

協和マシン株式会社

Kyowa Machine Co., Ltd.

<http://www.kyowam.com/>

E-mail: [info@kyowam.co.jp](mailto:info@kyowam.co.jp)

TEL: +81-766-63-3805 FAX: +81-766-63-3804



※ Do not use, copy, disclose information to any third party, without the prior written consent of Kyowa Machine Co., Ltd.  
※ Any specifications, illustrations and photographs and subject to change without any notice due to upgrades and improvements.

# Main Products

 **KYOWA MACHINE**

## KMP Series

Panel Bender Demanded in the World



# KMP Series



➤ Chubu Invention Award 2007,  
Small & Medium Enterprise Agency Director-General's Encouragement Prize

●KMP Series is a flexible bender (panel bender) driven by AC servo motor. It can bend a variety of complex shapes such as R bending, hemming and closing, which are difficult to bend by traditional benders, with high accuracy, rapidly and simply.



# KMP Series : Machine Structure

**Control Device:**  
Includes electronic apparatus such as power supply unit, amplifier, sequencer and PC.

**KMP Bender:**  
Performs bending process of the workpieces.

**Manipulator:**  
Holds the center of the blank for positioning, rotation and all movements.

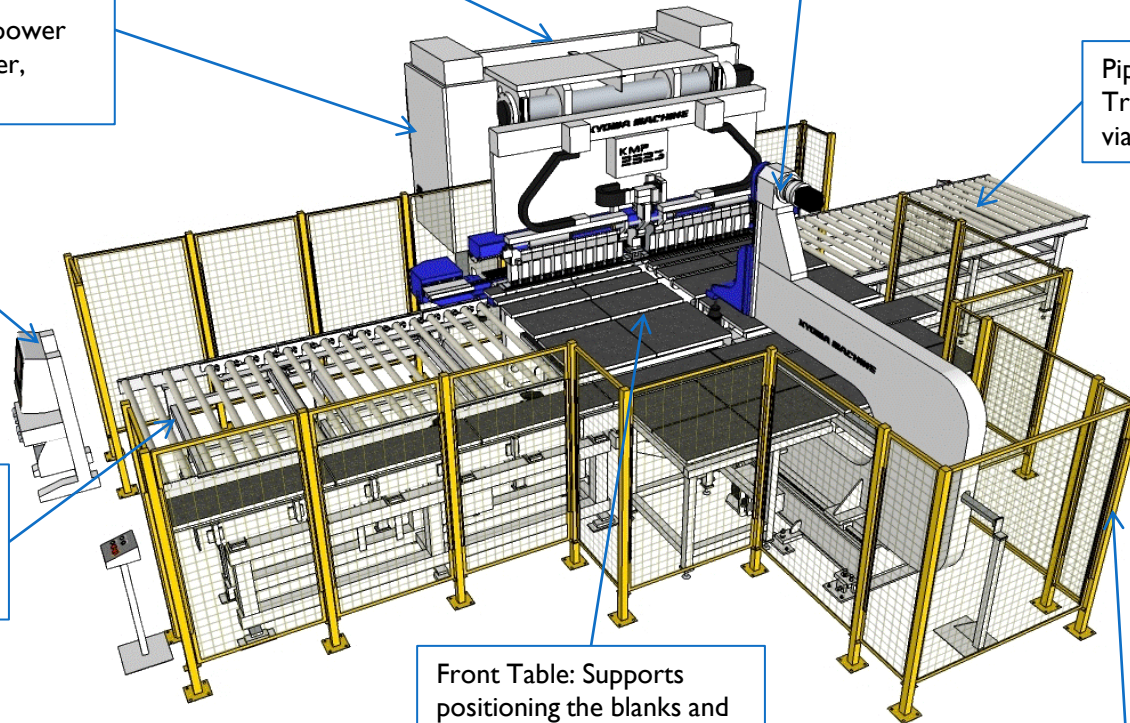
**Pipe Roller Table:**  
Transports the workpieces via a series of pipe rollers.

**Operating Device:**  
Performs programming, operation etc.

**Setting Table:** Performs transferal operation of the blanks and automatic original point setting.

**Front Table:** Supports positioning the blanks and unloading the workpieces.

**Safety Fence:** Prevents anyone from entering the operative area and avoids any accidents between operators and machines.



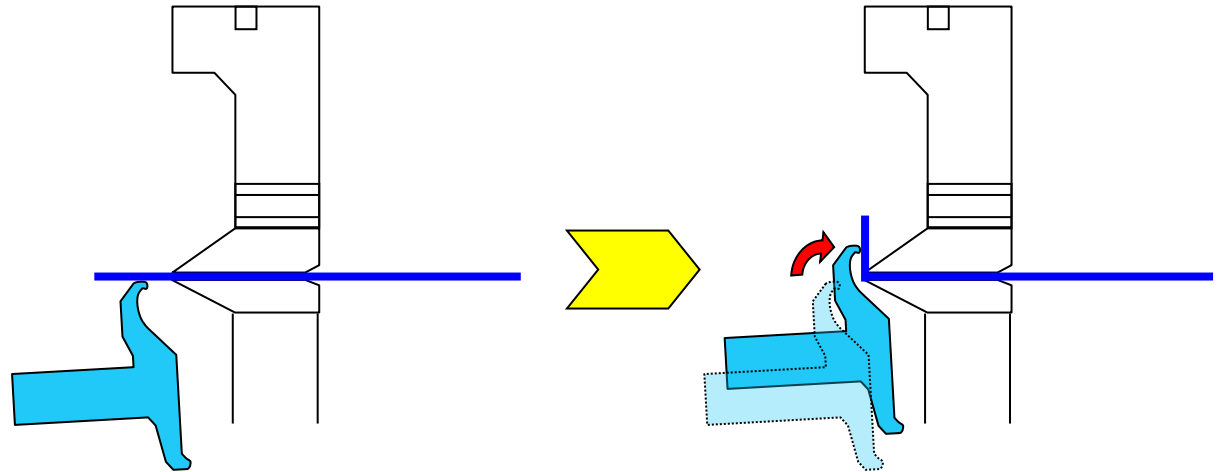
※The single unit of KMP does not include setting table and pipe roller table.

※Images for reference only.

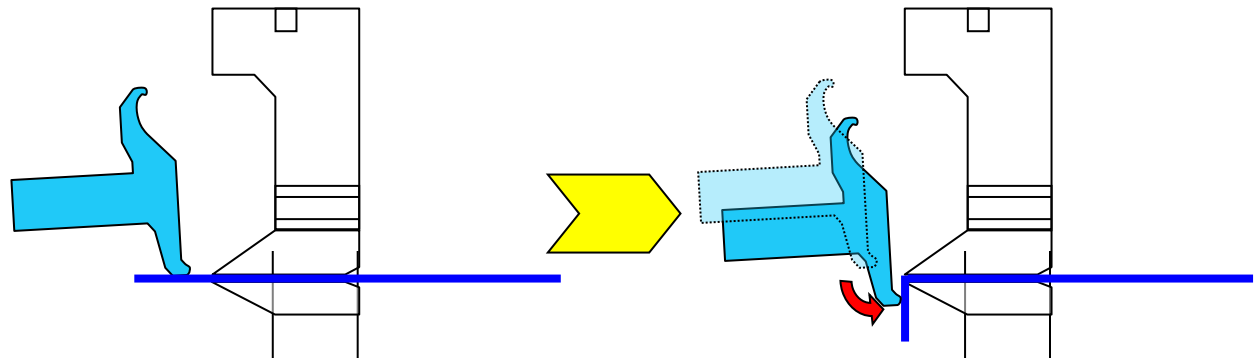
# KMP Series : Mechanism of Bending

The material is clamped between the top and bottom die, then the forming die either forms up or down to create the profile required. The dimension and angle are set by programming data selected.

**Up Bend**



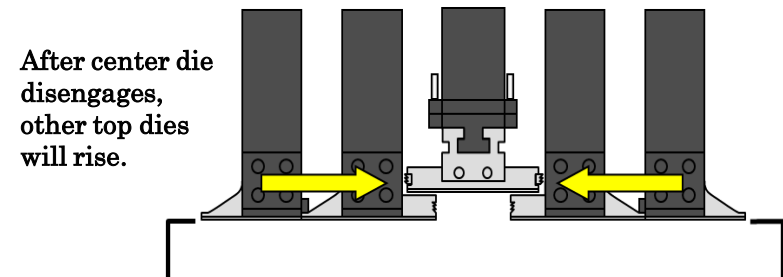
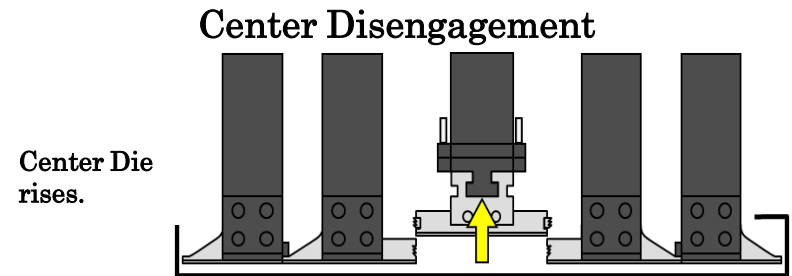
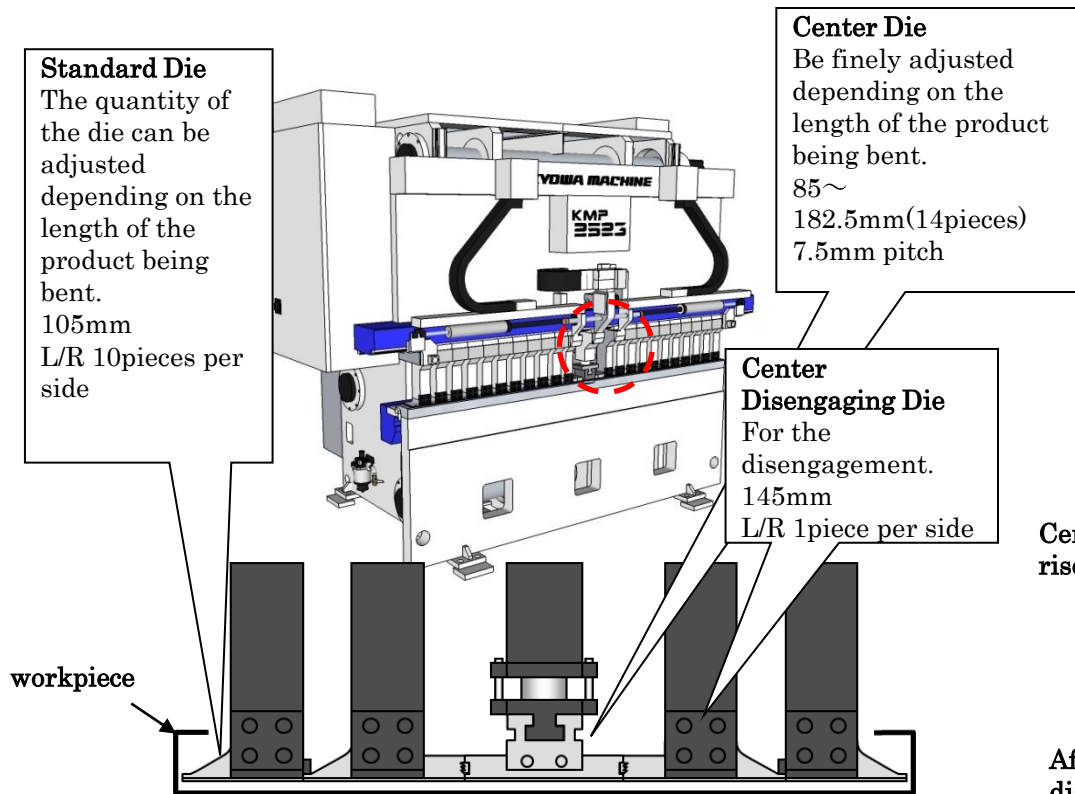
**Down Bend**



※Images for reference only.

# KMP Series : Features of Blankholder (Top Die) & ATC

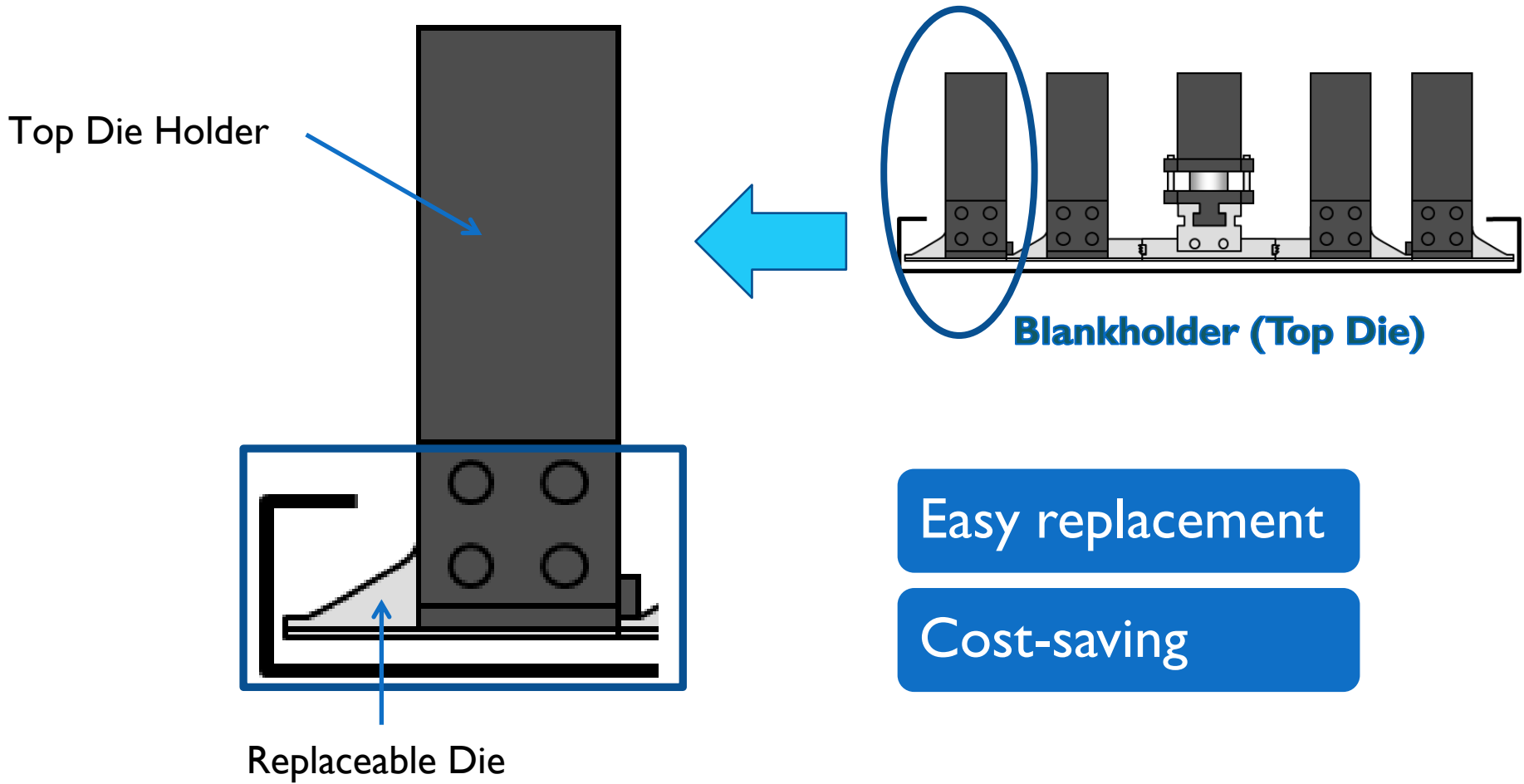
**Top die** is composed of (1)Standard Die,(2)Center Disengaging Die and(3)Center Die.



## ATC:Auto Tool Change

ATC System is equipped inside the KMP Bender.

# KMP Series : Features of Piece Die



# MT & Sub Clamp (Option)

**Sub-clamp corresponding to a narrow size clamps and positions the MT unit.**

The MT unit and sub-clamp options dramatically improve

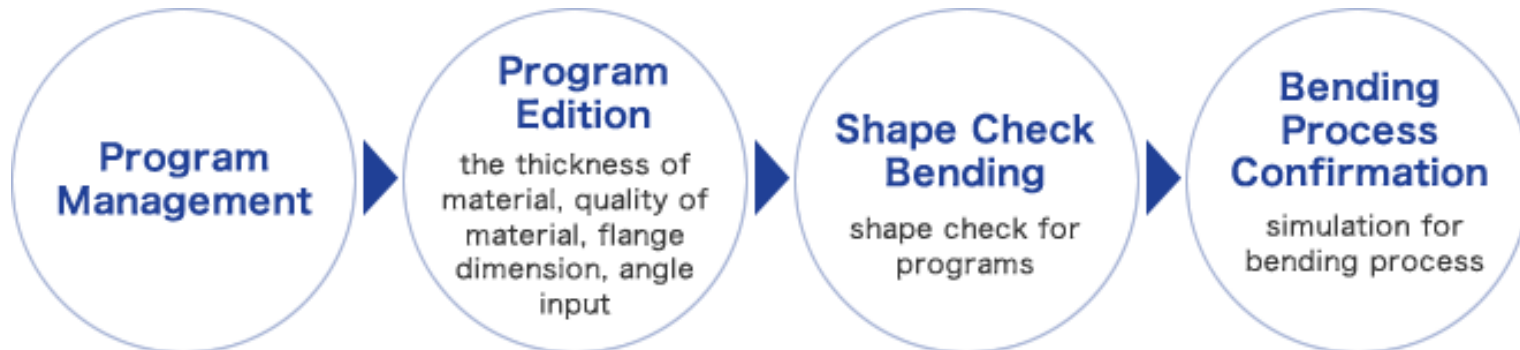
- the automatic bending of elongated materials.





# KMP Programming System

- Self-developed Program for Easy Operation.
- The calculation of the processing parameters is automatic by input of simple numerical values.
- It is also possible to run a process simulation on the operation panel screen.
- Management and Monitoring System Equipped with IoT system providing program creation, management, analysis and editing abilities.



# KMP Programming System

**Program Management**



**Program Edition**



**Shape Check Bending**



**Bending Process Confirmation**



**Manual Operation**



**Automatic Operation**



**Alarm**



**Maintenance**

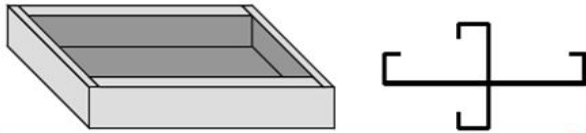


※Available Language: English, Japanese, Chinese, Korean.

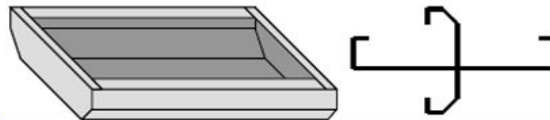
# Bending Shapes

You can “bend” it how you like.

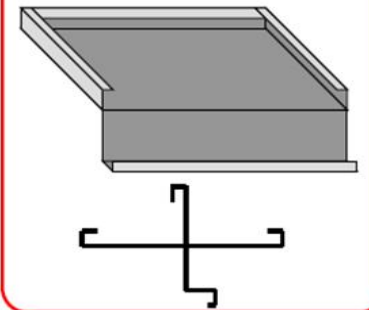
Box bend (cover, steel furniture and others )



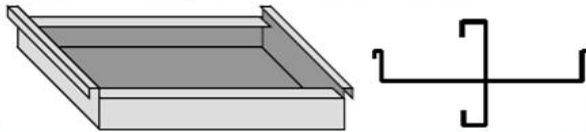
Open bend (Machine cover and other)



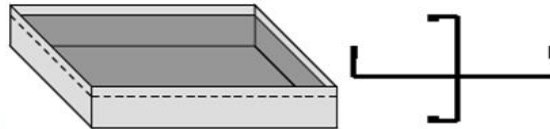
Back End bend (Kitchen)



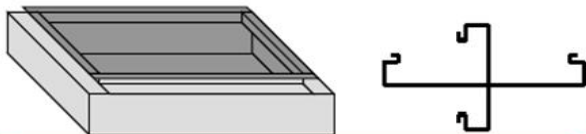
Negative and positive bend ( drawer )



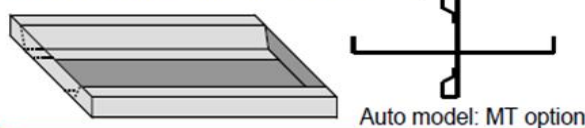
Hemming bend (cover, furniture)



Negative and positive bend ( Distributor panel )



Closed bend (furniture and others )

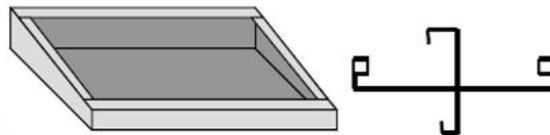


This forming is required more detail. Also, it is required heel hemming tool.

90 degree with Radius (Cover, furniture, construction and others )

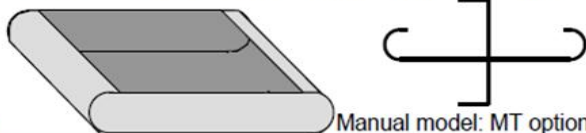


Taper bend (machine cover, furniture and others)

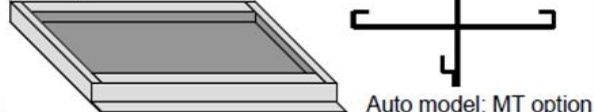


Caution  
 1) There are a lot of applications, please ask us when you have a complicated shape or parts.  
 2) We will recommend the right model based upon your parts and needs. We will provide the best solution to you.

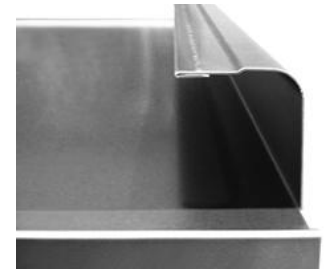
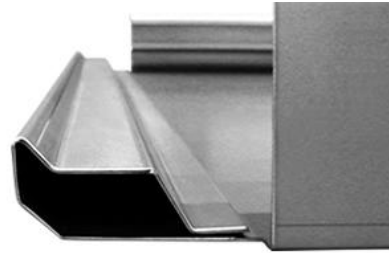
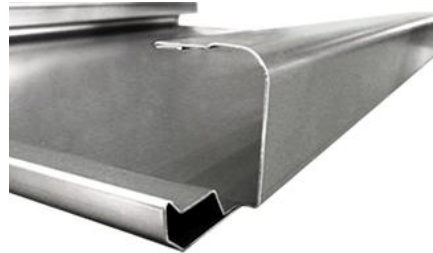
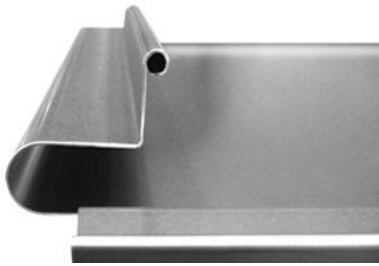
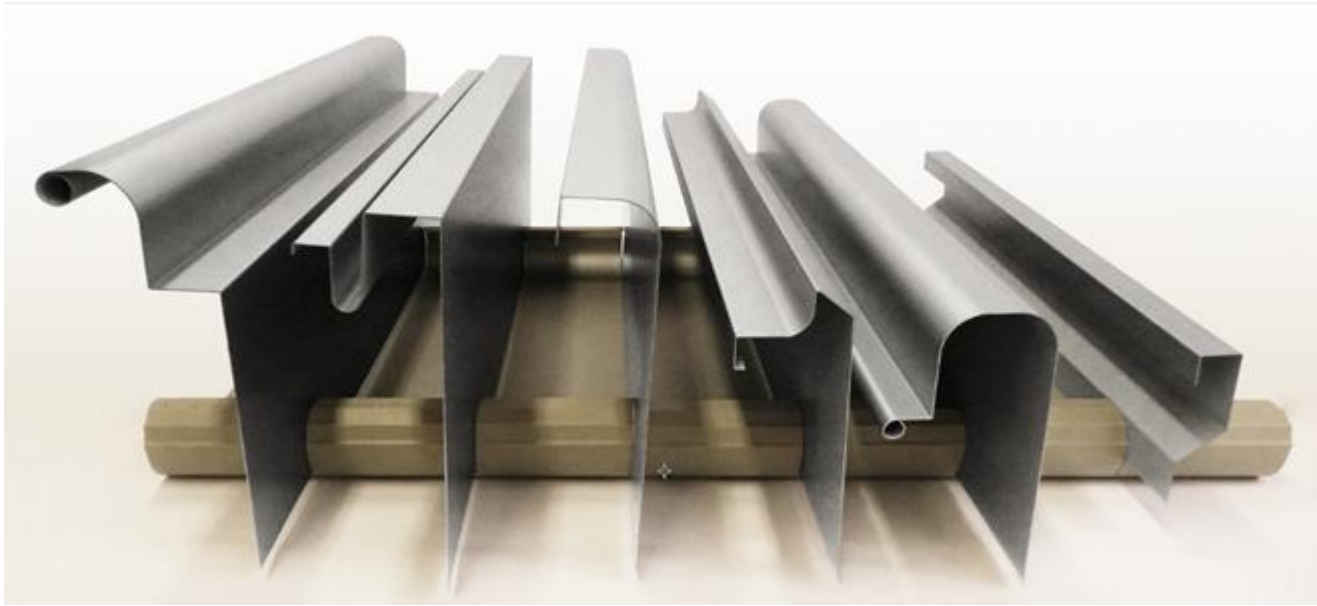
0° Radius bend (Cover, steel furniture and others )



Heel and hemming bend( furniture, steel door and others )



# Bending Sample



The samples above are only a part of our applicable bending shapes.



# Return Type Bender : KMP25DS-RT

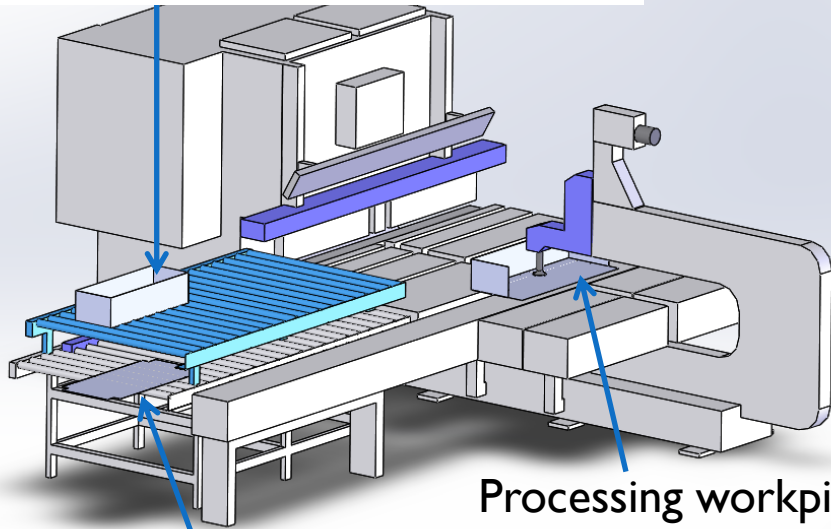
High performance, high productivity, high precision  
Be able to be processed continuously by only one worker  
The latest model of panel bender

**KMP Series**



# Features of Return Type Bender

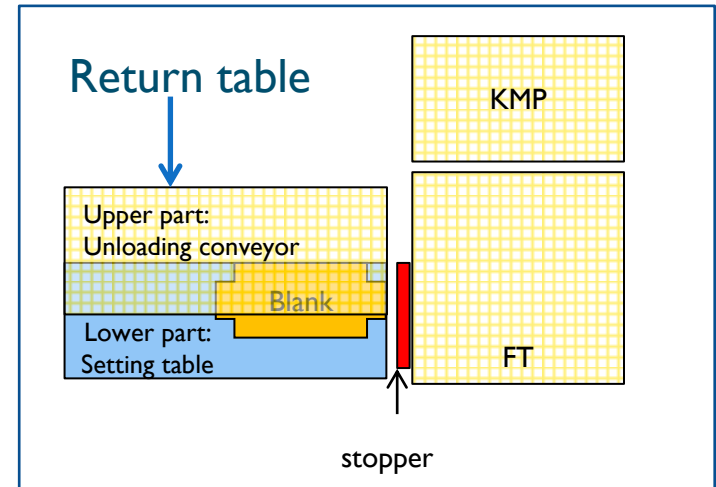
Upper part: Unloading conveyor



Lower part: Setting table

Processing workpiece

Increase productivity

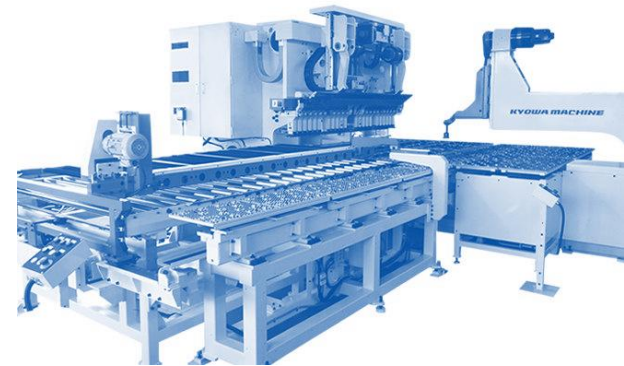


- Return table is a 2-layer conveyor with a compact and space-saving design. Simultaneous loading and unloading are allowed → time saving
- As the origin set of blank is performed on setting table, “simultaneous loading, bending and unloading” are possible to shorten the cycle time .  
( Competitors’ products perform their origin set of blank on front table, so their users need to spend extra time on the origin set. )

# The advantages of KMP

- Stable, high accuracy
- No need warm up time
- Clean (No oil)
- No temperature effect
- Long-operating life
- Low maintenance rate
- Low noise
- Easy operation
- High speed

**AC SERVO MOTOR DRIVEN  
(NO HYDRAULIC-DRIVEN)**



**KMP IS YOUR BEST PARTNER.**

**Increase productivity,  
Decrease running cost and time  
(Time-saving, energy-saving)**



If you need any further information regarding our products,  
please do not hesitate to contact us.

We will do our best to meet your expectation.

協和マシン株式会社  
Kyowa Machine Co., Ltd.  
<http://www.kyowam.com/>  
E-mail: [info@jimsmachines.com.au](mailto:info@jimsmachines.com.au)  
TEL: +61-(0) 414 646 212

