



# Specification Sheet

## HydroVortex™

### Key Features

- Activation or Flow Only Ball Drop
- Wellbore Orientation Vertical or Horizontal
- Minimal Pumping Capacity Required 3bbls
- Effective in Partial or Total Lost Circulation Environments

### General Tool Specifications

<b>Tool OD</b>	3-5/8"
<b>Top Sub, Fishing Neck Portion OD</b>	3-1/8"
<b>Top Sub, Tool-Adjoining Connection Portion</b>	3-5/8"
<b>Borehole Size Range OD</b>	4-1/2"-7"
<b>Length of Tool</b>	22.5"
<b>Weight of Tool</b>	40"
<b>Length of Tool including Adapters</b>	90lbs
<b>Weight of Tool Assembly, including Adapters</b>	2 3/8"
<b>Tool Connection, Top Sub Upper</b>	Overshot
<b>Tool, Upper (Box)</b>	Overshot
<b>Tool, Lower (Pin)</b>	2-3/8"
<b>X-Over Adapter OD</b>	3-1/8"
<b>X-Over Adapter, Upper (Box)</b>	2-3/8"
<b>X-Over Adapter, Lower (Pin)</b>	2-7/8"
<b>X-Over Adapter, Lower, Screen Thread</b>	1"

### Operational Parameters

<b>Optimal Flow Rate</b>	4.5-5 bbl/minute
<b>Collection Chamber, Pipe Size</b>	multiple sizes
<b>Collection Chamber, Number of Joints</b>	20
<b>Maximum Make-Up Torque, ft lbs</b>	1,800 ft lbs
<b>Maximum Tensile Yield, lbs</b>	1,800 ft lbs

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