



E.H.WACHS®

Superior Equipment. Complete Support.™

Machines perfect preps from OD DN 100 - 600 (4" - 24").



EP 424 application.



Auto feed angle generator by "SpeedPrep".



Hydraulic, Electric or Pneumatic drive options.



Compact flange facer.

Pipe End Preparation Machines EP 424

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Pipe End Preparation Machines

- Machines perfect preps from OD DN 100 - 600 (4" - 24")
- Safe cold cutting process, eliminates heat affected zone
- Lathe machining process delivers precise compound bevels and consistent lands
- Speed Prep design feeds automatically in the radial and axial planes
- Hydraulic, Electric or Pneumatic drive options
- EP 424 eliminates the need for accessory templates or external tool slides
- Features fast setup and prep times with quick deploy mandrel legs
- Hardened steel components, large cross section, larger gear sets
- Lightweight yet rigid aluminum housing and mainshaft to enhance portability
- Low friction bearing system provides maximum stability and eliminates chatter

EP 424 Bevelers

The WACHS EP 424 with the patent pending new speed prep feed system is a precision ID mount end prep machine tool designed to bevel, compound bevel, J prep, face and counterbore pipe, fittings and valves. Utilizing WACHS revolutionary new mechanism that feeds simultaneously in the axial and radial planes, it's able to machine any bevel or compound bevel without templates, incline tool slides or work stoppage. The EP 424 is powerful enough to form tool from DN 100 - 350 (4" - 14") and single point from DN 200 - 600 (8" - 24") up to a 165 mm (6.5") wall thickness.

EP 424 design capabilities

- Form tool from pipe OD DN 100 - 350 (4" - 14")
- Single point machining from OD DN 100 - 600 (4" - 24")
- Hardened alloy steel components, larger gear sets for high work loads
- Full roller bearing construction for durability and stability
- Fully enclosed bearings and drive gears for safety and durability
- Corrosion resistant finishes on all components to withstand harsh environments
- Mounts to ID of pipe with easy to use self centering mandrel system
- Fully modular construction for one man set-up and operation
- All new heavy duty design with patent pending Speed Prep feed system

Speed prep feed

The EP 424 is an all new design featuring WACHS patent pending Speed Prep feed system. 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 speed prep 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 to use than any other machine of its kind, the WACHS EP 424 sets the standard in user friendly large diameter end prep machines.

Specifications	EP 424	
System function	ID mount end prep machine tool designed to bevel, compound bevel, J prep, face and counterbore pipe, fittings and valves	
Machine capacity OD (varies by tooling)	[mm]	DN 100 - 600
	[inch]	4 - 24
Drive options	Hydraulic or pneumatic	
Air requirements	[m ³ /min]	2.7 at 6.2 bar
	[ft ³ /min]	95 at 90 psi
Hydraulic requirements	[l/min]	30 at 103 bar
	[gal/min]	8 at 1500 psi
Feed method	Speed prep feed system with dial control or fully manual	
Feed rate	Variable feed rate, user adjustable	
Feed stroke (axial)	[mm]	71.1
	[inch]	2.8
Construction	Lightweight aluminum housing, oversize hardened alloy steel fully enclosed gear sets, high capacity bearings, rigid mandrel legs, captivated hardware	

Specifications	EP 424	
Finish	Multistage bright red enamel finish plus black oxide and clear coated components	
Machine rotating speed	[rpm]	0 - 14 (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	
Packaging	Heavy duty storage case	
Length	[mm]	314 / 680
(without/with mandrel)	[inch]	12.35 / 26.75
Weight	Full modular construction with each module under 31.75 kg (70 lbs), total weight with storage case 71.67 kg (158 lbs)	
Standard equipment	<ul style="list-style-type: none"> • Form tooling • Heavy drive (pneumatic or hydraulic) • Heavy duty storage case • Standard mandrel (depending on machine version) • Extension leg kit (depending on machine version) • Self squaring mounting system (depending on machine version) • Operating hand tools • Operation manual 	
Optional equipment	<ul style="list-style-type: none"> • Flange facing modules for end prep or form tooling applications • Air Control Module "ACM" for pneumatic drive • Interchangeable tooling mounts • Genuine WACHS tooling 	



Article	Version	Pipe OD		Code	WACHS Ref.-no.
		[mm]	[inch]		
EP 424 form tooling	Pneumatic	DN 100 - 400	4 - 16	981 000 010	81-000-01
EP 424 form tooling	Hydraulic	DN 100 - 400	4 - 16	981 000 020	81-000-02
EP 424 single point tooling*	Pneumatic	DN 100 - 600	4 - 24	981 000 030	81-000-03
EP 424 single point tooling*	Hydraulic	DN 100 - 600	4 - 24	981 000 040	81-000-04
EP 424 single point tooling**	Pneumatic	DN 100 - 600	4 - 24	981 000 050	81-000-05
EP 424 single point tooling**	Hydraulic	DN 100 - 600	4 - 24	981 000 060	81-000-06

* Single point tooling. Includes standard mandrel and self squaring mounting system.

** Single point tooling. Includes only standard mandrel.

EP 424 single point speed prep upgrade

Converts form tool model Code 981 000 010 or Code 981 000 020 to single point model.

Standard equipment	<ul style="list-style-type: none"> • Single point radial tool slide for ID 108 mm (4.25") to OD 609.6 mm (24") (165 mm (6.5") slide travel) • "Speed Prep" auto axial feed gear box for bevel generation up to 45° • Chuck leg extensions for ID range 377.7 - 600 mm (14.87" - 23.64") • Self squaring mounting system and extensions for ID range 193 - 574 mm (7.6" - 22.6") • Dial indicator system • Operating hand tools • Storage case • Manual
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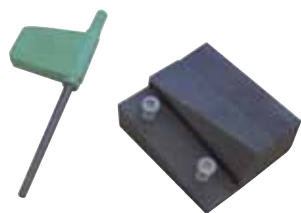
Article	Code	WACHS Ref.-no.
EP 424 single point speed prep upgrade	981 400 000	81-400-00

Pipe End Preparation Machines EP 424

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Accessories for EP 424

Form tool EP 424 facing tooling



Facing tool insert holder (high range)



Premium grade HSS insert (2 sided)

Article	Code	WACHS Ref.-no.		
Facing tool insert holders, axial				
Facing tool insert holder (low range). Includes: • 1 holder (956 198 010) • 2 insert screws (956 190 000) • 1 wrench (956 191 000)	956 708 010	56-708-01		
Facing tool insert holder (high range). Includes: • 1 holder (956 198 020) • 2 insert screws (956 190 000) • 1 wrench (956 191 000)	956 708 020	56-708-02		
Inserts for facing and beveling				
Premium grade HSS insert (2 sided). For facing and beveling. For use with all WACHS 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 all WACHS 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: • 1 low range facing insert holder (956 708 010) • 1 high range facing insert holder (956 708 020) • 1 bevel insert holder 37.5° (956 709 030) For WACHS models 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		

Form tool EP 424 beveling tooling



Bevel tool insert holder kit 30°

Article	Code	WACHS Ref.-no.		
Bevel tool insert holder kits				
Bevel tool insert holder kit 30°. Includes: • 1 holder (956 199 02) • 2 insert screws (956 190 000) • 1 wrench (956 191 000)	956 709 020	56-709-02		
Bevel tool insert holder kit 37.5°. Includes: • 1 holder (956 199 030) • 2 insert screws (956 190 000) • 1 wrench (956 191 000)	956 709 030	56-709-03		
"J" bevel tool insert holder kit 20° (low range). Includes: • 1 holder (956 199 010) • 2 insert screws (956 190 000) • 1 wrench (956 191 000) Use with 956 708 010 facing insert holder for 1 mm (0.040") land extension.	956 709 010	56-709-01		
"J" bevel tool insert holder kit 20° (high range). Includes: • 1 holder (956 199 050) • 2 insert screws (956 190 000) • 1 wrench (956 191 000) Use with 956 708 010 facing insert holder for 1 mm (0.040") land extension.	956 709 050	56-709-05		

Article	Code	WACHS Ref.-no.		
Insert holder kit. Includes: • 1 low range facing insert holder (956 708 010) • 1 high range facing insert holder (956 708 020) • 1 bevel insert holder 37.5° (956 709 030) For WACHS models SDB 206, SDB 412 and EP 424.	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). For use with all WACHS SDB 206, 412 and EP 424 insert holders.	956 711 010	56-711-01		
Carbide 2 sided insert. For use with all WACHS SDB 206 and 412 insert holders.	956 712 010	56-712-01		
Premium grade HSS 2 sided 3/32 radius "J" bevel insert. For use with 956 709 010 and 956 709 050 insert holders.	956 711 020	56-711-02		
Carbide 2 sided 3/32 radius "J" bevel insert. For use with 956 709 010 and 956 709 050 insert holders.	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 (specific code to be assigned upon receipt of order)				
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)

Form tool EP 424 counterbore and ID tooling

Article	Code	WACHS Ref.-no.		
ID deburring tools				
ID deburring tool 10°. 3.81 mm (0.150") required between mandrel and ID.	956 702 010	56-702-01		
ID deburring tool 10°. 11.4 mm (0.449") required between mandrel and ID.	956 702 020	56-702-02		
ID deburring tool 10°. 19.4 mm (0.762") required between mandrel and ID.	956 702 030	56-702-03		
Counterbore tools				
Counterbore tool taper 4:1. 8 mm (0.315") required between mandrel and ID.	956 705 010	56-705-01		
Counterbore tool taper 4:1. 22.2 mm (0.875") required between mandrel and ID.	956 705 020	56-705-02		
Counterbore tool taper 4:1. 35 mm (1.375") required between mandrel and ID.	956 705 030	56-705-03		
Counterbore tool taper 4:1; 9.5 x 9.5 mm (3/8" x 3/8"). Use with single point beveling tool holder Code 956 424 000 and 956 424 010.	956 713 000	56-713-00		
Customized tools ground to customer specification (specific code to be assigned upon receipt of order)				
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



Single point beveling tool holder



Standard HSS tool bit 9.5 x 9.5 mm

EP 424 single point tooling

Article	Code	WACHS Ref.-no.		
Tool holders				
Single point beveling tool holder, low range. For OD 108 - 600 mm (4.25"-23.62") for EP 424. For EP 424, FF313 and FF424.	956 424 000	56-424-00		
Single point beveling tool holder, high range. For OD 184 - 609.6 mm (7.25"-24") for EP 424. For EP 424, FF313 and FF424.	956 424 010	56-424-01		
Tool bit				
Standard HSS tool bit 9.5 x 9.5 mm (3/8" x 3/8"). 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		

Hydraulic Power Pack

Hydraulic Power Pack "SafeQuip", see page 55.

Air Control Module

Air Control Module "ACM", see page 57.

Cutting lubrication

Cutting lubrication "KSS-TOP", see page 32.