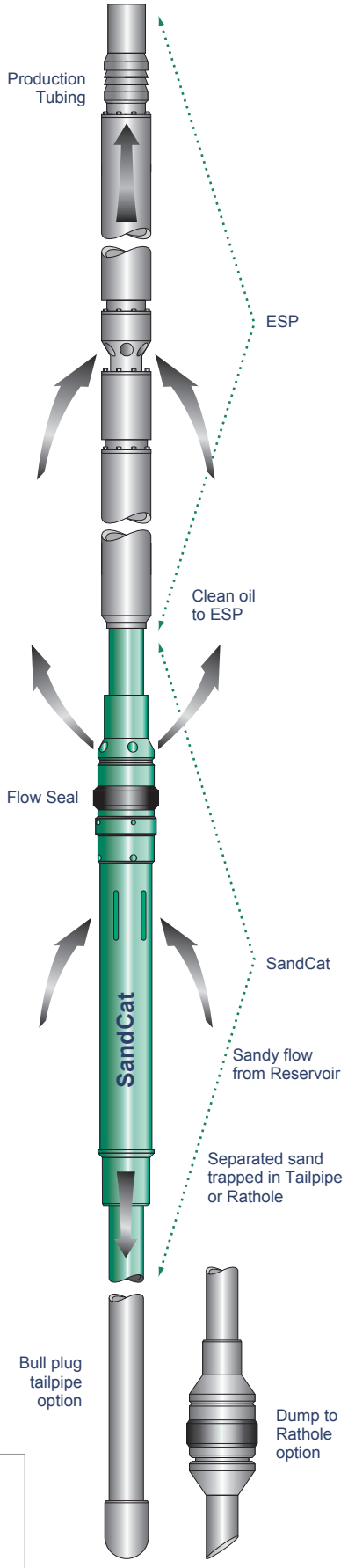
SandCat - Patent GB2409691



The RMSpumptools SandCat is a downhole centrifugal sand separator designed to separate out sand from the produced fluid before it enters the pump.

SandCat can radically reduce damage to expensive ESP's in sandy wells and significantly increase pump run time resulting in improved well profitability for the operator.

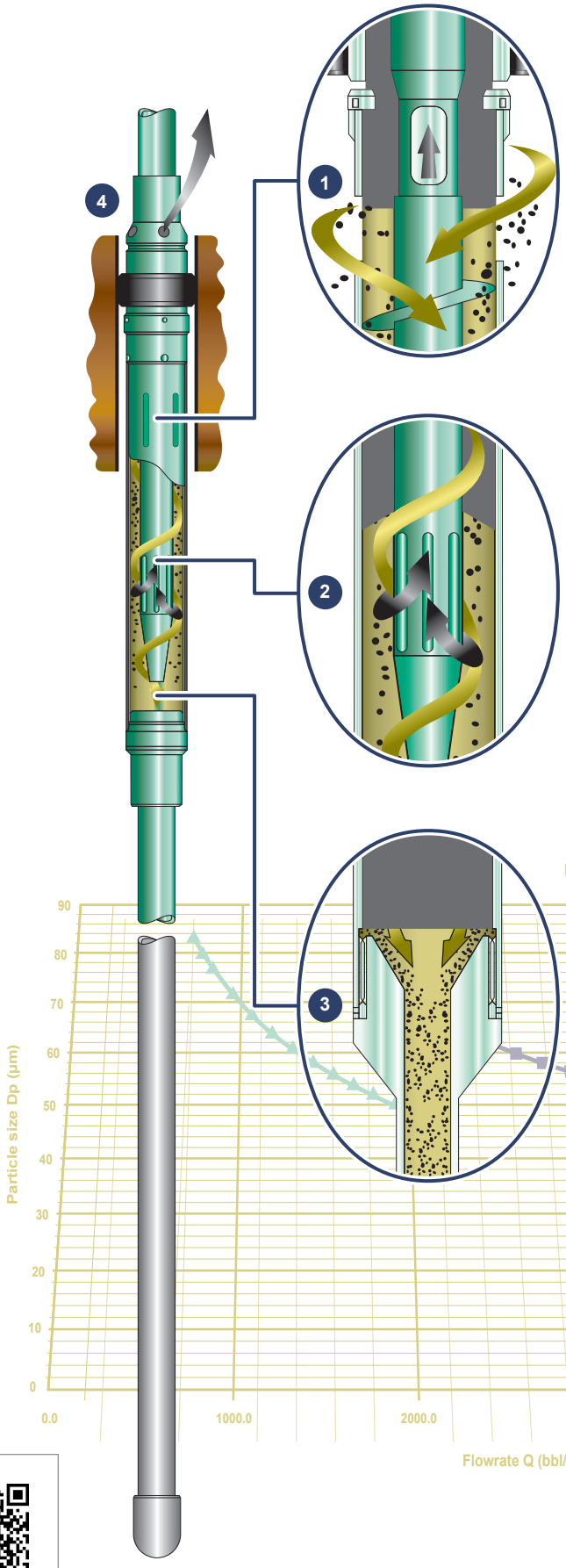
Attached below the ESP Motor, the SandCat is installed with the ESP as a quick and simple addition to the completion system.

Features

- Separates sand particles 40 microns and above
- No well preparation required - RIH with the ESP
- No moving parts
- Simple to install
- Assists gas separation
- Low capital cost
- Sand management system provides choice of sand collection options

Casing Size	SandCat OD	Flow Rate	Overall Length
5-1/2"	4"	200-1000 bbd	112.7"
		400-1300 bbd	118.7"
		1000-1700 bbd	121.7"
		1200-2000 bbd	123.5"
7"	5-1/2"	200-1000 bbd	114.5"
		1000-2200 bbd	125.7"
		1500-2800 bbd	140.7"
		1800-3600 bbd	148.7"
		2500-5000 bbd	165.7"

SandCat



How it works

1. Solids laden fluid is forced into SandCat intake. Integrated flow seal acts as a barrier to prevent well fluid from bypassing SandCat.
2. The centrifugal chamber drives sand and solids to the outer part of chamber, allowing de-sanded fluid to enter the SandCat internal central fluid intake.
3. Separated sand and solids are directed to the tailpipe (or rat hole) by centrifugal velocity and carried downward by gravity.
4. De-sanded fluid exits into the upper annulus through the discharge sub above the flow seal.

   Once the tailpipe is filled, production of sandy fluid is resumed to ESP. No plugging will occur