# Chiller Selection Matrix

**Hei-VAP based on solvent**

<table>
<thead>
<tr>
<th>Enthalpy of Evaporation (J/g)</th>
<th>Examples</th>
<th>Processing Type</th>
<th>Flask Size</th>
<th>Power Level</th>
</tr>
</thead>
</table>
| < 500 J/g                     | - Cyclohexane  
- Dichloromethane  
- Ether  
- Toluene  
- Octane  
- Heptane  
- Hexane | Very small batches | Up to 1 litre | **Hei-CHILL 250**  
Cooling capacity at 250 W  
NOT FOR HIGH AMBIENT TEMPERATURE (e.g. ASIA, INDIA) |
| < 500 J/g                     | - Cyclohexane  
- Dichloromethane  
- Ether  
- Toluene  
- Octane  
- Heptane  
- Hexane | Batch | 1-2 litres | **Hei-CHILL 350**  
Cooling capacity at 350 W |
| > 500 J/g                     | - Acetone  
- Acetonitrile  
- Methanol  
- Ethanol  
- Water & water mixtures (batch) | Batch | Up to 3 litres | **Hei-CHILL 600**  
Cooling capacity at 600 W |
| > 800 J/g                     | - Methanol  
- Ethanol  
- Water & water mixtures | High volume batches 24/7 | Up to 5 litres | **Hei-CHILL 1200**  
Cooling capacity at 1,200 W |

**Hei-VOLUME Distimatic**

Simply smart – automatically process unlimited amounts

**Multiple Evaporators**

Only with Hei-CHILL 1200 or Hei-CHILL 600  
Power levels are additive (e.g. Hei-CHILL 1200 will perform for two Hei-CHILL 600 (2x600 W))  
Hei-CHILL 250 and Hei-CHILL 350 are not recommended for multi evaporator use

**General Information**

- To protect the glass cooler, the maximum pump pressure of the circulating cooler must not exceed 2 bar (including pressure peaks)!  
- For optimal distillation rates the three-quarters rule should be observed  
- At three quarters of the height of the cooling coil the steam should condense, form droplets and drain off as condensate, while the upper quarter of the cooling coil should remain free. If this rule is disregarded, the vapour can be sucked in by the vacuum pump and the pump performance can break down.  
- The coldest point of the glass chiller should always be at the top of the glass cooler to prevent the vapour from shooting through.  
- The flow of the circulating cooler should be connected to the upper cooling coil connection.

### Examples

- < 500 J/g:  
  - Cyclohexane  
  - Dichloromethane  
  - Ether  
  - Toluene  
  - Octane  
  - Heptane  
  - Hexane

- > 500 J/g:  
  - Acetone  
  - Acetonitrile  
  - Methanol  
  - Ethanol  
  - Water & water mixtures

- > 800 J/g:  
  - Methanol  
  - Ethanol  
  - Water & water mixtures

### Processing Types

- Very small batches  
- Batch  
- Batch (water & water mixtures)

### Flask Sizes

- Up to 1 litre  
- 1-2 litres  
- Up to 3 litres  
- Up to 5 litres