

Condensers

Optional Fittings

Employment
Opportunities

Literature
& Manuals

Parr offers two styles of condensers for attachment to the head of a stirred reactor or pressure vessel. These can be made in various sizes to match the size of the reactor.

Straight Reflux Condenser

The reflux condenser consists of a length of tubing connected directly to the head of a vessel and equipped with a water cooling jacket. Condensed vapors are returned directly to the vessel and any noncondensable gases can be released through a needle valve at the top of the condenser. A spiral wound inner packing in the condenser ensures maximum effectiveness in a rather short length.



Straight
Reflux
Condenser

Reflux Take-
Off Condenser

Condenser
with Receiver
on 1 Gallon
Reactor

Reflux/Take-Off Condensers

The reflux/take-off condenser consists of a water jacketed tube, the same as described above, assembled with a receiving vessel attached to the lower end of the condenser. Any vapor, such as water from a polymerization reaction, can be condensed and collected in the receiver, from which it can be withdrawn through a bottom valve. Any noncondensable gases can be released through a needle valve at the top of the condenser. If condensate collection is not required, the receiver can be removed and the condenser can be mounted directly above the reactor for direct reflux into the vessel.

Modifications

Many users opt to install a ball valve at the head of the reactor below the condenser to use as a shut-off to the condenser. Alternate quick connect fittings are available as well as a variety of volumes for the collection vessels. For reactors with volumes of 1000 mL and greater, the heads are modified with larger connection ports to accommodate the condenser.

Condensers

Reactor	Style	Opening Required	Inner Tube Diameter	Standard Receiver	Part No.
4560/4590	Reflux/Take-off	Modified Gage Opening 1/4" NPT	3/8" O.D.	150 mL	A2011HC
4560/4590	Reflux	Modified Gage Opening 1/4" NPT	3/8" O.D.		A2012HC
4560/4590	Reflux/Take-off	Modified Cooling Loop Opening 1/4"NPT	3/8" O.D.	150 mL	A2013HC
4560/4590	Reflux	Modified Cooling Loop Opening 1/4" NPT	3/8" O.D.		A2014HC
4520/4530/4550	Reflux/Take-off	3/8" NPT	1/2" O.D.	300 mL	A2001HC
4520/4530/4550	Reflux	3/8" NPT	1/2" O.D.		A2002HC
4530 HD	Reflux/Take-off	3/8" NPT	1/2" O.D.	300 mL	A2003HC
4530 HD	Reflux	3/8" NPT	1/2" O.D.		A2004HC
4540/4570/4580	Reflux/Take-off	3/8" NPT	3/8" O.D.	300 mL	A2016HC
4540/4570/4580	Reflux	3/8" NPT	3/8" O.D.		A2017HC
4555/4556	Reflux/Take-off	1/2" NPT	3/4" O.D.	1000 mL	A2018HC
4555/4556	Reflux	1/2" NPT	3/4" O.D.		A2019HC