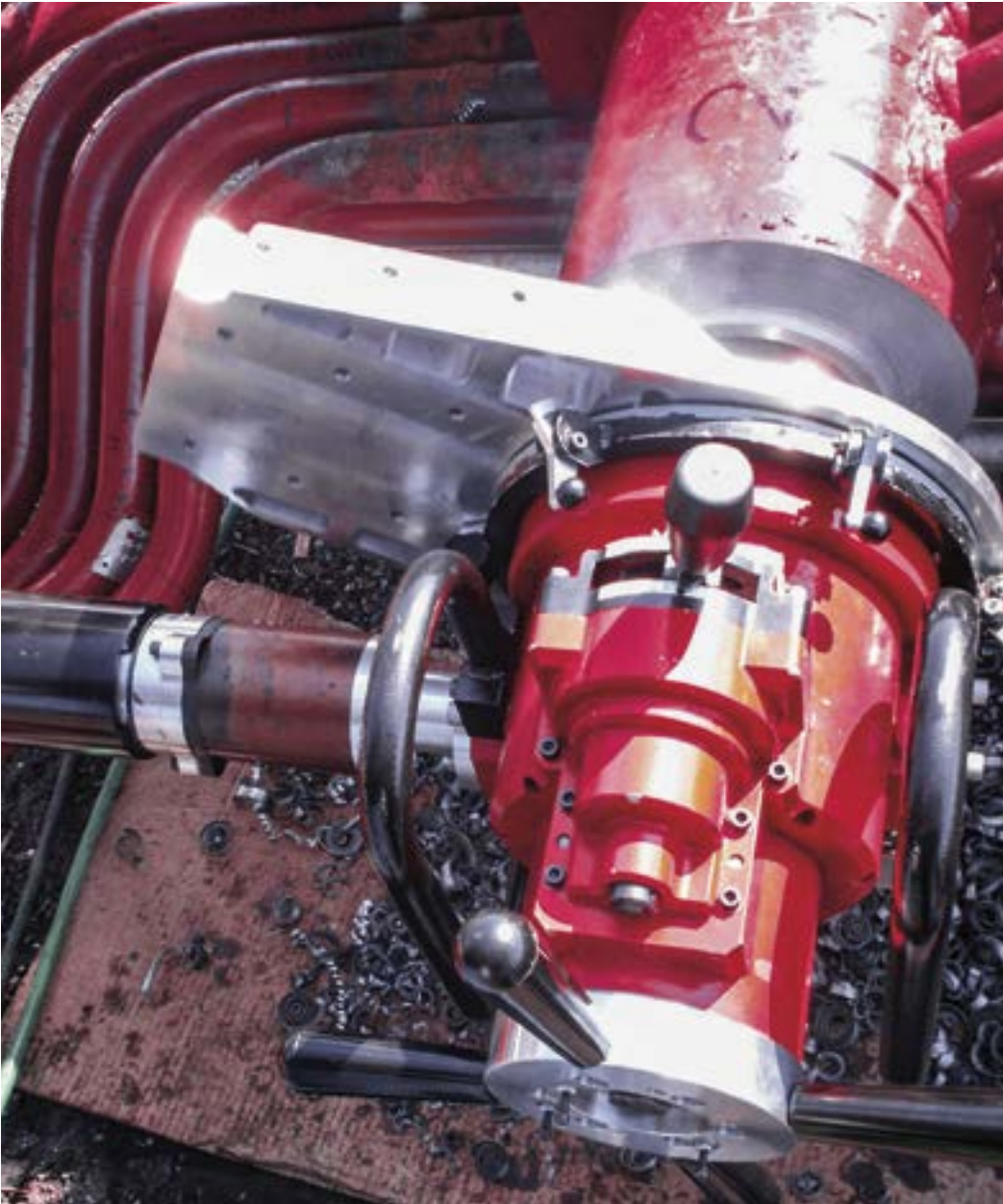


# EP 424 End Prep



EP 424 is ideal for heavy wall



SpeedPrep™ AutoFeed mechanism



Hydraulic (shown), Electric & Pneumatic drive options

## Innovative SpeedPrep™ AutoFeed

The Wachs EP 424 with the SpeedPrep™ AutoFeed system is a precision ID mount end prep machine tool designed to bevel, compound bevel, J prep, face and counterbore pipe, fittings and valves. The EP 424 machines any bevel or compound bevel without templates, incline tool slides or work stoppage.

It's powerful enough to form tool from 4-14in (DN 100-350) and single point from 8-24in (DN200 - 600) up to a 6.5in (165mm) wall thickness. The EP 424 can single point and face flanges up to 36in utilizing its optional tool slide. The SpeedPrep™ AutoFeed system makes the EP 424 the most advanced end prep machine in the industry.



# EP 424 End Prep

Prior to the EP 424, most end prep machines required a mechanical template or incline tool slide to reproduce the specific and complex preps called for by today's processes. With Wachs AutoFeed system, it's now possible to dial in the exact prep needed for your application. Select the bevel angle and the land that works best for your application, without work stoppages or additional components. More versatile and powerful than any other machine of its kind, the Wachs EP 424 sets the standard in user friendly large diameter end prep.

## Features

- Safe cold cutting process, eliminates heat affected zone
- Lathe machining delivers precise compound bevels and consistent lands
- EP 424 eliminates the need for accessory templates or external tool slides
- Fast setup and prep with standard self-centering mandrel legs
- Corrosion resistant finishes on all components for extreme environments
- Fully enclosed bearings and drive gears for safety and durability

## Specifications

### System function:

ID mount end prep machine tool designed to bevel, compound bevel, J-prep, face and counterbore pipe, fittings and valves

### Capacity OD:

4-24in (DN 100-600)

Up to 36in (DN 900) with optional slide

### Drive options:

Hydraulic, pneumatic or electric

### Pneumatic requirements:

95cfm at 90 psi

(2.7m<sup>3</sup>/min at 6.2 BAR)

### Hydraulic requirements:

8gal/min at 1500 psi

(30l/min at 103 BAR)

**Feed method:** AutoFeed system with dial control or fully manual

### Feed rate:

Variable feed rate, user adjustable

**Feed stroke (axial):** 2.8in (71.1mm)

### Machine rotating speed:

0-14rpm (variable)

- Low friction bearing system provides maximum stability, eliminating chatter

## Design Capabilities

- Machine perfect preps from OD 4in - 24in (DN100 - 600)
- Form tool pipe from OD 4in - 14in (DN 100-350)
- Single point machining from OD 8in - 24in (DN 100-600)
- Single point Up to 36in (DN 900) with optional slide
- Fully modular construction for one man setup and operation

### Construction:

Lightweight aluminum housing, oversize hardened alloy steel fully enclosed gear sets, high capacity bearings, rigid mandrel legs, captivated hardware

**Finish:** Multistage bright red enamel finish plus black oxide and clear coated components

**Tooling:** Accepts standard Wachs single point beveling and form tools, high speed steel or carbide tooling

**Tool slots:** Form tooling or single point tooling (varies by model)

**Packaging:** Heavy duty storage case

### Length:

Without Mandrel 12.35in (314mm)

With Mandrel 26.75in (680mm)

**Weight:** Full modular construction with each module under 31.75kg (70lb), total weight with storage case 71.67kg (158lb)



EP 424 Flange Facing with single point machine slide



Cross section of EP 424 mounted for single pointing



EP 424 Single Point Deluxe with form tooling rotating head



Faces flanges up to 36in (914mm) with optional slide

# EP 424 End Prep

## Pneumatic



ACM AIR  
REMOTE  
CONTROL  
MODULE



PNEUMATIC  
STRAIGHT DRIVE  
MOTOR

## Hydraulic



HPU  
HYDRAULIC  
POWER UNITS



HYDRAULIC  
DRIVE  
MOTOR

## Electric



EIBENSTOCK HD

POWER BOX



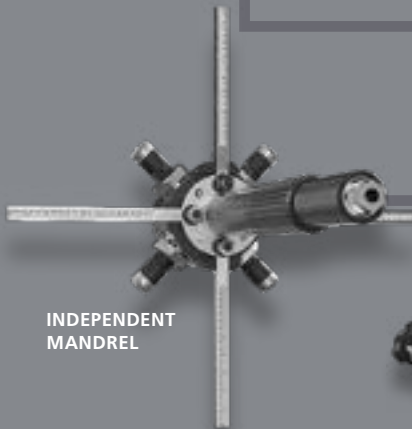
REMOTE  
CONTROL



EIBENSTOCK  
HD DRIVE  
MOTOR



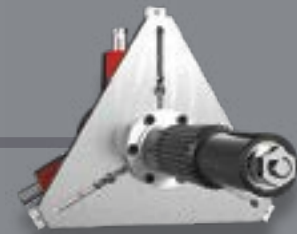
EP 424  
END PREP



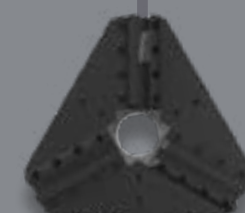
INDEPENDENT  
MANDREL



STANDARD  
MANDREL



ELBOW MANDREL



FORM TOOL ROTATING HEAD



SINGLE POINTING SLIDE



36in SINGLE POINTING SLIDE



# EP 424 End Prep

## EP 424 Kits

EP 424 Form Tool Basic			EP 424 SpeedPrep™ Deluxe			EP 424 SpeedPrep™ Premium			
PNEUMATIC DRIVE	HYDRAULIC DRIVE	ELECTRIC DRIVE ADAPTER	PNEUMATIC DRIVE	HYDRAULIC DRIVE	ELECTRIC DRIVE ADAPTER	PNEUMATIC DRIVE	HYDRAULIC DRIVE	ELECTRIC DRIVE ADAPTER	
			Form Tooling Rotating Head Assembly 4-16in OD (102-406mm)						
						Single Point Slide ID 4.24-24in OD (108-610mm)			
			Standard Self-Centering Mandrel ID 3.27-15.96in (83-405mm)						
						Standard Self-Centering Mandrel ID 14.87-23.64in (378-600mm)			
							Independent Mandrel ID 8.5-22.6in (215.9-574mm)		
						SpeedPrep™ AutoFeed			
Part #	81-000-01	81-000-02	81-000-07	81-000-05	81-000-06	81-000-09	81-000-03	81-000-04	81-000-08

\*ELECTRIC MODELS INCLUDE ELECTRIC DRIVE MOTOR ADAPTER ONLY. EIBENSTOCK HD DRIVES SOLD SEPARATELY

### Standard Equipment

- Tool slide or rotating head (varies by kit)
- Heavy duty storage case
- Standard mandrel
- Extension leg kit
- Self squaring mounting system
- Operating hand tools
- Operation manual

### Optional Equipment

- Independent mandrel for miters or elbows
- Elbow Mandrel
- Electric drive motor remote control options
- ACM Remote Control Module and ATM Air Treatment Module for pneumatic drive
- Interchangeable tool slides
- 36in Single Point Slide
- Genuine Wachs tooling
- SpeedPrep™ AutoFeed Upgrade kit for Form Tool Basic Model

### Mandrels

DESCRIPTION	APPLICATIONS	PART #
Standard Mandrel	Flange Facing, Single Pointing, & Form Tooling	81-303-00
Independent Mandrel	Flange Facing, Single Pointing, Form Tooling, & Miter Beveling for straight pipe	81-305-00
Elbow Mandrel	Flange Facing, Single Pointing, Form Tooling, & Miter Beveling for mounting to curved sections of pipe and junctions	81-315-00



EP 424 SpeedPrep™ deluxe beveling with form tool rotating head



EP 424 SpeedPrep™ deluxe prepping heavy wall pipe



Self-centering standard mandrel



Independent Mandrel

# EP 424 Tooling

## EP 424 SpeedPrep™ AutoFeed Upgrade

Converts form tool model to SpeedPrep™ model.

### Includes

- Single point radial tool slide for ID 4.25in (108mm) to OD 24in (609.6mm)
- 6.5in (165mm) slide travel
- AutoFeed axial feed gear box for bevel generation up to 45°
- Chuck leg extensions for ID range 14.87in - 23.64in (377.7-600mm)
- Self squaring mounting system and extensions for ID range 7.6-22.6in (193-574mm)
- Dial indicator system
- Operating hand tools
- Storage case
- Manual



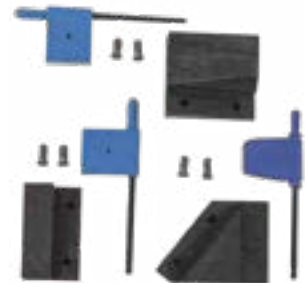
Facing tool insert holder (high range)

## EP 424 Form Tooling - Facing Holders & Inserts

DESCRIPTION	INCLUDES	PART #
Facing tool insert holders, axial		
Facing tool insert holder (low range)	<ul style="list-style-type: none"> <li>• 1 tool holder (56-198-01)</li> <li>• 2 insert screws (56-190-00)</li> <li>• 1 wrench (56-191-00)</li> </ul>	56-708-01
Facing tool insert holder (high range)	<ul style="list-style-type: none"> <li>• 1 tool holder (56-198-02)</li> <li>• 2 insert screws (56-190-00)</li> <li>• 1 wrench (56-191-00)</li> </ul>	56-708-02
Tool inserts for facing and beveling		
Premium grade HSS insert (2 sided). For facing and beveling. For use with SDB 206, 412 and EP 424 insert holders.		56-711-01
Carbide 2 sided insert. For facing and beveling. For use with SDB 206 and 412 insert holders.		56-712-01
Facing insert holder kit for axial facing and beveling 37.5°		
Insert holder kit for axial facing and beveling 37.5°	<ul style="list-style-type: none"> <li>• 1 low range facing insert holder (56-708-01)</li> <li>• 1 high range facing insert holder (56-708-02)</li> </ul> 1 BEVEL INSERT HOLDER 37.5° (56-709-03) FOR SDB, SDB 412 AND EP 424.	56-710-01
Screw and wrench		
Screw, insert		56-190-00
Insert screw torx wrench		56-191-00
Customized tools ground to customer specification (specific Code to be assigned upon receipt of order)		
Custom HSS facing tool bit (form tool)		56-SPT-02
Custom form tool or single point insert holder		56-SPT-10



Premium grade HSS insert (2 sided)



Insert holder kit for axial facing and beveling 37.5°

## EP 424 Form Tooling - Bevel Holders & Inserts

DESCRIPTION	INCLUDES	PART #
Bevel tool insert holder kit 30°	<ul style="list-style-type: none"> <li>• 1 holder (56-199-02)</li> <li>• 2 insert screws (56-190-00)</li> <li>• 1 wrench (56-191-00)</li> </ul>	56-709-02
Bevel tool insert holder kit 37.5°	<ul style="list-style-type: none"> <li>• 1 holder (56-199-03)</li> <li>• 2 insert screws (56-190-00)</li> <li>• 1 wrench (56-191-00)</li> </ul>	56-709-03
"J-Prep" bevel tool insert holder kit* 20° (low range)	<ul style="list-style-type: none"> <li>• 1 holder (56-199-01)</li> <li>• 2 insert screws (56-190-00)</li> <li>• 1 wrench (56-191-00)</li> </ul>	56-709-01



Form Tool Insert Holder

\*USE WITH 56-708-010 FACING INSERT HOLDER FOR 0.040IN (1MM) LAND EXTENSION.

## EP 424 Form Tooling - Bevel Holders & Inserts

DESCRIPTION	PART #
"J-Prep" bevel tool insert holder kit 20° (high range) includes: <ul style="list-style-type: none"> <li>• 1 holder (56-199-05)</li> <li>• 2 insert screws (56-190-00)</li> <li>• 1 wrench (56 191 00)</li> </ul> <i>Use with 56-708-01 facing insert holder for 0.040in (1mm) land extension.</i>	56-709-05
Insert holder kit includes: <ul style="list-style-type: none"> <li>• 1 low range facing insert holder (56-708-01)</li> <li>• 1 high range facing insert holder (56-708-02)</li> <li>• 1 bevel insert holder 37.5° (56-709-03)</li> </ul> <i>For SDB 206, SDB 412 and EP 424.</i>	56-710-01
Compound bevel form tool 10° x 37.5°	56-707-00
<b>Inserts for facing and beveling</b>	
Premium grade HSS insert (2 sided). <i>For use with SDB 206, 412 and EP 424 insert holders.</i>	56-711-01
Carbide 2 sided insert. <i>For use with SDB 206 and 412 insert holders.</i>	56-712-01
Premium grade HSS 2 sided 32 radius "J" bevel insert. <i>For use with 56-709-01 and 56-709-05 insert holders.</i>	56-711-02
Carbide 2 sided 32 radius "J" bevel insert. <i>For use with 56-709-01 and 56-709-05 insert holders.</i>	56-712-02
<b>Screw and wrench</b>	
Screw, insert	56-190-00
Insert screw torx wrench	56-191-00
<b>Customized tools ground to customer specification</b>	
Custom HSS bevel tool bit single angle (form tool).	56-SPT-01
Custom HSS bevel tool bit compound angle (form tool).	56-SPT-03
Custom HSS bevel tool bit single angle "J" (form tool).	56-SPT-04
Custom HSS bevel tool bit compound angle "J" (form tool).	56-SPT-05



Premium grade HSS insert (2 sided)



Counterbore tool taper 4:1

## EP 424 Counterbore & ID Tooling

DESCRIPTION	PART #
<b>ID deburring tools</b>	
ID deburring tool 10° 0.150in (3.81mm) required between mandrel and ID.	56-702-01
ID deburring tool 10° 0.449in (11.4mm) required between mandrel and ID.	56-702-02
ID deburring tool 10° 0.762in (19.4mm) required between mandrel and ID.	56-702-03
<b>Counterbore tools</b>	
Counterbore tool taper 4:1 0.315in (8mm) required between mandrel and ID.	56-705-01
Counterbore tool taper 4:1 0.875in (22.2mm) required between mandrel and ID.	56-705-02
Counterbore tool taper 4:1 1.375in (35mm) required between mandrel and ID.	56-705-03
Counterbore tool taper 4:1 3/8 x 3/8in (9.5 x 9.5mm) Use with single point beveling tool holder.	56-713-00
Counterbore tool taper 4:1 For MDSF 204-SF1420	60-700-04
Tool Holder kit counterbore	56-715-00
<b>Customized tools ground to customer specification</b>	
Custom HSS tool bit ID deburring	56-SPT-06
Custom HSS tool bit counterboring	56-SPT-07



Counterbore tool taper 4:1



Tool Holder kit counterbore

## DuoEdge Insert Tooling

E.H. Wachs DuoEdge Insert Tooling is a system of portable machine tool holders and inserts designed to replace larger, more expensive traditional tooling.

It offers considerable cost savings over traditional tooling without sacrificing the longevity of the cutting edge or the quality of the finished prep.

- Multiple cutting edges for minimal work interruption
- Each cutting edge costs on average one third the cost of a traditional bit
- No need to sharpen tooling, saving time, labor and shipping
- Small size of inserts makes them easy to store or carry in your pocket
- Tool Holders are reusable, inserts are interchangeable between holders
- End prep holder is reversible to a high and low range position
- Precision ground, super smooth surface finish
- Reduced friction for longer life
- Chip curl edge designed to clear swarf
- Eliminates expensive and time consuming conventional tool resharpener
- Unlike conventional tooling DuoEdge has two cutting edges per insert
- On average costs 1 the price of conventional tooling per edge
- Optimal mix of sharpness and durability
- Supplied with 0.5in tool radius for stronger edges and a better finish
- Superior to competitors off the shelf repurposed CNC tooling

DESCRIPTION	APPLICATION	MATERIAL	PART #
DuoEdge Single Point Holder	Single pointing	Heat treated steel	81-702-00
DuoEdge Insert Single Pack	Carbon steel	HSS	81-701-01
DuoEdge Insert 10-Pack	Carbon steel	HSS	81-701-10
DuoEdge Premium Single Pack	Stainless steel	HSS Premium	81-701-00P
DuoEdge Premium 10-Pack	Stainless steel	HSS Premium	81-701-10P
DuoEdge Insert Single Pack	High-temp alloys	Carbide	81-703-01
DuoEdge Insert 10-Pack	High-temp alloys	Carbide	81-703-10
DuoEdge Insert Single Pack	R 2.4mm/.094in J-Prep	HSS	81-704-01
DuoEdge Insert Single Pack	R 3.2mm/.125in J-Prep	HSS	81-705-01
DuoEdge Insert Single Pack	R 4.8mm/.188in J-Prep	HSS	81-706-01
DuoEdge Insert Single Pack	R 6mm/.236in J-Prep	HSS	81-707-01

## EP 424 Single Point Tooling

DESCRIPTION	PART #
Legacy Tool holders	
<b>Single point beveling tool holder, low range.</b> For OD 4.25-23.62in (108-600mm) for EP 424. For EP 424, FF313 and FF424.	56-424-00
<b>Single point beveling tool holder, high range.</b> For OD 7.25-24in (184-609.6mm) for EP 424. For EP 424, FF313 and FF424.	56-424-01
Legacy Tool bit	
<b>Standard HSS tool bit 3/8 x 3/8in (9.5 x 9.5mm).</b> For single point facing, beveling and flange facing. For use with EP 424, LCSF, FF, SWR and SDSF machines.	52-701-01



DuoEdge Tooling Single Point Insert



DuoEdge inserts, 10 pack



DuoEdge Single Point Holder



Legacy single point beveling tool holder



Legacy standard HSS tool bit 9.5 x 9.5mm