whitewater