

PULSATOR P-94 "HERCULES"

Technology of variable pressure stimulation aimed at effective matrix stimulation of bottomhole formation zone.

FIELD OF APPLICATION

Carbonate and terrigenous reservoirs with low permeability and/or high colmatation as a result of well drilling, operation and workover. Conversion of wells from production to injection well stock.

ADVANTAGES

The technology allows:

- - producing hydraulic impact with any intensifying reagents including acidic complexes;
- - applying stimulation technology and chemical reagent injection at effective pays with the lack of injection capacity;
- - applying interval variable pressure stimulation on non-working areas of pay formation with the equipment set in the specific perforation interval.

SOLUTION COMPARISON

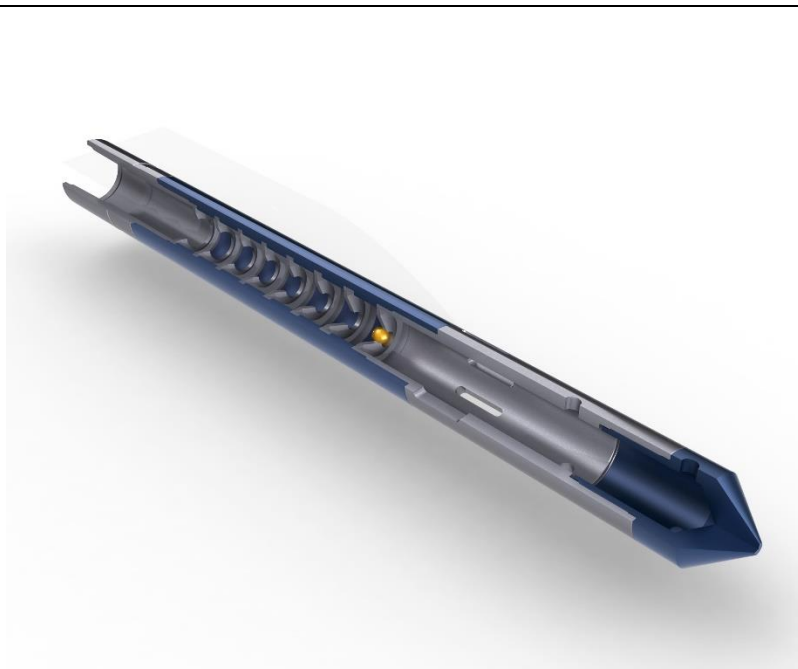
- two- to three-fold increase of formation treatment depth in comparison with injection of chemical compositions;
- positive effect with reservoirs of all types.

CHARACTERISTICS

Mechanical disruption of diaphragms installed in the equipment enclosure produces a series of hydraulic impacts.

The number of diaphragms as well as the number of hydraulic impacts does not exceed eight.

The diaphragms are equipped with cutting channels calibrated for specific pressure. Diaphragm fracture pressure is modeled and selected according to the specific conditions and may reach 10, 15, 20, 25, 30 MPa.



Dropped down metallic balls block the flow area in the diaphragms of P-94 "Hercules"

ENGINEERING DESIGN

Variable pressure stimulation technology with the use of P-94 "Hercules" is planned and optimized in production casings with the nominal diameter exceeding 146 mm. It guarantees better performance and cost-efficiency in comparison with the "standard technology" of matrix formation stimulation.

EQUIPMENT CHARACTERISTICS

Production casing nominal diameter, mm	146 - 178
Outer cylinder diameter, mm	94,0
Length, not less than, mm	1000,0
Coupling thread (internal pipe end upset)	VNKT-73 GOST 633-80
Maximum operating pressure, not more than, MPa	30
Number of hydraulic impacts in one round-trip operation, not more than	8
Diaphragm disruption pressure, MPa	10, 15, 20, 25, 30

SAFETY

Equipment P-94 "Hercules" complies with safety requirements of Technical regulations of the Custom Union "On safety of machines and equipment" (TR CU 010/2011). The declaration is included in the Unified State Register of Certificates and Declarations of Compliance. Registration number: EAEU № RU Д- RU.HO02.B.00291.

