

EP 424 End Prep Machines



EP 424 is compact yet powerful



Patented AutoFeed mechanism



Hydraulic (shown), Electric & Pneumatic drive options

Machines from 4-24in (DN 100-600) OD Available with Patented AutoFeed Mechanism

The Wachs EP 424 with the 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 (165 mm) wall thickness. The EP 424 can single point and face flanges up to 36in utilizing its optional tool slide. With its patented AutoFeed system the EP 424 is the most advanced end prep machine tool 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 machines.

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
- Hardened alloy steel components, larger gear sets for high work loads
- Lightweight yet rigid aluminum housing enhances portability
- 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 set-up and operation

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:

95ft³/min at 90 psi
(2.7m³/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 (71.1 mm)

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

Machine rotating speed:

0-14rpm (variable)

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 (314 mm)
With Mandrel 26.75in (680 mm)

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



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 (914 mm) with optional slide

EP 424 End Prep

Pneumatic

ACM AIR
REMOTE
CONTROL
MODULE



3hp PNEUMATIC
STRAIGHT DRIVE
MOTOR



Hydraulic

HPU
HYDRAULIC
POWER UNITS



HYDRAULIC
DRIVE MOTOR



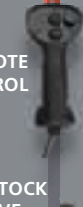
Electric

EIBENSTOCK HD



POWER BOX

REMOTE
CONTROL



EIBENSTOCK
HD DRIVE
MOTOR



EPD
ELECTRIC
POWER DRIVE



EPD
REMOTE
CONTROL



EPD
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 Single Point Deluxe			EP 424 Single Point 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 (102-406 mm)						
						Single Point Slide ID 4.24-24in OD (108-610 mm)			
			Standard Self-Centering Mandrel ID 3.27-15.96in (83-405 mm)						
						Standard Self-Centering Mandrel ID 14.87-23.64in (378-600 mm)			
						Independent Mandrel ID 8.5-22.6in (215.9-574 mm)			
						AutoFeed			
Code	981 000 010	981 000 020	981 000 030	981 000 070	981 000 080	981 000 090	981 000 040	981 000 050	981 000 060
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 and EPD 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 miter or elbows
- Elbow Mandrel
- Electric drive motors with remote control options
- ATM Air Treatment Module for pneumatic drive
- ACM Remote Control Module for pneumatic drive
- Interchangeable tool slides
- 36in Single Point Slide
- Genuine Wachs tooling
- 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 single point deluxe beveling with form tool rotating head



EP 424 single pointing deluxe prepping heavy wall pipe



Self-centering standard mandrel



Independent Mandrel

EP 424 Tooling

EP 424 Single Point AutoFeed Upgrade

Converts form tool model to single point model.

Includes

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



Facing tool insert holder (high range)

EP 424 Form Tooling - Facing Holders & Inserts

DESCRIPTION	CODE	PART #
Facing tool insert holders, axial		
Facing tool insert holder (low range) includes: <ul style="list-style-type: none"> • 1 tool holder (56-198-01) • 2 insert screws (56-190-00) • 1 wrench (56-191-00) 	956 708 010	56-708-01
Facing tool insert holder (high range) includes: <ul style="list-style-type: none"> • 1 tool holder (56-198-02) • 2 insert screws (56-190-00) • 1 wrench (56-191-00) 	956 708 020	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.	956 711 010	56-711-01
Carbide 2 sided insert. For facing and beveling. For use with SDB 206 and 412 insert holders.	956 712 010	56-712-01
Facing insert holder kit for axial facing and beveling 37.5°		
Insert holder kit for axial facing and beveling 37.5° includes: <ul style="list-style-type: none"> • 1 low range facing insert holder (56-708-01) • 1 high range facing insert holder (56-708-02) • 1 bevel insert holder 37.5° (56-709-03) For SDB, SDB 412 and EP 424.	956 710 010	56-710-01
Screw and wrench		
Screw, insert	956 190 000	56-190-00
Insert screw torx wrench	956 191 000	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)	ON REQUEST	56-SPT-02
Custom form tool or single point insert holder	ON REQUEST	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	CODE	PART #
Bevel tool insert holder kits		
Bevel tool insert holder kit 30° includes: <ul style="list-style-type: none"> • 1 holder (56-199-02) • 2 insert screws (56-190-00) • 1 wrench (56-191-00) 	956 709 020	56-709-02
Bevel tool insert holder kit 37.5° includes: <ul style="list-style-type: none"> • 1 holder (56-199-03) • 2 insert screws (56-190-00) • 1 wrench (56-191-00) 	956 709 030	56-709-03
"J-Prep" bevel tool insert holder kit* 20° (low range) includes: <ul style="list-style-type: none"> • 1 holder (56-199-01) • 2 insert screws (56-190-00) • 1 wrench (56-191-00) 	956 709 010	56-709-01

*Use with 956 708 010 facing insert holder for 0.040in (1 mm) land extension.



Form Tool Insert Holder

EP 424 Tooling

EP 424 Form Tooling - Bevel Holders & Inserts

DESCRIPTION	CODE	PART #
"J-Prep" bevel tool insert holder kit 20° (high range) includes: • 1 holder (56-199-05) • 2 insert screws (56-190-00) • 1 wrench (56 191 00) <i>Use with 56-708-01 facing insert holder for 0.040in (1 mm) land extension.</i>	956 709 050	56-709-05
Insert holder kit includes: • 1 low range facing insert holder (56-708-01) • 1 high range facing insert holder (56-708-02) • 1 bevel insert holder 37.5° (56-709-03) <i>For SDB 206, SDB 412 and EP 424.</i>	956 710 010	56-710-01
Compound bevel form tool 10° x 37.5°	956 707 000	56-707-00
Inserts for facing and beveling		
Premium grade HSS insert (2 sided). <i>For use with SDB 206, 412 and EP 424 insert holders.</i>	956 711 010	56-711-01
Carbide 2 sided insert. <i>For use with SDB 206 and 412 insert holders.</i>	956 712 010	56-712-01
Premium grade HSS 2 sided 3/32 radius "J" bevel insert. <i>For use with 56-709-01 and 56-709-05 insert holders.</i>	956 711 020	56-711-02
Carbide 2 sided 3/32 radius "J" bevel insert. <i>For use with 56-709-01 and 56-709-05 insert holders.</i>	956 712 020	56-712-02
Screw and wrench		
Screw, insert	956 190 000	56-190-00
Insert screw torx wrench	956 191 000	56-191-00
Customized tools ground to customer specification		
Custom HSS bevel tool bit single angle (form tool).	ON REQUEST	56-SPT-01
Custom HSS bevel tool bit compound angle (form tool).	ON REQUEST	56-SPT-03
Custom HSS bevel tool bit single angle "J" (form tool).	ON REQUEST	56-SPT-04
Custom HSS bevel tool bit compound angle "J" (form tool).	ON REQUEST	56-SPT-05



Premium grade HSS insert (2 sided)



Counterbore tool taper 4:1

EP 424 Counterbore & ID Tooling

DESCRIPTION	CODE	PART #
ID deburring tools		
ID deburring tool 10° 0.150in (3.81 mm) required between mandrel and ID.	956 702 010	56-702-01
ID deburring tool 10° 0.449in (11.4 mm) required between mandrel and ID.	956 702 020	56-702-02
ID deburring tool 10° 0.762in (19.4 mm) required between mandrel and ID.	956 702 030	56-702-03
Counterbore tools		
Counterbore tool taper 4:1 0.315in (8 mm) required between mandrel and ID.	956 705 010	56-705-01
Counterbore tool taper 4:1 0.875in (22.2 mm) required between mandrel and ID.	956 705 020	56-705-02
Counterbore tool taper 4:1 1.375in (35 mm) required between mandrel and ID.	956 705 030	56-705-03
Counterbore tool taper 4:1 3/8 x 3/8in (9.5 x 9.5 mm) Use with single point beveling tool holder.	956 713 000	56-713-00
Counterbore tool taper 4:1 For SF204/3-SF1420/3	960 700 040	60-700-04
Tool Holder kit counterbore	956 715 000	56-715-00
Customized tools ground to customer specification		
Custom HSS tool bit ID deburring	ON REQUEST	56-SPT-06
Custom HSS tool bit counterboring	ON REQUEST	56-SPT-07



Counterbore tool taper 4:1



Tool Holder kit counterbore

EP 424 Tooling

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 1/3 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
- Multiple materials offered, HSS, premium coated HSS and carbide steel

DESCRIPTION	APPLICATION	MATERIAL	CODE	PART #
DuoEdge Single Point Holder	Single pointing	Heat treated steel	981 702 000	81-702-00
DuoEdge Insert Single Pack	Carbon steel	HSS	981 701 010	81-701-01
DuoEdge Insert 10-Pack	Carbon steel	HSS	981 701 100	81-701-10
DuoEdge Premium Single Pack	Stainless steel	HSS Premium	981 701 009	81-701-00P
DuoEdge Premium 10-Pack	Stainless steel	HSS Premium	981 701 109	81-701-10P
DuoEdge Insert Single Pack	High-temp alloys	Carbide	981 703 010	81-703-01
DuoEdge Insert 10-Pack	High-temp alloys	Carbide	981 703 100	81-703-10
DuoEdge Insert Single Pack	R 2.4 mm/.094in J-Prep	HSS	981 704 010	81-704-01
DuoEdge Insert Single Pack	R 3.2 mm/.125in J-Prep	HSS	981 705 010	81-705-01
DuoEdge Insert Single Pack	R 4.8 mm/.188in J-Prep	HSS	981 706 010	81-706-01
DuoEdge Insert Single Pack	R 6 mm/.236in J-Prep	HSS	981 707 010	81-707-01

Legacy EP 424 Single Point Tooling

Legacy Tool holders		
Single point beveling tool holder, low range. For OD 4.25-23.62in (108-600 mm) for EP 424. For EP 424, FF313 and FF424.	956 424 000	56-424-00
Single point beveling tool holder, high range. For OD 7.25-24in (184-609.6 mm) for EP 424. For EP 424, FF313 and FF424.	956 424 010	56-424-01
Legacy Tool bit		
Standard HSS tool bit 3/8 x 3/8in (9.5 x 9.5 mm). For single point facing, beveling and flange facing. For use with EP 424, LCSF/3, FF, SWR and SDSF machines.	952 701 010	52-701-01



DuoEdge Tooling Single Point Insert



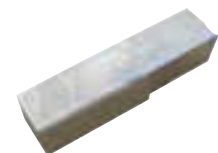
DuoEdge inserts, 10 pack



DuoEdge Single Point Holder



Legacy single point beveling tool holder



Legacy standard HSS tool bit 9.5 x 9.5 mm