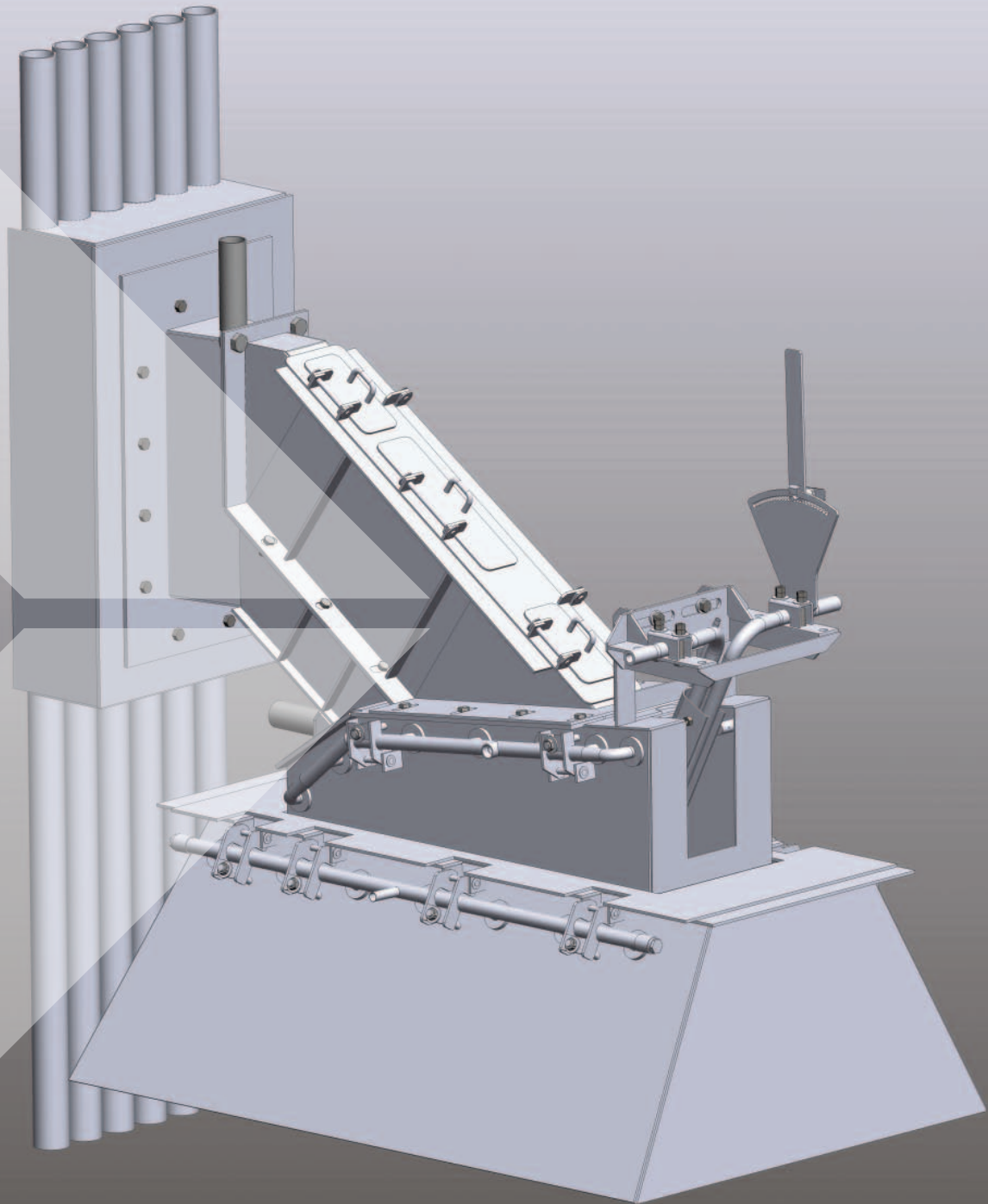


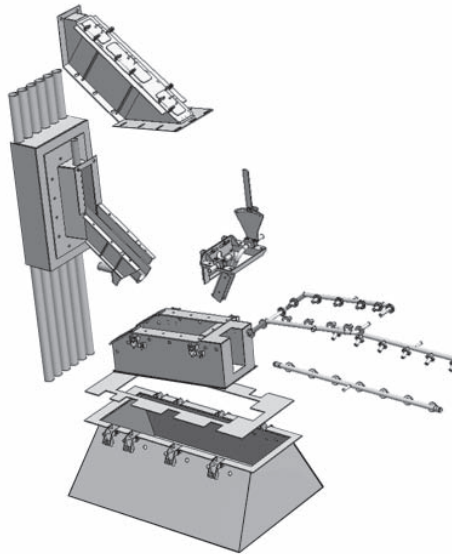
# Smelt Spout System

with ShatterMax™ Dual Shatter Jet



# Smelt Spout System

Valmet's Service Team can integrate the Complete Smelt Spout System and ShatterMax™ Dual Shatter Jet into any existing system.



Smelt Spout  
with Refractory Seal Box

## Reduces maintenance time and cost while maximizing safe and reliable operation

Introducing Valmet's innovative Smelt Spout System. Successful commercial operations have proven to provide steam savings with ROI of less than one year.

### System Benefits

- Increased operator protection from smelt splatter
- Reduced time and cost for replacing spouts
- Enclosed hood system maximizes reduction efficiency and minimizes tramp air intake into the dissolving tank
- External hood showers allow nozzles to be removed and cleaned while the boiler is online and smelting
- Hoods and shatter jet move with the spout insuring alignment during all stages of thermal growth
- Exaggerated flare of dissolving tank collar eliminates ledges and reduces build-ups
- Entire system works together to achieve optimum shattering

### Safety

- Valmet's Micro Hood design provides a safety enclosure preventing smelt splattering. The enclosed wash nozzles are externally mounted and easily removed for maintenance while the boiler is online and smelting.
- Hood shower wash nozzles are positioned such that shatter jet nozzles are kept clean with water spray, resulting in minimal build-up.
- Safety is integrated into the ShatterMax™ Dual Shatter Jet Nozzle design creating a quieter spout deck with improved shattering and smelt density control.

### Efficiency

Valmet Micro Hood designed safety enclosures minimize tramp air intake to maintain reduction efficiency and minimize load on the vent stack scrubber.

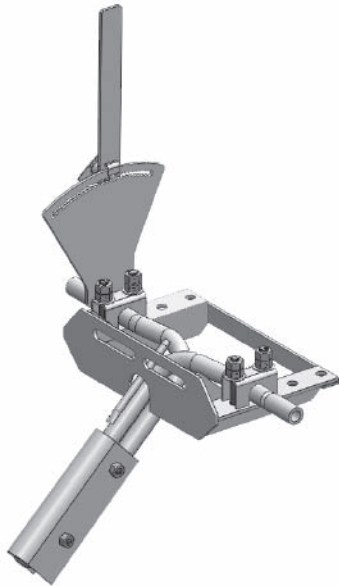
### Retrofit Packages

- Pressure part opening (if required)
- Insertable smelt spout with wall box
- Enclosed micro hoods with maintenance/inspection doors
- Externally mounted shower bars
- Standard ShatterMax™ Dual Shatter Jet assembly
- Dissolving tank collar
- Construction drawing

### Smelt Spout

- Insertable, water cooled and self leveling design
- Includes built-in, pre-poured refractory seal box for superior interface
- Steep, robust, U-shaped trough ensures positive flow of smelt and reduces build-ups
- Delivers fast, steady and consistent smelt stream for ideal shattering capabilities
- Designed for quick and easy spout replacement with minimal refractory repair

# ShatterMax™ Dual Shatter Jet



## Quieter spout deck with substantial steam savings

Valmet ShatterMax™ Dual Shatter Jets provide operating stability utilizing the arrangement of a second jet for dispersion of extremely heavy runoffs. The second jet can be piped for operation to a remote location to meet BLRBAC recommendation for back-up steam shatter source.

### Nozzle Design

- Improves density control
- Improves heavy smelt flow dispersion
- Minimizes steam consumption
- Reduces fuming and excess load on vent stack scrubber
- Reduces wear of hoods by directing smelt shattering down inside the dissolving tank

### Benefits

- Increased safety
- Improved shattering
- Quieter spout deck
- Full range of adjustability
- Shatter jet steam consumption rated  $\leq 400$  lb/hr/nozzle with 160# steam
- Can operate exclusively on a secondary steam supply while maintenance is being performed on the primary (vice versa)



*Shatter Jet Inspection View*



*Shatter Jet  
Steam Pattern*

### SMaRT™ Products - "Safety Matters around Recovery Tasks"

The Smelt Spout System and Shatter-Max™ Dual Shatter Jet are just two of the many auxiliary products Valmet offers under its SMaRT™ product line. Please contact Valmet for information on more SMaRT™ products to fulfill your lower recovery boiler needs.

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Valmet is a front-runner in combustion technology for sustainable energy generation and recovery solutions.

## Sustainable offering

Complete solutions and technologies for power generation and pulp & paper customers.

- Multi-fuel boiler plants
- Complete modular power plants
- Recovery boilers and evaporators
- Environmental protections systems
- Lifecycle services

### Contact us

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