

TOOL HOLDING SOLUTIONS



## Premium Tool Holding Product Offering



# VX

## 3 Micron Finishing Tool Simply the Best Finish & Tool Life

Ideal for Finish Milling, Performance Drills, Thread Milling and small Reamers.

### Crazy Repeatability

Unique rear pull design provides less than 0.0001" deviation from tool change to tool change. The mechanism pulls straight back, no twisting on the collet.

### Compact Design

The VX system provides the outstanding clearance with large collet capacities.

### Outstanding Grip Force

VX mechanism provides 5X the grip force of competitive systems.

### Coolant Thru

VX is sealed by design, the cutting tool shank is inserted to recommended depth creating a mechanical seal. Coolant pressures up to 1,500 psi.

Ported collets available for coolant around solid cutting tools.

### Ultra Precision Performance

VX holders use MX Collets.  
MX collets are ground  
3 Microns @ 4 X Tool Diameter  
(0.0001" @ 4 X Tool Diameter)



# SX

## Ultimate Collet Chuck

### Drilling / Milling Super Tool

SX shines in drilling applications especially drills up to 30X Dia.

### Milling, No Problem

The 8 degree collet provides a stable base for light milling application. Non Pull Out Collet Available for Hi-Helix applications.

### Crazy Repeatability

SX uses a flat headed collet, the locking nut does not affect the TIR of the chuck when tightening for a consistent result every tool change.

### Outstanding Grp Force

8 degree collets transfer torque more efficiently than competitive 16 degree systems requiring less tightening to reach high locking torque.

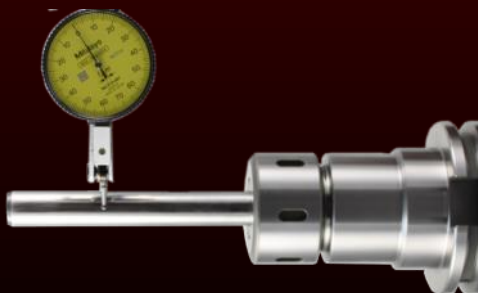
### Coolant Thru

SX06 & SX10 sealed collets available with pressures up to 1,500 psi. Coolant Cap system available for all sizes.



### Ultra Precision Performance

- SX Collets are available in 2 grades.
- 3 Microns @ 4 X Tool Diameter  
(0.0001" @ 4 X Tool Diameter)
- 5 Microns @ 4 X Tool Diameter  
(0.0002" @ 4 X Tool Diameter)



# MC

## Precision Milling Chuck

### Outstanding Roughing and Finishing Tool

From Roughing to Finish MC Mill Chucks are second to none.  
Nothing out performs MC in Hard Milling!

#### No Collets Required

MC is guaranteed 5 Microns (0.0002") TIR @ 100mm (4") from the face of the chuck.  
They average 3 Microns @ 100mm.

#### No Collets Required

Bores are ground to accept nominal shank tooling with h6 tolerances, which provides the best torque and performance.

#### Outstanding Grip Force

MC Mill Chucks with patented X slotting system provide the highest grip force in its class.

#### Coolant Thru

Nylon Preset Screw is provided with an O-ring to seal against the back of the cutting tool.



#### If you need a collet...

MC collets are ground  
3 Microns (0.0001") TIR



# BC

## The Roughing Chuck

**Takes the abuse and keeps running...**

BC is a Mill Chuck design without the bearings. BC requires a higher locking torque but the system is designed with a solid shoulder locking system.

### **On Size provides the best results**

BC Chucks are designed and built on size. Available from 3/8" to 2" in many shanks.

### **Non Pull Out Option**

BC Chucks are available in a non pull out version for use with Weldon style end mills.

### **Outstanding Grip Force**

From our smallest to our largest chuck, BC provides the best driving torque in its class, in many cases 2-3 times competitive systems.

### **Coolant Thru**

BC Chucks are sealed by design. There is a ground pilot behind the slots that compresses on the tool to create a contact seal for high pressure coolant.

### **Torque Required**

We recommend tightening the chuck with a torque wrench to assure you are at full tight after every tool change.



# SD

## Premium Shrink Fit

**Made from the Right Stuff,  
Ground to Compete**

Milling, Drilling, Thread Milling if it has a carbide h6 shank it can be done!

### The Best TIR

All Shrink holders are ground 3 Microns (0.0001") @ the bore.

### The Highest Quality

Shrink tooling is manufactured from ISO-40CrMoV5 (H13) double tempered at 1050°F designed to withstand years of tool changes.

### Extreme Grip Force

Toleranced and Ground for as close to 10,000 lbs. of pull out force as possible.

### Exceeds Standards

Designed and ground to exceed all ANSI and DIN standards.

### Coolant Thru

All Shrink holders are designed coolant thru.

Optional Jet-Blast ports for coolant around solid tooling.



# PT

## Precision Sync Tapping

**Take your rigid tapping cycle  
to a new level**

Compensated for synchronization errors in the tapping cycle.

### Up to 300% Tap Life Improvement

By eliminating error and spindle pressure in cut tap applications, PT Chuck increase tap life up to 300%!

### Standard ER Tap Collets

PT utilizes industry standard ER Tap Collets, no special collets required.

### High Speed

For tapping cycles up to 15,000 RPM.

### Coolant Thru

Coolant thru design. Coolant cap required to seal on the tap shank. DIN length taps required.



Showing PT holder, coolant nut,  
coolant cap & tap collet.

# ER

## Performance ER System

**Designed to provide the best performance.**

Pioneer ER exceeds DIN and ANSI specifications.

### The Best TIR

All ER chucks are manufactured for 3 Microns (0.0001") taper to taper.

### The Best Balance

The ER design requires 2 balances, the holder body individually from the collet nut. Balancing the nut to eliminate the imbalance of the eccentric ring is critical to performance of the holder.

### Coolant Thru

All ER holders are designed coolant thru. Most have DIN AD/B standard.



### High Performance Bearing Nut

Double your grip force without increasing your locking pressure.

The Bearing Nut transfers torque more efficiently allowing higher grip forces without increasing locking torque.





# ER

## Ultra Precision ER Collets

**No corrosion here!**

### Stainless Steel

Pioneer ER-UP Collets are manufactured from 420 Stainless allowing a high rockwell and superior corrosion resistance.

### UP Performance

ER-UP collets are ground and inspected for 0.005 (0.0002") TIR @ 3 X Diameter from the collet face.

### Save the Carbide

The superior TIR provides 30% better tool life than standard grade ER collets.



Standard vs Stainless

Collets shown were submerged in Chicago tap water for 3 months.

# AC

## Pioneer Air Chucks

**Designed to provide the Best Performance**

Pioneer's 30 years of production has fine tuned this chuck to be one of the best in the World! Pioneer Air Chucks follow industry pin style jaw mounting system.

### Repeatability

Pioneer Air Chucks repeat down to 1.5 Microns (0.000059").

### Sizes to fit your application

Available in 2", 3", 4", 6", 8" & 10" chuck sizes.

### Styles

Available Std Rotary, Sealed, High Speed and Stationary.

### Many Jaws

Chucks are available in 2, 3, & 4 Jaws. Harden jaws are recommended but soft jaws are available upon demand.

## ASA

Pioneer Air Supplies are multi layered tubes with optional parts sensing port.



# DC

## Pioneer Diaphragm Chucks

**Best Repeatability, Fastest Change Over**



### **No Moving Jaws!**

Diaphragm chucks utilize an expanding diaphragm design. This allows for unbelievable repeatability and sensitivity. The chuck is locked with 0 air pressure.

### **Unbelievable Repeatability**

Pioneer Diaphragm Chucks Repeat within 0.4 Microns (0.0000157") part to part with TIR down to 0.2 Microns (0.0000078")!

### **Fastest Change Over**

Pioneer Jaws are not individual segments, they are piloted and connected like a collet on the back. Instead of bolting in and tramming in several individual segments, you install the collet into the pilot, indicate and go!

### **Sizes to fit your application**

Available in 3", 4" and 6" chuck sizes.

### **Many Jaws**

Jaws are available in 3, 4, 6 & 8 Segments. Harden jaws are recommended but soft jaws are available upon demand.



## Why Pioneer?

- ⇒ Advanced Technology
- ⇒ Cost Effective Solutions for any application
- ⇒ Exceptional Customer Service
- ⇒ Well Managed Inventory
- ⇒ Evolving Inventory to customer needs
- ⇒ Technical Support
- ⇒ Experienced Sales Staff
- ⇒ Design to build services
- ⇒ Customer Loyalty
- ⇒ Family owned company

When you need solutions, we're the one to call. Our staff will provide personalized service and support to make sure your application runs better than expectation.

Remember, 0.0001" TIR averages 10% tool life improvement. Not all tool holders are the same, let us prove it to you.

Contact your local sales person today!