



SmartChange **System**


LIVE TOOLS



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SmartChange System

New from Alberti, a complete range of live tools with interchangeable adapters for DMG/Mori Seiki 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

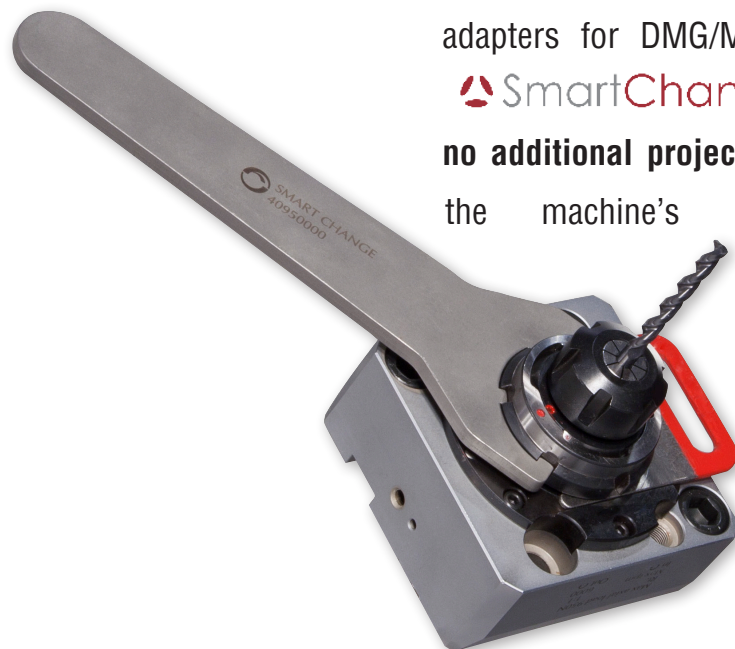
the driven tool holder body and tool holder output surfaces so there is **no compromise in**

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


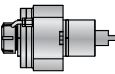
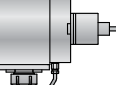
provides **improved efficiency and flexibility**, plus a reduction in overall tooling costs.




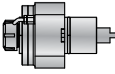
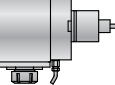
The Alberti SmartChange System

A quick change system like no other...

QUICK • EASY • PRECISE

				STRAIGHT TOOLS	90° TOOLS
					
Lathe Model	NLX 1500 NLX 2000 NLX 2500 NLX 3000	Standard		MA-3.5 GH-66323-00	M90-3.5 GH-66324-00
			Output	SC2*	SC2*
			Nm/ft.lbs.	-	45/33
		Coolant Thru	RPM	6,000	6,000
				MA-3.5 RI GH-66617-00	M90-3.5 RI GH-66621-00
			Output	SC2*	SC2*
			Nm/ft.lbs.	-	45/33
			RPM	6,000	6,000

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

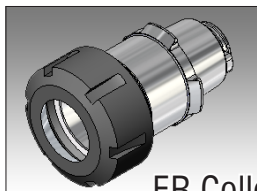
				STRAIGHT TOOLS	90° TOOLS
					
Lathe Model	NZ 1500 NZ 2000	Standard		MA-2.5 GH-66741-00	M90-2.5 GH-66743-00
			Output	SC2*	SC2*
			Nm/ft.lbs.	-	25/18
		Coolant Thru	RPM	6,000	6,000
				MA-2.5 RI GH-66742-00	M90-2.5 RI GH-66744-00
			Output	SC2*	SC2*
			Nm/ft.lbs.	-	25/18
			RPM	6,000	6,000

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

*Each tool comes standard with an ER SmartChange Adapter, a Main Spindle Anti-Rotation Wrench & a Long Handle Wrench for Lock / Unlock Nut. For additional adapters & accessories, see below.

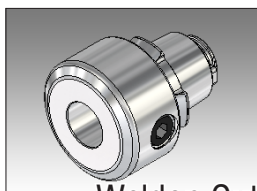
Accessories

Additional Adapters



ER-Collets

ER Collets
SIZE
ER-20
ER-25



Weldon-Outputs

Weldon Outputs
SIZE
1/2"
5/8"



Shell-Mill-Arbors

Shell Mill Arbors
SIZE
3/4"

Measuring Fixtures



Tool-Pot

SmartChange Tool Pot
SIZE
40 Taper
50 Taper



Holding-Fixture

SmartChange Holding Fixture

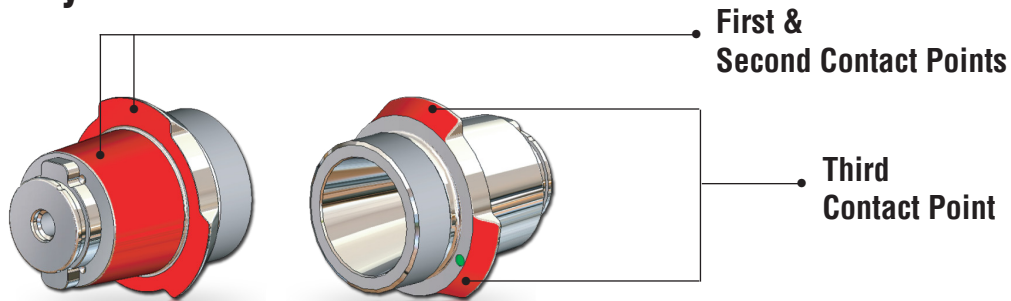
Note: Holding fixture does not include adapter and wrench.

The Alberti SmartChange System

A quick change system like no other...

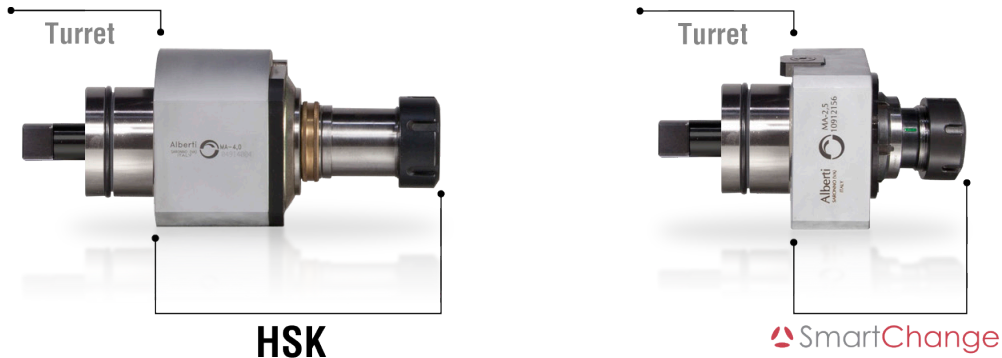
QUICK • EASY • PRECISE

Triple Contact System

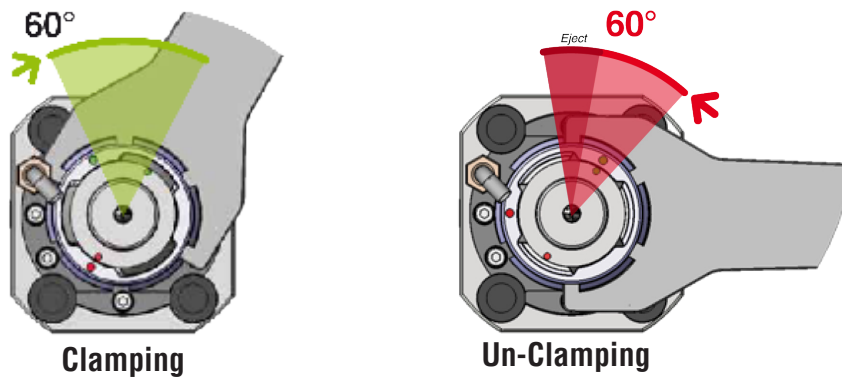


This system incorporates a triple contact support between the body and adapter for extreme rigidity and accuracy.

Low Profile



How It Works



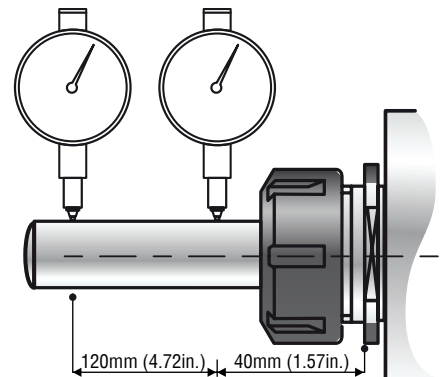
The patent pending Alberti  SmartChange collet clamp & wrench system quickly and precisely locks the quick change adapter, reducing tool cutter changing time to a minimum.

The  SmartChange System allows for tools to be externally preset for quick job change over and increased profitability.

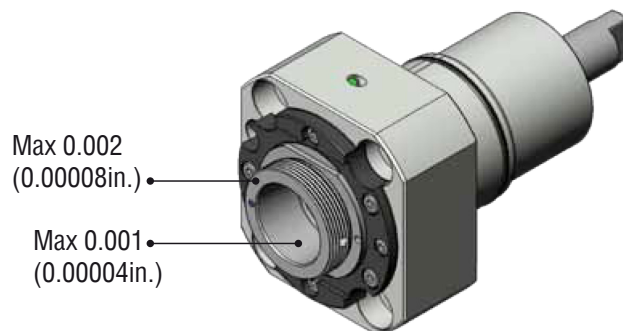
Highest Accuracy & Repeatability

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

Accuracy with Gauge Bar Inserted in the Collet Chuck



Run Out with SmartChange System



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

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Reinforced Construction

- Natural Granite Base & Column for Increased Thermal Stability
- Stainless Steel Mechanical Elements for Higher Resistance & Longer Life

Spindle Interchangeability

- Fully Interchangeable to Handle a Multitude of Different Tool Shank Types (Optional)

Axis Movements

- Fast & Precise Adjustments for Immediate Visualization of Tool Profiles
- Simple, Easy-to-Use, Maintenance Free Design

Electronic Features

- Newly Upgraded Camera System with TFT Color LCD 5.7" Backlit Matrix Display for Improved User Interface
- C-MOS Sensor with 0.001 mm Resolution

DDP System Software

- Easy to Use, Intuitive Software

elbo controllii 	Larth Tool Presetter
Larth w/ Built-in Spindle Holder	
Larth w/ Interchangeable Spindle Holder	

SPECIFICATIONS

LARTH CONSTRUCTION

Bench Model
Natural Granite Base & Column
Stainless Steel Mechanical Elements
Dimensions 512mm L x 406mm D x 827mm H
Weight 45 Kg / 99 lbs

AXIS MOVEMENT

X Axis (Radial) = 130mm / 5.188in
Z Axis = 360mm / 14.17in
Resolution X & Z Axis - 1 μ m
Manual Rapid & Fine Adjustment Movement (Zero Backlash)

SPINDLE

Fixed or Interchangeable Rotating Spindles
ISO / HSK / CAPTO / VDI / Interchangeable Rotating Spindles Available
ISO 40, 50 Fixed Rotating Spindle Holder & Adapters Available
Manual Mechanical Brake
Concentricity - 4 μ m
Maximum Tool Weight 30kg / 66 lbs.

OPERATING SYSTEM

5.7" Color LCD Touchscreen Display / Operator Interface / 640 x 480 Resolution
RISC 32 Bit Processor
Data Storage on Flash
Connectivity - USB / RS-232
Printer Support (optional)
Capable of Storing 9 Different Machine Specifications
Capable of Storing 81 Different Tool Specifications

CAPABILITIES

Measure - Full Screen Auto Targeting
Measure - X&Z Axis Focusing Control Bar
Measure - Automatic Radius & Angle Computing Cycle
Measure - Radius/Diameter, MM/Inches, Absolute/Incremental Modes

VISION SYSTEM

Telecentric Lens / C-MOS Image Sensor with 0.001mm resolution / 20x Magnification

DPP SOFTWARE (Optional)

Tool List Management / Tool Sets & Post Processor Universal Generator
CNC Machine Origin Management

SmartChange

Outside Presetting

*Speeds Up Tool Change & Replacement Times • Eliminate Tool Offset Input Errors
Minimize Spindle Down Time • Increase Productivity*

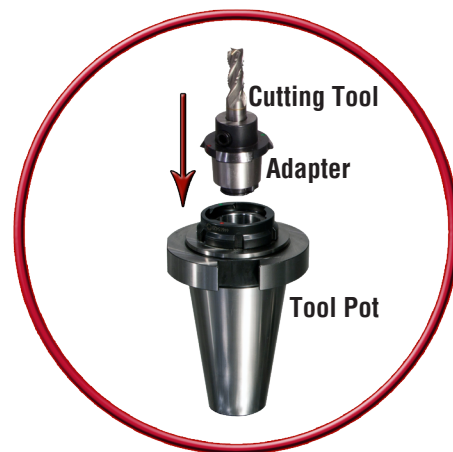
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LARTH
Tool Presetter

- 1 To speed up tool changes & replacement times,  **SmartChange Adapters** are pre-staged.



- 2 Tools then are loaded into the  **SmartChange Tool Pot** for measuring on the  **Larth Tool Presetter**.



- 3  **SmartChange Holding Fixture** is used to clamp / unclamp **Adapters** in **Tool Pot**.



- 4 **Tool Pot** is inserted on the  **Larth Tool Presetter** for measurement.





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