

ESP VORTEX DESANDER W/BORONIZED SLEEVE™

The Vortex Desander w/Boronized Sleeve is designed to remove solid particles such as sand from produced liquid prior to pumping.

The Vortex Desander w/Boronized Sleeve has a 15 FT Boronized hardened wear resistant tubular body, designed for high rates of abrasive flow. It is our solution to a conventional tool, that can be prone to excessive erosion in the vortex body.

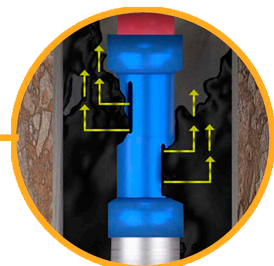
This improved version of the vortex sand shield was designed to withstand the high speed of the particles and avoid cuts in the tool and the failure of the solid separation system. The main benefits of this tool are as follows.

BENEFITS

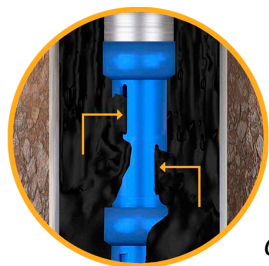
- Eliminates sand cutting problems
- Eliminates workovers and lost production
- Denser surface resistant to high corrosion due to H₂S and CO₂ in solution.
- It is not a coating so there is no reduction in the inner diameter.

Our GV Cup Packer is a double cup design that guarantees the best seal. Our packer cups are molded from a durable Oil, gas and abrasion-resistant elastomer compound that withstands wear and tear, even under pressure.

ESP High Erosion Resistant Vortex™ Patented



Fluid Out
(3 Stage)



Fluid Out
(1 Stage)



Vortex Separator
(2 Stage)



More than three
Mud Joint

VORTEX FLOW CHART

FLOW CHART		HELIX SIZES		
ESP		EUE TUBING SIZE		
MIN	MAX	2-3/8"	2-7/8"	3-1/2"
96	192	HE1.1	HE2.1	HE3.1
132	252	HE1.2	HE2.2	HE3.2
216	440	HE1.3	HE2.3	HE3.3
330	610	HE1.4	HE2.4	HE3.4
410	850	HE1.5	HE2.5	HE3.5
780	1480	HE1.6	HE2.6	HE3.6
1150	1910	HE1.7	HE2.7	HE3.7
1480	2800	HE1.8	HE2.8	HE3.8
2100	3900	HE1.9	HE2.9	HE3.9

Available
-2-3/8"
-2-7/8"
-3-1/2"

GV CUP PACKER RUBBER MATERIAL

RUBBER TYPE	TEMPERATURE RANGE
NITRILE	70° - 300° F
HSN (HNBR)	70° - 325° F
VITON	100° - 350° F
AFLAS	100° - 400° F

PRINCIPLE OF OPERATION

The ESP Slotted Vortex consists of an intake and an embodied helix (vortex creator).

The intake consist of a specifically engineered slotted design. These slots are cut using a plasma cutter which creates smoother cut surfaces than other cutting methods. Smooth surfaces are less likely to be affected by corrosion.

The helix creates the vortex through the use of centrifugal force, which separates the smaller solids and deposits them into the tail pipe[s] (mud joint[s]) enclosed with a bull plug.

Outlet Section is located above the ESP packer and delivers the clean and solid free fluid to the annular section. It consists of a specifically engineered slotted design like the intake.

