Steam, Batch, Agitating Retorts

Characteristics of these retorts:

- Pressure Vessel
- Batch container handling
- Product agitation
- Horizontal
- Unprocessed cans are loaded and processed cans are unloaded at the same time through air-operated gate valves
- Cans enter high on one end of the retort wall and exit low on the other end of the retort wall
- During loading/unloading, the outer reel is locked to the retort shell

Picture of steam batch agitating retorts
Retort using the SHAKA agitation

Advantages of using Steam:

- Excellent Medium for Heat Transfer
- Temperature Easily Regulated
- Pressure Can Counter-balance Internal Can Pressure
- Easy to Produce and Stored for Instant Use

Instrumentation needed:

- Temperature indicating device (Mercury-in-Glass - MIG) or equivalent device (e.g., Resistance Temperature Device – RTD or Digital Temperature Gauge-DTG)
- Temperature/time recording device

Advantages:
- Shorter process time
- Better product quality and uniformity due to shorter process times
Disadvantages:
- Batch handling
- More critical factors to measure, control and record

Critical Operating Parameters: Headspace and/or fill-in weight; Consistency/thickness; Reel speed; Condensate build-up in the bottom of the shell