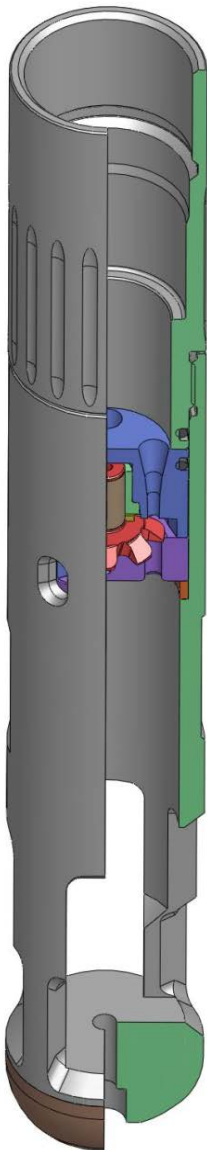


Turbo-Acoustic Source



The VibraFlow™ turbo-acoustic source converts hydraulic power into a powerful high-frequency acoustic signal. This powerful source mobilizes fines in the formation near the wellbore and increases acid reaction rates in low-permeability zones. When run underbalanced, the tool can be used to remove fines and polymers from the formation near the wellbore.* The tool can be operated with a gas separator for underbalanced operations.

Applications

- Acidizing
- Drilling damage removal
- Well stimulation

Specifications

Tool outside diameter	1.69 in. (43 mm)
Length	12.16 in. (309 mm)
Fluid compatibility	Water, solvents, brine, surfactants, and up to 28% HCl acid
Max. operating temperature	400°F (200°C)
Tool connection	CT150010SA
Assembly torque (through tool)	100–120 ft-lb (120–160 N-m)
Maximum assembly torque	150 ft-lb (200 N-m)
Design differential pressure	1670 psi (11.5 MPa)
Design flow rate	40 gpm (150 lpm)
Acoustic power at design pressure/flow	2 kW (continuous average) 12 kW (transient peaks)
Dominant acoustic frequency (pitch)	4 kHz
Recommended feed rate	6 ft/min (2 m/min)

VibraFlow™ Operation Guide

An operation guide is included with the VibraFlow™ tool.

*Kolle, J.J., and T. Theimer (2010) "Testing of a fluid-powered turboacoustic source for formation damage remediation," *SPE 128050*, prepared for SPE International Symposium and Exhibition on Formation Damage Control held in Lafayette, Louisiana, USA, 10–12 February.