

**DCS**  **ENG**

**S-Cutter**

Pipe Cutting & Beveling Machine

INNOBIZ  ISO 9001 ISO 14001

[www.dcseng.co.kr](http://www.dcseng.co.kr) [www.s-cutter.co.kr](http://www.s-cutter.co.kr)



The picture of DCS ENG CO., LTD. main building

## Company History

- 2008** Foundation of DCSENG CO.,LTD.  
Selected for the Ministry of Knowledge Economy's Technology Incubation Project(TBI)  
Acquired Korean and International Patent for Pipe Cutting Machine
- 2009** Registered Factory
- 2010** Released Pipe Cutting & Beveling Machine S-500  
Registered as a Venture Business
- 2011** Acquired a CE mark for S-500  
Accreditation of ISO9001 / ISO14001 Certificates for Quality Management System  
Acquired Clean Business Certificate
- 2012** Foundation of Affiliated Research Institute
- 2013** Released Pipe Cutting & Beveling Machine S-150  
Released Portable Hand Beveler S-CM4  
Started Exporting to China, Japan, and Vietnam (indirect export : Africa / Arab Emirates)  
Founded a Branch office in Japan
- 2014** Acquired a CE mark for S-150  
Capital Increase from 50 million KRW to 642 million KRW  
Acquired Best Family Friendly Management Certificate
- 2015** Released Dual Cutting & Beveling Full Automatic Machine For Heavy pipes S-300HV and S-600HV  
Acquired Management Innovation Business Certificate  
Awarded the Patent Technology Prize  
Constructed and moved to new head office building and factory  
Founded a Branch office in China
- 2016** Released Pipe Cutting & Beveling Machine S-LT series
- 2017** Founded a Branch office in Vietnam and Russia  
Acquired a CE mark for S-LT Series
- 2018** Founded a Branch office in Singapore and Thailand



## Business Area



Key Technology		Application	Expansion
Pipe Cutting & Beveling Engineering	Government office and residential buildings such as apartment building IT, GMP facilities	Plant industry Oil & Gas Chemical Shipbuilding	Offshore plant Aerospace industry Defense industry

# -Cutter

## 01 S-Cutter is

Efficient machine that can be used for cutting and beveling of sanitary pipes, stainless pipes, chromium-molybdenum tubes, titanium pipes, super duplex pipes, INCONEL, alloy and copper tubes, aluminum pipes, PP pipes, PE pipes, and PVDF pipes as well as uhp tubes used for super clean pipes and carbon steel.

## 02 Aren't there such problems as sparks, noise, and dust?

S-Cutter produces no harmful substances.

Now with this, you can work in a safe and efficient manner at a clean and comfortable environment.

## 03 Isn't the blade consumed too much?

Blade consumption of S-Cutter has been fundamentally reduced.

## 04 Isn't the blade far too expensive?

Compatible with GF and AXAIR CUTTER, S-blades have been developed by DCSENG and are supplied with top quality and at reasonable prices.

## 05 S-Cutter is

Widely used for clean piping works, bio, food, GMP plants, shipbuilding and marine plants, and petro-chemical plants as well as diverse sites including that require a clean working environment.





## - CM4

### Portable hand beveler

Pipe plate film removal and beveling process

Capacity : Pipe O.D 25.4mm - no limit

Bevel capacity maximum 14C



## - 100LT / 150LT / 200LT

### The most cost-effective orbital cutting machine

Maximizing the user convenience

Capacity : Pipe O.D 6mm - 220mm(1/4 - 8inch)

Pipe wall thickness maximum 8.2mm

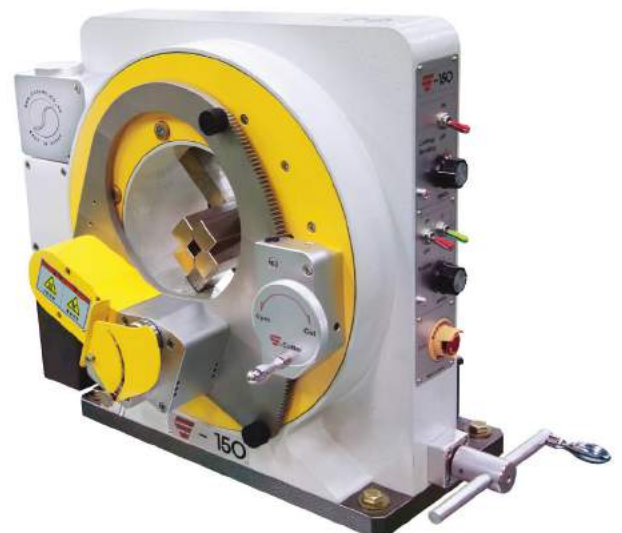
## - 150

### Cut, whether thick or thin, at a single stroke!

Developed into orbital type

Capacity : Pipe O.D 6mm - 170mm(1/4 - 6inch)

Pipe wall thickness maximum 12mm



## - 500

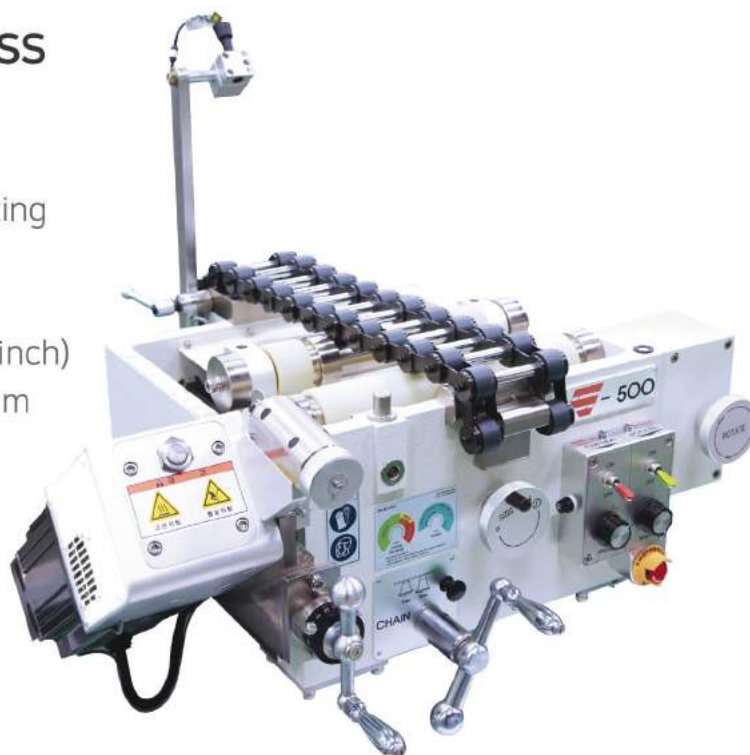
### Necessary for stainless piping work!!

The world's first pipe-rotation cutting method applied machine

Capacity :

Pipe O.D 16mm - 510mm(3/8 - 20inch)

Pipe wall thickness maximum 10mm



## - 300HV / 600HV

### Necessary for pipe processing factory!

Possible to cut and bevel the pipes on both sides at the same time (CNC Machine)

Capacity : Pipe O.D 60mm - 620mm(2 - 24inch)

Pipe wall thickness maximum 80mm





## - CM4\_M



### Multi-function hand beveler

Bevel Capacity : 0 - 90° , 0 - 14C

Pipe/Plate : Film removal

and bevel processing



### - Machine Specifications

Work capacity	Processing Type	Pipe	Min. O.D	25.4mm(1 inch)	
			Max. O.D	No Limit	
		Plate	No Limit		
	Materials	General steel, Stainless, Plastic, etc.			
	Depth Adjustment	One-touch method(loosening prevention ballplunger)			
Machine Capacity	Processing Depth	0.05mm as a minimum unit			
	Processing Angle	0° - 90°			
	Penetrating Angle	75°			
	Processing Depth	Minimum 0.05mm, Maximum 15mm			
	Processing Capacity	Bevel Angle	Thickness	Width(mm)	
		0°(cross section)	15	15	
		15°	16	17	
		30°	19	22	
45°		14	20		
60°		10	22		
75°	8	31			
90°(surface)	5	26			
Machine Specification	Weight	6.0kg			
	Dimensions	85×85×185H			
	Effectiv. Factor	4EA(S-501306-CM4-780) - use 8 surfaces			

### - Motor Specifications

Item	Unit	Cutting Motor
Rated Output	W	1050
Rated Voltage	V	AC 200 - 220V / 50 - 60Hz
Operating Environment	-	-20°C - 40°C / 20 - 80%RH

### - Standard Accessories

- Equipped with a guide roll for piping as a standard
- Handle
- 1 allen wrench, 1 torx wrench

### - Optional Accessories

- Insert tip : S-501306-CM4-780
- Insert tip fixing bolt

· Design and specification of this product are the version as of January 2018

· The data may be subject to change for product improvement without a prior notice.

· Be sure to read through safety precautions described in the user manual and the equipment before using our products.



# - CM4\_OD



## Portable plate processing machine

Capacity : Maximum width is 48mm,  
Maximum depth is 15mm

Pipe/Plate : Film removal  
and plate processing



### - Machine Specifications

Work capacity	Processing Type	Pipe	Min. O.D	25.4mm(1 inch)	
			Max. O.D	No Limit	
		Plate	No Limit		
	Materials	General steel, Stainless, Plastic, etc.			
	Depth Adjustment	One-touch method(loosening prevention ballplunger)			
	Processing Depth	0.05mm as a minimum unit			
Machine Capacity	Processing Angle	90°			
	Penetrating Angle	75°			
	Processing Depth	Minimum 0.05mm, Maximum 15mm			
	Processing Capacity	Materials		Width(mm)	
		Plate	Minimum	18	
	Maximum		48		
	Pipe (When Processing 0.3mm)	2 inch	27		
4 inch		29			
8 inch		31			
12 inch		33			
20 inch		43			
Machine Specification	Weight	6.0kg			
	Dimensions	85×85×185H			
	Effectiv. Factor	4EA(S-501306-CM4-780) - use 8 surfaces			

### - Motor Specifications

Item	Unit	Cutting Motor
Rated Output	W	1050
Rated Voltage	V	AC 200 - 220V / 50 - 60Hz
Operating Environment	-	-20°C - 40°C / 20 - 80%RH

### - Standard Accessories

- Equipped with a guide roll for piping as a standard
- Handle
- 1 allen wrench, 1 torx wrench

### - Optional Accessories

- Insert tip : S-501306-CM4-780
- Insert tip fixing bolt

· Design and specification of this product are the version as of January 2018  
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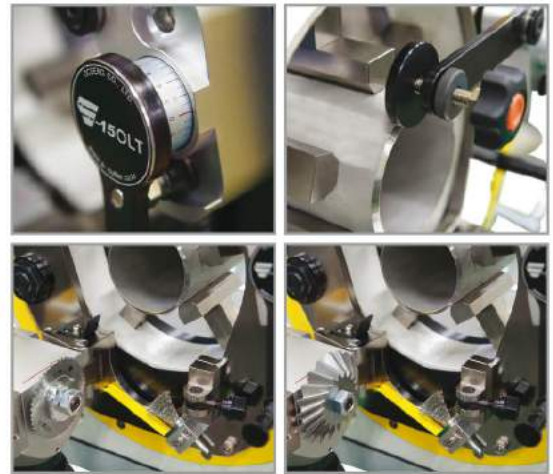


## - 100LT / 150LT / 200LT



### *The most cost-effective orbital cutting machine*

Capacity : Pipe O.D 6mm - 220mm (1/4 - 8inch)  
Pipe wall thickness maximum 8.2mm



- **Maximizing the user convenience**
  - Easy to replace cutting blades
  - Effective and convenient when processing short pipes
  - Possible to cut elbows
  - Mounted with a basic stopper for cutting & beveling
  - Maximizing the convenience of repetitive work
- **Clamping O.D 6mm - 220mm at once**
  - Tube Collet (1/4 inch, 3/8 inch, 1/2 inch)
  - No need for an auxiliary vise(vise jaw)
  - Shortening the working hours
- **Applying oilless bearing to the main shaft**
  - The durability of the machine is improved
  - The clearance of the machine is minimized
- **Optimally designed for the processing of the thin pipes**
  - Pipe deformation is minimized
  - Minimum distances are secured between the cutting & beveling blade and the vise (fix jaw)
- **Possible to finely tune the processing depths**
  - Improving the quality in cutting & beveling
  - A single touch adjustment device
- **Equipped with a BLDC motor**
  - Providing stable torques of all the ranges and ensuring the high reliability
  - Adjusting speed according to work types with a 6-stage control
  - With a built-in overload protection circuit

## - Using with the machine table(S-LT Series\_MT)



## - Machine Specifications

	Item	Unit	Specification
100LT	Cutting & Beveling Capacity	Min. / Max. O.D	mm(inch) 6(1/4) / 120(4)
		Min. / Max. Thickness	mm 0.2 / 8.2(5)
		Beveling Angle	° 30/32/35/37.5/45
	Mechanical Data	Dimensions	mm 143×366×383
		Weight	kg 47
150LT	Cutting & Beveling Capacity	Min. / Max. O.D	mm(inch) 6(1/4) / 170(6)
		Min. / Max. Thickness	mm 0.2 / 8.2(5)
		Beveling Angle	° 30/32/35/37.5/45
	Mechanical Data	Dimensions	mm 145×466×483
		Weight	kg 66
200LT	Cutting & Beveling Capacity	Min. / Max. O.D	mm(inch) 6(1/4) / 220(8)
		Min. / Max. Thickness	mm 0.2 / 8.2(5)
		Beveling Angle	° 30/32/35/37.5/45
	Mechanical Data	Dimensions	mm 145×525×542
		Weight	kg 77

·Minimum O.D is using the tube collet(1/4 inch, 3/8 inch, 1/2 inch).

·Minimum O.D for S-200LT is using the vise jaw and tube collet.

·Minimum cutting thickness is on the basis of (O.D 16mm)(3/8 inch)

·Design and specification of this product are the version as of January 2018.

·The data may be subject to change for product improvement without a prior notice.

·Be sure to read through safety precautions described in the user manual and the equipment before using our products.

## - Motor Specifications

Item	Unit	Cutting Motor
Rated output	W	1000
Rated Voltage	V	AC 200 - 220V / 50 - 60Hz
Rated Current	A	4.5
Operating Environment	-	-20℃ - 40℃ / 20 - 80%RH

## - Standard Accessory

- Standard Accessory

## - Optional Accessories

- S-LT Series\_RS : Pipe Feeder
- S-LT Series\_VS : Pipe Support
- S-LT Series\_MT : Machine Table
- S-200LT\_VJ : Vise Jaw (13mm - 60mm)



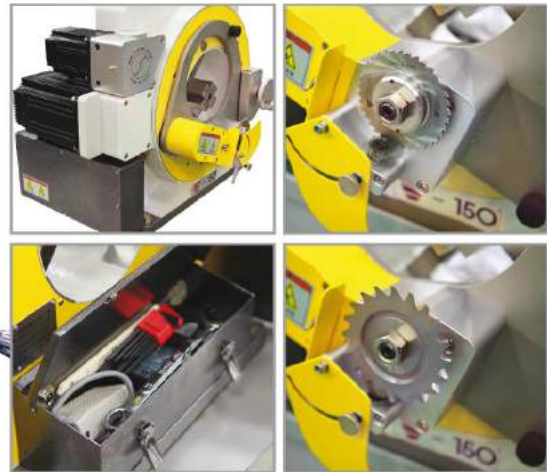
## - 150



**Cut, whether thick or thin,  
at a single stroke !**

**World best convenience and speed !**

Capacity : Pipe O.D 6mm - 170mm  
(1/4 - 6inch)



- **Maximizing the user convenience with automatic rotation**
  - Thick pipes are cut in the right direction and beveled
  - Thin pipes are cut in the reverse direction (spiral duct cutting is available)
  
- **Clamping at once from O.D 6mm to 170mm**
  
- **Newly developed orbital type**
  - Axial motor mounted onto the body (to prevent the spatter while working)
  - Semi-permanent design for Anti-backlash
  
- **Free adjustment of blade while cutting and beveling is possible**

## - Using with the machine table(S-150\_MT)



## - Machine Specifications

Item		Unit	Specification
Cutting Capacity	Minimum O.D	mm(inch)	6(1/4inch) <sup>note1)</sup>
		mm(inch)	16(3/8 inch)
	Maximum O.D	mm(inch)	170(6 inch)
	Minimum Thickness	mm	0.5 <sup>note2)</sup>
	Max. Thickness(recommend)	mm	12(10)
Beveling Capacity	Minimum O.D	mm(inch)	16(3/8 inch)
	Maximum O.D	mm(inch)	170(6 inch)
	Minimum Thickness	mm	-
	Max. Thickness(recommend)	mm	12(10)
	Beveling Angle	°	30°/ 32°/ 35°/ 37.5°/ 45°
Mechanical Data	Dimensions	mm	660×360×505
	Weight	kg	100

· Note1) When using the Tube Collet(1/4 inch, 3/8 inch, 1/2 inch)

· Note2) Min. Cutting thickness is on the basis of 16mm(3/8 inch)

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· Be sure to read through safety precautions described in the user manual and the equipment before using our products.

## - Motor Specifications

Item	Unit	Cutting Motor	Rotating Motor
Rated Output	W	1500	400
Rated Voltage	V	AC 200 - 220V	50 - 60Hz
Rated Current	A	5.7	1.85
Operating Environment	-	0°C - 40°C / 20 - 80%RH	

## - Standard Accessory

- All-in-one toolbox - Standard Accessory

## - Optional Accessories

- S-150\_RS : Pipe Transfer Device
- S-150\_VS : Pipe Support
- S-150\_MT : Machine Table

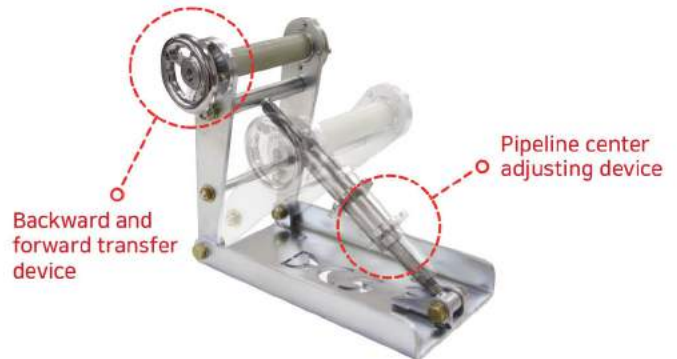


## Optional accessories for S-150

### ▶ S-150\_RS

This equipment is essential for heavy piping work.  
It can easily adjust where to cut on the pipe.

- Pipe transfer device for the table
- Possible to finely tune the cutting position with backward and forward transfer device
- Using with S-150\_VS
- Available for existing machine as well



### ▶ S-150\_VS

This equipment is essential for heavy pipe work.  
Upper V-shape head part is only supplied.

- Standing pipe transfer device
- Suitable for backward and forward transfer device and rotation
- Using with S-150\_RS
- Using it to fit your stand
- Available for existing machine as well

## ▶ S-150\_MT



### A machine table for S-150

All products are supplied with assembled and can be used right after the delivery

- Provided with S-150\_RS and equipped with two sets of S-150\_VS
- Designed for 6m pipes
- Using with S-150\_VS
- A foldable cutting tip holder is mounted

| Built-in large toolbox 500×1600×510H

| Dimensions 900×2300×750H(900×3600×750H)

| Material SS400 powder painting(upper plate STS304)

| Weight about 200kg





## - 500

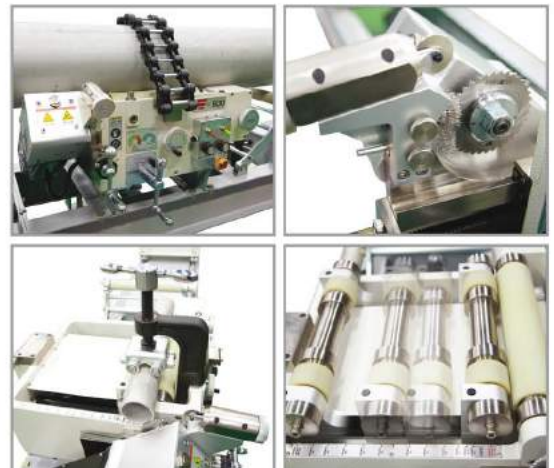
**Necessary for stainless piping work !!**

**The world's first pipe-rotation cutting method applied machine**

Capacity : Pipe O.D 16mm - 510mm (3/8 - 20inch)



- Maximizing the user convenience with automatic rotation
- possible to cut and bevel from O.D 16mm to 510mm and bevel with one machine!
  - 3/8 - 2 inch : Vise clamping method
  - 2 - 20 inch : Chain clamping method
  - Enable you to cut up to 24 inch (please contact the head office)
- Device for prevention of saw blades being jammed is installed (exceptionally useful in large diameter pipes)
- Minimizing the eccentricity while cutting and beveling
- Free adjustment of blade while cutting and beveling is possible





## - Using with S-500\_PR



## - Machine Specifications

Item	Unit	Specification
Cutting Capacity	Minimum O.D	mm(inch) 16(3/8inch)
	Maximum O.D	mm(inch) 510(20 inch)
	Minimum Thickness	mm 0.8 <sup>(note1)</sup>
	Max. Thickness(recommend)	mm 10(8)
Beveling Capacity	Minimum O.D	mm(inch) 16(3/8 inch)
	Maximum O.D	mm(inch) 510(20 inch)
	Minimum Thickness	mm -
	Max. Thickness(recommend)	mm 10(8)
	Beveling Angle	° 30°/ 32°/ 35°/ 37.5°/ 45°
Mechanical Data	Dimensions	mm 413×460×325
	Weight	kg 92

## - Motor Specifications

Item	Unit	Cutting Motor	Rotating Motor
Rated Output	W	1500	400
Rated Voltage	V	AC 200 - 220V / 50 - 60Hz	
Rated Current	A	5.7	1.58
Operating Environment	-	0°C - 40°C / 20 - 80%RH	

## - Standard Accessories

- S-500\_VC : Small diameter pipe support(3/8-2 inch)
- S-500\_CC : Large diameter pipe support(2-20 inch)
- S-500\_PS : Pipe Support System
- S-500\_PR : Total Pipe Rail
- S-500\_PL : Pipe Lift

· Note1) Minimum cutting thickness is on the basis of 16mm(3/8 inch)  
 · Design and specification of this product are the version as of January 2018.  
 · The data may be subject to change for product improvement without a prior notice.  
 · Be sure to read through safety precautions described in the user manual and the equipment before using our products.



## Standard accessories supplied with S-500

### ► S-500\_PS

Used to support long pipes at the front and the back

- Suitable for rotation movement
- Usable as a turntable while welding
- Used in three sets
- Easy to move back and forth while assembling angle wheels for rails

| Dimensions 280×450×320H

| Weight 33kg

| Supporting Ability 3/8 - 20 inch

| Rated Load 600kg



Using angle wheels for rails

### ► S-500\_PR

Necessary rail for the work on large diameter pipes and heavy pipes

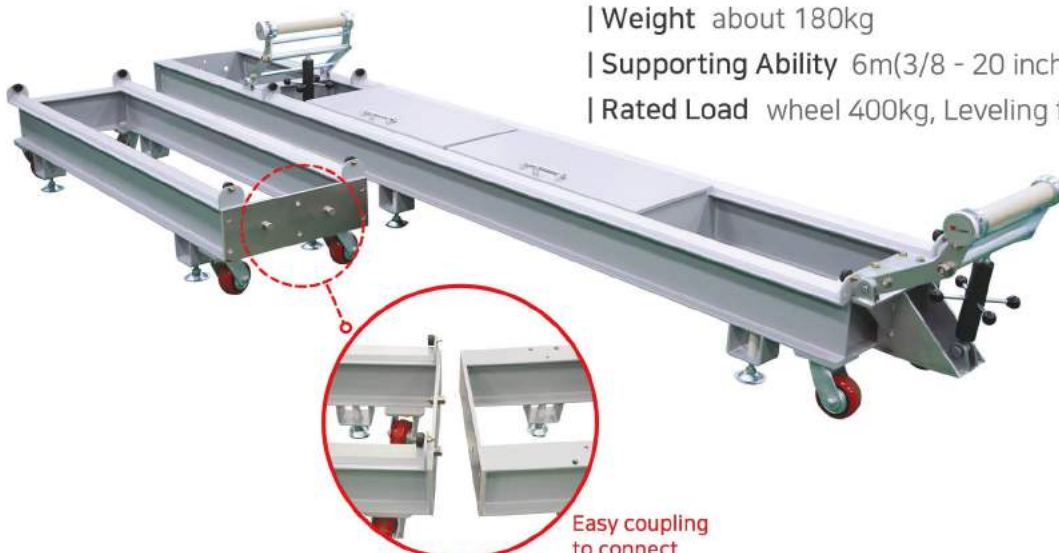
| Dimensions 5000×465×350H,

When divided two pieces, 1600 and 3400

| Weight about 180kg

| Supporting Ability 6m(3/8 - 20 inch)

| Rated Load wheel 400kg, Leveling foot 1000kg



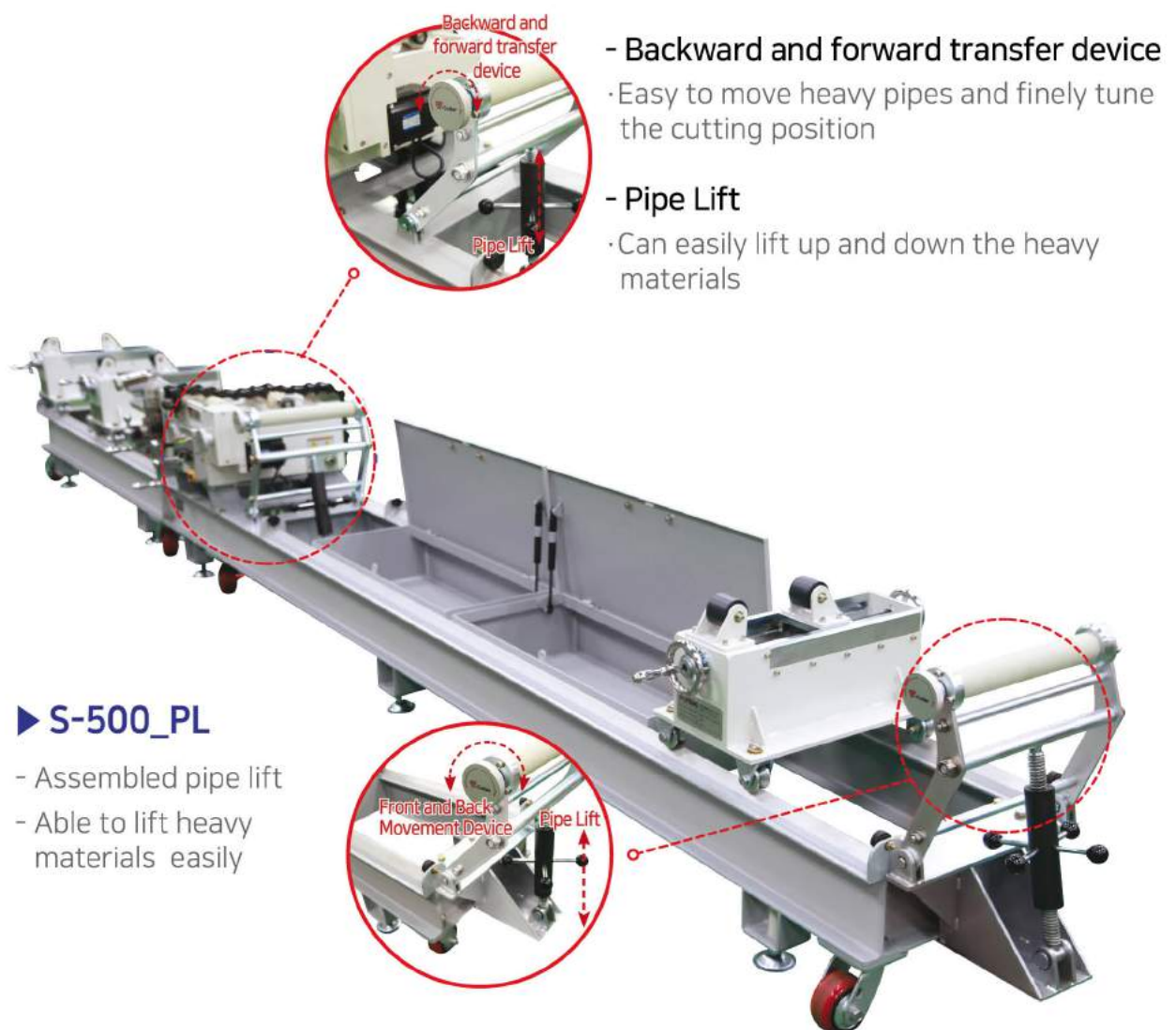
Easy coupling to connect

## A set of S-500\_PR and three sets of S-500\_PS are used together with rails

### Machine table for S-500.

All products are supplied with assembled and can be used right after the delivery

- Assembled with three sets of S-500\_PS for usage
- Necessary rail for the work on large diameter pipes and heavy pipes
- Pipe Lift included
- Possible to finely tune the cutting spots with backward and forward transfer device
- With a built-in toolbox(800x390x160Hx2EA)
- Easy to assemble with an adjusting pin type



### - Backward and forward transfer device

- Easy to move heavy pipes and finely tune the cutting position

### - Pipe Lift

- Can easily lift up and down the heavy materials

### ► S-500\_PL

- Assembled pipe lift
- Able to lift heavy materials easily



## - 300HV / 600HV

### Necessary for pipe processing factory!

Possible to cut and bevel the pipes on both sides at the same time (CNC M/C)

Capacity : Pipe O.D 60mm - 620mm (2-24 inch)

Pipe wall thickness Maximum 80mm



Model		S-300HV	S-600HV	Remark
Description	Unit			
Cutting Diameter	mm	60-320(2-12 Inch)	250-620(10-24 inch)	
Cutting Thickness	mm	80	100	
Tool Holder	set	6(8)	6(8)	Full Automatic
X-axis Distance	mm	80	100	
Z-axis Distance	mm	160	220	
Spindle Motor Capacity	kW	11	22	
X-axis Motor Capacity	kW	1.5	3	
Z-axis Motor Capacity	kW	1	3	
Pipe Feeder Assy'	set	2	3	Full Automatic
Centering Adjust	mm	200	350	Full Automatic
Hydraulic unit	kW	3.75	6	Full Automatic
Dimensions	mm	2350×1400×2000(2200)	2800×2000×2500(2850)	
Power Source		3P / 220V / 60Hz	3P / 380V / 60Hz	
Net Weight	kg	4500	7500	


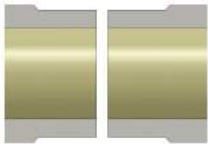
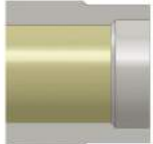




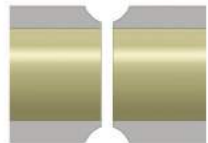


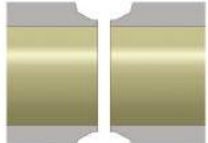

· Note) These data can be customized to fulfill your order and are subject to change without notice.  
For detail, please contact our Technical Sales Division.

## The World's First!

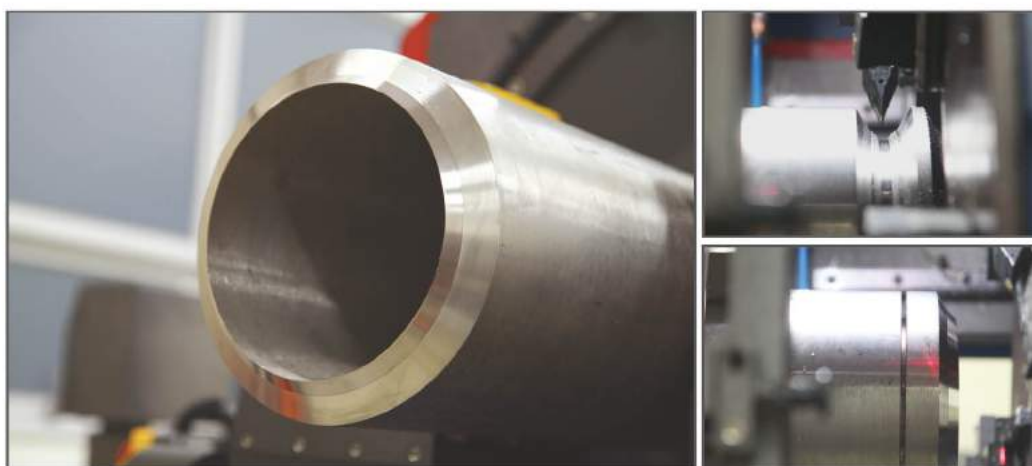
### Dual Cutting & Beveling Full Automatic Machine

- Possible to cut and bevel the pipes on both sides; no need for additional cutting or beveling tools
- The minimum working space through straight production
- Automatic tool change is possible with 6 tool holder equipped
- The embodiment of various shaping processing; 8-axis servo motor
- The integration of automatic feeder and carrying out device with centering function
- The automatic oil pressure revision system; the minimum deformation through chuck pressure depending on the types of pipes
- Tool Pre-setter/Chip Conveyor/Coolant System

## ▶ S-300HV, S-600HV

Improved forms	Example	
	Double-sided	Single-sided
<b>I-shaped</b> 		
<b>V-shaped</b> 		
<b>U-shaped</b> 		
<b>DV-shaped</b> 		

※ Full Automatic Machine can process various forms.





# Cutting Blade

This is a cutting blade.

Compatible with GF and Axxair Cutter.

| Material HSS

| Thickness 1.5mm - 2.0mm

| Pipe Materials including Carbon steel, Stainless, Copper, Sanitary tubes, Chromium-Molybdenum tubes, Titanium pipes, Duplex pipes, INCONEL, and Alloy



- List of products and Cutting Reference Dimensions

Model No.	Outside Diameter	Inside Diameter	No. of Blade	Materials
S-6860	68	16	60	0.5 - 1.5mm
S-6844	68	16	44	1.5 - 3.0mm
S-8056	80	16	56	0.5 - 3.0mm
S-8048	80	16	48	2.0 - 5.0mm
S-8040	80	16	40	4.0 - 10.0mm
S-8036	80	16	36	7.0 - 13.0mm
S-10044	100	16	44	7.0 - 15.0mm
S-10080	100	16	80	0.5 - 1.5mm

· The above data is based on STS 304 materials.

· Use different cutting speed and rotation speed depending on your work conditions.

# Beveling Blade

This is a beveling blade.

Compatible with GF Cutter.

| Material HSS

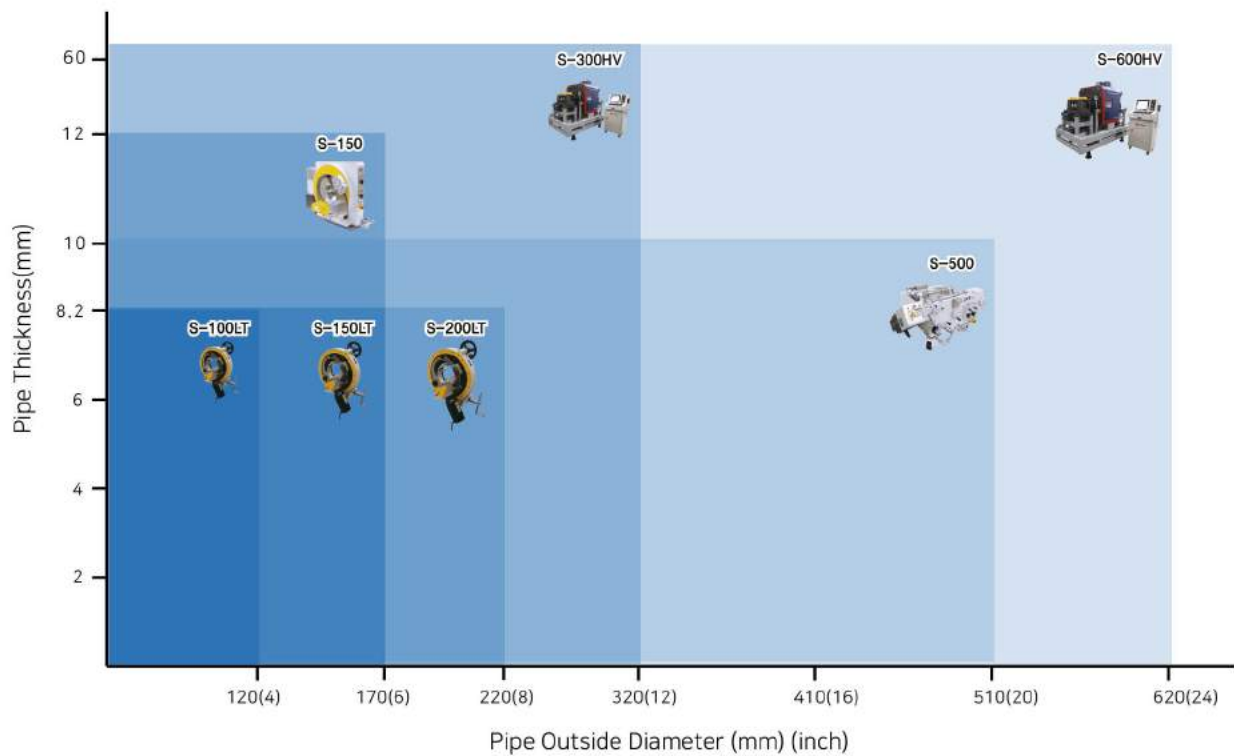
| Pipe Materials including Carbon steel, Stainless, Copper, Sanitary tubes, Chromium-Molybdenum tubes, Titanium pipes, Duplex pipes, INCONEL, and Alloy

| Beveling Angle 30°/ 32°/ 35°/ 37.5°/ 45°

\* possible to make a custom beveling blade



## Machine Selection Criteria Table



## Consumption of cutting and beveling blade (quantity)

Outside Diameter(inch)	Outside Diameter(mm)	Thickness(mm)	Cutting		Beveling	
			Quantity / 1EA	Blade Model	Quantity / 1EA	Blade Model
1/2	21.7	2.1	464	S-8056	8,962	S-BB90
3/4	27.2	2.1	368		7,150	
1	34.0	2.8	300		5,720	
1 1/4	42.7	2.8	240		4,554	
1 1/2	48.6	2.8	210		4,002	
2	60.5	2.8	173		3,214	
2 1/2	76.3	3	129	2,392	S-8048	
3	89.1	3	113	2,032		
4	114.3	3	90	1,350		
5	139.8	3.4	75	1,008		
6	165.2	3.4	60	852		
8	216.3	4	45	590		
10	267.4	4	38	476		
12	318.5	4.5	30	400		
14	355.6	5	29	340		
16	406.4	5	24	296		
18	457.2	5	20	264		
20	508.0	5	15	238		

- Writing of this data based on STS 304 ERW SCH10S.

- Use different cutting speed and Beveling rpm(%) depending on your work conditions.

- Excessive cutting and fast initial entry speed damage can be shorten the life.



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