

Z-REAMER

Your advanced compact underreamer

Designed with simplicity and reliability in mind, the Drillstar Z-Reamer is a compact block-type underreamer featuring advanced reaming capabilities. Its long blades provide unique cutter density and optimized stability, while its compact size opens up new reaming applications.

One size up

The Z-reamer is the first block-type underreamer capable of enlarging one bit size up (or about 50% of pilot size) even in the smaller diameters. This unique feature enables the tool to be run in directional casing-while-drilling and other demanding applications.

Near-bit directional reaming

As the Z-Reamer can be located immediately above the bit, long ratholes are no longer required, saving rig time and reducing drilling risks. The Z-Reamer is compact enough to be run below a mud motor or a point-the-bit RSS in directional applications.

Improved drilling performances

Unlike a bicenter bit, the Z-reamer is a fully centered tool, reducing drilling vibrations and improving stability. When run near-bit, the reaming blades are always in the same formation as the bit, improving the drilling performances.

Simple and precise activation

If required, the Z-Reamer can be activated by pressure using specially designed shear pins. This makes the activation possible even below BHA components such as mud motor, RSS, etc. Activation pressure can be adjusted on site.

Field maintainable

The Z-reamer is a sturdy tool, tested to perform in harsh drilling environments while remaining simple enough to be maintained in the field with few spare parts and hand tools, reducing turnaround time and improving reliability.



Z1225H with blades extended to 17 $\frac{1}{2}$ "



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Fail-safe design

The Z-reamer does not rely on any mechanical lock to remain open while drilling. The reaming blades are kept open by WOB and hydraulics, and retract once the pumps are stopped and the BHA is picked up from bottom. The blades shape prevents them from being pulled away from the body, strongly reducing the risk of losing any component downhole.

Optimized for your well

Reaming blades design can be optimized for your formation and desired well trajectory. Matching Z-Reamer blades & drilling bits can be delivered thanks to our partnership with major bit manufacturer Varel. Advanced computer analysis for directional behaviour, modal analysis and hydraulics can be conducted to select the best BHA components and drilling parameters.

Standard dimensions

Туре	Nominal Pilot Bit Size	Max Body OD	Opening Range	Max Flow Rate (GPM)	Standard Connections
Z350H	3 5/8"- 3 7/8"	3 1/2"	3 3/4" - 5"	150	2 3/8" REG / IF
Z450H	4 1/2"	4 3/8"	4 3/4" - 6 3/8"	250	2 7/8" REG / IF
Z600H	5 7/8" - 6"	5 3/4"	6 1/4" - 8 1/2"	450	3 1/2" REG / IF
Z850H	8 1/2"	8 1/4"	8 3/4" - 12 1/4"	900	4 1/2" REG / IF
Z1000H	10 3/8"	10"	10 1/4" - 14"	1800	6 5/8" REG
Z1225H	12 1/4"	11 3/4"	12 1/4" - 17 ½"	1800	6 5/8" REG
Z1750H	17 1/2"	16 3/4"	17 1/2" - 23"	1800	7 5/8" REG



