



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 1 to 56 inches O.D. (DN 25-1430mm), on most wall thicknesses and material.



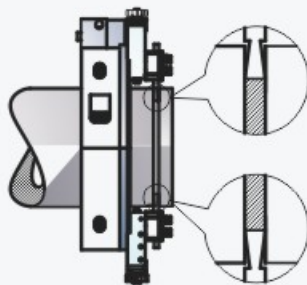
Steel Body

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.

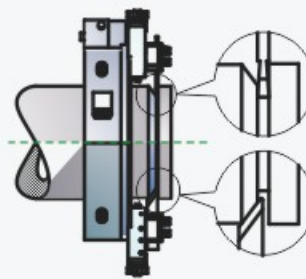


Aluminum Body

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.



cold cutting



cutting and beveling simultaneously

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 , can't effect pipe material

Automatic Feed

Automatic Working , High efficiency , Decrease manual cost.

Variety Driven Ways

Electric Driven ; Pneumatic Driven ; Hydraulic Driven ; Metabo Motor Driven ; Servo Motor Driven (Can be choose).



1. Low Axial & Radial Clearance
2. Small Working Radius , Suitable for any working situation.
3. Cold cutting ,won't influence the material of pipe.
4. Can cutting and beveling at same time.
5. Can separate to two half, suitable for pipe when two end can't open.
6. Machining OD of pipe from 1" up to 56".
7. Can cut and bevel pipe of any wall thickness.
8. Material : carbon steel , stainless steel and alloy etc
9. Bevel Type: "V" ; "U" ; "J" ; compound bevel ; counter boring etc.
10. Other special requirements or need bigger machine both can be customized

New improvement



1

Reinforced Block Lock

When locked, the machine is more Firm and stable, and the cutting effect is better when in use.



2

Adjustable Expansion Block

The use of non-expansion joint tight blocks can reduce machine installation time and verticality calibration time, and improve machine efficiency.



Specification

Driven Options: Electric ; Pneumatic , Hydraulic , METABO Motor , Servo Motor
Electric Requirement: 1PH 220~240V 50~60Hz (Servo Motor : 3PH 380V 50/60Hz)
Pneumatic Requirement: 1000L-2000L Per minute @ 0.8/1.0MPa
Hydraulic Requirement : 5-30L Per min @ 10Mpa
Feed Mode : Star Wheel , Automatically
Feed Rate : Fixed @ 0.08mm Per Circle

Electric Type OCE Series

Electric Motor Specification:
Wellnit Customized Motor
Voltage : 220~240V
Frequency : 50~60 Hz
Power : 1800/2000W
Electric Current : 9~10A
Power Factor : > 0.9

Advantage

Simple Operation
Use Convenient



Pneumatic Type OCP Series

Air Motor Specification:
Rotation Speed : 220r/min
Torque: 115NM
Power: 3.5HP
Air Pressure : 0.8-1.0Mpa
Air Consumption : 1000-2000L/min

Advantage

Explosion Proof
Stable Performance
Simple structure makes easy to maintenance
Occasionally overload won't break





Hydraulic Type OCH Series

Hydraulic Station Specification:
Power Supply : 380-440V 3PH 50/60Hz
5-30L/min @ 10Mpa

Advantage

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



Electric - Metabo Type OCM Series

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

Advantage

Overload protection
Rotation Speed can adjustable



Electric - Servo Type OCS Series

Servo Motor Specification:
Wellnit Customized Motor
220V/380V 50/60Hz 2.3-2.6KW
Made in China

Advantage

Stepless Speed Regulation
Electronic Display



Accessories

Standard Tool Slide

Clamshell C/W the standard tool slide as standard supply with standard tool bits , achieve cut/bevel up to 30mm wall thickness in one pass.



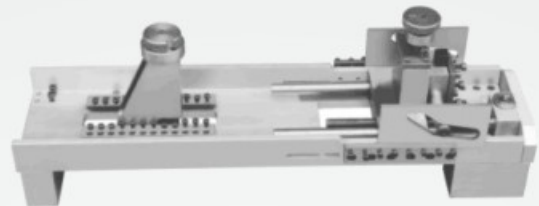
Heavy Wall Tool Slide

Special for heavy walled pipe , especially for power plant with special tool bits, achieve cut/bevel up to 70mm wall thickness in multi passes.



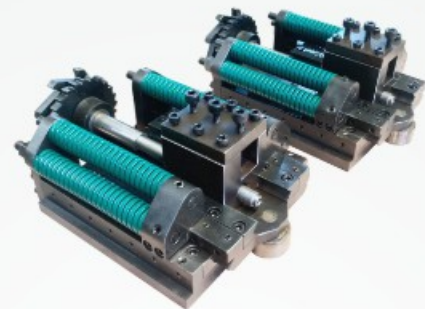
Bridge Tool Slide

Complete with counterbore / I.D beveling tool , I.D beveling angle available for adjust.
Special for heavy walled pipe , achieve cut/bevel up to 110mm wall thickness in multi passes , also can process flange facing.



Tracking Tool Slide

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



Universal Counter Boring Tool Slide

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



Selection Guide

21 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 (O.D)		Wall thickness		Rotation Speed
	Inch	mm	Standard	Heavy Duty	
89	1"-3"	Φ25-89	≤30	-	42r/min
168	2"-6"	Φ50-168	≤30	-	22r/min
230	3"-8"	Φ80-230	≤30	-	15r/min
275	5"-10"	Φ125-275	≤30	-	14r/min
305	6"-10"	Φ150-305	≤30	≤110	13r/min
325	6"-12"	Φ168-325	≤30	≤110	13r/min
377	8"-14"	Φ219-377	≤30	≤110	12r/min
426	10"-16"	Φ273-426	≤30	≤110	12r/min
457	12"-18"	Φ300-457	≤30	≤110	12r/min
508	14"-20"	Φ355-508	≤30	≤110	12r/min
560	16"-22"	Φ400-560	≤30	≤110	12r/min
610	18"-24"	Φ457-610	≤30	≤110	11r/min
630	20"-24"	Φ480-630	≤30	≤110	11r/min
660	20"-26"	Φ508-660	≤30	≤110	11r/min
715	22"-28"	Φ560-715	≤30	≤110	11r/min
762	24"-30"	Φ600-762	≤30	≤110	11r/min
830	26"-32"	Φ660-830	≤30	≤110	10r/min
914	30"-36"	Φ762-914	≤30	≤110	10r/min
1066	36"-42"	Φ914-1066	≤30	≤110	10r/min
1230	42"-48"	Φ1066-1230	≤30	≤110	10r/min
1430	48"-56"	Φ1230-1430	≤30	≤110	8r/min

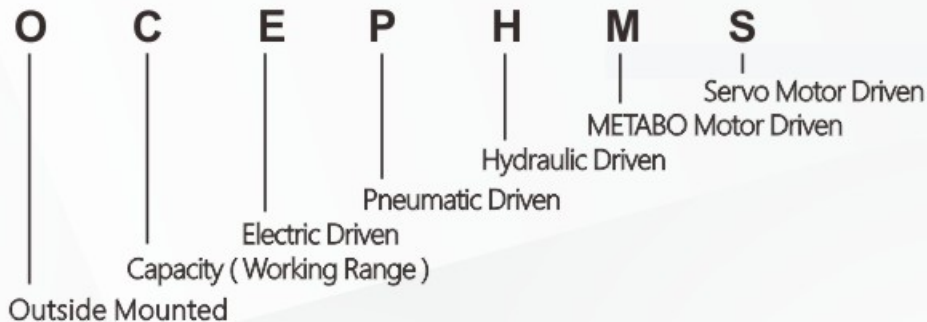
*Standard tool slide for cut/bevel up to 30mm

*Consult with us for heavy wall pipe cut/bevel

* Non-Standard machine are available according to customer's requirement.



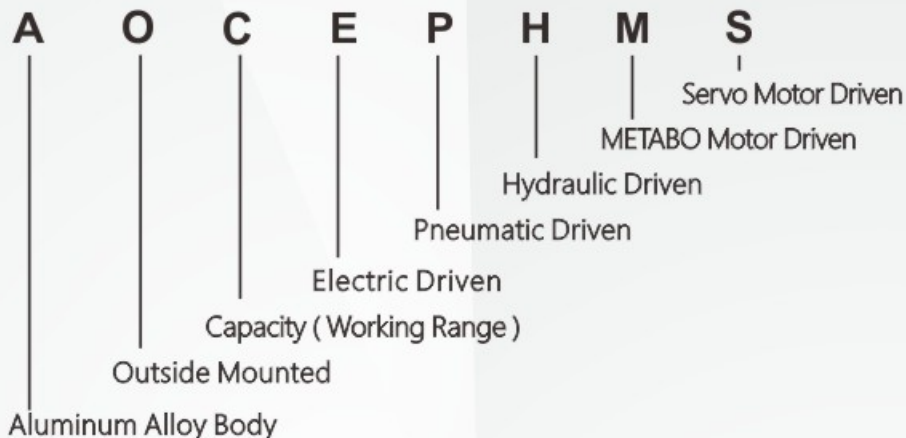
Steel Body Series



Example

OCE-89 : Steel Body , 1"-3" Electric Machine

Aluminum Alloy Body Series



Example

AOCE-89 : Aluminum Alloy Body , 1"-3" Electric Machine

Order Guide

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

Choose the right size

Advise us the driven options: Electric , Pneumatic , Hydraulic , METABO Motor ; Servo Motor

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)

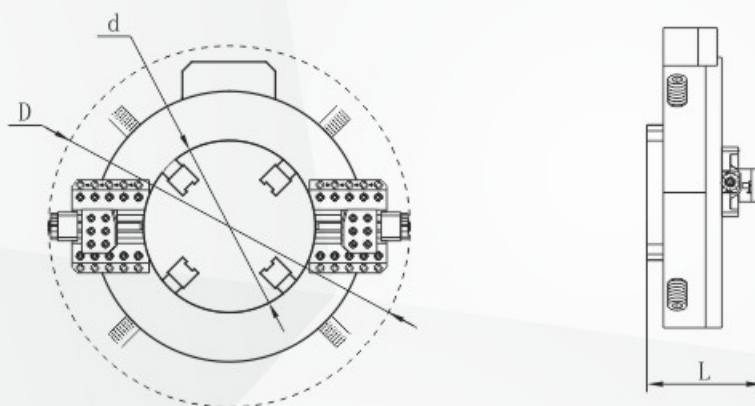
Other special demands about machine

The spare parts needed

If the pipe wall thickness more than 30mm, inform us in advance (Important)

Advice provide processing drawing , will be more accurate

Axial & Radial Clearance



Model Size	d (mm)	D (mm)	L (mm)
89	95	300	160
168	185	480	178
230	236	535	178
275	283	584	178
305	316	608	178
325	334	636	178
377	386	690	178
426	438	744	180
457	466	772	180
508	518	828	190
560	570	878	190
610	620	928	190
630	643	965	190
660	670	978	190
715	720	1050	190
762	772	1110	190
830	840	1174	192
914	928	1260	212
1066	1078	1513	212
1230	1248	1584	212
1430	1438	1784	220

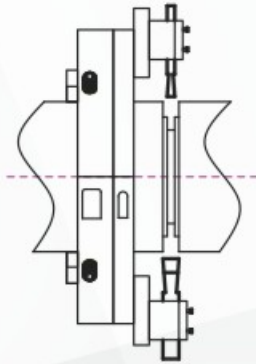
The split frame designed with compact cross section for low clearance applications.

The clearance chart for evaluating the installation space where will install the machine in narrow space, most for pipeline maintain projects.

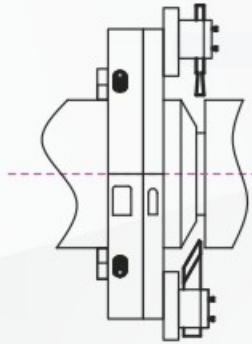
With 21 standard models available to find the suitable model.



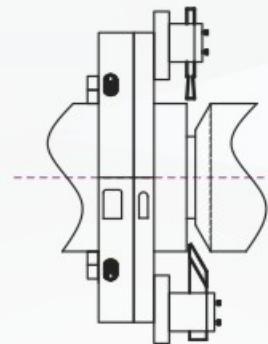
■ Schematic View



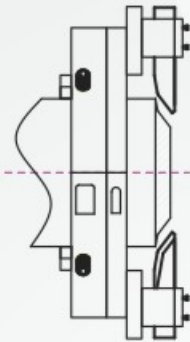
Cold Cutting



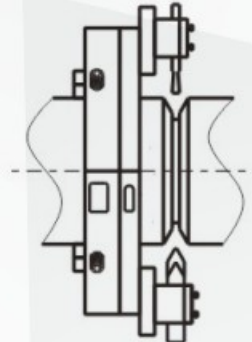
Cutting & Beveling (RH)



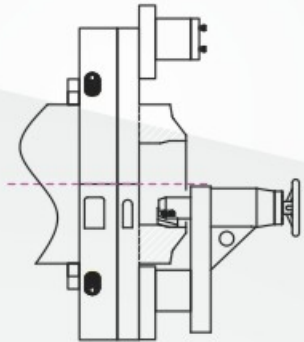
Cutting & Beveling (LH)



Compound Beveling



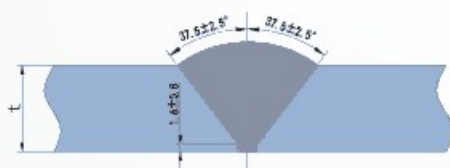
Double V Beveling



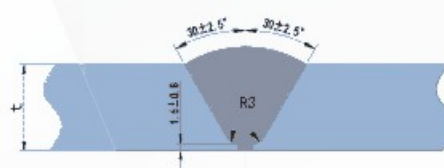
Counter boring & Facing

■ Typical Butt welding Joint

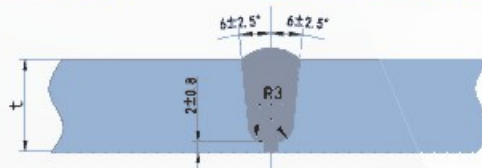
Different welding requirement and welding technology always required different welding seam. It is best to provide us with processing drawings before placing an order.



37.5 deg. V T type beveling with 1.6mm root



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



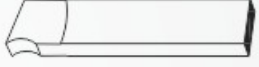
6 deg. U type beveling with 2mm root, R=5mm



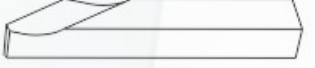
Compound beveling according to ASME B16.11.25

Tooling Chart

Cutting tools

Description	Part Number	Application	Sketch
5x25x100mm M42 Cutting Tool	43-702-01	Standard cutting, for most materials up to 30mm	
5x25x200mm M42 Cutting Tool	43-702-02	Longer cutting tool, both ends have blade, for most materials up to 60mm	
6x25x100mm M42 Cutting Tool	43-702-03	Longer cutting tool, both ends have blade, for most materials up to 60mm	
8x25x100mm M42 Cutting Tool	43-702-04	Longer cutting tool, both ends have blade, for most materials up to 60mm	

Beveling tools

Description	Part Number	Application	Sketch
12x20x100mm M42 Beveling Tool	43-703-02-30Deg(RH)	Right Hand Standard beveling tool for most materials. Up to 30mm	
	43-704-02-37.5Deg(RH)		
12x20x100mm M42 Beveling Tool	43-705-02-30Deg(LH)	Right Hand Standard beveling tool for most materials. Up to 30mm	
	43-705-03-37.5Deg(LH)		
12x20x150mm M42 Compound Beveling Tool	43-706-01-30Deg	Right hand 10° x 30°, For most material, up to 30mm	
	43-706-02-37.5Deg	Right hand 10° x 37.5° For most material, up to 30mm	
25x25x200mm M42 Compound Beveling Tool	43-707-01-30Deg	Right hand 10° x 30°, For most material, up to 60mm	
	43-707-02-37.5Deg	Right hand 10° x 37.5° For most material, up to 60mm	
25x25x200mm M42 Beveling Tool	43-708-01-30Deg	Longer Beveling tool, both ends have blade, for most materials up to 60mm Fit the heavy wall tool slide	
	43-708-02-37.5Deg		

*Other bevel degree can be customized

Counterboring Tool

Description	Part Number	Application	Sketch
M42 Counterboring tool	43-709-T	For pipe Counterboring Install on the counter boring tool slide	

* Consult with us for special application



Weight & Packing List							
Model	Working Weight, Kgs		Shipping Weight, Kgs		Packing Size, mm (Plywood)		
	Steel Body	Aluminum Body	Steel Body	Aluminum Body	Length	Width	Height
89	28	23	43	38	570	520	270
168	46	41.5	72.00	67.50	640	650	280
230	51.5	42.5	84.50	75.50	740	620	280
275	53.5	44.5	88.50	79.50	770	710	280
305	58	50	92	84	810	700	280
325	62	53	97.00	88.00	810	740	280
377	68	56	106.00	94.00	785	845	280
426	76	60	116.00	100.00	910	860	280
457	79	65.5	120.00	106.50	920	870	280
508	98	77	143.00	122.00	940	940	330
560	104	79	152.00	127.00	1040	970	290
610	112	85	161.00	134.00	1050	920	290
630	120	92	170	142	1050	930	310
660	126	96	180.00	150.00	1050	1050	330
715	148.5	114	203.50	169.00	1050	1050	330
762	152.5	116	208.50	172.00	1090	1090	330
830	163	120.5	224.00	181.50	1150	1150	330
914	196	144.5	261.00	209.50	1130	1200	330
1066	277	197.5	361.00	281.50	1320	730	330
					1320	730	330
1230	331	236	434.00	339.00	1570	820	310
					1570	820	310
1066	300	220	428	348	1360	750	380
					1360	750	380
1230	405	310	510	415	1620	850	380
					1620	850	380
1430	490	375	750	635	1730	980	380
					1730	980	380

Selection of hydraulic station

Ordinary Type Hydraulic Station

Power Supply	5.5KW
Working Voltage	380V,3PH,5Lines
Working Frequency	50HZ
Rated Working Pressure	10Mpa
Rated Flowing	25L/min
Open Way	Manual/ Remote Control
Oil line Length	6m (Standard)
Net Weight (KG)	220KGS



PLC Type Hydraulic Station

Power Supply	5.5KW
Working Voltage	380V,3PH,5Lines
Working Frequency	50HZ
Rated Working Pressure	10Mpa
Rated Flowing	5-30L/min
Control System	PLC Control
Working Speed	Remote Control
Control Panel	Electronic Display
Open Way	Manual/ Remote Control
Oil Line Length	6m (Standard)
Net Weight (KG)	239KGS



Explosion-proof hydraulic station

Power Supply	5.5KW
Working Voltage	380V,3PH,5Lines
Working Frequency	50HZ
Explosion-Proof Grade	BT4 / CT4
Rated Working Pressure	10Mpa
Rated Flowing	25L/min
Open Way	Manual/ Remote Control
Oil line Length	6m (Standard)

*Need other power, Rated Flowing, Explosion-Proof Grade, etc., can be customized.



- **Clamshell** -

Engineering Case

Engineering case ■

- Engineering case
- Site construction of high-sulfur pipelines
- On-site construction of TUHA Oil Field
- Natural gas storage pipeline project
- PetroChina Pipeline Project
- China-Russia pipeline project
- Inspection and repair of pipelines in large power plants
- Emergency repair of nuclear industry equipment
- Project of west gas transporting to east china

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