

## Vacuum Pump Exhaust Oil Collection

Vacuum pumps that require oil can exhaust a significant amount of waste oil into the environment. An oil collection system can easily be constructed from materials available on the farm. Collecting the exhausted oil prevents oil from being discharged to the ground and eliminates unsightly oil film on buildings.

### Constructing an Oil Collection System:

- Use a 20 L plastic container (detergent, acid and teat dip containers work well). Cut two holes in the sides of the container (Figure 1). These holes should not be opposite each other. Avoid putting a hole in the top of the container as this will allow rain water to enter the container.
- Install an extension pipe on the vacuum pump exhaust outlet and connect it to the container (Figure 2). This pipe should be capable of withstanding high temperatures.

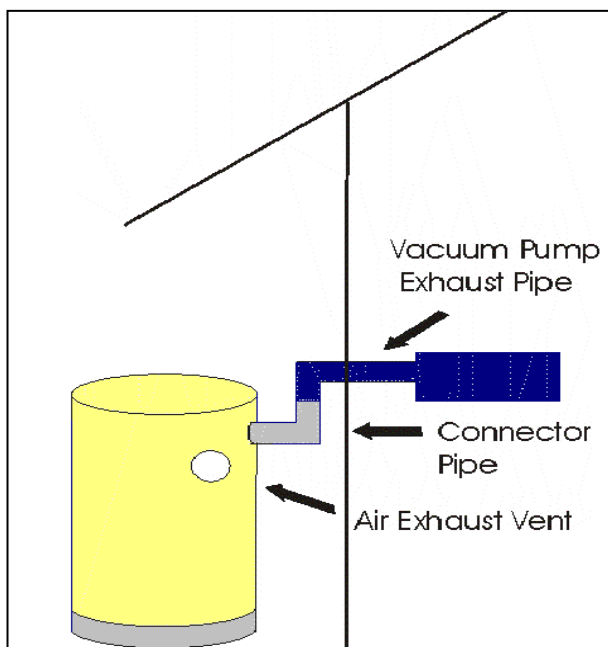


Figure 1: Collection System



Figure 2: Collection system for two vacuum pumps

- Ensure precipitation water does not enter the barrel by positioning the air outlet vent towards the barn. Oil containing water will not be accepted by a used oil return center.
- Ensure that the air vent is of adequate size and that the collection barrel is emptied regularly. When vacuum pumps are started a large pressure is suddenly exerted inside the barrel. If the air vent is not of adequate size oil may be forced out the vent and onto the ground.
- The collection container should be located on a level base and secured in place, to prevent accidental tipping.
- Contaminated soil surrounding the vacuum pump exhaust should be dug up and placed in the manure storage. Replace the removed soil with clean soil.
- Properly dispose of the collected oil at a used oil return center.
- After installation, periodically check the collection system to make sure that it is working properly.