# Condensers

A Condenser is designed to facilitate the cooling of hot vapours and liquids. It is structured in the form of a large glass tube, containing a smaller glass tube running through its entire length. Hot fluids pass through this small inner tube.

Typically, the outer glass tube has two hose connections to aid the passing of a coolant (usually tap water or chilled water/anti-freeze mixture). The coolant is introduced through the lower fitting, while the higher fitting serves as the exit point. Entering the coolant at the cooler point is a critical aspect as it helps maintain a smooth and correctly directed thermal gradient. This in turn, maximises efficiency and minimises the risk of thermal shock to adjacent glassware. Multiple Condensers may be connected in a series. Usually, a high flow rate is not essential for maintaining a cooling surface.

Special care should be taken while choosing Condensers keeping in mind their distillation rates, reflux rates and temperature gradients.

**Borosil** offers you the choice of a wide range of Condensers.

## 2340 - Condensers, Liebig, With Sealed Inner Tube

- Simple design •
- The light wall of the inner tube facilitates efficient heat transfer ٠
- Low cooling capacity •
- Used for distillate separation •

Product Code	Approx Jacket Length mm	Approx Overall Height mm	Interchangeable Joints	Quantity Per Case
2340087	200	350	19 / 15	5
2340090	300	450	19/15	5
2340092	400	550	19/15	5
2340095	500	660	19 / 15	5







#### 2400 - Condensers, Liebig, Drip Tip, Interchangeable Inner And Outer Joint

- Simple design
- The light wall of the inner tube facilitates efficient heat transfer •
- Low cooling capacity .
- Used for distillate separation •

Product Code	Approx Jacket Length mm	Approx Overall Height mm	Intercha Jo Inner	angeable ints Outer	Quantity Per Case
2400087	200	355	19/26	19/26	5
2400090	300	445	24 / 29	24 / 29	5
2400092	400	550	24 / 29	24 / 29	5







- Greater surface area than the Liebig Condenser owing to a series of bulbs, resulting in higher cooling capacity
- Ideal for laboratory scale refluxing

Product Code	Approx Jacket Length	Approx Overall Height	Interchaı Joir	ngeable nts	Quantity Per Case
	mm	mm	Inner	Outer	
2480087	200	355	19/26	19/26	5
2480090	300	445	24 / 29	24 / 29	5
2480092	400	550	24 / 29	24 / 29	5
2480096	600	740	29/32	29 / 32	5



# 2560 - Condensers, Graham, Coiled Distillate Type, Drip Tip, Interchangeable Inner and Outer Joint

- The coiled condensation tubes result in greater surface area for cooling
- Designed with top standard taper outer and lower inner drip tip joint

Product Code	Approx Jacket	Approx Overall	Interchangeable Joints		Quantity Per Case
	Length mm	Height mm	Inner	Outer	
2560090	300	450	24 / 29	24 / 29	5
2560092	400	550	24 / 29	24 / 29	5
2560095	500	650	24 / 29	24 / 29	5







## 2640 - Condensers, Friedrichs, Drip Tip, Interchangeable Inner and Outer Joint

- Specially designed inner spiral tubes ensure a long vapour path
- Offer better heat transfer and anti-flooding capabilities

Product Code	Approx Overall Height mm	Interchangeable Joints Inner Outer		Quantity Per Case
2640097	350	24 / 29	24 / 29	5





### 2641 - Condensers, Double Surface

Product Code	Length of Height mm	Ground Joint	Quantity Per Case
2641087	200	19 / 26	5
2641187	200	24 / 29	5
2641090	300	19 / 26	5
2641190	300	24 / 29	5

The above condensers are widely used in research labs. A double-surface condenser has a water jacket both on the outside and through the centre of the condensing tube. It is needed where the condensed liquid is very volatile. Hence for distilling ethers, alcohols, esters, aromatics, petroleum products, and essential oils these condensers are widely used.





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