

Figure 1

- Figure 1 shows the basic operating system of a wet barrel hydrant. Review and discuss the importance of draining the hydrant during cold weather as well as the importance of always fully opening a hydrant to prevent water exiting the drain causing a sink hole around the hydrant. Discuss why it is important to always stand behind the hydrant when opening. What are the problems that can occur when opening hydrants? How do we solve them? What would you do if the hydrant was a "dead" hydrant?

Pumps – NFD pumps are centrifugal pumps

- Centrifugal means "away from the center"
- Operates  $2\frac{1}{2}$  times faster than engine speed

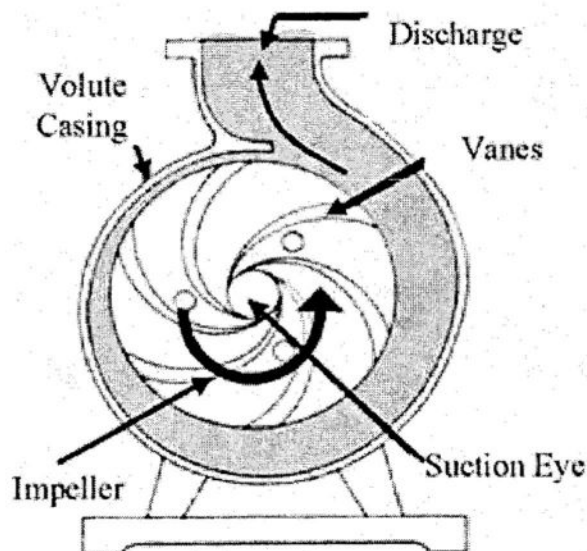


Figure 2

- Figure 2 shows a single stage centrifugal pump. All NFD apparatus have this style of pump.
- Discuss how water enters the suction eye and exit the discharge thus building the required pressure needed.
- Because the pump operates  $2\frac{1}{2}$  times the speed of the engine, the pump can build pressure at idle. (remember this point for future training)