

## OD-Mounted Pipe Cutting and Beveling Machine

The series machine is ideal for all types of pipe cutting, beveling and end preparation. The split frame design allows the machine to split in half at the frame and mount around the OD of the in-line pipe or fittings for strong, stable clamping. The equipment performs precision in-line cut or simultaneous cut/bevel, single cut/bevel, single point, counterbore and flange facing operations, as well as weld end preparation on open ended pipe, Ranging from 3/4 to 60 inches O.D. (DN20-1500), on most wall thicknesses and material.



### Steel Body

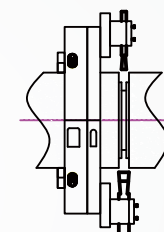
Both Rotary ring and Stationary ring made by steel. This is the traditional China material. A little heavier for on-site machine. But rigidity is very good, idea for heavy walled pipe.



### Aluminum Body

This is our new machine, stationary ring made by aluminum. Steel where strength is needed, aluminum where strength is less critical than weight. Lightweight makes more convenient for operator.

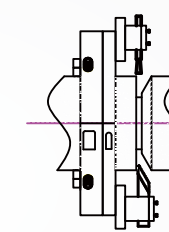
## Schematic View



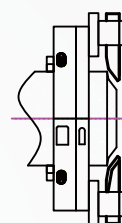
Cold Cutting



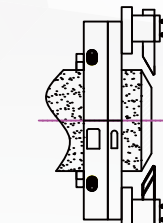
Cutting & Beveling (RH)



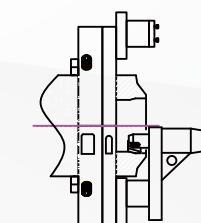
Cutting & Beveling (LH)



Compound Beveling ASME B16.11.25



Double Beveling



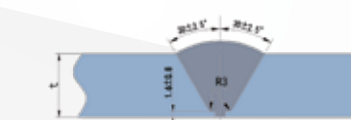
Counter boring & Facing

## Typical Buttwelding Joint

Different welding requirement and welding technology always required different welding seam. Mostly comply with ASME B16.11.25, but some special demand. Better to advise us before you place the order.



37.5 deg. V T type beveling with 1.6mm root



30 deg. U type beveling with 1.6mm root, R=3mm



6 deg. U type beveling with 2mm root, R=5mm



Compound beveling according to ASME B16.11.25

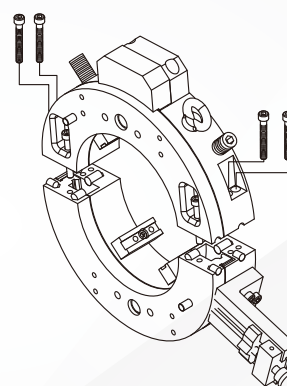
## New improvement



**1** Middle locking of rotation ring  
Previous the locking screw at the side  
The improved new ones, the locking screw in the middle, this make the locking more symmetry and stable.  
And the space for loosening screw is bigger than before, when split the ring, more convenient.



**2** Uncovered locking screw of stationary ring  
It's difficult to assemble the split frame on the pipeline when 2 locking screws at the side.  
The new uncovered design makes the installation easy and user friendly, especially when install the split frame on pipeline.



## Features

### Split frame

Machine quickly split to mount around outside diameter of in-line pipe

### Cut or Cut/Bevel simultaneously

Cuts and bevels simultaneously leaving a clean precision prep ready for welding

### Cold cut/Bevel

Hot torch cutting requires grinding and produces an undesirable heat affected zone  
Cold cutting/beveling improve safety

### Low Axial & Radial Clearance

### Tool feed automatically

### Cut and bevel pipe of any wall thickness.

### Materials include: Carbon steel, alloy, stainless steel, duplex etc.

### Pneumatic, electric and hydraulic type for option

### Machining OD of pipe from 3/4" upto 60"

## Specification

Drive Options: Pneumatic, Hydraulic, and Electric  
 Air requirement: 1500L-3000L Per minute @0.6/0.7Mpa  
 (55-110CFM,90PSI)  
 Hydraulic requirement: 2-60L per minute @6-12.5Mpa  
 Electric requirement:220-240V 1PH 50/60HZ  
 Feed mode: Star wheel, automatically  
 Feed rate: Fixed@0.083mm per circle

### Air Type ODP Series

Air Motor Specification:  
 Rotation Speed: 226 RPM  
 Torque: 117 Nm  
 Power: 3.77 HP  
 Tested by Atlas Copco device @0.6Mpa  
 compressed air

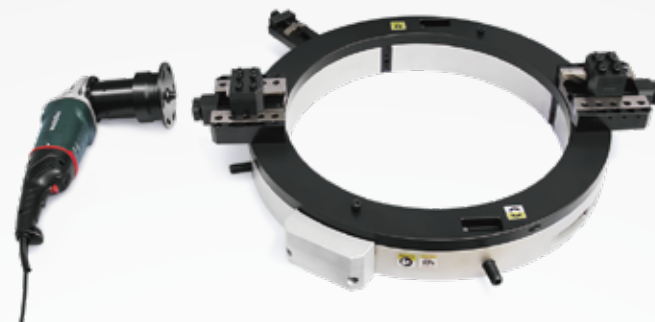
#### Advantage

Explosion Proof  
 Stable Performance  
 Simple structure makes easy to maintenance



### Electric Type ODE Series

Electric Motor Specification:  
 METABO Motor  
 Model: W24-230MVT  
 230V- 50/60HZ 2400W 11,0A  
 N 6600/Min (rpm)  
 Made in Germany



### Hydraulic Type ODH Series

Power Supply: 380-440V 3PH 50/60HZ  
 2-60L per minute @6-12.5Mpa

#### Advantage

Powerful drive, High efficiency  
 Stable Performance  
 Low noise  
 Adjustable speed  
 Ideal for heavy wall thickness & large size pipe



## Accessories

### Standard Tool Slide



**Part No. BZDB14001**

Clamshell c/w the standard tool slide as standard supply  
 With standard tool bits, achieve cut/bevel upto 30mm wall  
 thickness in one pass  
 Max. Travel:70mm

### Heavy Wall Tool Slide



**Part No. HDB14001**

Special for heavy walled pipe, especially for power plant  
 With special tool bits, cut/bevel wall thickness have no limited  
 in multi passes  
 Max. Travel:70mm

### Tracking Tool Slide



**Part No. ZZDB19002**

O.D. tracking slide compensate for out-of-round pipe  
 Travel along the O.D makes the bevel face balanced  
 Usually apply on large size diameter pipe  
 Max. travel:55mm

### Counter Boring Tool Slide



**Part No. TKDB14001**

**Part No. TKDB19002**  
 with function of angle setting

Performs inside beveling and Counter boring  
 Tool Feed: Manually  
 Max. Travel: 70mm

### FLR Unit



**Part No.: FLR18001**

Air filter, Regulator and Lubricator  
 Required for Air Operated machines

Selection Guide

19 sizes machine for options.  
Consult with us for special size.  
For narrow working condition, pay attention to the axial and radial clearance.

Model	Working Range (OD)		Wall Thickness
	Inch	mm	
168	2 - 6	50-168	≤30
230	2 - 8	50-230	≤30
275	4 - 10	114-275	≤30
325	6 - 12	168-325	≤30
377	8 - 14	219-377	≤30
426	10 - 16	273-426	≤30
457	12 - 18	300-457	≤30
508	14 - 20	355-508	≤30
560	16 - 22	400-560	≤30
610	18 - 24	457-610	≤30
660	20 - 26	508-660	≤30
715	22 - 28	550-715	≤30
762	24 - 30	600-762	≤30
830	26 - 32	660-813	≤30
914	30 - 36	762-914	≤30
1066	36 - 42	914-1066	≤30
1230	42 - 48	1066-1230	≤30
1422	48 - 56	1219-1422	≤30
1524	54 - 60	1371-1524	≤30

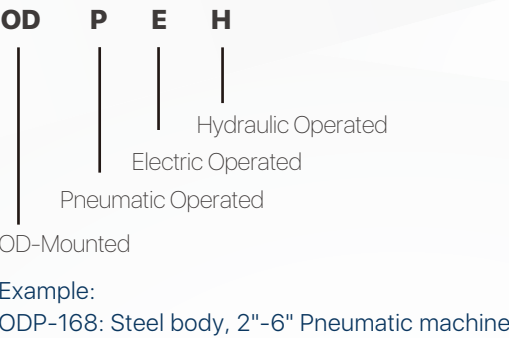
\* Standard tool slide for cut/bevel up to 30mm  
\* Consult with us for heavy wall pipe cut/bevel

Order Guide

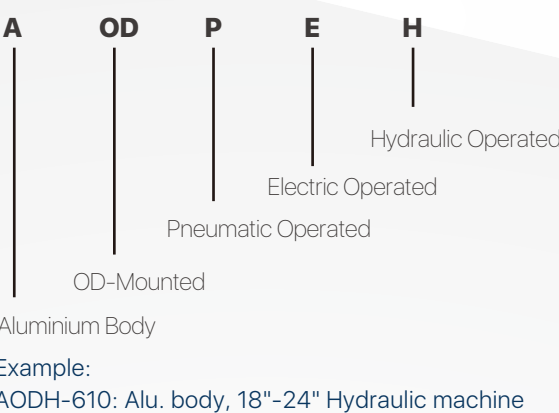
Before you place order to us, please let us know the following information:

- Choose the right size
- Advise us the driven options: Pneumatic, Electric or Hydraulic
- Advise us steel body or aluminum body prefers
- Confirm the beveling angel required
- Confirm the welding joint required (U, V, Double V or Compound preparation)
- Advise your pipe material (Carbon steel, stainless steel or others)
- Other special demands about machine
- The spare parts needed
- If the pipe wall thickness more than 30mm, inform us in advance (Important)

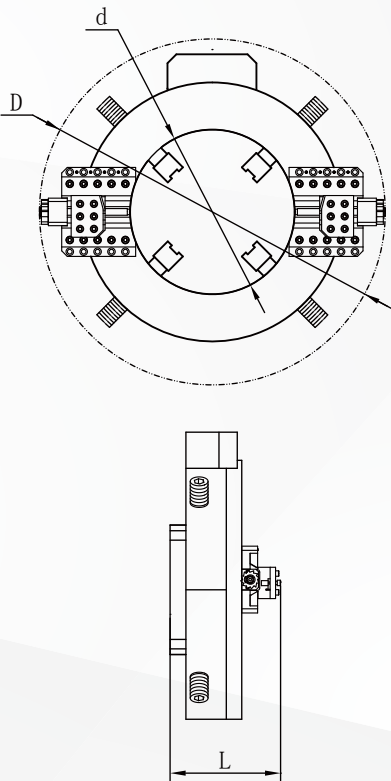
Steel Body Series



Aluminium Body Series



Axial & Radial Clearance



The split frame designed with compact cross section for low clearance applications.  
The clearance chart for evaluating the installation space where will install the machine in narrow space, most for pipeline maintain projects.  
With seventeen standard models available to find the suitable model.

Steel body

Model Size	d (mm)	D (mm)	L (mm)
168	185	512	178
230	236	564	178
275	283	612	178
325	334	665	178
377	386	719	178
426	438	776	180
457	469	807	180
508	519	862	190
560	570	910	190
610	618	960	190
660	670	1020	190
715	719	1084	190
762	770	1134	190
830	830	1194	192
914	924	1296	212
1066	1077	1468	212
1230	1248	1646	212





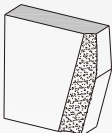
Aluminum Body

Model Size	d (mm)	D (mm)	L (mm)
168	185	512	192
230	236	564	192
275	283	612	192
325	334	665	192
377	386	719	192
426	438	776	195
457	469	807	195
508	519	862	195
560	570	910	195
610	618	960	195
660	670	1020	195
715	719	1084	198
762	770	1134	198
830	830	1194	207
914	924	1296	214
1066	1077	1468	216
1230	1248	1646	216



Tooling Chart

Cutting tools			
Description	Part Number	Application	Sketch
M42 Cutting tool 5X25X100mm	42C-5100	Standard cutting, for most materials up to 30mm Use on the standard tool box	
M42 Cutting tool 6X25X100mm	42C-6100	Standard cutting, for most materials up to 30mm Use on all tool box	
M42 Cutting tool 6X25X150mm	42C-6150	Standard cutting, for most materials up to 60mm Single blade Use on stand tool box or Heavy wall tool box	
M42 Cutting tool 6X25X200mm	42C-6200	Longer cutting tool, both ends have blade, for most materials up to 60mm Use on heavy wall tool box	
M42 Cutting tool 8X25X200mm	42C-8200	Longer cutting tool, both ends have blade, for most materials up to 60mm Use on heavy wall tool box	
Beveling tools			
Description	Part Number	Application	Sketch
M42 Beveling tool Right hand 12X20X100mm	42B-RH1220-22°	Right Hand Standard beveling tool for most materials. Up to 30mm Use on the standard tool box	
	42B-RH1220-30°		
	42B-RH1220-32.5°		
	42B-RH1220-35°		
	42B-RH1220-37.5°		
M42 Beveling tool Right hand 25X25X100mm	42B-RH2525100-30°	Right Hand Use on the tracking tool box or Heavy wall tool box	
	42B-RH2525100-37.5°		
M42 Beveling tool Left Hand 12X20X100mm	42B-LH1220-30°	Left Hand Standard beveling tool for most materials. Up to 30mm Use on the standard tool box	
	42B-LH1220-37.5°		
M42 Beveling tool Right Hand 25x25x200mm	42B-RH2525200-30°	Both ends have blade, for most materials up to 60mm Use on Heavy wall tool box	
	42B-RH2525200-37.5°		

Compound Beveling Tool			
Description	Part Number	Application	Sketch
M42 Compound Beveling tool 12X20X150mm	42B-RHCB1220150-10°x30°	Right hand 10° x 30°, For most material, up to 30mm Use on the standard tool box	
	42B-RHCB1220150-10°x37.5°	Right hand 10° x 37.5° as per ASME B[16].25 For most material, up to 30mm Use on the standard tool box	
M42 Compound Beveling tool 25X25X150mm	42B-RHCB2524150-10°x30°	Right hand 10° x 30°, For most material, up to 60mm Use on Heavy wall tool box	
	42B-RHCB2525150-10°x37.5°	Right hand 10° x 37.5° as per ASME B[16].25 For most material, up to 60mm Use on Heavy wall tool box	
M42 Beveling tool 25x25x200mm	42B-RH2525200-10°	Both ends have blade, for most materials up to 60mm Use on Heavy wall tool box, for ASME compound beveling, step by step procedure.	
	42B-RH2525200-30°		
	42B-RH2525200-37.5°		
Counterboring Tool			
Description	Part Number	Application	Sketch
M42 Counterboring tool	42T-0822S	Straight Boring Use on counter boring tool box	
M42 Counterboring tool	42T-0830-12°	12Deg. Boring Use on counter boring tool box	
	42T-0830-15°	15Deg. Boring Use on counter boring tool box	

\* Consult with us for special application  
\* AISI M42, 8% Cobalt  
\* Can supply tool bits for Duplex, Super duplex