LIQUID TRANSFER SYSTEM

The AT-Port™ System is a smart connecting system that allows safe liquid transfer across a wall between two areas with different containment classifications.

The AT-Port™ System was developed by Aseptic Technologies to allow safe and easy transfer of liquid products across the wall between two areas with different containment classifications.

The AT-Port™ System is suitable for aseptic transfer, but also for safe transfer to highly contaminated environments.

The AT-Port™ System can be used either to transfer product from traditional vessels or as part of a fully disposable fluid handling system.

Concept & Process steps

The AT-Port™ System is based on the Alpha-Beta concept, and is made of a Port and a Connector Device.

Case of aseptic transfer

The Connector Device (1) is connected to the bulk container.

The Device is introduced and locked into the external Port mounted on the wall between the ISO8 and ISO5 areas.

From the ISO5 chamber, the Connector cover is clamped within the internal Port (2), and then the internal Port is open by rotation.

The Connector cover being enclosed within the internal Port (3), the connecting tube is uncovered in the ISO5 chamber.

Aseptic connection is made to the connecting tube (4) in the ISO5 chamber.

Liquid transfer can start immediately.
Key advantages
- **Integrity**: no sterility or toxicity breach; ensures grade A continuity for aseptic processes.
- **Fast operation**: aseptic connection is performed in few seconds.
- **Multiple uses**: the same Connector Device affords up to 5 connections / disconnections.
- **Safety**: internal Port cannot be open without Connector Device locked in place; the Connector Device cannot be removed when the internal Port is not closed.
- **Quality**: 100% air leak test of the Connector Device.

The System’ components
- Connector Port, made of an external Port and an internal Port.
- Disposable Connector Device, sterilized by autoclave or by gamma-irradiation.

Connector Port

![Connector Port Image]

For installation on stainless steel wall*:
- Minimum wall thickness: 2 mm;
- Maximum wall thickness: 7 mm.

Designed to meet cGMP requirements.

IQ / OQ protocols provided.

* Not suitable for installation on glass wall.

<table>
<thead>
<tr>
<th>Materials</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External Port</strong></td>
<td>Stainless steel AISI 316L</td>
</tr>
<tr>
<td>Diameter</td>
<td>: 159 mm</td>
</tr>
<tr>
<td>Thickness</td>
<td>: 24 mm</td>
</tr>
<tr>
<td><strong>Internal Port</strong></td>
<td>Stainless steel AISI 316L, PEEK</td>
</tr>
<tr>
<td>Length with straight arm</td>
<td>: 200 mm</td>
</tr>
<tr>
<td>Radius when arm claimed</td>
<td>: 110 mm</td>
</tr>
</tbody>
</table>

Connector Device

Validated for up to 5 openings / closings.

Supplied non-sterile or sterilized by gamma-irradiation. Can be autoclaved.

**Tube connection**:
- ¾” house bard connection on external side;
- ½” to ¾” tube connection on inner side(1)
- Luer lock connection with thin silicone tubing.

<table>
<thead>
<tr>
<th>Materials</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Body &amp; Cover</strong></td>
<td>External and contact parts</td>
</tr>
<tr>
<td>(when applicable) made of PBT Celanex grade 2402. Animal free.</td>
<td>Size of assembled Connector Device:</td>
</tr>
<tr>
<td>Length</td>
<td>: 72 mm</td>
</tr>
<tr>
<td>Diameter</td>
<td>: 55 mm</td>
</tr>
</tbody>
</table>

(1) Worldwide distribution by Sartorius Stedim Biotech under brand name Gamma ATD™

More information available on www.aseptictech.com

Aseptic Technologies S.A. reserves the right to make any changes to the described devices and characteristics without notice.
AT-CONNECT™: EVERY SINGLE DROP MATTERS

AT-CONNECT™ is a ready-to-use device for aseptic liquid transfer through a wall, minimizing product loss.

AT-CONNECT™ has been designed by Aseptic Technologies to avoid product loss during aseptic liquid transfer operations through a wall.

The device ensures connection of small diameter tubing thanks to an integrated luer lock.

Application

AT-CONNECT™ is used with an AT-Port™ Port allowing safe and quick connection based on Alpha-Beta concept. The sterile internal tubing that is terminated by the luer lock is exposed only within the containment.

AT-CONNECT™ is used for:
- Liquid product entry prior aseptic filling operations;
- Low volumes transfer operations;
- Placing of a dosing system (pump) outside of the containment.

Key advantages
- Less product loss : thin tubing only;
- Aseptic assurance : reduced operations within containment.
- No direct contact : no product contact part other than silicone tubing;

Processing

1. Typically, AT-CONNECT™ device is connected to a bulk container. The overall is located outside the containment.
   The internal sterile part of AT-CONNECT™ is not exposed.
2. Using an AT-Port™, AT-CONNECT™ is introduced into the containment.
   The internal sterile part of the AT-CONNECT™ is disclosed and made available for connection.
3. Inside the containment, the luer connection between the filling kit and AT-CONNECT™ is achieved by the operator.
   Liquid transfer and dosing can start immediately.

More information available on www.aseptictech.com

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