Quick Connectors

Model USE1000 One-touch Connector for power tote

Features
- One-touch connection method makes easier to release liquid ever.
- This connector have structure to prevent liquid drop when detaching.
- Chemicals can be pulled out vertically.
- The dust-proof cap provided with the container can be used as it is.

Models

- Container side plug for liquid
  - USE1000-P-Pr-ST
    - O-ring material: Pr: Perfluor
- System side socket for liquid and gas (Fluororesin socket body)
  - USE-SGR-L60 (Body material: PCTFE)
  - USE6F-SGR-L60 (Body material: PFA)

Reference Example

- Plug for liquid
- Socket for liquid and gas (Fluororesin socket body)

Specifications

<table>
<thead>
<tr>
<th>Plug for liquid</th>
<th>Socket for liquid and gas</th>
<th>Temperature range</th>
<th>Body material</th>
<th>O-ring material</th>
<th>Connection size</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE6F</td>
<td>USE</td>
<td>5~60°C</td>
<td>HDPE</td>
<td>Perfluor</td>
<td>Liquid</td>
</tr>
<tr>
<td>USE</td>
<td>USE</td>
<td></td>
<td>PFA</td>
<td>Kairez® FEP Jacket</td>
<td>Gas</td>
</tr>
<tr>
<td>USE6F</td>
<td>USE6F</td>
<td></td>
<td>PCTFE</td>
<td></td>
<td>1/4” (ø6.35xø3.95)</td>
</tr>
</tbody>
</table>

List of Jigs to be used

- PDC-AIN: Mounting the plug to the drum Removing the plug from the drum
- USE-TOOL: Removing the cap from the bracket Installing the cap to the bracket

Dimensions

- USE1000-P-Pr-ST
- USE-SGR-L60
- USE6F-SGR-L60

SURPASS INDUSTRY CO., LTD.

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Model USE20 One-way PE Connector for compact container

USE20 PE Connector is the first one in the market which has one-touch connection method for compact size container. These connectors have excellent air sealing and can dispense the liquid safely and easily.

Features
- Liquid and gas connection is possible with one port type.
- It has excellent air sealing and can dispense the liquid safely with an easy connecting operation.
- The plug and the tube are integrated into a single-body structure.
- The socket can be easily fixed to a container.

Reference Example

- Container side plug
  **USE20-P-500L**
  Wetted parts: HDPE, PE

- Container side plug (60L Pail can)
  **USE20-P-50JP**
  Wetted parts: HDPE, PE

- System side socket
  **USE20-S-50S**
  Wetted parts: HDPE, PFA, Kalrez® O-ring
  Tube connection diameter
  - Liquid side (L): NPT3/8
  - Gas side (G): NPT1/4
USE20 PE Connectors are the first connectors in the market which have one-touch connection method for gallon bottle. These connectors have excellent air sealing and can dispense the liquid safely and easily.

**Features**
- Liquid and gas easy connection is possible with one port type. The liquid can be dispensed safely.
- The socket can be easily fixed to a container through one-touch connection method.
- This connector is newly designed to minimize the residual liquid volume.

**Models**
- **USE20-P-RGR**
  - Wetted parts: HDPE, PE
- **USE20-P-39RZ**
  - Wetted parts: HDPE, PE
- **USE20-S-39S**
  - Wetted parts: HDPE, PFA, Kalrez® O-ring
  - Tube connection diameter: Liquid side (L): NPT3/8, Gas side (G): NPT1/4

**Reference Example (Gallon bottle)**

**Reference Example (Pail can)**

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SURPASS INDUSTRY CO., LTD.
Model PDC Push-Down Connector

It is a one-touch drip prevention connector that can be used repeatedly by attaching it to a plastic drum (100L, 200L) for chemicals.

Reference Example
(The following example: Plug type A, Key groove No.09)

- Please adjust air pressure for tank not to be transformed (bulge/dent)
- Liquid delivery
- Socket for gas PDC-S-G
- Plug for gas PDC-MP-G-10-Pr
- Socket for liquid PDC-S-A-09
- Plug for liquid PDC-MP-A-09-103-Pr
- NPT3/8
- NPT3/4
- Ø16xØ13

List of Jig to be used

<table>
<thead>
<tr>
<th>Type</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDC-AIN</td>
<td>Mounting the plug to the drum</td>
</tr>
<tr>
<td></td>
<td>Removing the plug from the drum</td>
</tr>
</tbody>
</table>
**Features**

- Surpass original key-type and dimension systems are implemented to prevent connection-error for each chemical drums and its connectors.
- Liquid drop prevention structure adopted when detaching.
- Auto stop valve maintains excellent air sealing.
- Surpass original "Super one-touch method" enables the connection of the PDC by one single push.

**Specifications**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid pressure</td>
<td>250kPa</td>
</tr>
<tr>
<td>Temperature range</td>
<td>5~60°C</td>
</tr>
<tr>
<td>Wetted parts</td>
<td>• PDC : PCTFE, PFA, PTFE, HDPE, Various types of O-ring</td>
</tr>
<tr>
<td></td>
<td>• PDC6F : PFA, PTFE, HDPE, Various types of O-ring</td>
</tr>
</tbody>
</table>

**Models / Dimensions**

- **Plug for liquid**
  - PDC-MP
  - Key groove number
  - O-ring material
  - Body material
  - Color
  - Example Type: PDC-MP-A-09-103-Pr

- **Socket for liquid**
  - PDC-S
  - Key groove number
  - O-ring material
  - Color
  - Example Type: PDC-S-A-09

- **Plug for gas (with cap)**
  - PDC-MP-G
  - Key groove number
  - O-ring material
  - Body material
  - Color
  - Example Type: PDC-MP-G-10-Pr

- **Socket for gas**
  - PDC-S-G
  - Key groove number
  - O-ring material
  - Body material: PCTFE
  - Example Type: PDC-S-G

  - PDC6F-S-G
  - Key groove number
  - O-ring material
  - Body material: PFA
  - Example Type: PDC6F-S-G

- Please contact us for details of drums in the model.
Connection-error Prevention Mechanism

<table>
<thead>
<tr>
<th>Details of key groove types</th>
<th>Connection-error prevention mechanism with key groove</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A x 16 selections</td>
<td>Key groove No.</td>
</tr>
<tr>
<td></td>
<td>04</td>
</tr>
<tr>
<td></td>
<td>05</td>
</tr>
<tr>
<td></td>
<td>06</td>
</tr>
<tr>
<td>Type B x 16 selections</td>
<td>07</td>
</tr>
<tr>
<td></td>
<td>08</td>
</tr>
</tbody>
</table>

Caution: Surpass Industry Co., Ltd. shall not liable for the chemical administration corresponding to the key grooves.

Residual Liquid Measure when detaching socket and plug

Flow Characteristics

The data is reference value, not a guaranteed value.
Quick Connectors

Dust Proof Cap

Models

<table>
<thead>
<tr>
<th>Models</th>
<th>Plug</th>
<th>Socket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>PDC-P-CAP (Material: PP)</td>
<td>PDC-S-CAP (Material: PE)</td>
</tr>
<tr>
<td></td>
<td>Type: A-B-C</td>
<td>Type: A-B-C</td>
</tr>
<tr>
<td>Gas</td>
<td>PDC-P-G-CAP (Material: PP)</td>
<td>PDC-S-G-CAP (Material: PE)</td>
</tr>
</tbody>
</table>

Vent Cap

Models

- PDC-VENT
- PDC-VENT-Pr (Body material: PP / O-ring: Crystal rubber)

Safety Instructions

- Before using the product, read the instruction manual carefully and use it correctly.
- We are not liable for accidents that occurred during use other than those described in the instruction manual.
- Use this product within the specified range.
- Confirm the compatibility of the product material with the type of fluid and ambient atmosphere before use.
- Do not detach quick connectors under pressurized conditions. It may cause chemical fluid to splash out, and injuries or serious accidents.
- Using inappropriate O-ring material may cause leakage. Before specifying O-ring material to be used, make sure that is compatible with fluid type and temperature.
- Do not use fluids that contain refuse or foreign matter, as this may interfere with normal function.
- Abrasive or coagulate fluids may interfere with normal function, and take measures to prevent stacking residue on the wetted parts.
- Do not use quick connectors in applications subject to flexural or tensile stress.
- Make sure that every detachments of quick connectors are done in a clean, dust-free area.
- Do not use the product with excessive vibration or shock.
- When detach quick connectors, always wear a protective face mask, gloves, clothing.
- Fully examine and select the appropriate material for the wetted parts.
- Do not use the product in a harsh environment where fluid temperature changes rapidly, as this may cause damage to the product.
- When storing the USE type connector, manage it indoors in a dark place or a place not exposed to ultraviolet rays.
- The data is reference value, not a guaranteed value.
- There is a risk of cracking connector material based upon the chemical solution used. Please be cautious to select the material before use.
- Periodic inspection should be performed for safety when using chemical solution with high permeability for long time.
- If static electricity is generated, the equipment may seriously damage. Please use after applying antistatic measures.
- Do not warm up the product directly from the outside. It may cause external or internal leakage failure.

- Kalrez® is a registered trademark of DuPont.
- Flowell 60 series is a trademark of Flowell Co., Ltd.