



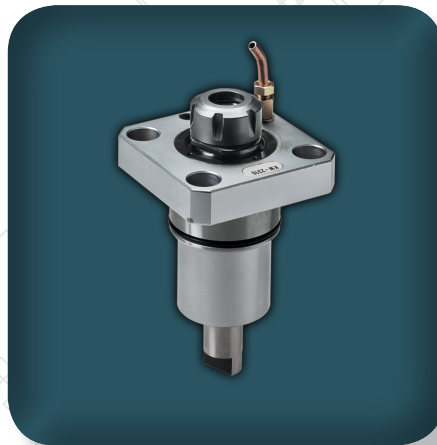
**HWACHEON**



**Alberti**

**LIVE TOOLS**

**Includes**  **SmartChange Tools**



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**ALBERTI** lathe tooling is designed to facilitate unmatched precision when machining parts with demanding complexity. **Over 250 types of standard live tools are available from stock.** With over 12,000 tools installed, **KOMA PRECISION** is the world's largest supplier for **ALBERTI** - the originator and the foremost innovator of productivity tooling.

Turn your CNC Lathe into an ultimate performance profit center with tooling from **ALBERTI** and **KOMA PRECISION**. Innovative design, passionate attention to detail, and state of the art production facilities result in unmatched precision at an affordable price.

## Alberti Tooling Build Features

### Alberti GS 600 Cast Iron Tool Bodies



#### **MATERIAL: GS 600 Spheroidal Cast Iron**

GS 600 is the same cast iron as used for the beds of machine tools. GS 600 features a low percentage of carbon, and spheroids are added during casting to provide compact grain structure and enhance the mechanical features of the material.

#### **GS 600 ADVANTAGES:**

- High tensile strength - 60kg/mm<sup>2</sup> (40% higher than steel, twice that of aluminum).
- High compression strength (absorbs vibration).
- Low thermal expansion (maintains accuracy & bearing pre-loads).
- Excellent dimensional stability (maintains accuracy).

#### **TOOL BODY FEATURES:**

- Bodies are completely machined inside & outside contributing to uniform weight.
- Bearing housing surfaces are ground.
- Bodies are chromium plated with (2) precision-lapped surfaces parallel to the tool output spindle for accurate alignment.

### Alberti: Gleason Gears



#### **GEARING MATERIAL - ADJUSTABLE ANGLE TOOLS:**

Aerospace/military grade steel with ultimate strength of 300 kg/mm<sup>2</sup>.

#### **GEARING MATERIAL - ALL OTHER MODELS:**

Same steel as in the gears of Formula One race car transmissions with an ultimate strength of 190 kg/mm<sup>2</sup>. (A "good" gear steel has an ultimate strength of 120 kg/mm<sup>2</sup>.)

All bevel gears used are spiral Gleason gears, not spur gears. Gleason gears provide more than one tooth of engagement thereby creating optimized meshing of the teeth, greater power transmission, and reduced noise during operation. Gleason provides the following computerized data computation for each set of gears used in Alberti tools:

- Maximum pitch diameter.
- Ultimate strength of the material.
- Minimum & maximum RPM of the gears.

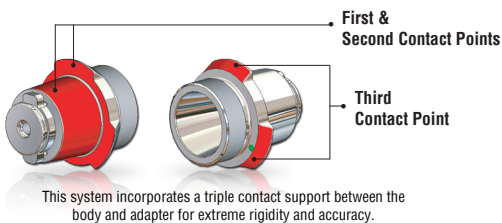
## SmartChange System

New from Alberti, a complete range of live tools with interchangeable adapters for Okuma are now available in stock. The SmartChange System units have a standard profile with **no additional projection** to reduce the chance of interference with the machine's enclosures. Alberti's patent pending design creates **three points of contact** between the driven tool holder body and tool holder output surfaces so there is **no compromise in concentricity and rigidity** to gain the speed and convenience of quick-change tooling. With the SmartChange System one set of live tools can always stay in the machine with only the adapters needing to be changed. This provides **improved efficiency and flexibility**, plus a reduction in overall tooling costs.

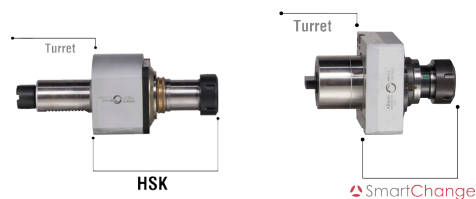


## QUICK • EASY • PRECISE

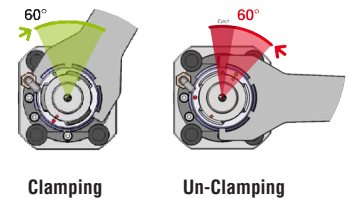
### Triple Contact System



### Low Profile



### How It Works

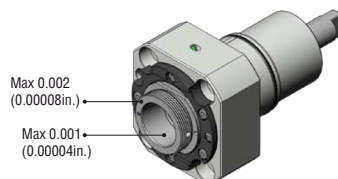


The patent pending Alberti SmartChange collet clamp & wrench system quickly and precisely locks the quick change adapter, reducing tool cutter changing time to a minimum.

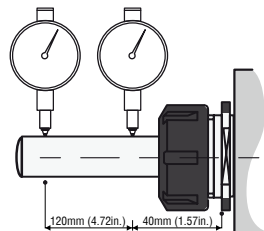
### Highest Accuracy & Repeatability

Run-Out of the Collet Chuck with Adapter Mounted Repeatability	0.006 $\mu$ m
Adapter Change Time	20 seconds
Repeatability	0.003mm (0.0001 in.)

Run Out with SmartChange System



### Accuracy with Gauge Bar Inserted in the Collet Chuck



### Accuracy with Gauge Bar Inserted in the Collet Chuck

at 40mm = 0.008mm (1.57in. = 0.0003in.)  
at 120mm = 0.01mm (4.72in. = 0.0004in.)


### Large Selection of Adapters




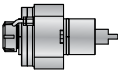
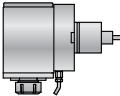
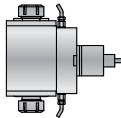
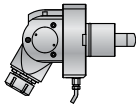
ER Collet Chuck

Weldon Output


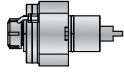
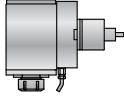
Shell Mill Output

 BMT-55				STRAIGHT TOOLS	90° TOOLS	DUAL OUTPUT 90° TOOLS
Lathe Model	CUTEX 160A CUTEX 160B	Standard		MA-2.5	M90-2.5	M90-2.5 2U
				GH-44941-00	GH-44943-00	GH-44945-00
			Output	ER-25	ER-25	ER-25
			Nm/ft.lbs.	-	25.1/18.5	25.1/18.5
			RPM	6,000	6,000	6,000
		Coolant Thru		MA-2.5 IC	M90-2.5 IC	
				GH-44942-00	GH-44944-00	
			Output	ER-25	ER-25	
			Nm/ft.lbs.	-	25.1/18.5	
			RPM	6,000	6,000	


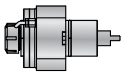
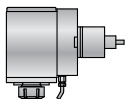
Coolant Pressure = 70 Bar/1050 PSI • RPM = Maximum

				STRAIGHT TOOLS	90° TOOLS	DUAL OUTPUT 90° TOOLS	ADJUSTABLE TOOLS
BMT-65							
Lathe Model	CUTEX 240A CUTEX 240B CUTEX 240C HITECH 200A HITECH 200B HITECH 200C HITECH 350A HITECH 350B HITECH 450A HITECH 450B HITECH 450C T2 VT 450	Standard		MA-3.5	M90-3.5	M90-3.5 2U	MCU-2.5
				GH-45051-00	GH-45053-00	GH-45055-00	GH-45159-00
			Output	ER-32	ER-32	ER-32	ER-25
			Nm/ft.lbs.	-	45/33.2	45/33.2	45/33.2
			RPM	6,000	6,000	6,000	6,000
		Coolant Thru		MA-3.5 IC	M90-3.5 IC		
				GH-45052-00	GH-45054-00		
			Output	ER-32	ER-32		
			Nm/ft.lbs.	-	45/33.2		
			RPM	6,000	6,000		

Coolant Pressure = 70 Bar/1050 PSI • RPM = Maximum

 BMT-75				STRAIGHT TOOLS	90° TOOLS
					
Lathe Model	HITECH 550A HITECH 550B HITECH 550BB VT 650	Standard		MA-4.5 GH-44946-00	M90-4.5 GH-44968-00
			Output	ER-40	ER-40
			Nm/ft.lbs.	-	50/37
			RPM	6,000	6,000
		Coolant Thru		MA-4.5 IC GH-44947-00	M90-4.5 IC GH-44949-00
			Output	ER-40	ER-40
			Nm/ft.lbs.	-	50/37
			RPM	6,000	6,000

Coolant Pressure = 70 Bar/1050 PSI • RPM = Maximum

 BMT-85				STRAIGHT TOOLS	90° TOOLS
					
Lathe Model	HITECH 850 HITECH 850BB HITECH 850BB+ VT 950 VT 1050+	Standard		MA-5.0	M90-5.0
				GH-44951-00	GH-44953-00
			Output	ER-50	ER-50
			Nm/ft.lbs.	-	100/74
			RPM	6,000	6,000
		Coolant Thru		MA-5.0 IC	M90-5.0 IC
				GH-44952-00	GH-44954-00
			Output	ER-50	ER-50
			Nm/ft.lbs.	-	100/74
			RPM	6,000	6,000

Coolant Pressure = 70 Bar/1050 PSI • RPM = Maximum



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ROTARY TABLES | ANGLE HEADS | LIVE TOOLS | SWISS TOOLS | TOOL PRESETTERS