# NESLAB Refrigerated Recirculating Chiller Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>HX 150-TU</th>
<th>HX 300-TU</th>
<th>HX 300 Semi</th>
<th>HX 300 MX 500</th>
<th>HX 300 MX 900</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>5°C to 41°C</td>
<td>5°C to 41°C</td>
<td>5°C to 60°C</td>
<td>5°C to 104°C</td>
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</tr>
<tr>
<td>Pressure</td>
<td>350 kPa (50 psi)</td>
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</tr>
<tr>
<td>Flow Rate</td>
<td>3.8 lpm</td>
<td>7.6 lpm</td>
<td>11.3 lpm</td>
<td>15.1 lpm</td>
<td>18.9 lpm</td>
</tr>
<tr>
<td>Cooling Capacity</td>
<td>1.0 kW</td>
<td>2.0 kW</td>
<td>4.5 kW</td>
<td>8.0 kW</td>
<td>10.5 kW</td>
</tr>
<tr>
<td>Heat Load</td>
<td>1.0 kW</td>
<td>2.0 kW</td>
<td>4.5 kW</td>
<td>8.0 kW</td>
<td>10.5 kW</td>
</tr>
<tr>
<td>System Capacity</td>
<td>1.0 kW</td>
<td>2.0 kW</td>
<td>4.5 kW</td>
<td>8.0 kW</td>
<td>10.5 kW</td>
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### System Specifications

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### Optional Enhancements: Industry Leadership Backed by Custom Service Options

Thermo offers a comprehensive suite of world-class services to help you optimize your equipment performance and reduce your downtime risk and costs. Whether you are operating one shift per day or 24/7, Thermo has just the right combination of Fab Exchangers and CES (Customer Engagement Services) to meet your operational and budgetary requirements.

Our Thermo Direct Program is designed to help you manage the life of your recirculating chillers and heat exchangers and reduce your downtime risk and costs. Rather than simply reacting to service problems as they occur, we will help you prevent downtime incidents.

#### Environmentally Critical Applications

- Priority factory technical support
- Fast in-situ repair, or, replacement
- Optimize maintenance resource utilization
- Optimize energy consumption
- Minimize critical process equipment downtime
- Optimize temperature control

#### Essential Maintenance

- Equipment maintenance training & spare parts management support to optimize equipment performance
- Certified spare parts on-site to remove high-risk equipment from your temperature control system
- Optimize temperature control technology & equipment reliability
- Certified Thermo personnel
- Dedicated Thermo certified application resources onsite to ensure optimal equipment control

#### Facility

- Certified facility
- Certified spare parts
- Periodic factory review
- Temperature control equipment staging support to ensure optimal equipment reliability
- Certified Thermo personnel
- Dedicated Thermo certified application resources onsite to ensure optimal equipment control

#### Performance (CO2 Emissions)

- Reduce CO2 emissions by 10%
- Improve energy efficiency
- Optimize energy consumption
- Minimize critical process equipment downtime

#### Maintenance Budget

- Optimize maintenance budget
- Minimize critical process equipment downtime
- Optimize energy consumption
- Minimize critical process equipment downtime

#### Equipment Maintenance

- Equipment maintenance training & spare parts management support to optimize equipment performance
- Certified spare parts on-site to remove high-risk equipment from your temperature control system
- Optimize temperature control technology & equipment reliability
- Certified Thermo personnel
- Dedicated Thermo certified application resources onsite to ensure optimal equipment control

### Thermo Direct

Thermo Direct is a proactive, customized approach to facility management, providing world-class services to minimize downtime risk and costs. Thermo Direct leverages the expertise of our global team of experts to ensure that your facility is operating at peak efficiency.

#### Equipment

- Equipment maintenance training & spare parts management support to optimize equipment performance
- Certified spare parts on-site to remove high-risk equipment from your temperature control system
- Optimize temperature control technology & equipment reliability
- Certified Thermo personnel
- Dedicated Thermo certified application resources onsite to ensure optimal equipment control

### Thermo’s Global Network

Thermo’s global network includes over 75 locations worldwide, providing world-class service and support to customers in over 150 countries. Whether you are operating one shift per day or 24/7, Thermo has just the right combination of Fab Exchangers and CES (Customer Engagement Services) to meet your operational and budgetary requirements.

#### Sales and Service

- Equipment maintenance training & spare parts management support to optimize equipment performance
- Certified spare parts on-site to remove high-risk equipment from your temperature control system
- Optimize temperature control technology & equipment reliability
- Certified Thermo personnel
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#### Customer Support

- Equipment maintenance training & spare parts management support to optimize equipment performance
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#### Education and Training

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#### Product Development

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NESLAB Water-to-Water Heat Exchanger Specifications

<table>
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<tr>
<th>Component</th>
<th>Specification</th>
</tr>
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<tbody>
<tr>
<td><strong>Flow</strong></td>
<td></td>
</tr>
<tr>
<td>FLOW</td>
<td>10, 20, 30, 40, 50 (GPM)</td>
</tr>
<tr>
<td><strong>Pressure (psid)</strong></td>
<td>20, 40, 60, 80</td>
</tr>
<tr>
<td>Pressure (GPM)</td>
<td>10, 20, 30, 40, 50</td>
</tr>
</tbody>
</table>

NESLAB Recirculating Chillers and Heat Exchangers for Semiconductor Applications

- Reliable, easy-to-maintain units that minimize total cost of ownership
- Proven performance with large installed base
- Robust modular design & construction
- Long-term reliability
- Low operating cost
- High-quality parts and components
- Temperature control of your critical process components
- Integrated plumbing assembly
- VFD power conditioning
- Multi-channel support
- Backward compatibility
- Compliance with original NESLAB equipment supplied by the OEM
- Worldwide factory support
- Flexible and customized service programs available to meet your operational needs
- Remote control operation
- Backwards compatibility available to meet your operational needs
- Non-magnetic stainless steel and non-ferrous materials
- Low flow reliability
- Flexible modular design & construction
- Proven performance with large installed base
- Backward compatibility
- Performance and integration compatible with original NESLAB equipment supplied by the OEM
- Worldwide factory support
- Flexible and customized service programs available to meet your operational needs
- Remote control operation
- Backwards compatibility available to meet your operational needs
- Non-magnetic stainless steel and non-ferrous materials
- Low flow reliability
- Flexible modular design & construction
- Proven performance with large installed base

NESLAB recirculating chillers and heat exchangers maintain precise temperature control of your critical process components ensuring process stability.