The Annular Bypass Assembly (ABA) is a hybrid of the conventional gas lift system with a packer and the open-ended, packerless system, it utilizes tubing and gas lift valves above the packer combined with a bypass assembly to allow injected gas to pass through the packer. The ultimate point of lift for ABA can be the end of tubing, allowing for greater reduction in flowing bottom hole pressure. This system allows for optimal production of deviated wellbores and makes it possible to treat the tubing string and casing with chemicals, by way of injection gas, both above and below the packer. The packer prevents upper gas lift valves from fluid and wellbore contaminants from re-entering the tubing/casing annulus above the packer when the well is shut in.
How it Works:

- Injected gas enters the bypass assembly from the annulus, just above the packer, and exits to the annulus, just below the packer.
- Production is normal up the tubing; no adjustments are needed on the wellhead.
- No fluids re-enter the tubing/casing annulus above the packer, as the ABA is checked from back flow.

Typical ABA Applications:

- When deviation of the wellbore limits how deep a packer can be set.
- Horizontal well applications where the packer is set at 30 to 45 degrees, but lift is needed at the 90 degree turn.
- In wells with debris from drilled out bridge plugs (produced fluids and debris can’t flow through and damage or plug the gas lift valves).
- Vertical wells with a liner; where the packer needs to be set above the top of the liner.

Apergy – Gas Lift offers several advanced methods of gas lift designed to improve recovery from deep vertical wells and long horizontals with multiple zones. These include Annular Bypass Assembly (ABA), Enhanced Annular Velocity (EAV), Dip Tube, and the patented Marathon Oil® Annular Velocity Enhancement (AVE).

There are a number of variables to consider when evaluating the best solution for your specific application, including gas rates, liquid production and other well characteristics. Backed by more than 30 years of gas lift expertise, our trained production experts can help you select a gas lift system specifically for your needs.

For more information, please contact your local Apergy – Gas Lift sales and service representative or visit us online at www.apergy.com.