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Imported and Sold in USA by:

## ABSOLUTE MACHINE TOOLS

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## Precihole Machine Tools

Precione
Inspire - Innovate - Deliver

Precibole Machine Tools is a leader in providing Deep Hole Drilling and Finishing machines for the Medical industry. With decades of experience manufacturing precision and reliable machine tool solutions, Precibole has established itself well in the Medical industry.

Precibole has three manufacturing plants where these machines are manufactured. Precibole machines are built in-house from concept to final solution with a talented team of qualified and experienced individuals. Precibole is ISO 9001:2008 certified for the past decade and all the solutions are built to the highest level of quality.

Precibole has partners and distributors with dedicated service teams in United States, Europe and India that are able to provide support, training and service to our esteemed clientele.

#### The Precihole Advantage

- Over 25 years of experience in Deep Hole Drilling technology
- Proven process expertise in Deep Hole Drilling and Hole Finishing operations
- Technical competency in providing solutions for complex machining
- Streamlined Business Processes that provide Value and ROI for our customers
- Worldwide delivery and technical support for all our products and services

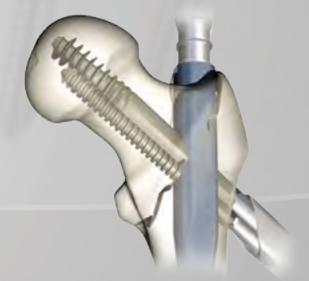
### Machine Tool Solutions for Medical Applications

Gun Drilling is the preferred method of hole making in medical implants with a L/D ratio of 10 or more. Cannulated intramedullary devices such as nails, screws and Cannulated instruments such as drills are machined using gun drilling processes. Common materials for machining of medical implants are stainless steel (310, 316 321 series) and titanium (Ti6AL4V).

Gun Drilling provides high quality holes with respect to bore tolerance, surface finish and straightness. Precihole has been manufacturing implants in their job shop for three decades. That entire component manufacturing experience has gone into the design of our micro drilling solutions.

#### Precihole's machine tool solutions can be classified into two categories:

- Micro Drilling Solutions with drill size range of 1 mm (0.04") to 6 mm (0.25")
- Single Axis Gun Drilling Solutions with drill size range of 2 mm (0.08") to 12 mm (0.5")



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## Micro Drilling Machines



HIGH SPEED MOTORIZED SPINDLES



TOOL MONITORIN SYSTEM



COOLANT PUMF



COMPONENT COUNTER ROTATION



MULTIPLE TOOL STEADIES



Precihole's Micro Gun Drilling Machines are designed for drilling into medical implants that need deep holes to be drilled accurately. Use of latest features such aslike high speed motorized spindles, tool monitoring system, high pressure coolant pump, multiple tool steadies and component counter rotation ensure excellent straightness, bore tolerance and surface finish values. Precise and highly productive, these versatile machines are ideally suited for complex medical applications.



MODEL		GVN06C
Drilling Diameter Range	mm	Ø1 - Ø6
	in	Ø0.04 - Ø0.25
Spindles	nos.	1/2
Drilling Depth	mm	300
	in	12
Drill Feed Range	mm/min	0 - 1000
	in/min	0 - 40
Power per Spindle	kW	1.1
	hp	1.5
Spindle Speed Range	rpm	1000 - 25000
Component Outer Diameter (Max)	mm	Ø40
	in	Ø1.5
Max. Component Weight	kg	5
	lb	11

Specifications subject to change without notice due to continued product improvement.



#### Standard Features

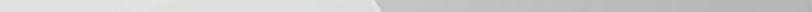
- Fully enclosed machine guarding
- Axis Motion on LM Guide Ways
- Ball screw & Servo drives for Linear Motion
- High Pressure Coolant System
- Coolant Filtration System with 5µ level of filtration
- Centralized Lubrication
- Siemens PLC Controls
- Component counter rotation

#### Add-on Features

- Component Clamping with Chucks
- Chip Conveyor / Magnetic Drum Separator
- Coolant Oil Chiller
- CE / UL Certification
- Tool Steadies
- Variable Coolant Flow System
- Tool Wear / Breakage Monitoring System

#### Tools & Accessories

- Gun Drills
- Guide Bushes
- Whip Guides
- Coolant Repellers
- Cone Locators
- Tool Presetter
- Tool Regrinding Machine



## Single Axis Gun Drilling Machines



**TOUCH SCREEN HM** 



MULTIPLE TOO



INTEGRATED HIG SPEED SPINDLE



**AUTO LUBRICATION** 



BASE WITH INTEGRATED COOLANT TANK

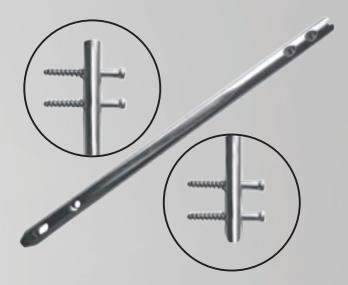


Precihole's GVN Series Gun Drilling Machines cover all major requirements needed in a Deep Hole Drilling solution; high precision, high productivity, compact footprint, affordability and reliability. These machines can be tooled up for a wide range of components and cover the whole spectrum of gun drilling range from  $\emptyset 1 \, \text{mm} (\emptyset 0.04")$  to  $\emptyset 25 \, \text{mm} (\emptyset 1")$ .



MODEL		GVN12C	GVN25C
Drilling Diameter Range	mm	Ø2 - Ø12	Ø5 - Ø25
	in	Ø0.07 - Ø0.50	Ø0.20-Ø1.00
Spindles	nos.	1/2/4	
Drilling Depth	mm	400 / 600 / 1000	
	in	16 / 24 / 40	
Drill Feed Range	mm/min	0-1000	
	in/min	0-40	
Power per Spindle	kW	1.5	7.5
	hp	2	10
Spindle Speed Range	rpm	1000 - 16000	600 - 6500
Component Outer Diameter (Max)	mm	Ø75	Ø125
	in	Ø3	Ø5
Max. Component Weight	kg	25	50
	lb	55	110

Specifications subject to change without notice due to continued product improvement.



#### Standard Features

- Fully enclosed machine guarding
- Axis Motion on LM Guide Ways
- Ball screw & Servo drives for linear motion
- High Pressure Coolant System
- Coolant Filtration System with 25µ level of filtration
- Centralized Lubrication
- High speed PLC controller
- Main console with touch screen HMI

#### Add-on Features

- Chip Conveyor / Magnetic Drum Separator
- Coolant Oil Chiller
- CE / UL Certification
- Automatic Component Loading Unloading System
- Tool Steadies
- Variable Coolant Flow System
- Up to 8 Spindles for maximum productivity
- Tool Wear / Breakage Monitoring System

#### Tools & Accessories

- Gun Drills
- Guide Bushes
- Whip Guides
- Coolant Repellers
- Cone Locators
- Tool Presetter
- Tool Regrinding Machine

