

Cool Edge Bits (Cool Edge Series)

Redefining Drilling with Cutting-Edge Hydraulics and Cooling Technology

With expertise in thermodynamics and fluid mechanics, Cool Edge Bits has taken the traditional PDC drill bit and reimagined it from the ground up.

Our patented design directs hydraulic flow to the cutters, reducing heat, minimizing wear, and extending performance. Every detail is built for longer life, deeper drilling, and better results. Cool Edge Bits leaves the stars behind, focusing on the new depths that matter most.



Features

- ◆ A single set cutting structure with backup redundancy for extended longevity.
- ◆ Diamond-focused hydraulics for improved cutter tip cooling.
- ◆ Nozzle orientations facilitate chip-breaking during initial rock removal.
- ◆ The medium cone profile and gauge configuration promotes stable lateral trajectories.
- ◆ Impact dampeners protect diamond cutters during transitions between interbedded formation layers.



Characteristics

Product	5.875 H613 (A241)	6.250 H613 (A248)	7.875 H616D (A245)	8.75 H616D (A249)	12.250 D616D (A250)	17.500 V816D (A247)
IADC:	S323	S323	S323	S323	S423	S423
Blade Count:	6	6	6	6	6	8
Face Count:	22 x 13 mm	-	27 x 16 mm	29 x 16 mm	50 x 16 mm	114 x 16 mm
Double Row:	-	16 x 16 mm	12 x 16 mm	16 x 16 mm	24 x 16 mm	49 x 16 mm
Gauge/Backreamer:	18 x 13 mm	18 x 13 mm	18 x 13 mm	18 x 13 mm	18 x 13 mm	18 x 13 mm
Gauge Length:	2.75 in (69.9 mm)	2.75 in (69.9 mm)	4 in (101.6 mm)	4 in (101.6 mm)	4.5 in (114.3 mm)	5.0 in (127.0 mm)
Makeup Length:	12.0 in (304.8 mm)	12.0 in (304.8 mm)	10.2 in (259.0 mm)	10.4 in (264.2 mm)	14.0 in (355.6 mm)	20.0 in (508.0 mm)
Junk Slot Area:	7.8 in ² (50.4 cm ²)	9.8 in ² (63.3 cm ²)	10.5 in ² (67.7 cm ²)	16.0 in ² (103.2 cm ²)	43.8 in ² (282.3 cm ²)	81.1 in ² (523.2 cm ²)
Nozzle TFA:	1.2 in ² (77.4 mm ²)	1.2 in ² (77.4 mm ²)	2.4 in ² (1,149 mm ²) max	2.4 in ² (154.8 mm ²) max	3.25 in ² (209.7 mm ²)	5.4 in ² (348.4 mm ²)
Face Volume:	9.7 in ³ (159.0 cm ³)	11.5 in ³ (188.5 cm ³)	50.4 in ³ (825.9 cm ³)	64.0 in ³ (1,048 cm ³)	100.8 in ³ (1,651 cm ³)	377.9 in ³ (6,192 cm ³)
Bit Connection:	3-1/2" API Reg. Pin	3-1/2" API Reg. Pin	4-1/2" API Reg. Pin	4-1/2" API Reg. Pin	6-5/8" API Reg. Pin	7-5/8" API Reg. Pin
Breaker:	1.5"	1.5"	1.5"	1.5"	1.5"	1.5"
WOB:	27,000 lb (12,100 daN)	27,000 lb (12,100 daN)	35,000 lb nom. (15,600 daN)	35,000 lb max. (15,600 daN)	55,000 lb (24,500 daN)	79,000 lb (35,100 daN)
Makeup Torque:	7,750-19,300 ft-lb (10,500-11,500 Nm)	7,750-19,300 ft-lb (10,500-11,500 Nm)	16,500-19,300 ft-lb (22,400-26,200 Nm)	16,500-19,300 ft-lb (22,400-26,200 Nm)	41,000-45,500 ft-lb (55,600-61,600 Nm)	78,000-80,000 ft-lb (105,700-108,400 Nm)
Flow Rate (max)	260 gpm (985 lpm)	260 gpm (985 lpm)	500-700 gpm (1,100-2,600 lpm)	700 gpm (2,600 lpm)	925 gpm (3,500 lpm)	926 gpm (3,500 lpm)

