

# Sand Diverter Pump

Increase run life in sand-laden fluid

## APPLICATIONS

- Any depth well
- Medium to high volumes of downhole sand and solids
- Low to high fluid levels

## BENEFITS

- Reduces material wear in sand-laden fluids
- Increases run life of components
- Reduces well intervention frequency

## FEATURES

- Patented Sand Diverter plunger adapter
- Chrome plated barrel ID
- Heavy-walled barrel
- Bottom hold-down

Don-Nan Sand Diverter pumps are heavy-walled, stationary barrel, bottom hold-down specialty pumps, utilizing an enhanced plunger assembly designed to maintain production levels and reduce equipment failure caused by downhole sand and solids. These pumps are recommended when there is high sand concentration in the production fluid.

## Design

Sand Diverter pumps are derived from the standard RHB API sucker rod pump design and upgraded with specifically selected components and materials. The most impactful upgrade is the replacement of the industry standard plunger adapter with a Sand Diverter. The Sand Diverter is a patented technology designed to direct solids away from the pump barrel, further maintaining integrity of the down hole pump.

The Sand Diverter plunger adapter is made of durable MONEL® material and is designed for optimal flow while maintaining component strength. The outer diameters of the Sand Diverter and compatible plunger are coated with a nickel-based thermal spray, resulting in an extremely durable surface for improved protection against abrasion.

The Don-Nan Sand Diverter Pump self-protects during intermittent pumping as well as regular operation. During both regular operation and at system idle, the Sand Diverter directs solids to the inside of the plunger instead of allowing sand to wedge between the plunger and barrel.

## Proven results

In field trials, the Don-Nan Sand Diverter Pump proved effective in mitigating the effects of downhole sand production, resulting in extended run life on average by 108% and a reduction in well intervention frequency by 44%. The study was performed in multiple wells across different fields in wells previously experiencing high failure frequencies due to heavily sand-laden fluids.



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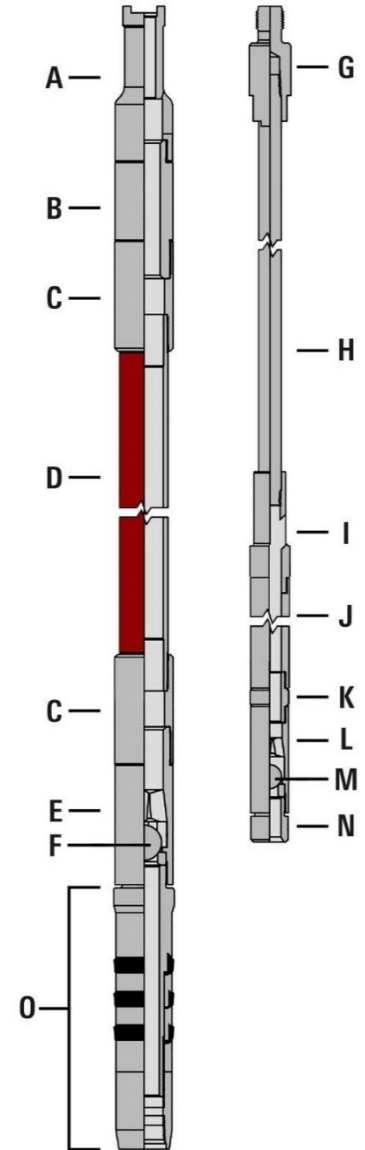
Increase run life in sand-laden fluid



## Sand Diverter Pump Specifications

		Tubing x Pump Bore Size, in						
		2 <sup>3</sup> / <sub>8</sub> x 1 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>8</sub> x 1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub> x 1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub> x 1 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>8</sub> x 2	3 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>4</sub>	
Description	Item Req.	Part Number						
<b>Stationary Assembly</b>								
Guide, valve rod	A	GR2211	GR2211	GR3212	GR3212	GR3212	GR4312	
Connector, barrel	B	C2221	C3322	C3322	C3322	C3322	C4432	
Coupling, extension	C	2	EN2117	N/A	EN3117	EN4117	N/A	EN5117
Barrel, heavy wall	D	BT04207C	BT06207C	BT07207C	BT08207C	BT13207C	BT14207C	
Cage, closed barrel	E	1	CF502	CF522	CF672-2	CF672-3	CF621	CF872-4
Valve, ball and seat	F		047 + 05	047 + 05	048 + 06	048 + 06	048 + 06	050 + 08
<b>Traveling Assembly</b>								
Bushing, valve rod	G	BR21-1	BR21-1	BR21-1	BR21-1	BR21-1	BR32-1-D	
Rod, valve	H	VR2-191	VR2-188.5	VR2-194	VR2-188.5	VR2-188.5	VR3-188.5	
Plunger Adapter (Sand Diverter)	I	PA224-SW-BXPA324-SW-BXPA324-SW-BXPA424-SW-BXPA624-SW-BXPA734-SW-BX						
Plunger, Spray Metal	J	1	P214U-2	P314U-2	P314U-2	P414U-2	P614U-2	P714U-2
Plunger Pin	K		80PP2-4	80PP3-4	80PP3-4	80PP4-4	80PP5-4	80PP6-4
Cage, closed plunger	L		CF211	CF311	CF311	CF412	CF511	CF612
Valve, ball and seat	M		042 + 02	044 + 03	044 + 03	046 + 04	047 + 05	048 + 06
Plug, seat (external)	N		PS212-PSP	PS312-PSP	PS312-PSP	PS412-PSP	PS512-PSP	PS612-PSP
<b>Seating Assembly</b>								
API, 3-cup*	O	1	HD422-3	HD511-4	HD511-4	HD511-4	HD511-4	HD612-5

Barrel, plunger, and valve rod must all be specified in length.  
 All components may be specified by material and coating type.  
 \*API mechanical-type seating assembly also available.



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LUFKIN Don-Nan is an API 11AX certified manufacturer for 25 continuous years and counting.

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[lufkin.com/donnan](http://lufkin.com/donnan)