# Sandwich Assemblies

**ISO 08 / CETOP 8 RELIEF VALVES**
(SIDE PORTED SUBPLATE / REAR PORTED SUBPLATE / SIDE PORTED SUBPLATE WITH GASKET MOUNTED TANK PORT)

## T-3A Cavity

### PILOT OPERATED

All subplates shown below are 150.9 mm wide

### DIRECT ACTING

#### Function

**P to T (Side Ports)**

<table>
<thead>
<tr>
<th>Ports A, B, P, T</th>
<th>Ports X, Y</th>
<th>Assembly Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; BSPP 1/4&quot; BSPP</td>
<td></td>
<td>RPGC-LAN-CSX</td>
</tr>
</tbody>
</table>

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

<table>
<thead>
<tr>
<th>Ports A, B, P, T</th>
<th>Ports X, Y</th>
<th>Assembly Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; BSPP 1/4&quot; BSPP</td>
<td></td>
<td>RDF A-LAN-CSX</td>
</tr>
</tbody>
</table>

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

#### Function

**P to T (Rear Ports)**

<table>
<thead>
<tr>
<th>Ports A, B, P, T</th>
<th>Ports X, Y</th>
<th>Assembly Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; BSPP 1/4&quot; BSPP</td>
<td></td>
<td>RPGC-LAN-CRX</td>
</tr>
</tbody>
</table>

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

<table>
<thead>
<tr>
<th>Ports A, B, P, T</th>
<th>Ports X, Y</th>
<th>Assembly Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; BSPP 1/4&quot; BSPP</td>
<td></td>
<td>RDF A-LAN-CRX</td>
</tr>
</tbody>
</table>

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

#### Function

**P to T**

(Gasket Mounted T and Y Port, other Ports on side)

<table>
<thead>
<tr>
<th>Ports A, B, P, T</th>
<th>Ports X, Y</th>
<th>Assembly Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; BSPP 1/4&quot; BSPP</td>
<td></td>
<td>RPGC-LAN-CTS</td>
</tr>
</tbody>
</table>

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

<table>
<thead>
<tr>
<th>Ports A, B, P, T</th>
<th>Ports X, Y</th>
<th>Assembly Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; BSPP 1/4&quot; BSPP</td>
<td></td>
<td>RDF A-LAN-CTS</td>
</tr>
</tbody>
</table>

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

### NOTES:

- Page 2 for cartridge models RP*C-*** and RD*A-*** show performance curves, technical tips, and options.
- See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits.
- Go to [www.sunhydraulics.com](http://www.sunhydraulics.com) for more product information.
- Model Codes printed in red are Preferred Products and are readily available.
Sandwich Assemblies

ISO 08 / CETOP 8 RELIEF VALVES

T-16A Cavity

All sandwich bodies shown below are 114.3 mm wide

PILOT OPERATED

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Model Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPIC-LAN-CDO/M</td>
<td></td>
</tr>
</tbody>
</table>

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function P to T (High Capacity)

DIRECT ACTING

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Model Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDHA-LAN-CDO/M</td>
<td></td>
</tr>
</tbody>
</table>

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function P to T (High Capacity)

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Model Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPIC-LAN-CDC/M</td>
<td></td>
</tr>
</tbody>
</table>

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function A to T (High Capacity)

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Model Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDHA-LAN-CDC/M</td>
<td></td>
</tr>
</tbody>
</table>

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function B to T (High Capacity)

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Model Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPIC-LAN-CDD/M</td>
<td></td>
</tr>
</tbody>
</table>

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function A to B and B to A (High Capacity) (Cross-port)

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Model Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDHA-LAN-CDZ</td>
<td></td>
</tr>
</tbody>
</table>

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function A to B and B to A (High Capacity) (Cross-port)

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Model Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPIC-LAN-LAN-CDW</td>
<td></td>
</tr>
</tbody>
</table>

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function A to B and B to A (High Capacity) (Cross-port)

NOTES: Page 2 for cartridge models RP*C-*** and RD*A-*** show performance curves, technical tips, and options. See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits. Go to www.sunhydraulics.com for more product information. Model Codes printed in red are Preferred Products and are readily available.
Sandwich Assemblies

ISO 08 / CETOP 8 SEQUENCE VALVES

T-17A Cavity

PILOT OPERATED

All sandwich bodies shown below are 114.3 mm wide

Function

In to P

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function

In to A (Reverse Free Flow Check)

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function

Out of A (Reverse Free Flow Check)

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function

Out of B (Reverse Free Flow Check)

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

NOTES: Pages 20 for cartridge models RS*C-*** and page 102 for CX*A-*** show performance curves, technical tips, and options. See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits. Go to www.sunhydraulics.com for more product information. Model Codes printed in red are Preferred Products and are readily available.
Sandwich Assemblies

ISO 08 / CETOP 8 REDUCING VALVES

T-19A Cavity/T-17A Cavity

PILOT OPERATED

Function
On P Drained to T (High Capacity)

Assembly
Model Code
PBJB-LAN-HBO-M
Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function
On A Drained to B (High Capacity)

Assembly
Model Code
PBJB-LAN-HBA
Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function
On B Drained to A (High Capacity)

Assembly
Model Code
PBHB-LAN-HBK/M
Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function
On A Drain to T (Reverse Free Flow Check)

Assembly
Model Code
PBHB-LAN-HBJ/M
Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function
On B Drain to T (Reverse Free Flow Check)

NOTES: Page 34 for cartridge model PBJB-*** and page 102 for CX*D-*** show performance curves, technical tips, and options.

Go to www.sunhydraulics.com for more product information.

Model Codes printed in red are Preferred Products and are readily available.
Sandwich Assemblies

ISO 08 / CETOP 8 REDUCING / RELIEVING VALVES

T-19A Cavity/T-17A Cavity

PILOT OPERATED

Assembly
Model Code

PPJB-LAN-HBO/M

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

DIRECT ACTING

Assembly
Model Code

PPJB-LAN-HBA

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function

On P Tank to T Drained to T

(High Capacity)

Assembly
Model Code

PPJB-LAN-HBB

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function

On B Tank to A Drained to A

(High Capacity)

Assembly
Model Code

PPHB-LAN-HBK/M

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function

On B Tank to T Drained to T

(Reverse Free Flow Check)

Assembly
Model Code

PPHB-LAN-HBJ/M

*Add modifier /T to order SG Iron for pressure rating over 210 bar.

Function

On B Tank to T Drained to T

(Reverse Free Flow Check)

NOTES: Page 42 for cartridge model PP*B-*** and PR*B-***, and page 102 for CX*D-*** shows performance curves, technical tips, and options. See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits.

Go to www.sunhydraulics.com for more product information.

Model Codes printed in red are Preferred Products and are readily available.
**Sandwich Assemblies**

**ISO 08 / CETOP 8 COUNTERBALANCE VALVES**

**T-19A Cavity**

All sandwich bodies shown below are 114.3 mm wide

<table>
<thead>
<tr>
<th>PILOT RATIOS</th>
<th>PILOT RATIOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:1, 1.5:1 and 2:1</td>
<td>2.3:1, 4.5:1 and 10:1</td>
</tr>
</tbody>
</table>

### Assembly Model Code:

#### CBI*-LHN-HBA

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function

On A Pilot from B (High Capacity)

#### CBI*-LJN-HBA

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function

On B Pilot from A (High Capacity)

#### CBI*-LHN-HBB

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function

On A and B (Cross-Piloted) (High Capacity)

#### CBI*-LHN-HBY

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

NOTES: Page 50 for cartridge model CBI**-*** show performance curves, technical tips, and options. See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits. Go to www.sunhydraulics.com for more product information. Model Codes printed in red are Preferred Products and are readily available.
Sandwich Assemblies

ISO 08 / CETOP 8 PILOT-TO-OPEN CHECK VALVES

T-19A Cavity

All sandwich bodies shown below are 114,3 mm wide

PILOT OPERATED

Function

On A Pilot from B (High Capacity)

Assembly

CKIB-XCN-HBA

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function

On B Pilot from A (High Capacity)

Assembly

CKIB-XCN-HBB

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Function

On A and B Cross-Piloted (High Capacity)

Assembly

CKIB-XCN-HBY

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

NOTES: Page 78 for cartridge model CK**-*** show performance curves, technical tips, and options.
See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits.
Go to www.sunhydraulics.com for more product information.
Model Codes printed in red are Preferred Products and are readily available.
**Sandwich Assemblies**

**ISO 08 / CETOP 8 CHECK VALVES**

**T-18A Cavity/T-16A Cavity**

**CHECK VALVE**

*Add modifier /S to order SG Iron for pressure rating over 210 bar.*

**Assembly Model Code**

CXJA-XCN-IBO

**Function**

On P (High Capacity)

**Function**

On T (High Capacity)

**Function**

T to A and B

**Function**

On A and B Free Flow Out of Valve (High Capacity)

**NOTES:** Page 102 for cartridge model CX*A-*** shows performance curves, technical tips, and options. See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits. Go to www.sunhydraulics.com for more product information. Model Codes printed in red are Preferred Products and are readily available.
### Sandwich Assemblies

#### ISO 08 / CETOP 8 FLOW CONTROL VALVES

**T-18A Cavity**

All sandwich bodies shown below are 114.3 mm wide

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Model Code*</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFFC-LGN-IBO</td>
<td>*Add modifier /S to order SG Iron for pressure rating over 210 bar.</td>
</tr>
<tr>
<td>NCGB-LCN-IBE</td>
<td>*Add modifier /S to order SG Iron for pressure rating over 210 bar.</td>
</tr>
<tr>
<td>NCGB-LCN-IBF</td>
<td>*Add modifier /S to order SG Iron for pressure rating over 210 bar.</td>
</tr>
<tr>
<td>NCGB-LCN-IBZ</td>
<td>*Add modifier /S to order SG Iron for pressure rating over 210 bar.</td>
</tr>
<tr>
<td>NCGB-LCN-IBY</td>
<td>*Add modifier /S to order SG Iron for pressure rating over 210 bar.</td>
</tr>
</tbody>
</table>

**FULLY ADJUSTABLE NEEDLE**

**FULLY ADJUSTABLE PRESSURE COMPENSATED WITH FREE FLOW CHECK**

**Function**

- **Meter-In P (High Capacity)**
- **Meter-Out A (High Capacity)**
- **Meter-In A and B (High Capacity)**
- **Meter-Out A and B (High Capacity)**

**Notes:**
- Page 110 for cartridge model NCB*L** and page 126 for FD*A** show performance curves, technical tips, and options.
- See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits.
- Go to www.sunhydraulics.com for more product information.
- Model Codes printed in red are Preferred Products and are readily available.

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**NB:** Free Flow Check on FDFA Only

**NOTES:** Page 110 for cartridge model NCB*L** and page 126 for FD*A** show performance curves, technical tips, and options.

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**Function**

- Meter-In P (High Capacity)
- Meter-Out A (High Capacity)
- Meter-In A and B (High Capacity)
- Meter-Out A and B (High Capacity)

**NOTES:**
- Page 110 for cartridge model NCB*L** and page 126 for FD*A** show performance curves, technical tips, and options.
- See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits.
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**FULLY ADJUSTABLE NEEDLE WITH FREE FLOW CHECK**

**Assembly | Model Code**

**Function**

- Meter-In P (High Capacity)
- Meter-Out A (High Capacity)
- Meter-Out A and B (High Capacity)
- Meter-In A and B (High Capacity)

**NOTES:**
- Page 110 for cartridge model NCB*L** and page 126 for FD*A** show performance curves, technical tips, and options.
- See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits.
- Go to www.sunhydraulics.com for more product information.
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Sandwich Assemblies

ISO 08 / CETOP 8 CIRCUIT SAVER VALVES
(PRESSURE COMPENSATOR / LOAD SENSING / REGENERATIVE)

T-13A Cavity/T-19A Cavity

All sandwich bodies shown below are 114,3 mm wide

Function

YFIA: Pressure Compensator (Restrictive)
YFIB: Pressure Compensator (Restrictive) with Load-Sensing Port

T-13A Cavity/T-19A Cavity

External Shuttle Port
Assembly Model Code*

1/4” BSPP YFIB-XHN-CA/M

*Add modifier /T to order SG Iron for pressure rating over 210 bar. Add /S for YFIA.

Assembly Model Code*
CSAA-BXN-IBS

YFIB-XHN-CA/M

1/4” BSPP

(4) – 121 O-rings
(2) – 114 O-rings

X P T B A Y Ext.

Max. 150,0
43,3
28,4

Function
Shuttle A and B (Output External)

Assembly Model Code*

YDGF-LHN-CA

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

Assembly Model Code*

YDGE-LHN-CA

*Add modifier /S to order SG Iron for pressure rating over 210 bar.

NOTES: Page 50 for cartridge model CB*A-*** shows performance curves, technical tips, and options.
See page 140 for technical information about sandwich bodies including ISO interface patterns, mounting instructions, studrods, and studkits.
Go to www.sunhydraulics.com for more product information.

YFIB-XHN-CA/M

(4) – 121 O-rings
(2) – 114 O-rings

Max. 150,0
43,3
28,4

YDGF-LHN-CA

YDGE-LHN-CA