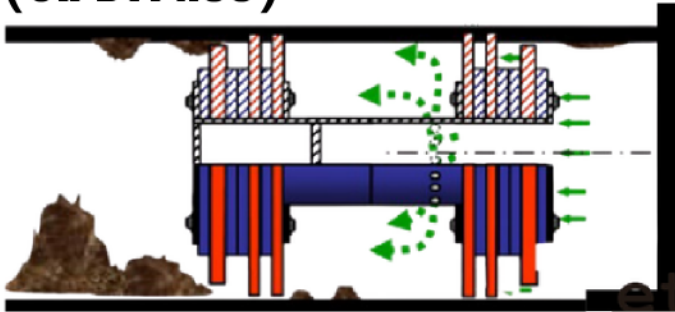
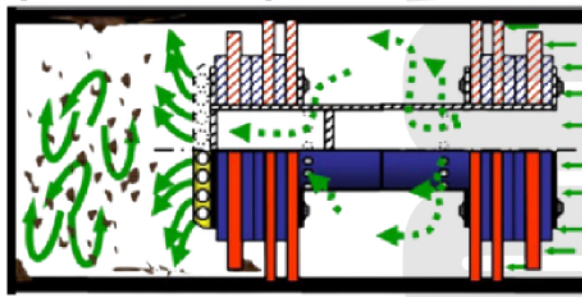


BYPASS PIGGING AND ITS EFFECTS

WITHOUT JETTING HEAD (OR BYPASS)



WITH JETTING HEAD (OR BYPASS)



The application of bypass ports to a pipeline cleaning pig serves two main purposes. Bypass ports will serve to slow down the pig & to allow debris or liquid surge to travel faster than the pig. All materials present in the line before pig launch will be pigged out and nothing will leak through the bypass ports because pressure behind the pig is always higher than pressure in front of the pig. Pig cleaning efficiency is increased due to the turbulent flow through the bypass ports which serves to suspend solids and liquids ahead of the pig instead of the pig itself being required to mechanically remove solids and liquids. Debris is not allowed to build in front of the pig which in certain circumstances may cause the pig to nose down and wear the sealing components unevenly. The proper amount of bypass will be determined based on the pipeline parameters. These parameters are flow rate, pressure, length of line, minimum bend radius, & pipeline internal diameters. A solid starting point for bypass recommendations is normally 3-4% of pipeline internal diameter.