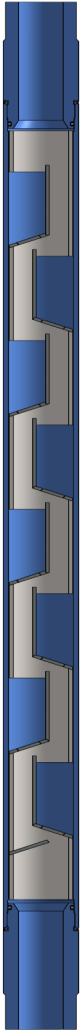




PetroQuip SandMaze



Cut-away

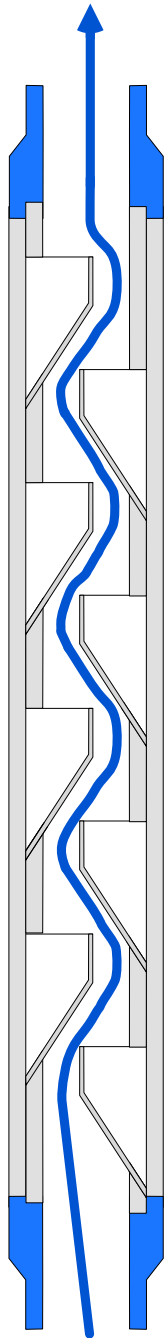
PetroQuip’s **SandMaze** captures sand, proppant and debris fallback during production shutdown. The proprietary flow path design captures the sand in holding chambers when the ESP is offline which prevents sand from settling on top of or in the pump’s stages. Once a flow is re-established, the **SandMaze’s** self-cleaning feature allows sand to re-enter the production flow stream. The cleaning action does not require the sand to be jetted out of the sand chambers which significantly reduces the risk of cutting through the outer chamber of the tool.

Advantages and Features

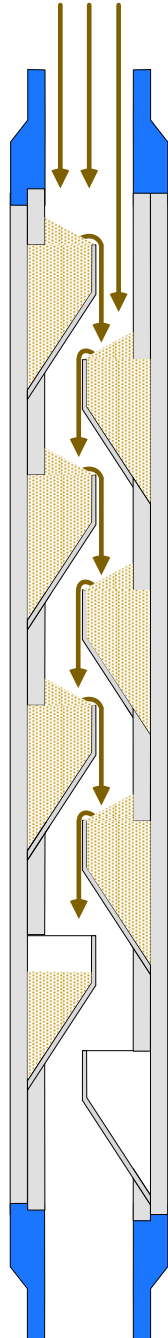
- Extends the life of the ESP by minimizing hard pump start scenarios due to sand settling on top of the ESP
- Bi-direction flow allows for injection treatments
- Captures sand when the ESP is offline preventing sand settlement on the pump
- Automatic self cleaning feature based on gravel pack screen technology
- No communication to the annulus
- Sand re-enters the production flow stream when the pump is back online
- Minimizes erosion issues to the outer body of the tool

SandMaze Size	Tubing Size (in)	Thread	Material	OD (in)	OAL (ft)
350	2-3/8	2-3/8" EUE	L80 or 13Cr	3.50	20
	2-7/8	2-7/8" EUE			
400	2-3/8	2-3/8" EUE		4.00	
	2-7/8	2-7/8" EUE			
520	3-1/2	3-1/2" EUE		5.20	

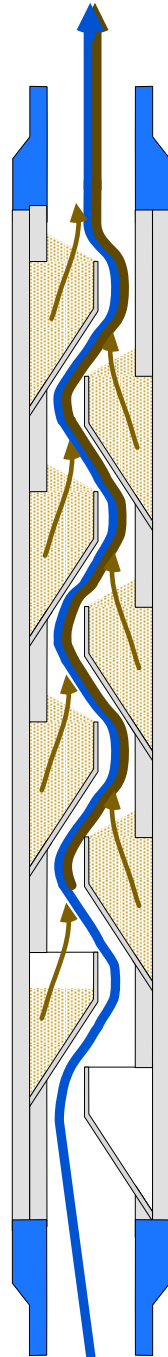
PetroQuip SandMaze



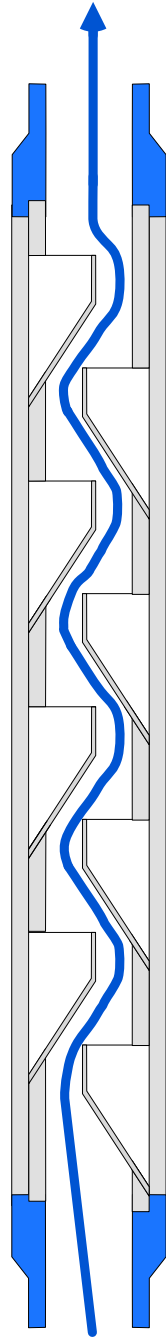
Production Mode



ESP Off Sand
Captured



ESP Restart Sand
Flushing



Back to Clean