



**BORETS**

# Borets Slotted Filter-Intake





- Slotted filter-intake purpose is to protect electric centrifugal pump from solids while pumping well fluids.

<b>Parameters</b>	<b>Values</b>
Solids microdensity by Mohs scale	7
Content of free gas on intake, by volume, %	0-70
Temperature of pumped fluid, °C, maximum	170
Produced water content, %, maximum	100

- To prevent solids from entering the pump with pumped fluid, slotted filter-intake has a standard slotted filtering element.
- Slotted filter-intake operates with size 5 and 5A pumps in wells with casing diameter minimum 121.7mm and 124.3mm.

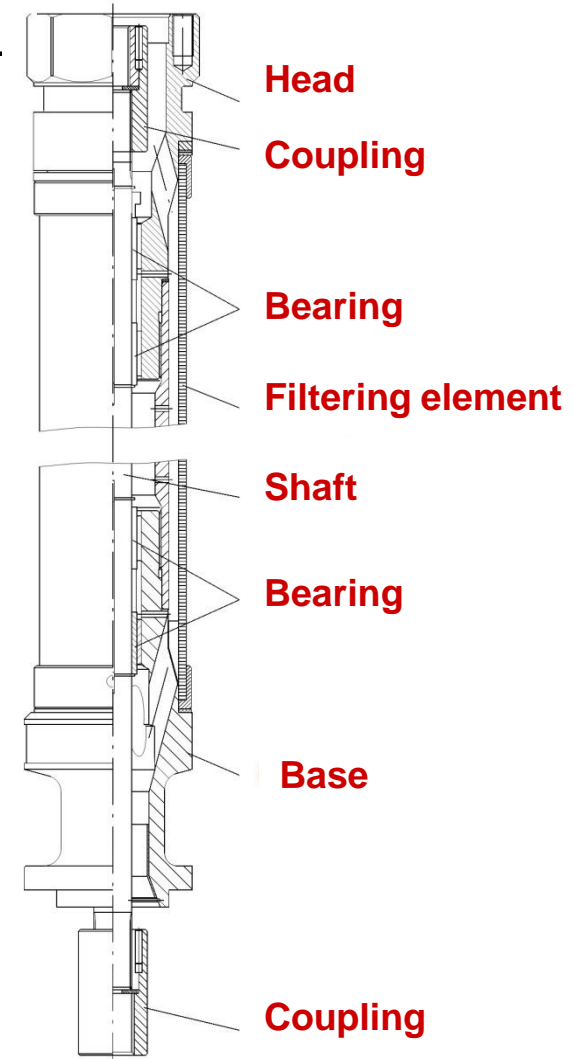
<b>Size</b>	<b>Filter slot width, micron</b>	<b>Nominal ESP Head, m<sup>3</sup>/day</b>
5 and 5A	100 - 400	100 - 900



- Slotted filter-intake is installed between the pump and motor seal.
- Depending on the pump head and filter slot width, the filter may have various number of sections.
- Slotted filter-intake consists of the base, head, center bearings and tubes which, when assembled, form a solid body of the slotted filter element and shaft.
- Slotted filtering element represents a cylindrical housing made from profiled wiring elements with triangular and rectangular cross-cut connected by contact welding.

### Advantages:

- Lower hydraulic losses;
- Increased durability: the radial bearings friction couple is protected from pumped fluid;
- Eliminated risk of clogging the filter's internal cavity with filtered solids.





Size/ Series	Model	Filtering element slot width, micron	Nominal pump Head, m <sup>3</sup> /day	Number of sections	Couplings		
					to pump/ gas separator/ phase convertor		to motor seal
5	Fsh-MVB5-100-100	100	100	1	for pumps: 10, 30, 3 ESP  17x22e L73 20x22e L73 22x22e L73	for pumps: 1 ESP  17x22e L90 20x22e L90 22x22e L90	22ex25 L73
	Fsh-MVB5-100-150		150	2			
	Fsh-MVB5-100-300		300	3			
	Fsh-MVB5-100-600		600	4			
	Fsh-MVB5-150-150	150	150	1			
	Fsh-MVB5-150-300		300	2			
	Fsh-MVB5-150-600		600	4			
	Fsh-MVB5-200-200	200	200	1			
	Fsh-MVB5-200-300		300	2			
	Fsh-MVB5-200-600		600	3			
	Fsh-MVB5-400-300	400	300	1			
	Fsh-MVB5-400-600		600	2			
Fsh-MVB5-400-900	900		3				
5A	Fsh-MVB5A-100-100	100	100	1	for pumps: 10, 30, 3 ESP  17x25e L73 20x25e L73 22x25e L73	for pumps: 1 ESP  17x25e L90 20x25e L90 22x25e L90	25ex25 10L80
	Fsh-MVB5A-100-150		150	2			
	Fsh-MVB5A-100-300		300	3			
	Fsh-MVB5A-100-600		600	4			
	Fsh-MVB5A-150-150	150	150	1			
	Fsh-MVB5A-150-300		300	2			
	Fsh-MVB5A-150-600		600	4			
	Fsh-MVB5A-200-200	200	200	1			
	Fsh-MVB5A-200-300		300	2			
	Fsh-MVB5A-200-600		600	3			
	Fsh-MVB5A-400-300	400	300	1			
	Fsh-MVB5A-400-600		600	2			
Fsh-MVB5A-400-900	900		3				



- Borets slotted filter-intakes field trials were held in different oil regions of Russia.
- Borets has supplied 10 slotted filter-intakes of size 5 and 5A.
- As of June 2013, the average runlife is **264 days\***.
- The maximum runlife so far is **442 days\***.