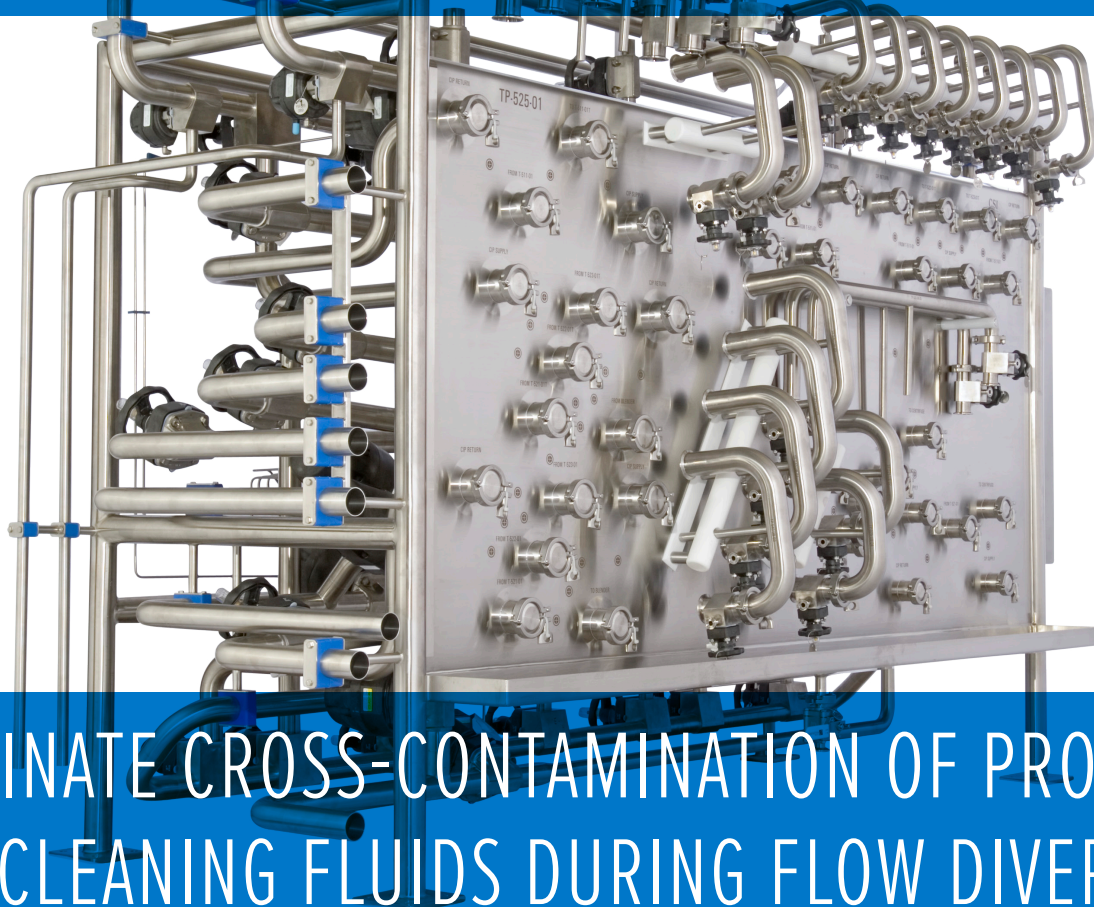


# TRANSFER PANELS FOR HIGH PURITY APPLICATIONS



## ELIMINATE CROSS-CONTAMINATION OF PRODUCT AND CLEANING FLUIDS DURING FLOW DIVERSION

**CSI panels come with our patented spool design and distinctive manufacturing method which provide the pharmaceutical industry with a secure, clean, and effective alternative to more costly or less efficient flow diversion methods.**

Transfer panels—also called flow diversion panels, flowverters, or swing panels—have been used for decades to provide a secure, clean, and effective method for directing fluid flow during production or cleaning.

Fluid flow is directed through the panel during production or cleaning via jumper/U-bend which creates a physical break, connects the desired process or utility nozzles, and mechanically eliminates any unintentional mixing of fluids or sending them down the wrong line.

### MATERIALS

- 304L and 316L stainless steel
- AL-6XN® and Hastelloy® C-22® Super Alloys™

### APPLICATIONS


- Pharmaceutical, Biotech, and Chemical industries
- Active Pharmaceutical Ingredients (API)
- Bulk pharmaceuticals
- Processes and products that require BPE compliance
- Finished products
- Chemical processes
- Liquid source gases
- CIP/SIP routing
- Buffer solutions



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## FOR HIGH PURITY APPLICATIONS

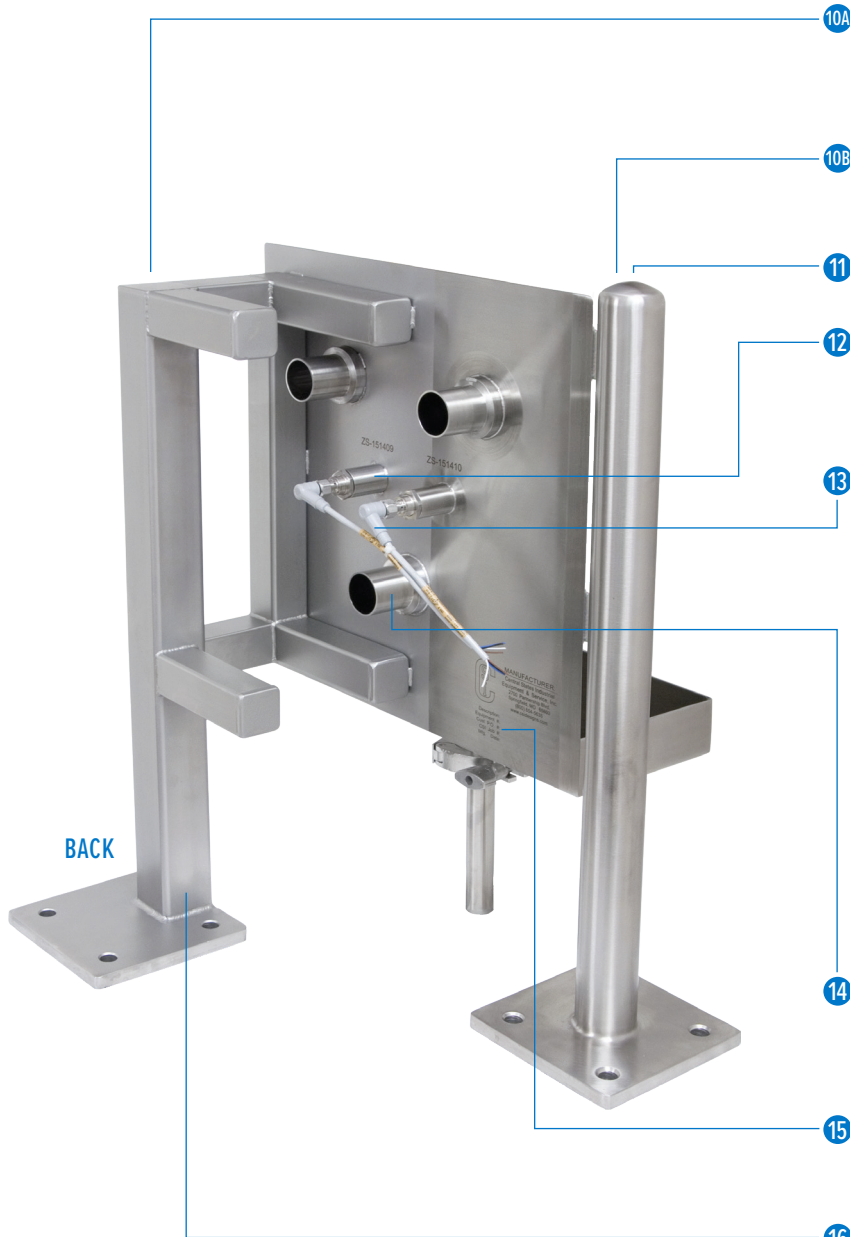
### FEATURES

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- 1 Panel plate** (1/4" thick) provides structural rigidity to uphold required ferrule face flatness tolerances on all panel nozzles.
- 2 Port/nozzle identification** labels the service associated with each panel nozzle via port tags including Lectroetch (as pictured), Phenolic, and pin stamp.
- 3 Panel identification**
- 4 Bleed cap** provides an extra safety precaution. Operator can bleed line pressure or drain fluid before removing the port cap.
- Available in concentric, eccentric, straight drain, and 90° drain options.
- 5 Magnetic jumper stem** seals the high temperature neodymium magnet inside the proximity stem with fully enclosed design to prevent ferrous material within the magnet from contaminating a clean room environment.
- 6 Jumper/U-bend** connects the desired process or utility nozzles and can be removed to create a physical break which mechanically eliminates any unintentional mixing of fluids or sending them down the wrong line.
- 7 Jumper/U-bend drain valve** drains process fluid and bleeds line pressure; can also be used as a product sample point at the front side of the panel without having to remove the jumper assembly.
- Multiple options and configurations available.
- 8 Drip/drain pan** collects fluids if spilling occurs during panel operations. 12-gauge stainless steel, continuous fillet weld to front side of the panel for extra rigidity. Welds fully ground and polished to a hygienic finish.
- 9 Base plate** (1/2" thick for extra structural rigidity) anchors panel to floor. Attached to pipe legs with continuous fillet weld, fully ground and polished to a hygienic finish.
- FRONT



## FEATURES (CONTINUED)

**Panel supports** distribute the panel weight.



- 10A Square tube frame** for wall-mounted panels, featuring stitch welds to minimize possible plate deflection caused by the welding process.

- 10B Pipe leg panel** supports free-standing panels, polished pipe welded to both sides of the panel.

- 11 Dome cap** prevents fluid and soil buildup on pipe legs.

- 12 Proximity switch mounting couplings** are welded to the backside of the panel to conceal proximity switch threads and to ensure permanent hygienic placement.

- 13 Proximity switch** indicates ports connected by the jumpers/U-bends.

Magnetic proximity switches eliminate unnecessary panel penetrations that contribute to entrapment.

CSI's standard magnetic proximity switch features stainless steel cylindrical housing, UL and CE compliance, and a micro quick-connect for ease of maintenance.

**RFID proximity sensors** (not pictured) detect presence of nearby objects, sending a signal that turns off the proximity switch.

They reduce the size of multi-port systems and simplify electricity complexity.

- 14 Collared nozzles/spools** protect internal surface finish with hygienic seal welds that eliminate cracks, crevices, and product entrapment. (U.S. Patents 6,254,143 & 6,557,255)

- 15 Manufacturing tag** identifies the transfer panel assembly, customer purchase order, shop job number, and date of manufacture.

- 16 Glass bead finish** removes weld discoloration and creates a uniform satin finish for surface aesthetics.



# TRANSFER PANELS

## FOR HIGH PURITY APPLICATIONS

### DOCUMENTATION

- QA/QC documentation meets installation, operation, and performance qualifications for government regulations.
- Turn Over Package includes binder with material test certificates, as-built drawings, weld logs, material examination reports, welder certifications, and digital copies on a USB flash drive.

### AVAILABLE UPON REQUEST

- Additional market-appropriate documents to support the validation of your process piping system
- Weld coupons
- Video recordings of borescopic examination



### MEASUREMENT AND EXAMINATION EQUIPMENT

All transfer panels endure a rigorous quality examination process conducted by trained professionals using only calibrated instruments for optimal efficiency.

- X-ray fluorescence equipment verifies material type for Positive Material Identification (PMI).
- High-resolution videoscopes assist trained examiners in assessing weld compliance with relevant standards.
- Calibrated profilometers verify Ra during surface finish examinations.
- Digital levels verify tube slope to determine drainability and optimize cleanability.



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