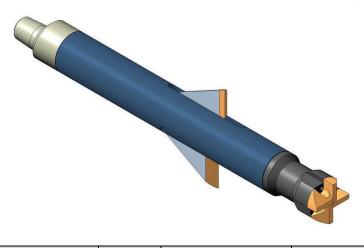


Hydraulic Expansive Mill type FRG

The Hydraulic Expansive Mill FRG is used to drill out cement bridges with coiled tubing unit without retrieving the tubing string. The Hydraulic Expansive Mill consists of body made of high-tensile alloy steel, Mills type FTS4 with cutting and grinding dressing consisting of crushed tungsten carbide particles and sliding blades with cutting and grinding dressing consisting of crushed tungsten carbide particles introduced into matrix of nickel-containing brass. To provide more accurate cleaning of production casing walls from cement residuals blades are shifted relating to body. Flexible springs are provided in order to prevent falling out of expansive elements during tripping operation. There is a connection thread at the upper part of body, ports and grooves for effective cooling and intensive washing are placed at the bottom part and lateral surface.



Code	Connecting thread	OD, in	Max D of blades extension, in	Thickness of dressing, in	D of washing slots
FRG-126/57	1" AMMT	2.24	4.96	0.59	0.2
FRG-142/52B	1,5" AMMT	2.05	5.59	0.59	0.2