

# WHAT IS PRESS BRAKE CROWNING

## DEFINITION AND IMPORTANCE OF PRESS BRAKE CROWNING

- Press brake crowning is a key technology used to correct the bending accuracy of workpieces
- During the bending process, press brake crowning adjusts the shape of the upper and lower dies to ensure consistent bending angles along the entire bending length
- Press brake crowning can significantly improve the precision and quality of workpieces

01

## TYPES OF PRESS BRAKE CROWNING SYSTEMS

- **Hydraulic Press Brake Crowning System**
  - Independently controls different zones of the worktable using hydraulic cylinders
  - Suitable for large-sized sheets and high-strength bending, as large-sized sheets have greater deviations during bending
- **Mechanical Press Brake Crowning System**
  - Mechanically adjusts the height of the worktable using wedge blocks
  - Compared to hydraulic systems, it has lower costs but slightly lower accuracy

02

## WORKING MECHANISM OF PRESS BRAKE CROWNING

- Compensates for the natural deformation of the machine frame and ram caused by the bending force applied to the workpiece during normal operation of the press brake
- When the press brake bends the workpiece, the upper and lower beams may experience deflection and deformation, adversely affecting the final product
- Press brake crowning technology can offset these deformations, ensuring the accuracy of the workpiece

03

## APPLICATION RANGE OF PRESS BRAKE CROWNING

- Press brake crowning is commonly used in high-tonnage press brakes
- But it can also be used in lower-tonnage press brakes
- The longer the length of the press brake worktable and ram, the greater the deflection of the machine, and the more press brake crowning is needed

04