1. Ribs (aka Fins or Serrations) create a “Torturous Fluid Path” by acting as multiple internal dams, making it more difficult for the fluid to migrate past.
2. End-bulbs act as a single internal dam, sealing the joint using the “Cork and Bottle” theory: When the waterstop is placed under tension, the end-bulb is pulled tightly into the more narrow void of the web thickness, sealing the joint much like a cork in a wine bottle.

3. Generally, the wider and thicker a waterstop is, the greater the hydrostatic head pressure it can resist.

4. Because of their multiple ribs (or fins), ribbed waterstop offers greater joint protection and higher head pressure ratings than a similarly sized dumb-bell waterstop.

5. Most engineering firms today specify ribbed waterstop profiles because of their greater capabilities. Notable exceptions are the United States Bureau of Reclamation and Army Corps of Engineers.