This product is represented in Australia, New Zealand, and PNG by:

# **InKorr Pty Ltd**

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#### Contact InKorr Pty Ltd for:

| <ul> <li>Heat Exchangers</li> <li>Shell &amp; Tube Heat Exchangers</li> <li>Gasketed Plate Heat Exchangers</li> <li>Brazed Plate Heat Exchangers</li> <li>Crossflow Welded Plate Heat Exchangers</li> <li>Plate &amp; Shell Heat Exchangers</li> <li>Non Metallic Heat Exchangers</li> <li>Corrugated Tube Heat Exchangers</li> <li>Spiral Heat Exchangers</li> <li>Air-Cooled Heat Exchangers</li> </ul> |
|---|
| Vessels, Columns, and Equipment manufactured from:<br>- Exotic Alloys (Ta, Zr, Ti)<br>- Graphite and Silicon Carbide<br>- PTFE Lining   |
| Plastic Lined Valves and Piping<br>- PTFE<br>- PVDF<br>- PP<br>- and many more!   |
| Servicing and reburbishment of heat exchangers!<br>- Plate cleaning<br>- NDE for crack testing<br>- Spare parts, both OEM and aftermarket   |

InKorr Pty Ltd Unit 8, 1470 Ferntree Gully Road, Knoxfield, VIC 3180, Australia ABN: 48 159 224 996





# **Spiral Plate Heat Exchanger**

### For brewery process



### **Know How**

Since years Heat Exchangers have been used in breweries as standard technical equipments, they are at the heart of the beer process. This is why reliable Spiral Plate Heat Exchangers are required.

Nexson Group's team with 25 years of experience and global references can propose various types of custom made Spiral Plate Heat Exchangers to improve your processes and reduce your operating and maintenance costs.

### **Benefits**

#### UNIQUE AND RELIABLE DESIGN

The Spiral Plate Heat Exchanger present in various applications for almost a century, has proven to be the most efficient and reliable solution for handling fluids containing fibers and suspended particles.

#### SELF CLEANING EFFECT

Single channel combined with turbulent flow allows self cleaning of the Spiral Heat Exchanger. Covers equipped with davits can be removed to facilitate maintenance and inspection operations.

#### **ENERGY SAVING**

Countercurrent flow circulation makes it ~4 times more efficient than traditional shell & tubes.

#### COMPACT

Compact shape, easy to install and operate.





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# **Applications**

The beer process is divided in **3** main steps:

**Pre-treatment**: During the cook process, grain is mixed with water and enzymes. This mixture is then heated to boil temperatures to liquefy the mash, beginning the process of converting the starch to sugar. **Spiral Plate Heat Exchangers** cool the mash until fermentation temperature. At this point of the process a large amount of suspended solids is present, this is why **Spiral Plate Heat Exchangers** are recommended.

**Fermentation**: In fermentation, the simple sugars in the cooled mash are converted to ethanol by yeast. The heat generated by the process is removed by Spiral Plate Heat Exchanger, so that complete fermentation is achieved without contamination. The "beer mash" is maintained at an optimum temperature thanks to Spiral Heat Exchangers.



**Distillation**: After fermentation, a multi-column distillation system strips the alcohol from the beer by boiling. After the final column, the 95% alcohol goes to dehydration where the remaining water is removed.

Nexson Group supplies many types of heat exchangers such as **condensers** and **liquid/liquid heat exchangers** that can be used throughout the distillation process.

## **Customer benefits**

#### **MATERIALS**:

P265 GH/SA516 Gr60 or 70 304L 316L DUPLEX 904L 254SMO NICKEL ALLOYS TITANIUM

#### CAPACITY:

Plate area up to 600 m2 Channel height: 55 mm to 32 mm Design pressure: Full Vacuum / 60 Barg Design temperature: -60° / 450°C

- ENERGY SAVING
- COMPACTNESS
- EASY INSTALLATION AND MAINTENANCE
- RELIABILITY
- LOW MAINTENANCE COSTS
- PEACE OF MIND



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