ISO 03 SANDWICH BODIES

- Aluminum rated to 3000 psi and Ductile Iron rated to 5000 psi.
- See page viii for ordering cartridge/body and seals. Pressure ratings, material specifications on page xiv.

**Side Ported Subplates**

FUNCTION

Relief P to T

Bolt Hole Interface | Gage Port | Ports A,B,P,T | ALUMINUM | DUCTILE IRON
--- | --- | --- | --- | ---
Inch | .25 NPTF | .375 NPTF | FSB | FSB/S
Inch | .25 NPTF | SAE-8 | FSJ | FSJ/S
Metric | .25 BSPP | .375 BSPP | FSU | FSU/S

**Rear Ported Subplates**

FUNCTION

Relief P to T

Bolt Hole Interface | Gage Port | Ports A,B,P,T | ALUMINUM | DUCTILE IRON
--- | --- | --- | --- | ---
Inch | .25 NPTF | .375 NPTF | FRB | FRB/S
Inch | .25 BSPP | SAE-8 | FRJ | FRJ/S
Metric | .25 BSPP | .375 BSPP | FRU | FRU/S

**Side Ported Subplates with Gasket Mount Tank Port**

FUNCTION

Relief P to T

Bolt Hole Interface | Gage Port | Ports A,B,P,T | ALUMINUM | DUCTILE IRON
--- | --- | --- | --- | ---
Inch | .25 NPTF | .375 NPTF | FTB | FTB/S
Inch | .25 BSPP | SAE-8 | FTJ | FTJ/S
Metric | .25 BSPP | .375 BSPP | FTU | FTU/S

**TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE**

<table>
<thead>
<tr>
<th>Cartridge Type</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot Operated Relief Valve</td>
<td>0.6</td>
</tr>
<tr>
<td>Pilot Operated “Kick-Down” Relief Valve</td>
<td>1.12</td>
</tr>
<tr>
<td>Pilot Operated, Rapid Response Relief Valve</td>
<td>0.8</td>
</tr>
<tr>
<td>Direct Acting Relief Valve</td>
<td>1.10</td>
</tr>
</tbody>
</table>
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Side Ported Subplates

FUNCTION
Relief \( P \) to \( T \)
Check on \( P \)

4 Interface Bolt Holes
\( .28 \) diameter through hole.
\( 4 \) places.

RPEC–LAN

4 Interface Bolt Holes
\( x .38 \) deep
Inch:10–24 UNC
Metric: M5 x 0.8

<table>
<thead>
<tr>
<th>Bolt Hole Interface</th>
<th>Gage Port</th>
<th>Part A.B.P.T</th>
<th>ALUMINUM</th>
<th>DUCTILE IRON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric</td>
<td>.25 BSPP</td>
<td>.375 BSPP</td>
<td>YRCC–LAN–BU</td>
<td>YRCC–LAN–BU/S</td>
</tr>
</tbody>
</table>

Rear Ported Subplates

FUNCTION
Relief \( P \) to \( T \)
Check on \( P \)

4 Interface Bolt Holes
\( x .38 \) deep
Inch:10–24 UNC
Metric: M5 x 0.8

<table>
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<tr>
<th>Bolt Hole Interface</th>
<th>Gage Port</th>
<th>Part A.B.P.T</th>
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<th>DUCTILE IRON</th>
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</thead>
</table>
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Side Ported Subplates with Gasket Mount Tank Port

FUNCTION

Air–Bleed and Start–Up

Mounting Holes (Sealed):
.28 Diameter through hole 4 places

(1) – 123 O–ring

(4) – 012 O–ring

T–3A Cavity Locating Shoulder Depth .03

<table>
<thead>
<tr>
<th>Bolt Hole Interface</th>
<th>Parts T</th>
<th>Parts A,B,P</th>
<th>Gage Port</th>
<th>ALUMINUM</th>
<th>DUCTILE IRON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inch</td>
<td>.375 NPTF</td>
<td>.375 NPTF</td>
<td>.25 NPTF</td>
<td>CTB</td>
<td>CTB/S</td>
</tr>
<tr>
<td>Inch</td>
<td>.375 NPTF</td>
<td>SAE-8</td>
<td>.25 NPTF</td>
<td>CTJ</td>
<td>CTJ/S</td>
</tr>
<tr>
<td>Metric</td>
<td>.375 BSPP</td>
<td>.375 BSPP</td>
<td>.25 BSPP</td>
<td>CTU</td>
<td>CTU/S</td>
</tr>
</tbody>
</table>

TYPICAL CARTRIDGES USED WITH BODIES SHOWN ABOVE

Air Bleed and Start–up Valve

NQEB Page 10.16
ISO 03 SANDWICH BODIES

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**Side Ported Subplates**

**FUNCTION**
- Reducing on P
- Reducing/Relieving on P

### Bolt Hole Interface

<table>
<thead>
<tr>
<th>Inch</th>
<th>.25 NPTF</th>
<th>.375 NPTF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric</td>
<td>.25 BSPP</td>
<td>.375 BSPP</td>
</tr>
</tbody>
</table>

### ALUMINUM

- ESB
- ESJ
- ESU

### DUCTILE IRON

- ESB/S
- ESJ/S
- ESU/S

### Rear Ported Subplates

**FUNCTION**
- Reducing on P
- Reducing/Relieving on P

### Bolt Hole Interface

<table>
<thead>
<tr>
<th>Inch</th>
<th>.25 NPTF</th>
<th>.375 NPTF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric</td>
<td>.25 BSPP</td>
<td>.375 BSPP</td>
</tr>
</tbody>
</table>

### ALUMINUM

- ERB
- ERJ
- ERU

### DUCTILE IRON

- ERB/S
- ERJ/S
- ERU/S

### Side Ported Subplates with Gasket Mount Tank Port

**FUNCTION**
- Reducing on P
- Reducing/Relieving on P

### ALUMINUM

- ETB
- ETJ
- ETU

**DOT**

1. Pilot Operated Reducing Valve
2. Pilot Operated Relief Valve

US Sandwich Body Catalog 5/94 \#999-903-101
CD \#999-901-105 Rev. 01-Jan-96

12.083
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Side Ported Subplates

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>Bolt Hole Interface</th>
<th>Port A, B, P, T</th>
<th>ALUMINUM</th>
<th>DUCTILE IRON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bypass</td>
<td>Inch</td>
<td>.375 NPTF</td>
<td>YFCL–XHN–BB</td>
<td>YFCL–XHN–BB/S</td>
</tr>
<tr>
<td></td>
<td>Metric</td>
<td>.375 BSPP</td>
<td>YFCL–XHN–BU</td>
<td>YFCL–XHN–BU/S</td>
</tr>
</tbody>
</table>

Mounting Holes:
- .28 diameter through hole.
- 4 places.

4 Interface Bolt Holes
- x .38 deep
- Inch: 10–24 UNC
- Metric: M5 x 0.8

Mounting Interface Bolt Holes:
- x .38 deep
- Inch: 10–24 UNC
- Metric: M5 x 0.8
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Side Ported Subplates

<table>
<thead>
<tr>
<th>Bolt Hole Interface</th>
<th>Port A,B,P,T</th>
<th>ALUMINUM</th>
<th>DUCTILE IRON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inch .375 NPTF</td>
<td>YFCS–LCN–BB</td>
<td></td>
<td>YFCS–LCN–BB/S</td>
</tr>
<tr>
<td>Metric .375 BSPP</td>
<td>YFCS–LCN–BU/M</td>
<td></td>
<td>YFCS–LCN–BU/T</td>
</tr>
</tbody>
</table>

4 Interface Bolt Holes x .38 deep
Inch: 10–24 UNC
Metric: M5 x 0.8

Mounting Holes: .28 diameter through hole. 4 places.
ISO 03 SANDWICH BODIES

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Side Ported Subplates

### FUNCTION

| Relief P to T | Regenerative B to A |

### Bolt Holes

<table>
<thead>
<tr>
<th>Interface</th>
<th>Ports T, CH</th>
<th>Ports P, CR</th>
<th>Ports PSH, PSR</th>
<th>ALUMINUM</th>
<th>DUCTILE IRON</th>
</tr>
</thead>
</table>

### Mounting Holes

- 4 Interface Bolt Holes x .38 deep
- Inch: 10–24 UNC
- Metric: M5 x 0.8

### Turn Screw

Turn screw clockwise to reduce setting on CBCA.