

HOLEMAKING

Diameter Range

0.614–0.657"
15.61–16.70 mm

Thread Type

STS outer four start thread

Head Geometries

BTE...
Brazed drill head

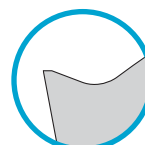
Grade

TB315 - general purpose

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous
- High-Temp Alloys
- Hardened Steel

BTA DRILLS™



New BTE Brazed Drill Head Series Brings Longer Tool Life and Excellent Machining Performance with a New Geometry and Grade

- » Positive rake angle for lower cutting forces.
- » New TB315 grade for excellent tool life.
- » Reinforced cutting edge with a corner chamfer for reduced cutting resistance by 15-20%.
- » Widened chip mouth for greater chip evacuation.



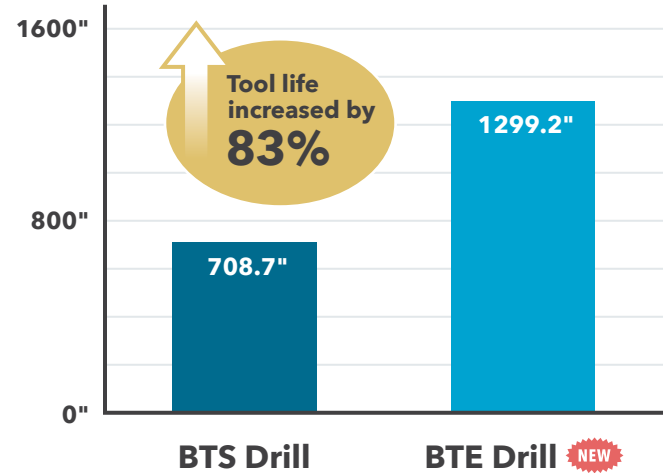
See it in
action! »



Case Study 1

	Current	New
Material	Tube sheet, low-alloy forged steel	
Drill	BTS.636SE4-14 TB253	BTE.636SE4-14 TB315
Drilling Diameter	.636"	
Drilling Depth	19.69"	
Cutting Speed	262 SFM	
Feed	.0020 IPR	
Tool Life	708.7"	1299.2"

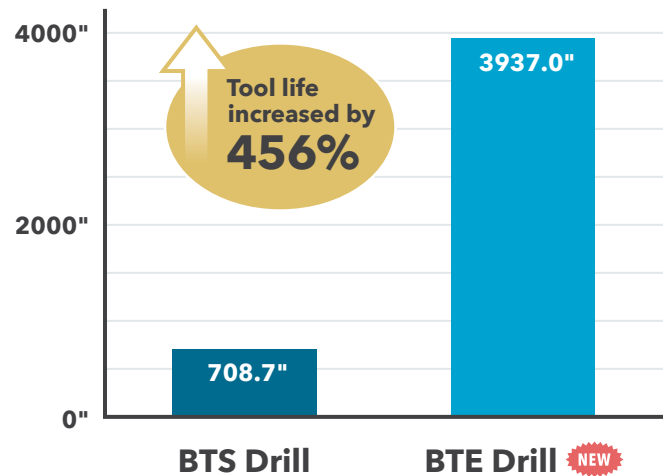
TOOL LIFE (INCH)



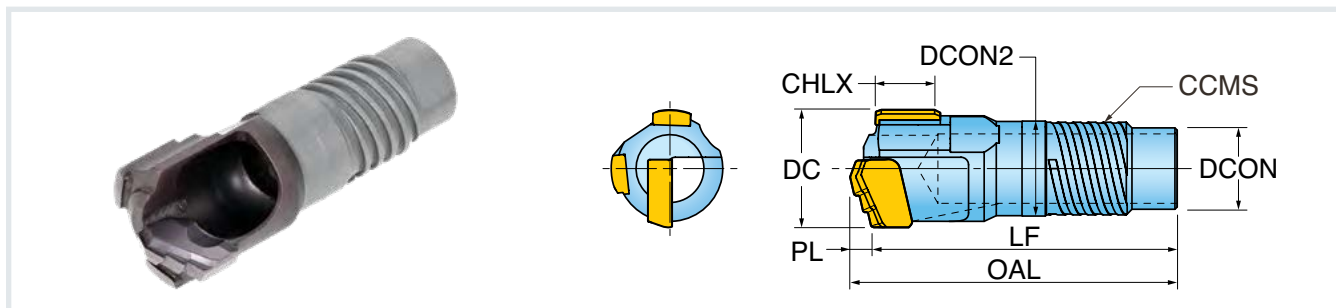
Case Study 2

	Current	New
Material	Tube sheet, stainless steel	
Drill	BTS.636SE4-14 TB253	BTE.636SE4-14 TB315
Drilling Diameter	.636"	
Drilling Depth	19.69"	
Cutting Speed	223 SFM	
Feed	.0028 IPR	
Tool Life	708.7"	3937.0"

TOOL LIFE (INCH)



Series BTE



REFERENCE ITEMS - BRAZED DRILL HEAD

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross Hole Length Max.	LF Functional Length	OAL Overall Length	DCON Connection Diameter	DCON2 Connection Diameter 2	CCMS Conn. Code Machine Side	ZNF Face Insert Count
INCH									
BTE.XXXSE4-14	0.614-0.657	0.134	0.28	1.587	1.71	0.425	0.496	BTA SE4-14	1

STANDARD ITEMS - BRAZED DRILL HEAD

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross Hole Length Max.	LF Functional Length	OAL Overall Length	DCON Connection Diameter	DCON2 Connection Diameter 2	CCMS Conn. Code Machine Side	ZNF Face Insert Count
INCH									
BTE.625SE4-14	0.625	0.134	0.28	1.587	1.71	0.425	0.496	BTA SE4-14	1

Operating Guidelines

Materials			Vc	Feed (in/rev)	
ISO	Material Group No.	Type	Cutting Speed SFM	Drill Dia. (inches) .614-.657"	
P	1	Low-carbon steels (C <0.3)	262-459	.004-.006	
	2		262-427		
	3		262-394		
	4	Carbon steels (C>0.3)	230-361	.004-.005	
	5		164-295		
	6		230-394		
	7	Low-alloy steels	230-361	.004-.005	
	8		164-295		
	9		131-230		
	10	Alloy steels	164-295	.004-.006	
	11		131-262	.004-.005	
M	12	Stainless steels (ferritic)	131-230	.002-.006	
	13	Stainless steels (martensitic)			
	14	Stainless steels (austenitic)			98-230
K	15	Gray cast iron	295-525	.002-.006	
	16		262-459		
	17	Nodular cast iron	295-591		
	18		262-459		
	19	Malleable cast iron	295-525		
	20		262-459		
N	21	Aluminum alloy forging	295-722	.003-.006	
	22				
	23				
	24	Aluminum alloy casting	262-525		
	25				
	26				
	27	Copper alloy	295-722		
	28				
	29	Non-metallic	-		-
	30		-		-
S	31	High-temp. alloy, Inconel 718, etc.	98-197	.002-.006	
	32		66-164		
	33				
	34				
	35				
	36	Titanium alloy, Ti-Al-4V, etc.		.002-.005	
	37				
H	38	Hardened steel >40 HRC	-	-	
	39		-	-	
	40	Chilled cast iron, cast iron - hardened	-	-	
	41		-	-	

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.