UNISIG

UNISIG UNI-50BTA

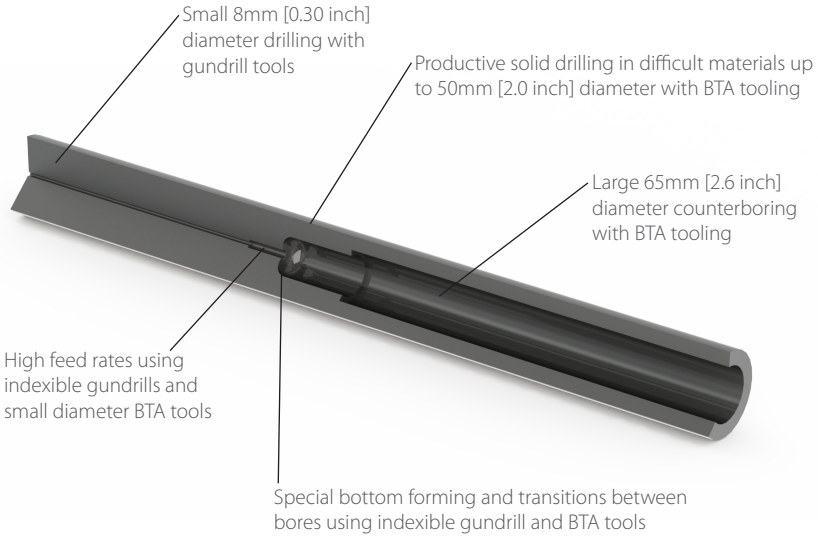
High-accuracy, full range deep hole drilling machine

The UNISIG UNI-50BTA machine was developed for critical, high accuracy centerline drilling and boring applications in aerospace, defense, powertrain and oil & gas markets. This powerful machine will handle your problem parts with close tolerances and complex bore geometry, in almost any material.

Features

- Rapid changeover from BTA to Gundrill tooling
- Counter-rotation to minimize centerline of drill drift
- High precision zero endplay spindles
- Preloaded ballscrew drives
- Programmable drilling cycles
- Process monitoring and display
- Automatic process interruption for unattended operation
- Program backup to external USB

An exceptionally accurate, full range machine handles a wide range of applications on a single machine, with the versatility of gundrill and BTA tooling.



UNI-50BTA machines are available in models with drill depths from 1m - 3m

DIMENSION				
Swing over bed	300	mm	11.8	in
Drill depth shown	1,500	mm	59.1	in
Drill depths available	1,000	mm	39.4	in
	1,500	mm	59.1	in
	2,000	mm	78.7	in
	3,000	mm	118.1	in
PERFORMANCE				
Minimum rated drilling diameter with gundrill tool	8	mm	0.3	in
Rated Drilling diameter from solid (Nickel Alloy)	50	mm	2.0	in
Maximum tool diameter	65	mm	2.6	in
Tool feed force	13,000	N	2,922	lb
WORKPIECE HEADSTOCK				
Spindle nose	ISO 702/1 A2-5			
Spindle bore	32	mm	1.3	in
Power, continuous S1 (400/480 VAC)	15/20	kW	20/27	hp
Torque, continuous S1	334	Nm	246	ft-lbs
Spindle speed maximum (standard)	1000	rpm		
TOOL HEADSTOCK				
Spindle nose	ISO 702/1 A2-5			
Spindle bore	32	mm	1.3	in
Power, continuous S1 (400/480 VAC)	22/28	kW	29/38	hp
Torque, continuous S1	315	Nm	232	ft-lbs
Spindle speed maximum	3000	rpm		
COOLANT SYSTEM				
Maximum programmable flow	200	L/min	53	gpm
Maximum pressure	103	bar	1494	psi
ACCESSORY SPECIFICATION				
Pressure head mounting diameter	165	mm	6.5	in
Vibration dampener mounting diameter	135	mm	5.3	in

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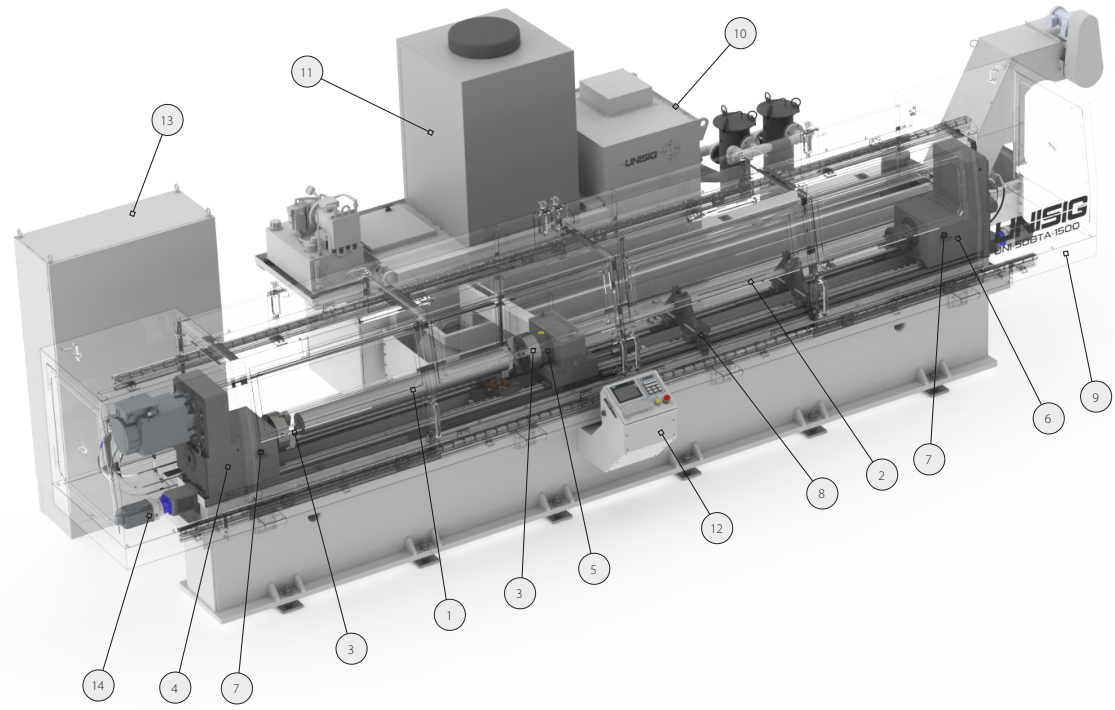
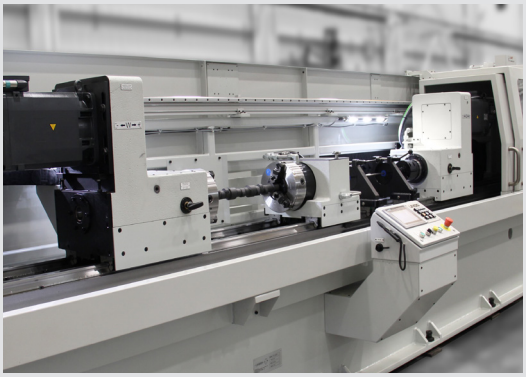


1	Workpiece - Precision turned, rough bar or forging
2	Drilling tool - BTA or Gundrill
3	Workholding - chucks or centering cones
4	Workpiece headstock, rotating
5	Pressure head / Chip box
6	Tool headstock, rotating
7	Spindle lock - for stationary work or stationary tool applications
8	Vibration dampener / Whip guide
9	Machine enclosure with doors for full access to workpiece and tools
10	Coolant system with high pressure, high flow pumps and filtration
11	Temperature control - Coolant chiller or heat exchanger
12	Operators interface
13	Electrical cabinet - North America, CE or IEC standards
14	Servo technology - Tool feed and workpiece setup



Rolling guards with full access to workpiece and tooling

Intuitive operators interface, multi-lingual

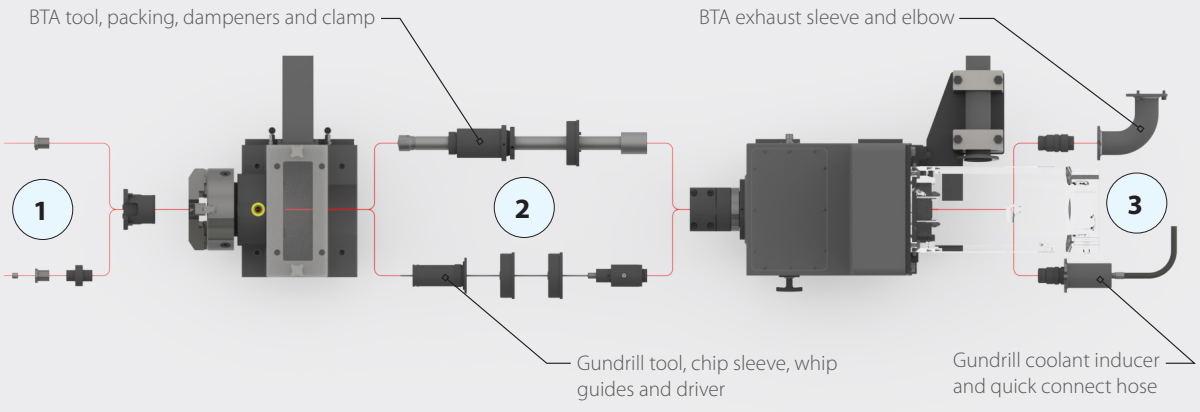
Compact, organized installation

Changing between drill diameters or switching between BTA and Gundrill tooling has never been easier on a counter-rotating machine.

Tool change steps

1. Install drill bushing to match drill size
2. Install tooling for size and type of drill
3. Only if changing tool type - install BTA exhaust elbow or Gundrill coolant inducer

No further machine setup changes are required between BTA and Gundrill. Coolant delivery and other process functions are selected by the machine control.



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