

# ISO-FLOW® Trough Distributor with SWIFT-LOCK™



Providing optimal performance and reliability on every acid plant installation, the ISO-FLOW® Trough Distributor with SWIFT-LOCK™ has been developed to **eliminate all common problems** experienced with alternative designs.

## KEY BENEFITS

- Orifice distributor provides uniform flow to each downcomer for better tower absorption performance.
- Easily retrofitted into any existing tower.
- Air gaps provide hydraulic separation and allow for easy identification of plugged or blocked downcomers.
- Calming plates contain integral screens to catch chips, eliminating orifice plugging and enabling easy cleaning during regularly scheduled maintenance turnarounds.
- Acid level in trough controls flow rate to each downcomer.
- Flow rate imbalances are easy to identify and fix.
- SWIFT-LOCK™ system simplifies tube bank installation/removal, reducing time by 90%.
- SARAMET® construction for excellent acid corrosion resistance.

## ABOUT US

Sustaining our world for generations to come through technological and environmental innovation, Worley delivers Chemetics® sulphuric acid solutions around the globe with a focus on site reliability, plant economics and workforce development.

Over the past 60 years, Worley Chemetics' full lifecycle solutions and equipment have enabled more than 800 plants to achieve higher capacities and availability, lower costs of operation, reduced emissions and greater safety. Leveraging our R&D lab and custom-built fabrication facility in Canada, global logistics management capabilities, specialized project teams and worldwide network of trusted suppliers, we deliver optimal solutions and equipment for your sulphuric acid facility, from greenfield projects to maintenance and turnarounds.



## GET IN TOUCH

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# ISO-FLOW<sup>®</sup> Trough Distributor with SWIFT-LOCK<sup>™</sup>

## FEATURES & BENEFITS

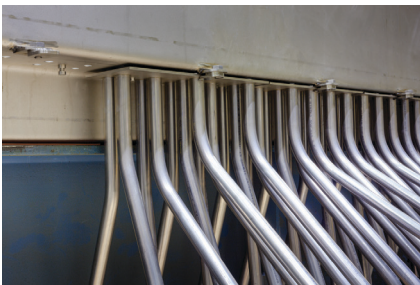


T-Box Trough

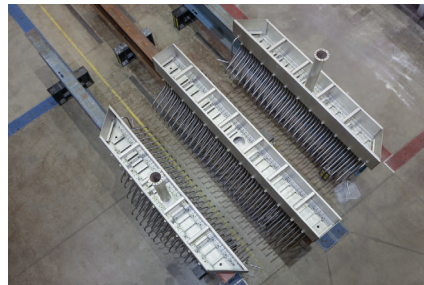


Tube Banks

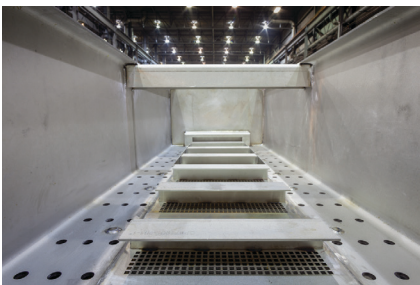
- The **T-Box Trough** is used to create an internal header with packing chip passive filtration, eliminating downcomer blockage from packing chips. The structural design also eliminates the need for hanger supports.
- **Tube Banks** are shop pre-assembled into banks of 8 to 20 tubes and sized for easy installation via a manway, ensuring fixed geometry of downcomer tips for even acid distribution and easy downcomer replacement. Field installation costs are reduced by more than 50% versus alternative designs.
- The **SWIFT-LOCK<sup>™</sup> System** allows for installation and removal of the tube banks and troughs in minutes, with no installation or removal of nuts and bolts required. The trough components are all designed to fit through an existing manway, and the internal SWIFT-LOCK<sup>™</sup> filter collects packing chips at end of the trough for easy cleaning during regular maintenance shutdowns.
- The **Header System** uses a single down pipe per trough. The orifices in the downspout ensure even trough liquid levels in multi-trough distributors.
- Each downcomer of the ISO-FLOW<sup>®</sup> Distributor has a **dedicated orifice to provide even flow**. The flow distribution is insensitive to trough installation that is not perfectly level.
- A narrow gap, known as the **Siphon Break**, is included in the design to eliminate siphon effects. It allows simple identification and elimination if a packing piece blocks the lower end of a downcomer.
- Materials of Construction (MOC) are optimized for each application and available in **SARAMET<sup>®</sup> 23, 25, 35, HT, HT+** and other alloys.



SWIFT-LOCK<sup>™</sup> System



Single Header Down Pipe per Trough



Packing Chip Filtration and Orifices



Brick Lined Acid Towers



SARAMET Acid Towers