BDP

Automatic Oil return
**BDP**

**Automatic oil return**

A refrigerant-oil-mixture is collected in the BDP and is dispensed from the low pressure side to the high pressure side of the compressor by means of hotgas. Any remaining liquid refrigerant is evaporating in a heat exchanger (WITT DWR) before being returned to the compressor.

**Economical**

Expensive compressor oil is recycled and returned to the system instead of being wasted by manual drainage and disposal, which is costly in terms of labour, environmental health, and safety considerations. Frequent automatic oil draining will keep the surface of heat exchangers free of oil and as such increase heat transfer and overall system efficiency.

**Easy handling**

Our standardised solution is an enhancement of the well-established BDP, bringing a housing that can be opened and a higher design pressure of 40 bars, which makes it suitable for a broader range of applications. Moreover, several control options can be realised.

### Accessories

- Stop valve EA32/G1” I resp. II (steel) or EA40/G1” I resp. II (SS)
- Threaded cam G1” (steel) or G1” VAI (SS) (for connection of other valve brands)
- Check valve for a differential pressure of 1 bar (for replacement of the standard check valve 3 bar)
- Adapter with gas equalization line (SS, 1.4541) (i.e. for connecting to standpipes)
- WITT regulating valve EE3 or EE6
- WITT flow heat exchanger DWR
- WITT oil filter OF-G1/4”
- Level switch
- Flow sight glass (SS)

### Scope of supply

- Threaded connection G1” for refrigerant/oil supply
- Connection with internal thread ½” for connection of an oil sensor
- Weld connection Ø 13 mm for hotgas
- Connection Ø 13 mm for refrigerant/oil discharge with integrated check valve for a differential pressure of 3 bar

### BDP Models

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BDP2-03</td>
<td>140</td>
<td>286</td>
<td>0,3</td>
<td>G1”</td>
<td>40</td>
<td>stainless steel</td>
<td>all</td>
</tr>
<tr>
<td>BDP2-14</td>
<td>140</td>
<td>384</td>
<td>1,4</td>
<td>G1”</td>
<td>40</td>
<td>stainless steel</td>
<td>all</td>
</tr>
<tr>
<td>BDP2-38</td>
<td>140</td>
<td>562</td>
<td>3,8</td>
<td>G1”</td>
<td>40</td>
<td>stainless steel</td>
<td>all</td>
</tr>
</tbody>
</table>

---

**Diagram**

- Refrigerant gas
- Oil
- Mixture of liquid refrigerant and oil

---

**Diagram**

- Diagram showing the flow of refrigerant gas, oil, and the mixture of liquid refrigerant and oil through the system.
High-quality refrigeration components

- **HRP**  Hermetic refrigerant pumps
- **GP**  Open refrigerant pumps
- **HR & HS**  High side float regulators
- **WP3HR**  High side float regulators for heat pumps up to 65 bar
- **ECO**  Economizer
- **BDP**  Automatic oil recovery
- **NGX**  Maximum level switch
- **HDB3**  Stainless steel oil drain vessel
- **HAD**  High efficient separator
- **Pumping stations**
- **SAV**  Standard-separator-evaporator-unit
- **DB**  Pressure vessel units
- **NH₃/CO₂**  Cascades

Lukasstraße 32
52070 Aachen, Germany

+49 (0)2 41 1 82 08-0

+49 (0)2 41 1 82 08-490

www.th-witt.com