

PIPE BEVELLING MACHINE

Pipe beveling machines for pipe bevel of pipe end in pipe welding

- High cutting capacity
- Quick and secure clamping
- Rugged and compact type of construction
- Easy handling

Video
of application



MF3-25

Field of application

The external portable pipe beveling machines are used for pipe bevel of the pipe end in pipe welding applications. The portable machine is used for facing and beveling the pipe edge. Especially for heavy wall pipe the pipe machining is fast and accurate. Pipe beveling and facing can be done in one operation with special tool holders. Operated by one man the pipe beveling machines can be used in the workshop and on site with low weight due to aluminum construction. High speed beveling and facing with special tool bits provides economical manufacturing of pipes, tubes and headers. The bevellers are also used for boiler tube panel repair and removing membrane of the panel in supercritical boilers and high pressure boilers.

TECHNICAL DATA

of pipe bevelling machine for weld preparation

Working range:

Pipe outside diameter:	min. 20 mm max. 63,5 mm
Inside pipe diameter:	min. 12,5 mm
Pipe wall thickness*:	max. 15 mm
Weld preparation form of pipe end (depends on pipe welding process):	facing, bevelling of butt weld and J groove joint
Minimum width of membrane wall ports:	56 mm
Feed:	manual
Spindle stroke:	25 mm

Weight:

with pneumatic drive:	approx. 8,4 kg
with electric drive:	approx. 9,6 kg

Pneumatic geared motor:

Power:	740 W at 6 bar 400 W at 4 bar
Operating pressure:	6 - 7 bar
Air consumption:	0,96 m ³ /min
Compressed air connection:	R 1/4"

Electric geared motor:

Power consumption/Connection voltage:
abt.1200W with 230 V

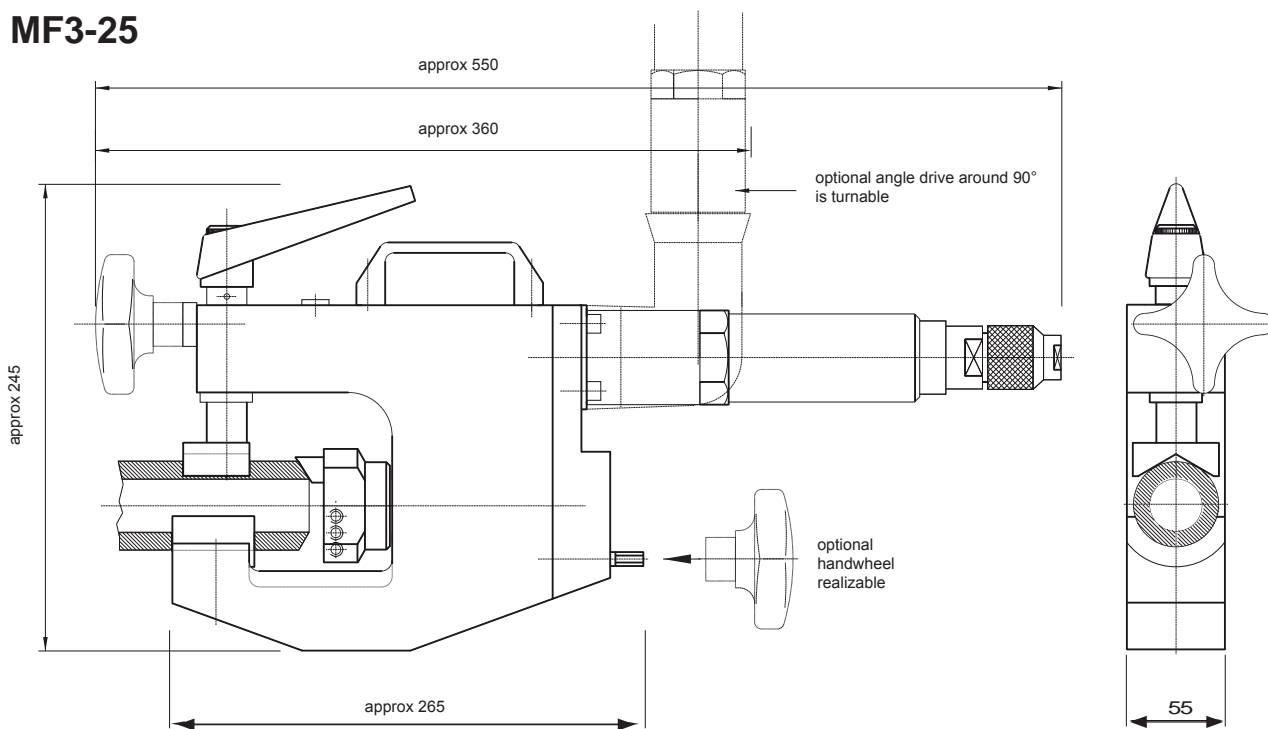
~ (singlephase-alternating current)

Protective class

II – all-insulated

Besides the conventional design in which the motor and the milling spindle are arranged in line, the pipe bevelling machine is on request provided with an angle drive. Therefore, it can be used in special situations for limited space applications if a short overall length is required.

MF3-25



BLADE & TOOL TIP HOLDER

with adjustable holder for portable pipe bevelling machine type MF3-25



091501105
HSS
Pipe facing and pipe
bevel tool tip 0°



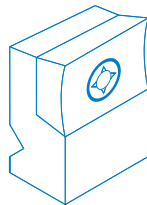
091501028
HSS
Pipe facing and pipe
bevel tool tip 30°



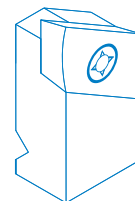
091501106
HSS
Pipe facing and pipe
bevel tool tip 0° TIN



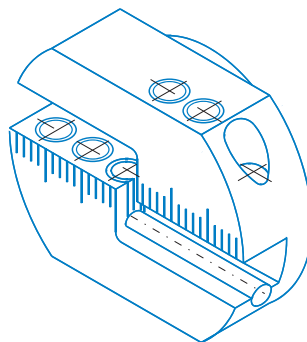
091501108
HSS
Pipe facing and pipe
bevel tool tip 30° TIN



091502138
Weld preparation tool tip holder
0°



091502136
Weld preparation tool tip
holder 30°



Beveling tool holder
091502121
Universal blade holder



091502141
HSS blade 0°



091502140
HSS blade 30°



091502162
10° - internal



091502163
8° - internal



091502135
10° - internal



091502160
DIN 2559-4



091502148
DIN 2559-3



091502154
DBS 34-R3



091502159
DBS 34-R5

Special pipe edge blades and beveling tools
on request!

SPECIAL TOOL TIP HOLDERS

for portable pipe beveling machine type MF3-25



091501105
 HSS
 Pipe facing and pipe
 bevel tool tip 0°



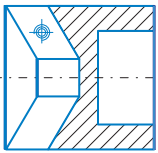
091501028
 HSS
 Pipe facing and pipe
 bevel tool tip 30°



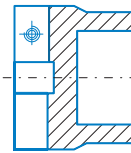
091501106
 HSS
 Pipe facing and pipe
 bevel tool tip 0° (TIN)



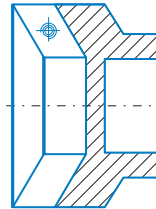
091501108
 HSS
 Pipe facing and pipe
 bevel tool tip 30° (TIN)



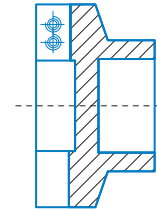
091501029
 Weld preparation tool tip
 holder 30°
 (Ø 20 - Ø 44,5)



091501031
 Weld preparation tool tip
 holder 0°
 (Ø 20 - Ø 44,5)



091501030
 Weld preparation tool tip
 holder 30°
 (Ø 35 - Ø 63,5)



091501032
 Weld preparation tool tip
 holder 0°
 (Ø 30 - Ø 63,5)

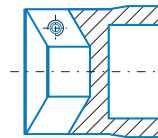
With small pipe facing and pipe bevel tool tip



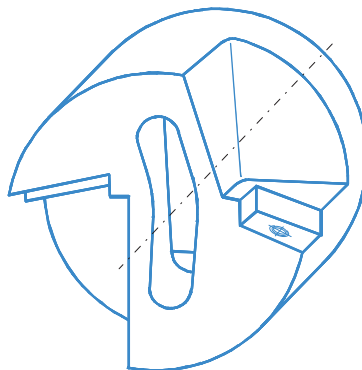
091500591
 HSS
 Pipe facing and pipe bevel
 tool tip 30° (small)
 (TIN)



091500592
 HSS
 Pipe facing and pipe bevel
 tool tip 30° (small)
 (TIN)



091500586
 Weld preparation tool tip
 holder 30°
 (Ø 16 - Ø 38)



Weld preparation tool tip holder

BOILER TUBE PANEL CUTTING AND BEVELING

with crown milling cutters

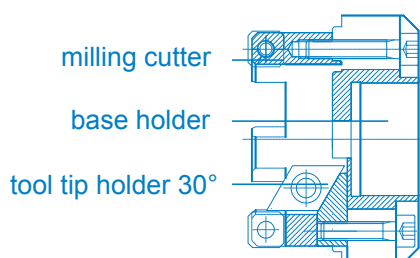
For pipe chamfering machine MF3-25

- High cutting capacity
- Tool tips are reversible
- Easy to change on site
- Modular designed for different tube dimensions
- High endurance

Video
of application



For use in production of high pressure boilers Babcock has developed special production tools for pipe bevel and pipe preparation. Especially nowadays supercritical boilers are a big challenge in production. For pipe welding and weld preparation of boiler tube panels the crown milling cutter has been developed. The tool is equipped with tool tips to cut of the bars between the tubes of the panel wall and in the same step to bevel the pipe end of boiler tube panel.



It is mainly consisting of:

- 1 base holder for each pipe beveling machine
- 1 tool tip milling cutter for each diameter
- 2 tool tip holders 30° are for all diameters identical. Tool tips and screws are identical as well for all applications.

TOOL TIP CROWN MILLING CUTTER

Overview MF3-25

The following tools are necessary for beveling the boiler tube panel. For the correct pipe machining different bevel tools have to be combined to achieve the perfect result in weld preparation of the boiler tube panel. A perfect weld preparation is the basis of high quality pipe welding.

Tube - Ø (mm)	All necessary parts for one complete unit					Spare parts			
	1	2	3	4	5	6	7	8	9
	TT crown milling cutter with Knox screws M4 and 4 screws M5x25	TT 0° Art.-No.: 91502494 Number	Basic holder (compl. thread-pin M8 x 10)	TT-tool tip holder 30° 2 pieces per crown milling cutters	TT 30° for tool tip holder 1 pcs. per TT-holder	Knox screws M4 (TT) 1 pcs. per TT	Holding-down bolts		
(Art.-No.)	(Pieces)	(Art.-No.)	(Art.-No.)	(Art.-No.)	(Art.-No.)	(Art.-No.)	(Art.-Nr.)	(Art.-No.)	
MF3-25									
30,0	091502588	6							
31,8	091502484	6	091502458						
33,7	091502467	6	(Gr. 1)						
35,0	091502485	6	oder						
38,0	091502457	6	091502460	091502483					
42,4	091502486	6	(Gr. 2)	compl. with					
44,5	091502487	6		1 Knox screw	091502495	091502468	000488737	000983010	091500642
48,3	091502488	8		M4 and					
				1 screw					
				M5 x 20					
51,0	091502489	8							
57,0	091502459	8	091502460						
60,3	091502490	8	(Gr. 2)						
63,5	091502491	10							