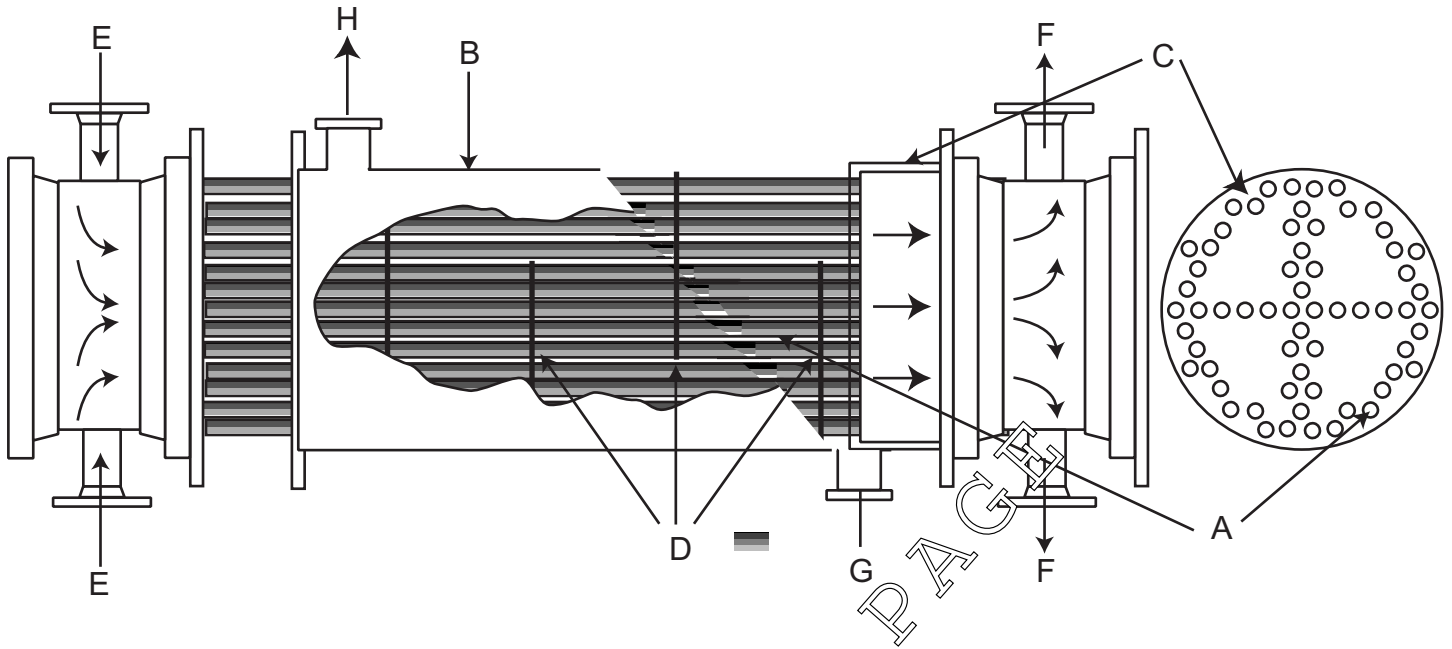


Panel 3.5

Shell and Tube Heat Exchanger



(Panel 3.5)
This is a drawing of a _____ and _____ heat exchanger.

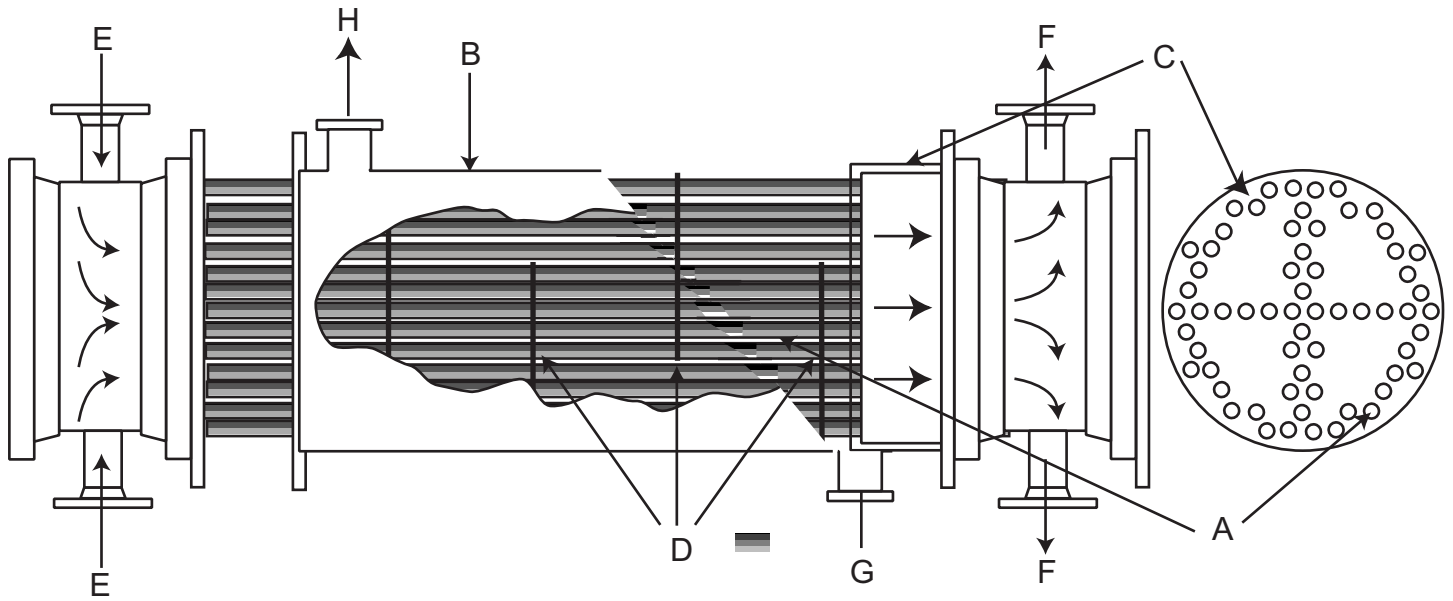
shell	
tube	

(Panel 3.5)
“A” indicates the _____.

tubes	
-------	--

Panel 3.5

Shell and Tube Heat Exchanger



(Panel 3.5)
 The tubes of the _____ and _____ heat exchanger are shown as _____ (letter) in the drawing.

shell tube A	
--------------------	--

(Panel 3.5)
 "E" is the _____.

inlet nozzle (inlet tube)	
------------------------------	--

(Panel 3.5)

Material flowing through the _____ enters at _____ (letter) and leaves at _____ (letter).

tubes E F	
-----------------	--

(Panel 3.5)

When material is in the tubes, it is said to be on the *tube side*. The material will enter the exchanger at “E”, flow _____ (around/ through) the tubes, and leave at _____ (letter).

through F	
--------------	--

When there is a flow of material through the tubes, the flow is said to be on the _____.

tube side	
-----------	--

(Panel 3.5)

To have a flow through the tube side, the material would have to flow into the heat exchanger at _____ (letter) and out of the exchanger at _____ (letter).

E F	
--------	--

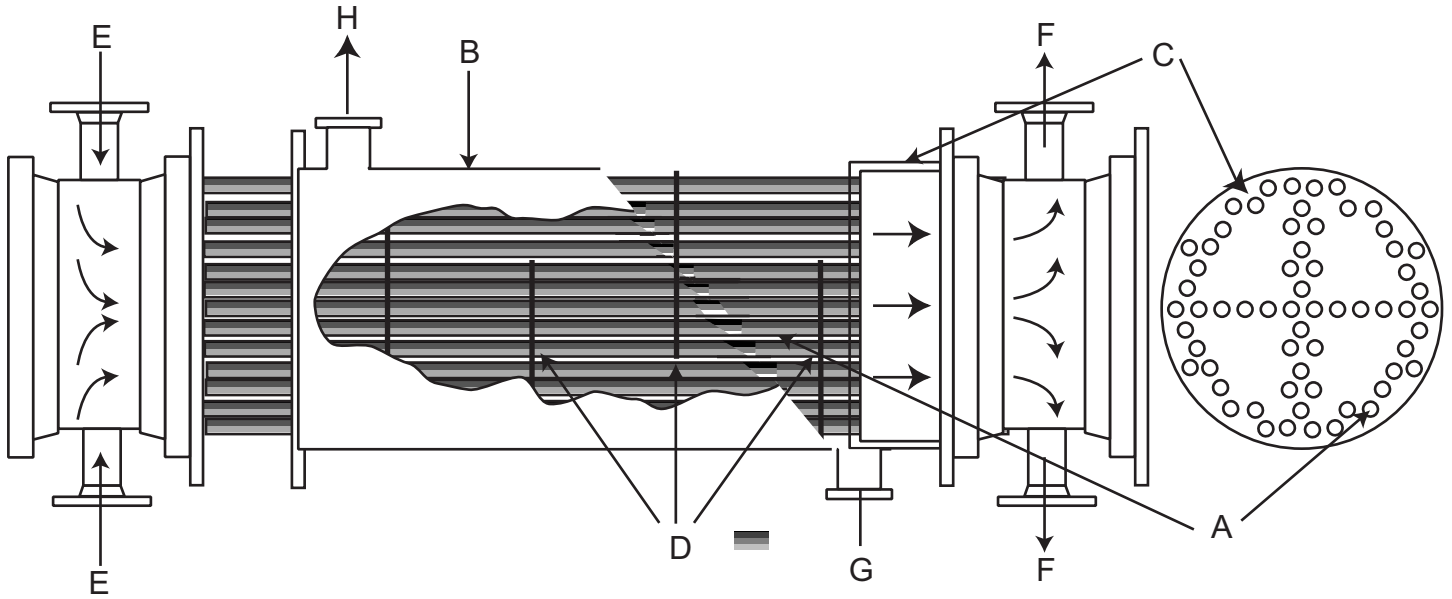
(Panel 3.5)

The _____ (A) are inside the _____ (B).

tubes shell	
----------------	--

Panel 3.5

Shell and Tube Heat Exchanger



When material flows through the tube side, it is flowing through the _____ which are inside the _____.

tubes	
shell	

(Panel 3.5)

“G” is the shell _____.

inlet	
-------	--

(Panel 3.5)

“H” is the shell _____.

outlet

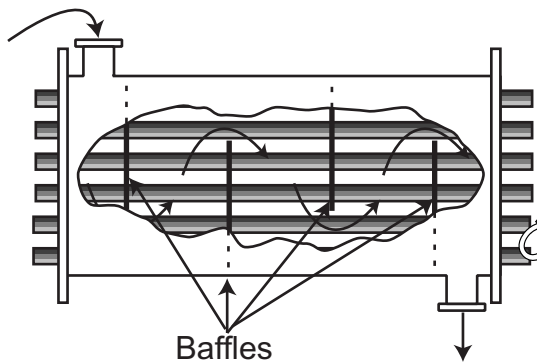
When material flows through the shell of a heat exchanger, it is flowing through the *shell side*. The shell of a heat exchanger is called the _____.

shell side

(Panel 3.5)

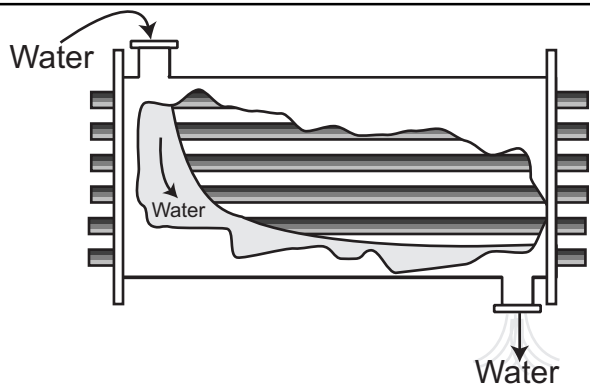
The _____ (D) are inside the _____ (B).

baffles
shell



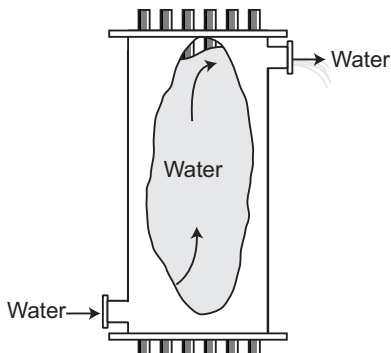
To assure good movement around the tubes, _____ are used.

baffles



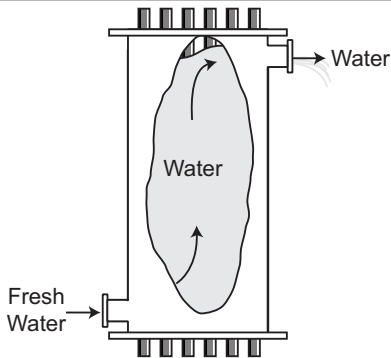
If there were no baffles, this shell _____ (would/ would not) stay full of water.

would not



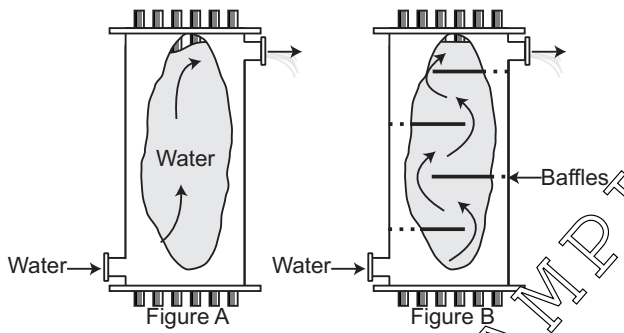
If there were no baffles, this shell _____ (would/ would not) stay full of water.

would	
-------	--



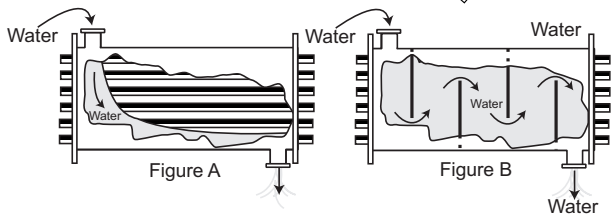
If there were no baffles, the fresh water _____ (would/ would not) circulate around all the tubes.

would not	
-----------	--



The heat exchanger with better circulation and heat transfer is _____ (A/ B).

B	
---	--



The heat exchanger with better circulation and heat transfer is _____ (A/ B).

B	
---	--

The baffles inside the _____ will assure good flow of material around the outside of the _____.

shell tubes	
----------------	--