



WACHS **E.H. WACHS®**
 Superior Equipment. Complete Support.™

Fast, easy setup – self centering design.



SDB pipe end preparation or FF flange preparation



FF 3-jaw independent "short perch" mandrel or SDB mandrel principle



SDB-pipe end preparation form tooling up to OD 323 mm



FF flange preparation up to OD 610 mm

Pipe End Preparation Machines SDB and FF

Pipe End Preparation Machines

- Compact, rugged designs for one man operation
- Self centering ID mandrel assures perfect end preps
- Face, bevel, counterbore
- Convertible to FF series with optional flange facing kit

SDB Small Diameter Bevelers

E.H. WACHS® SDB line of small diameter bevelers have been engineered for fast, precise onsite facing, beveling, compound beveling and counterboring of light and heavy wall pipe, tube or casing. Proven workhorses, they set up quickly with a self centering mandrel and chuck assembly mounting to the pipe ID. Their highly productive design means one person can set up, operate and create a perfect weld prep in minutes.

SDB 103/3 handheld beveling machine delivers maximum power and performance for fast, accurate weld preps on pipe and tube from ID 22.2 mm (0.875") to OD 114.3 mm (4.5") and flanges ID 50.8 mm (2") to OD 152.4 mm (6"). Face, bevel and counterbore simultaneously on carbon, stainless and high alloy steels. Extremely versatile, the SDB 103 allows you to machine boiler tubes, heavy wall pipe, thick wall tubing, prep elbows and (with optional FF kit) face flanges.

SDB 206/2 makes fast work of end preps on pipe and tube from ID 48.5 mm (1.91") to OD 168.3 mm (6.625") and flanges from ID 76.2 mm (3") to OD 330.2 mm (13") The SDB 206 is a compact, lightweight design which requires only 57 mm (2.25") of radial clearance – making it the ideal tool for use in tight places. No other machine of this type can perform as many different jobs: face, bevel, counterbore (simultaneously if desired), compound bevel and (with optional FF kit) face flanges.

The **SDB 412/2** is a portable pipe end prep machine designed to face, bevel, counterbore (simultaneously) and compound bevel ID 96.5 mm (3.80") to OD 323.9 mm (12.75") pipe, up to 29 mm (1.125") wall thickness and (with optional FF kit) face flanges ID 101.6 mm (4") to OD 609.6 mm (24"). The heavy duty yet compact design of the SDB 412 requires minimal operating clearances and ease of handling, setup and operation.



SDB 412



SDB 103



SDB 206

Specifications	SDB 103/3	SDB 206/2	SDB 412/2
Machine capacity	22.2 - 114.0 mm 0.875" - 4.500"	48.5 - 168.0 mm 1.910" - 6.625"	96.5 - 323.9 mm 3.800" - 12.750"
Standard equipment	<ul style="list-style-type: none"> • Heavy duty drive (air or electric) • Standard mandrel ID 29.5 - 106 mm (1.16" - 4.18") • 7 sets of leg extensions • Operating hand tools • Watertight storage case • Manual 	<ul style="list-style-type: none"> • Heavy duty drive (air, electric or hydraulic) • Standard mandrel ID 57.7 - 167 mm (2.27" - 6.58") • 10 sets of leg extensions • Operating hand tools • Watertight storage case • Manual 	<ul style="list-style-type: none"> • Heavy duty drive (air, electric or hydraulic) • Standard mandrel ID 96.5 - 305 mm (3.80" - 12.02") • 8 sets of leg extensions • Operating hand tools • Watertight storage case • Manual
Shipping weight (est.)	18 kg 40 lbs	52 kg 115 lbs	140 kg 308 lbs
Shipping dimensions (est., without accessories)	635 x 558.8 x 228.6 mm 25" x 22" x 9"	305 x 813 x 533 mm 12" x 32" x 21"	635 x 1.194 x 457 mm 25" x 47" x 18"

Article	Version	Pipe ID to OD		Code	WACHS Ref.-no.		
		[mm]	[inch]				
SDB 103/3	Pneumatic	22.2 - 114.0	0.875 - 4.500	916 000 010	16-000-01		
SDB 103/3	Electric 110 V, 50 Hz	22.2 - 114.0	0.875 - 4.500	916 000 020	16-000-02		
SDB 103/3	Electric 220 V, 50 Hz	22.2 - 114.0	0.875 - 4.500	916 000 030	16-000-03		
SDB 206/2	Pneumatic	48.5 - 168.0	1.910 - 6.625	956 000 010	56-000-01		
SDB 206/2	Hydraulic	48.5 - 168.0	1.910 - 6.625	956 000 020	56-000-02		
SDB 206/2	Electric 220 V, 50 Hz	48.5 - 168.0	1.910 - 6.625	956 000 040	56-000-04		
SDB 206/2	Electric 110 V, 50 Hz	48.5 - 168.0	1.910 - 6.625	956 000 030	56-000-03		
SDB 412/2	Pneumatic	96.5 - 323.9	3.800 - 12.750	966 000 010	66-000-01		
SDB 412/2	Hydraulic	96.5 - 323.9	3.800 - 12.750	966 000 030	66-000-03		

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.

Pipe End Preparation Machines

- Fast, easy setup – self centering design
- Simple operation, light-weight and compact
- Record groove, RMS 500, 250, 125
- Convertible to SDB series with optional SDB conversion kit

FF Flange Facing Machines

Now anyone can produce a lathe quality surface finish on flat, raised or recessed face flanges in minutes. Based on the powerful WACHS SDB series ID mount end prep machines, the WACHS FF series flange facers offer a rugged yet lightweight and compact design that allows them to fit into tight quarters. With the addition of the SDB conversion kit, the FF models can be converted into SDB series machines, allowing them to face, bevel, compound bevel and counterbore.

WACHS FF series flange facers are based on the powerful and versatile SDB series of bevelers. Simple to operate, they mount to the pipe ID and are self centering. Specify the SDB conversion kit to add beveling, facing and counterboring capabilities.

Model FF 206: Flange facing machine for facing flat, raised or recessed face flanges from ID 50.8 mm (2") through OD 152.4 mm (6") up to a DN50 (2") 150# flange.

Model FF 313: Flange facing machine for facing flat, raised or recessed face flanges from ID 76.2 mm (3") through OD 320.2 mm (13") up to a DN150 (6") 400# flange.

Model FF 424: Flange facing machine for facing flat, raised or recessed face flanges from ID 101.6 mm (4") through OD 609.6 mm (24") up to a DN400 (16") 150# flange.



FF Flange Facer

Specifications	FF 206	FF 313	FF 424
Machine capacity (pipe ID to OD)	50.8 - 152.4 mm 2" - 6"	76.2 - 320.2 mm 3" - 13"	101.6 - 609.6 mm 4" - 24"
Standard equipment	<ul style="list-style-type: none"> • Heavy duty drive (air or electric) • 3-jaw independent "short perch" mandrel ID 49.5 - 104.4 mm (1.95" - 4.11") • 7 sets of leg extensions • Single point flange facing tool slide • Tooling package • Watertight storage case • Operating hand tools • Manual 	<ul style="list-style-type: none"> • Heavy duty drive (air, electric or hydraulic) • 3-jaw independent "short perch" mandrel ID 76.2 - 256 mm (3" - 10.08") • 18 sets of leg extensions • Single point flange facing tool slide • Tooling package • Watertight storage case • Operating hand tools • Manual 	<ul style="list-style-type: none"> • Heavy duty drive (air, electric or hydraulic) • 3-jaw independent "short perch" mandrel ID 96 - 508 mm (3.78" - 20") • 23 sets of leg extensions • Single point flange facing tool slide • Tooling package • Watertight storage case • Operating hand tools • Manual
Shipping weight (est.)	21.3 kg 47 lbs	82 kg 180 lbs	
Shipping dimensions (est., without accessories)	635 x 559 x 229 mm 25" x 22" x 9"	305 x 813 x 305 mm 12" x 32" x 12"	

Article	Version	Pipe ID to OD		Code	WACHS Ref.-no.
		[mm]	[inch]		
FF 206	Pneumatic	50.8 - 152.4	2 - 6	916 000 330	16-000-FF
FF 206	Electric 110 V, 50 Hz	50.8 - 152.4	2 - 6	on request	on request
FF 206	Electric 220 V, 50 Hz	50.8 - 152.4	2 - 6	on request	on request
FF 313	Pneumatic	76.2 - 320.2	3 - 13	956 000 330	56-000-FF
FF 313	Electric 110 V, 50 Hz	76.2 - 320.2	3 - 13	on request	on request
FF 313	Electric 220 V, 50 Hz	76.2 - 320.2	3 - 13	on request	on request
FF 313	Hydraulic	76.2 - 320.2	3 - 13	on request	on request

Article	Version	Pipe ID to OD		Code	WACHS Ref.-no.
		[mm]	[inch]		
FF 424	Pneumatic	101.6 - 609.6	4 - 24	966 000 330	66-000-FF
FF 424	Electric 110 V, 50 Hz	101.6 - 609.6	4 - 24	on request	on request
FF 424	Electric 220 V, 50 Hz	101.6 - 609.6	4 - 24	on request	on request
FF 424	Hydraulic	101.6 - 609.6	4 - 24	966 000 340	66-000-FH

Conversion kits SDB/FF

Article	Code	WACHS Ref.-no.
Conversion kits for WACHS model SDB 103/3		
Beveler conversion kit. Converts FF 206 to WACHS model SDB 103/3 portable pipe and tube prepping machine to face, bevel, compound bevel and counterbore pipes with Ø 25.4 - 101.6 mm (1" - 4"). Includes: <ul style="list-style-type: none"> • 1 standard rotating head • 1 standard mandrel ID 29.5 - 106 mm (1.16" - 4.18") • 7 sets of leg extensions • 1 wiper felt • Fasteners 	916 420 000	16-420-00
Flange facer conversion kit. Converts SDB 103/3 to WACHS model FF 206 flange facing machine for flanges ID 50.8 mm (2") to OD 152.4 mm (6"). Includes: <ul style="list-style-type: none"> • 1 single point flange facing tool slide • 1 independent "short perch" mandrel • 7 sets of leg extensions ID 49.5 - 104.4 mm (1.95" - 4.11") 	916 421 000	16-421-00
Conversion kits for WACHS model SDB 206/2		
Flange facer conversion kit. Converts model SDB 206/2 to WACHS model FF 313 flange facing machine. For flanges with ID 76.2 mm (3") to OD 330 mm (13"). Includes: <ul style="list-style-type: none"> • 1 single point flange facing tool slide • 3-jaw independent "short perch" mandrel • 18 sets of leg extensions ID 76.2 - 256 mm (3.00" - 10.08") 	956 421 000	56-421-00
Conversion kit FF 313 to SDB 206/6.	956 420 000	56-420-00
Conversion kits for WACHS model SDB 412/2		
Beveler conversion kit. Converts WACHS model FF 424 to WACHS model SDB 412/2 portable pipe and tube prepping machine to face, bevel, compound bevel and counterbore pipes with Ø 102 - 305 mm (4" - 12"). Includes: <ul style="list-style-type: none"> • 1 standard rotating head • 1 standard mandrel ID 96.5 - 305 mm (3.8" - 12.02") • 8 sets of leg extensions • 1 wiper felt • fasteners 	966 420 000	66-420-00
Flange facer conversion kit. Converts WACHS model SDB 412/2 to WACHS model FF 424 flange facing machine. For flanges with ID 101.6 (4") to OD 609.6 mm (24"). Includes: <ul style="list-style-type: none"> • 1 single point flange facing tool slide • 3-jaw independent "short perch" mandrel • 23 sets of leg extensions ID 96 - 508 mm (3.78" - 20") 	966 421 000	66-421-00

Pipe End Preparation Machines SDB and FF

Accessories for SDB and FF

Mandrels

Article	Code	WACHS Ref.-no.		
Mandrels and accessories for WACHS model SDB 103/3				
Standard mandrel. For ID 29.5 - 106 mm (1.16" - 4.18"). Without leg extension sets.	916 303 000	16-303-00		
Standard mandrel. For ID 29.5 - 106 mm (1.16" - 4.18"). Includes 7 sets of leg extensions.	916 409 000	16-409-00		
3-jaw independent "short perch" mandrel. For ID 49.5 - 104 mm (1.95" - 4.11"). Includes 7 sets of leg extensions. Minimum 3/4" straight run required. To rigid mount on fittings, flanges, elbows and valves.	916 414 000	16-414-00		
Small ID accessory mandrel. For ID 22 - 31.75 mm (0.875" - 1.25"). Includes: • 1 rotating head 79.5 mm (3.13"). 4 x 6.35 mm (1/4") shank style tool slots. • 2 sets of leg extensions for ID mounting ranges: 22 - 28.6 mm (0.875" - 1.125") and 25.4 - 31.75 mm (1" - 1.25") • 1 mandrel • 1 draw bar nut • 1 drawbar • Fasteners	916 401 000	16-401-00		
Mandrels and accessories for WACHS model SDB 206/2				
Standard mandrel "new style 2009". For ID 58 - 74 mm (2.27" - 2.92"). Without leg extension sets.	956 430 010	56-430-01		
Standard mandrel "new style 2009". For ID 58 - 172 mm (2.27" - 6.77"). Includes 7 sets of leg extensions (Code 956 430 020).	956 430 000	56-430-00		
Standard range leg extension kit For standard mandrel "new style 2009" (Code 956 430 010). For ID 70 - 172 mm (2.75" - 6.77").	956 430 020	56-430-02		
Upgrade for obsoleted mandrel 956 401 010. Requires return of the 956 401 010 mandrel and the following items to be in good reusable condition to complete the upgrade: • 956 188 000 • 956 035 000 • 956 036 000 • 956 024 020 • 956 025 000 Estimate for repair will be given for any items not acceptable to complete the conversion.	956 310 000	56-310-00		
Small ID accessory mandrel. For ID 48.5 - 62.5 mm (1.91" - 2.46").	956 402 010	56-402-01		
Extender kit "new style 2009" for mandrel 956 430 000. Includes: • 4 sets of leg extensions for ID 170 - 229.6 mm (6.71" - 9.04") • 1 rotating head 203.2 mm (8").	956 407 020	56-407-02		
Small 3-jaw independent "short perch" mandrel. For ID 50.8 - 82.5 mm (2" - 3.25"). Includes 3 sets of leg extensions. To rigid mount on fittings, flanges, elbows and valves.	956 416 010	56-416-01		
3-jaw independent "short perch" mandrel. For ID 76.2 - 154 mm (3" - 6.08"). Includes 8 sets of leg extensions. Minimum 19.05 mm (3/4") straight run required. To rigid mount on fittings, flanges, elbows and valves.	956 414 010	56-414-01		
Extension adaptor hub. For ID 152.4 - 256.5 mm (6" - 10.1"). Includes 10 sets of leg extensions. For 3-jaw independent "short perch" mandrel 956 414 010.	956 415 000	56-415-00		
Single point flange facing tool slide. For flanges with ID 76.2 mm (3") to OD 330 mm (13").	956 404 000	56-404-00		

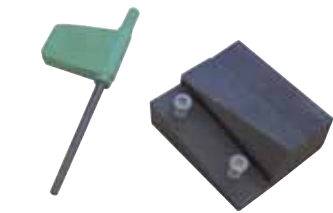
Article	Code	WACHS Ref.-no.		
Mandrels and accessories for WACHS model SDB 412/2				
Standard mandrel. For ID 96.5 - 305 mm (3.80" - 12.02"). Without leg extension sets.	966 301 010	66-301-01		
Standard mandrel. For ID 96.5 - 305 mm (3.80" - 12.02"). Includes 8 sets of leg extensions.	966 407 010	66-407-01		
3-jaw independent "short perch" mandrel. For ID 95 - 325 mm (3.75" - 12.80"). Includes 13 sets of leg extensions. Minimum 3/4" straight run required. To rigid mount on fittings, flanges, elbows and valves.	966 414 010	66-414-01		
Extension adaptor hub. For ID 323 - 508 mm (12.72" - 20"). Includes 10 sets of leg extensions. For 3-jaw independent "short perch" mandrel 966 414 010.	966 415 000	66-415-00		
Leg set replacement. Includes: • 3 chuck legs (966 084 000) • 1 complete set of extension leg assemblies form 12.7 - 101.6 mm (0.5" - 4")	966 411 000	66-411-00		

Facing/Beveling/Counterboring tools

Article	Code	WACHS Ref.-no.		
Facing/Beveling/Counterboring tools for WACHS model SDB 103/3				
FF Flange facing tool insert holder.	956 714 010	56-714-01		
FF Flange facing tool insert for holder (956 714 010). Carbide.	960 702 000	60-702-00		
Facing tool (non-wedgelock). For ID 29.5 - 76.2 mm (1.16" - 3").	926 410 020	26-410-02		
Facing tool (non-wedgelock). For ID 58.4 - 106 mm (2.3" - 4.18").	926 410 030	26-410-03		
Facing tool (non-wedgelock). Carbide tipped. Max. wall 19.05 mm (0.75").	926 410 040	26-410-04		
Custom HSS facing tool bit (non-wedgelock). Ground to customer specification.	on request	26-SPT-01		
Bevel tool 37.5° (non-wedgelock). For ID 29.5 - 76.2 mm (1.16" - 3").	926 411 010	26-411-01		
Bevel tool 37.5° (non-wedgelock). For ID 58.4 - 106 mm (2.3" - 4.18").	926 411 020	26-411-02		
Bevel tool 37.5° (non-wedgelock). For ID 54.4 - 68.6 mm (2.14" - 2.7").	926 411 030	26-411-03		
Bevel tool carbide 37.5° (non-wedgelock).	926 411 040	26-411-04		
Bevel tool bit 20° "J" 3/32 radius (non-wedgelock). For ID 34.3 - 101.6 mm (1.35" - 4"). Use with facing tool 926 410 020 for 0.76 mm (0.03") land extension.	926 713 000	26-713-00		
Custom HSS single angle bevel tool bit (non-wedgelock). Ground to customer specification.	on request	26-SPT-02		
Custom HSS "J" bevel tool bit (non-wedgelock). Ground to customer specification.	on request	26-SPT-06		
Universal beveling and facing tool 37.5° (non-wedgelock). For ID 38.1 - 76.2 mm (1.5" - 3").	926 413 010	26-413-01		
Universal beveling and facing tool 37.5° (non-wedgelock). For ID 55.9 - 96.5 mm (2.2" - 3.8").	926 413 020	26-413-02		
Custom HSS combination facing and beveling tool bit (non-wedgelock). Ground to customer specification.	on request	26-SPT-04		
Small ID deburring tool (non-wedgelock). 4.7 mm (0.186") required between mandrel and ID.	926 412 010	26-412-01		
Medium ID deburring tool (non-wedgelock). 10.9 mm (0.43") required between mandrel and ID.	926 412 020	26-412-02		
Large ID deburring tool (non-wedgelock). 17.3 mm (0.68") required between mandrel and ID.	926 412 030	26-412-03		
Combo 30° taper counterbore and facing tool (non-wedgelock) 8.3 mm (0.326") required between mandrel and ID.	926 426 000	26-426-00		
Custom HSS ID deburring tool (non-wedgelock). Ground to customer specification.	on request	26-SPT-03		

Pipe End Preparation Machines SDB and FF

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Facing tool insert holder (high range)



Premium grade HSS insert (2 sided)



Bevel tool insert holder kit 37.5°

Article	Code	WACHS Ref.-no.		
Custom HSS counterboring tool bit (non-wedgelock). Ground to customer specification.	on request	26-SPT-05		
Facing/Beveling/Counterboring tools for WACHS model SDB 206/2 and SDB 412/2				
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		
Premium grade HSS insert (2 sided). For facing and beveling. For use with all WACHS SDB 206, SDB 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 SDB 412 insert holders.	956 712 010	56-712-01		
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 use with all WACHS models SDB 206, SDB 412 and EP 424.	956 710 010	56-710-01		
Custom HSS facing tool bit (form tool). Ground to customer specification.	on request	56-SPT-02		
Custom facing insert holder. Ground to customer specification.	on request	56-SPT-09		
30° bevel tool insert holder kit. Includes: • 1 holder (956 199 020) • 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 facing insert holder 956 708 010 for 1 mm (0.04") 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 facing insert holder 956 708 010 for 1 mm (0.04") land extension.	956 709 050	56-709-05		
Premium grade HSS insert (2 sided). For facing and beveling. For use with all WACHS SDB 206, SDB 412 and EP 424 insert holders.	956 711 010	56-711-01		
Premium grade HSS insert (2 sided) 3/32 radius "J" bevel insert. For use with 956 709 010 and 956 709 050 holders.	956 711 020	56-711-02		
Carbide insert (2 sided). For facing and beveling. For use with all WACHS SDB 206 and SDB 412 insert holders.	956 712 010	56-712-01		
Carbide insert (2 sided) 3/32 radius "J" bevel. For use with 956 709 010 and 956 709 050 insert holders.	956 712 020	56-712-02		
Compound bevel form tool 10° x 37.5°.	956 707 000	56-707-00		
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 use with WACHS models SDB 206, SDB 412 and EP 424.	956 710 010	56-710-01		
Single point beveling tool holder. For EP 424, FF 313 and FF 424, low range. EP 424 for OD 108 - 600 mm (4.25" - 23.62").	956 424 000	56-424-00		

Article	Code	WACHS Ref.-no.		
Single point beveling tool holder. For EP 424, FF 313 and FF 424, high range. EP 424 for OD 184 - 609.6 mm (7.25" - 24").	956 424 010	56-424-01		
Custom HSS single angle bevel tool bit (form tool). Ground to customer specification.	on request	56-SPT-01		
Custom HSS compound angle bevel tool bit (form tool). Ground to customer specification.	on request	56-SPT-03		
Custom single angle "J" bevel tool bit (form tool). Ground to customer specification.	on request	56-SPT-04		
Custom HSS compound angle "J" bevel tool bit (form tool). Ground to customer specification.	on request	56-SPT-05		
Custom bevel angle insert holder. Ground to customer specification.	on request	56-SPT-08		
10° ID deburring tool. 3.8 mm (0.15") required between mandrel and ID.	956 702 010	56-702-01		
10° ID deburring tool. 11.4 mm (0.449") required between mandrel and ID.	956 702 020	56-702-02		
10° ID deburring tool. 19.4 mm (0.762") required between mandrel and ID.	956 702 030	56-702-03		
4:1 Taper counterbore tool. 8 mm (0.315") required between mandrel and ID.	956 705 010	56-705-01		
4:1 taper counterbore tool. 22.2 mm (0.875") required between mandrel and ID.	956 705 020	56-705-02		
4:1 taper counterbore tool. 35 mm (1.375") required between mandrel and ID.	956 705 030	56-705-03		
Custom HSS ID deburring tool bit. Ground to customer specification.	on request	56-SPT-06		
Custom HSS counterbore tool bit. Ground to customer specification.	on request	56-SPT-07		



Single point beveling tool holder

Flange facing tools

Article	Code	WACHS Ref.-no.		
Flange facing tools for WACHS model FF 206				
Carbide insert. For beveling and flange facing. For use with insert holder 956 714 010.	960 702 000	60-702-00		
Carbide insert tool holder kit. For single point beveling and flange facing. Includes: • 1 holder (916 042 000) • 1 flag wrench (956 191 000) • 2 retaining screws (960 231 010) • 5 inserts (960 702 000)	916 701 000	16-701-00		
Flange facing tools for WACHS model FF313 and FF 412				
Flange facing tool kit. Includes: • 1 low range insert tool holder (956 195 000) • 1 high range insert tool holder (956 194 000) • 2 tool inserts (956 710 000) • 2 insert retaining screws (956 190 000) • 1 screw wrench (956 191 000)	956 418 010	56-418-01		
Tool insert for flange facing (high and low range).	956 710 000	56-710-00		
Custom form tool or single point insert holder. Ground to customer specification.	on request	56-SPT-10		

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.