

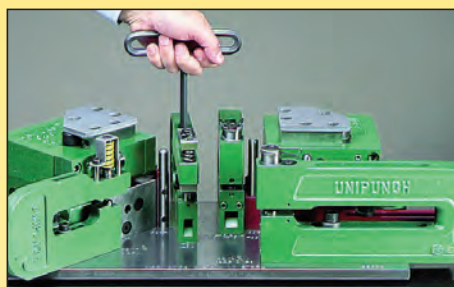
Turn your press brake or punch press into a hole punching profit center.

UniPunch Modular Tooling

- ✓ Works with existing presses
- ✓ Multiple holes and notches with one stroke
- ✓ Short lead time for ordering
- ✓ Fast changeover at the press
- ✓ Perfect for recurring jobs
- ✓ Low investment
- ✓ Precision held tolerances
- ✓ Reusable for different parts



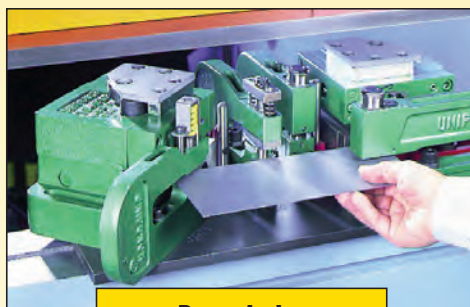
Start with our tooling.



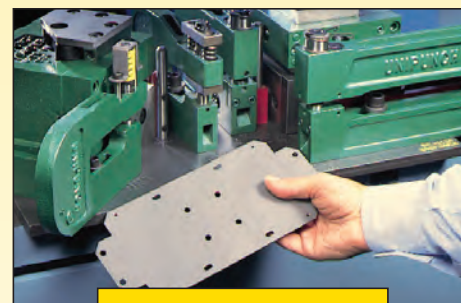
Mount it.



Install it in your press or stand alone system.



Punch it.

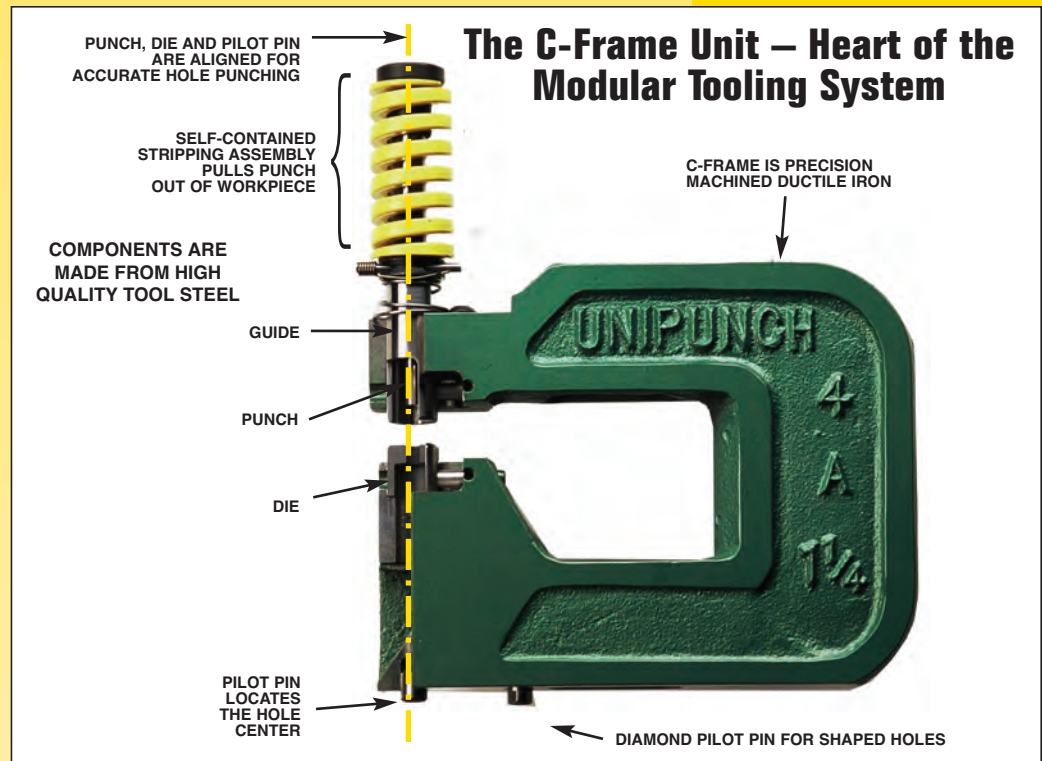


Profit.

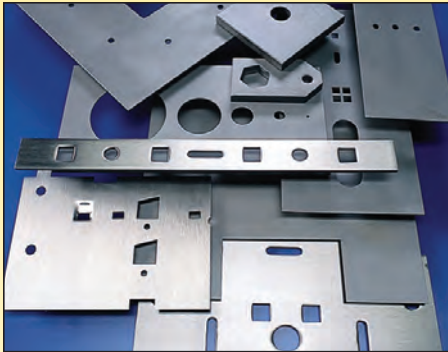
Use UniPunch Modular Tooling for multiple holes with each stroke of the press.

The UniPunch System

- Dependable tooling for today's short run, quick changeover environment
- Combinations of tooling and gauging accessories are easily set up
- Punch or notch material up to 3/4" thick



UniPunch Modular Tooling: the solution for a variety of applications



Hole Punching & Notching Flat Parts



Aluminum Extrusions



Brake Formed / Roll Formed Parts



Angles, Channels & Structural Parts



Tube Punching – Round or Square Tubing



Other Parts

Mounting Methods

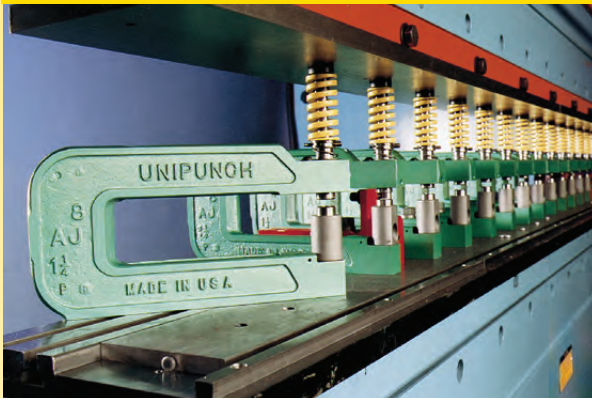
**Match the method
to your press and
shop requirements**

UniPunch provides several methods for mounting modular tooling in your press, press brake or single station system. The method you select will depend on your shop environment.

Using dedicated setups, the UniPunch system is perfectly aligned with lean manufacturing with fast changeover at the press for producing small (and/or large) lots quickly each time you need that part.

Straight Line Punching

**Press Brakes
Only**

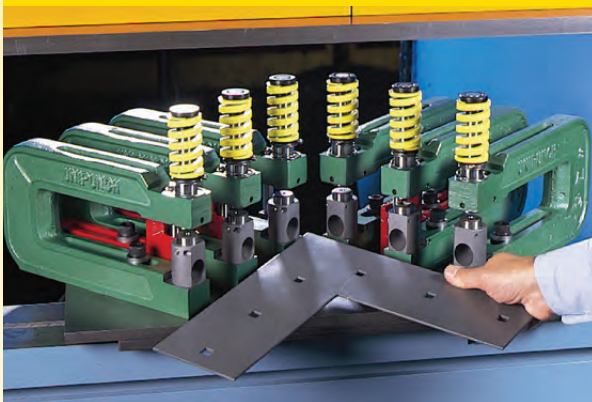


BED RAIL / STRIP TEMPLATE UNDER UNIT METHOD

- For straight line punching
- For the edge of sheets, angle iron and extrusions

Page 8

Fast Changeover from part to part



For Presses & Press Brakes

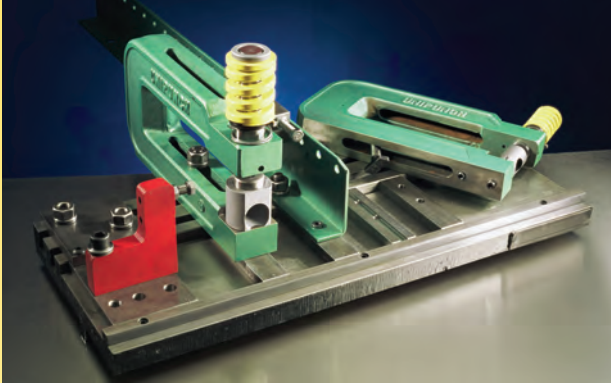
MOUNTING TEMPLATE METHOD

- Most popular method for all material thicknesses
- Makes identical parts consistently
- Allows units to be mounted outside the press for faster set up and tooling changeover
- Keyed, non-keyed and dovetail style templates are available

Page 9

Creating Prototypes

Press Brakes
Only



BED RAIL / UNISPACER METHOD

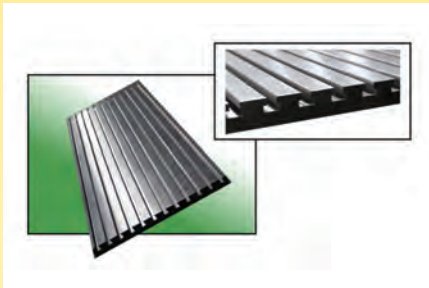
- For prototypes or short runs
- Straight line punching applications
- Unispacers are easily adjusted to accommodate varying hole patterns and part lengths

Page 10

All - Purpose

For Presses &
Press Brakes

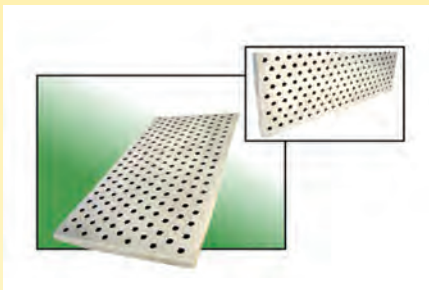
UniPunch can also provide the following equipment to accommodate your press type and mounting method.



T-SLOTTED PLATES

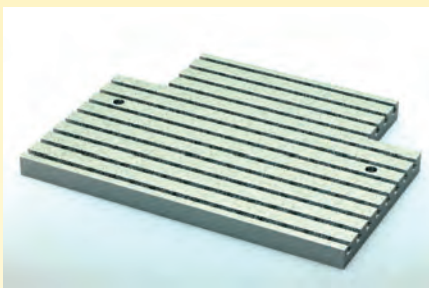
in standard widths from 12" to 30"

Page 14



**UNIVERSAL BASE PLATES with a uniform
pattern of 1/2"-13 tapped holes**

Page 14



**CUSTOM BED RAILS AND T-SLOTTED PLATES
manufactured to your specifications**

Contact the UniPunch Sales Department

Note: For further information on press mounting and gauging methods,
contact the UniPunch Sales Department or visit our website at www.unipunch.com

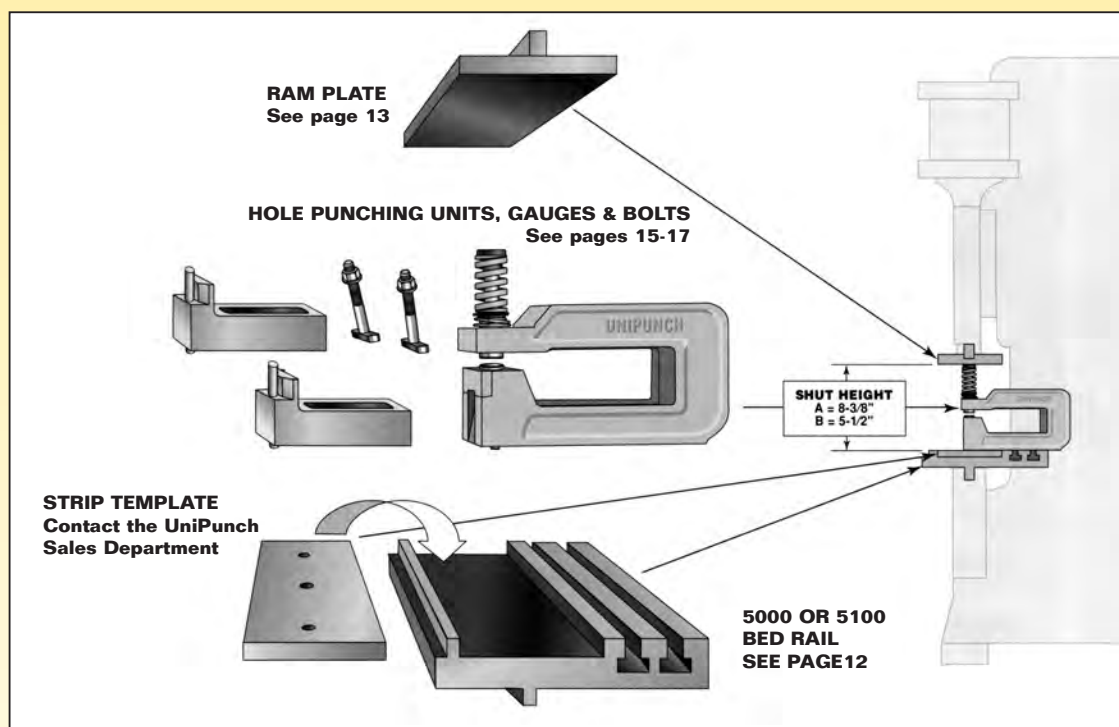
Straight Line Punching In Press Brakes

The Strip Template in a Bed Rail is a solution for locating units for punching many holes in a row in flat metal, extrusions and structural shapes. A Strip Template measures $\frac{1}{2}$ " x $4\frac{1}{2}$ " and is long enough for your part. This fits into the recess in the Bed Rail. Hole-to-hole accuracy is maintained by the precision machined Strip Template. The pilot pin in the base of each unit assures accurate positioning of the holes in the part to be punched.

Note: To achieve straight line punching and fast changeover at your press brake, use a dedicated setup on a keyed template. **See page 9**
To achieve straight line punching and prototyping, consider using Unispacers. **See page 10**

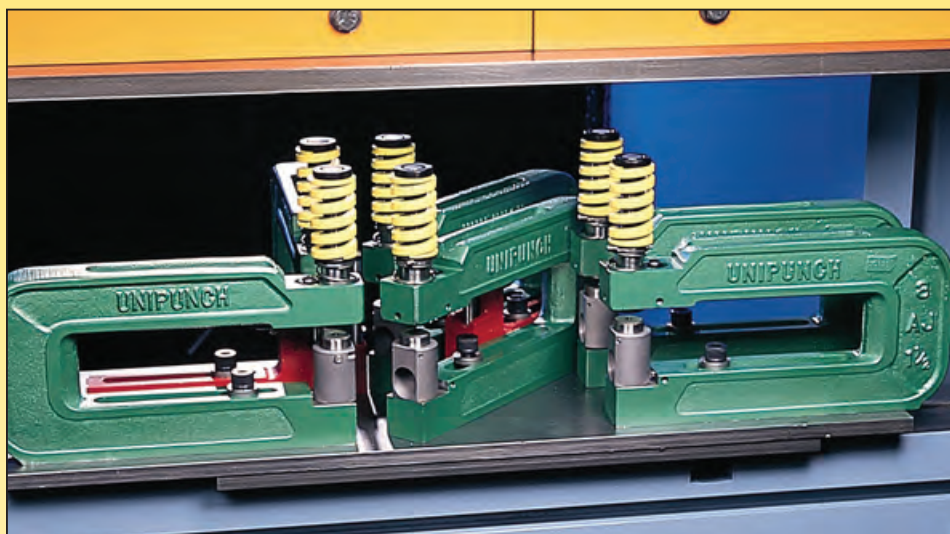
BED RAIL / STRIP TEMPLATE UNDER UNIT METHOD

- For straight line punching the edge of sheets, angle iron and extrusions.
- Strip Template, $\frac{1}{2}$ " (12.7mm) x $4\frac{1}{2}$ " (114.3mm) x specific length, fits into bed rail recess.
- The pilot pin in the base of each unit assures accurate positioning of holes in the part to be punched.
- Part print tolerance accuracy expected is **.005" (.13mm)**.



Faster Changeover from part to part Presses & Press Brakes

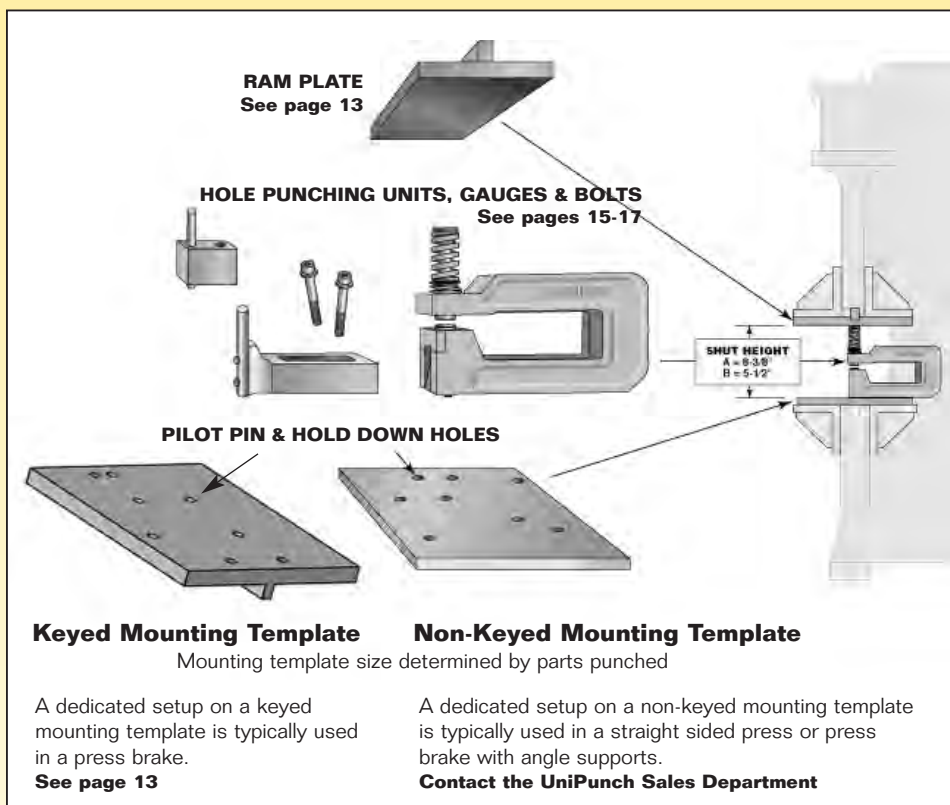
Dedicated setups are ready when you are. A dedicated setup is a combination of UniPunch press tooling assigned to a specific part, pre-assembled onto a template and ready for quick installation into a press. The UniPunch tooling is assigned to the part for the life of the part. If the part is no longer required, the tooling can be disassembled and rededicated in a new setup for a different part.



DEDICATED TEMPLATE METHOD

- The most popular method for all material thicknesses.
- Make identical parts consistently.
- Allows units to be mounted outside the press for fast changeover at the press.

MOUNTING



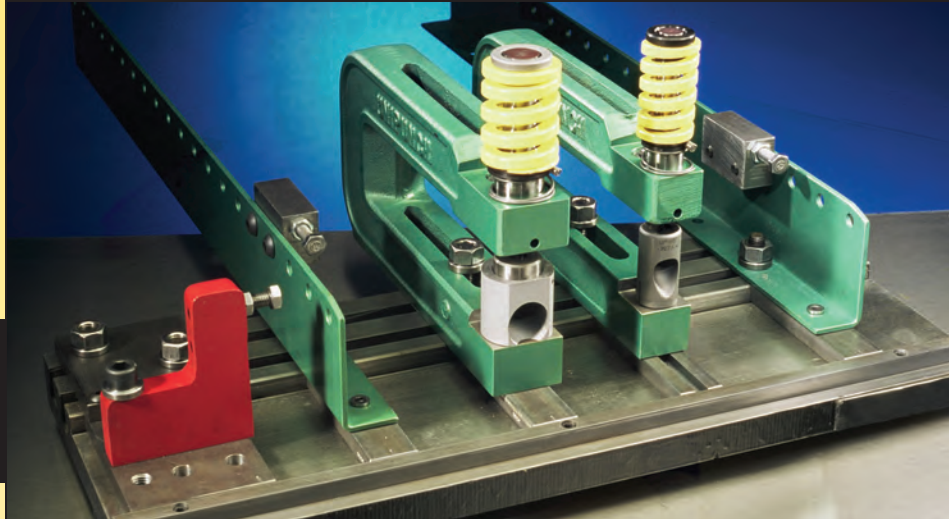
QUICK DIE CHANGE AND CLAMPING SYSTEM



A dovetail template is used in the UniPunch Quick Die Change and Clamping System so there is no need for external hold down clamps. Mount your dedicated setups on the dovetail style template. Then simply slide the template onto the UniPunch Quick Die Change System (part #5202 on page 12). Tighten the integrated front mounted clamps and begin making parts.

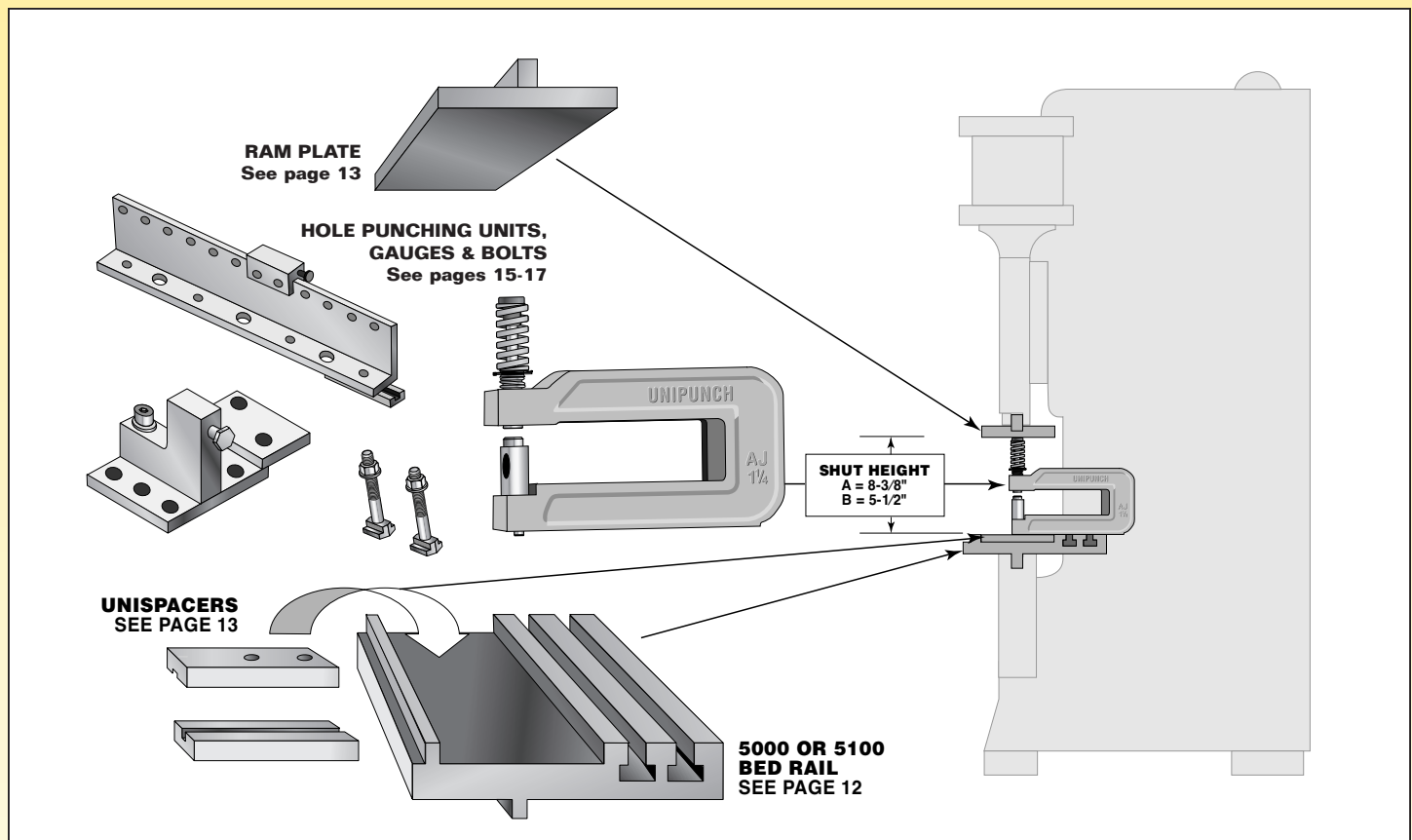
Creating Prototypes In Press Brakes

Unispacers fit into the recess in the Bed Rail and permit straight line punching of prototypes in flat metal, extrusions and structural shapes. If the preliminary hole locations change, Unispacers offer a quick and easy method to relocate the holes... simply reposition the Unispacers on the Bed Rail. For a staggered line of holes, use the slotted side of the Unispacer.



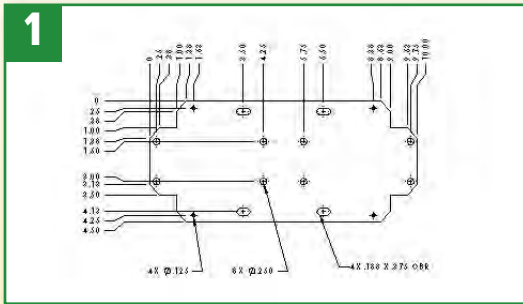
BED RAIL / UNISPACER METHOD

- For prototype or short run straight line punching applications with varying part lengths.
- Quick and easy set up and relocation of holes makes this a preferred mounting method.
- Unispacer fits into Bed Rail recess.
- Unispacer has two .376" diameter holes on one side to accept unit pilot pins and .376" slot on opposite side for unit front to back adjustment.



Mounting: The Basic Steps

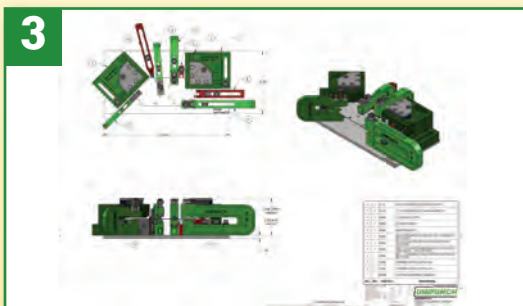
It's easy to start using UniPunch tooling. This overview demonstrates using the UniPunch modular system in a dedicated setup. Here's how...



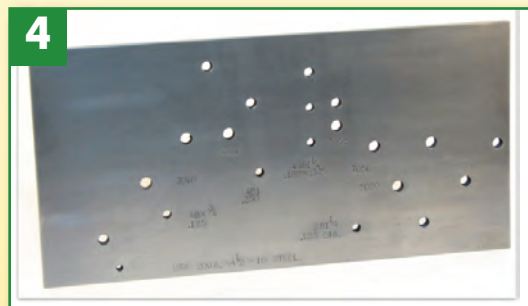
Start by sending us a drawing or sample part.



Based on your requirements, UniPunch will recommend appropriate tooling and gauging.



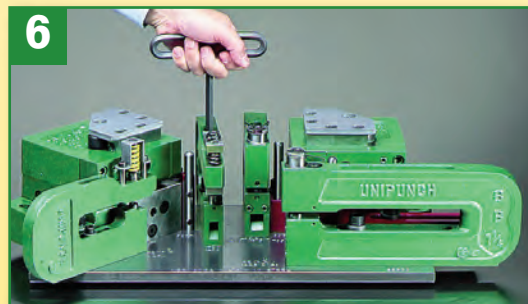
Once an order is placed, UniPunch will provide a layout drawing for your approval.



With your approval, UniPunch will manufacture the mounting template to precisely locate the holes according to your specifications.



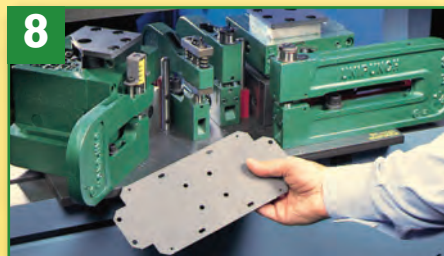
UniPunch will ship the appropriate tooling along with the template.



When you receive the tooling you will assemble the units on the template using the provided layout drawing.



Depending on the application, material can be hand fed (as shown) or fed off a coil.



You can punch and notch multiple holes with each stroke of the press.



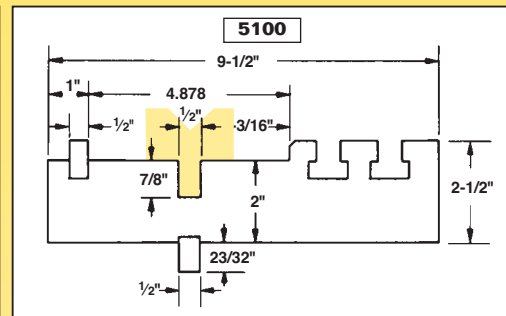
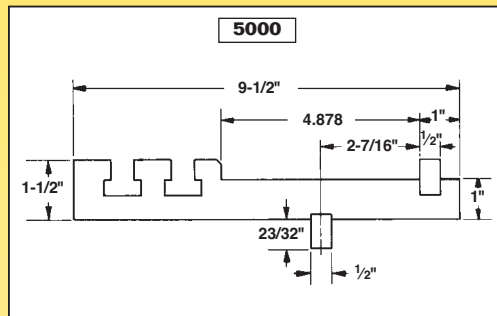
The tooling in the dedicated setup is assigned to the part for the life of the part. Here it is shown stored on a shelf, ready for the next time that part is required.

If the part is no longer required, the modular tooling can be disassembled and remounted on a new template for a different part.

Bed Rails and Template Mounting Plate

Bed Rails — Versatile means of mounting UniPunch modular A & B Series tooling and gauges on press brakes

- Mainly used for straight line punching within a $4\frac{7}{8}$ " (123.8mm) area front to back.
- Two styles available — 5000 & 5100 in lengths up to 12'.
- A Strip Template or Unispacer fits into recess area to support tooling. Units are positioned with pilot pins located in reamed holes and then bolted to T-slots at rear of Bed Rail.
- Style 5100 is available with a $\frac{1}{2}$ " (12.7mm) key slot in template recess area to accept a press brake bending die, allowing parts to be punched and brake-formed in same setup.



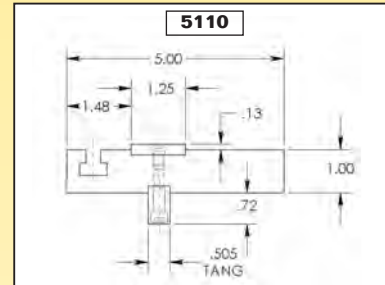
BED RAIL No. 5000		
Part No.	Length	Weight
5000-24	24"	70 lbs.
5000-48	48"	140 lbs.
5000-72	72"	210 lbs.
5000-96	96"	280 lbs.
5000-120	120"	350 lbs.
5000-144	144"	420 lbs.

BED RAIL No. 5100		
Part No.	Length	Weight
5100-24	24"	124 lbs.
5100-48	48"	248 lbs.
5100-72	72"	372 lbs.
5100-96	96"	496 lbs.
5100-120	120"	620 lbs.
5100-144	144"	744 lbs.

Bed Rails, G-Series — for mounting UniPunch modular single & triple spring G-Series tooling and end gauge on press.

The UniPunch 5110 Bed Rail is designed with one T-slot and a top mounted key that accurately positions the G-Series fixed base units for straight line punching or the G-Series adjustable base units for staggered hole patterns.

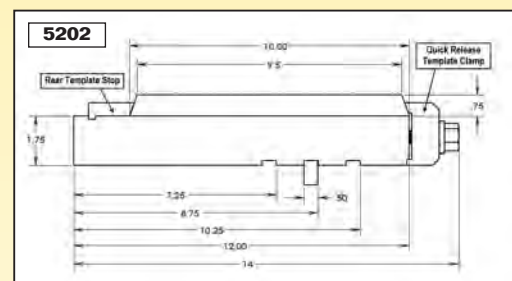
BED RAIL No. 5110		
Part No.	Length	Weight
5110-48	48"	92 lbs.
5110-72	72"	138 lbs.
5110-96	96"	184 lbs.
5110-120	120"	230 lbs.
5110-144	144"	276 lbs.



Template Mounting Plate — for mounting the UniPunch Quick Die Change dovetail template on press brakes.

The UniPunch 5202 Quick Die Change template mounting system is designed as a universal press platform for reducing set up time during part changeover. Simply slide the template onto the template mounting base engaging the rear stops, tighten the front clamps and begin producing parts.

BED RAIL No. 5202		
Part No.	Length	Weight
5202-24	24"	146 lbs.
5202-48	48"	292 lbs.
5202-72	72"	438 lbs.
5202-96	96"	584 lbs.
5202-120	120"	730 lbs.
5202-144	144"	876 lbs.



Unispacers, Keyed Mounting Templates and Ram Plates

Unispacers

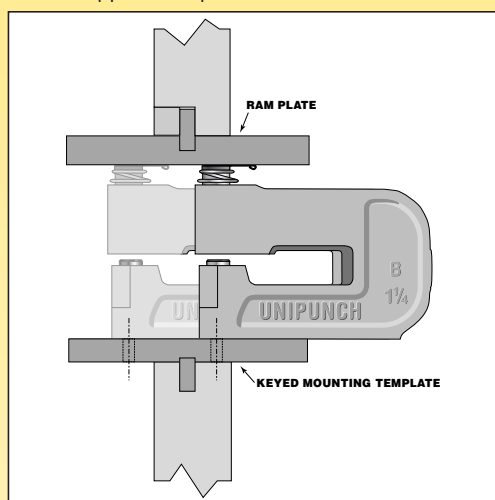
- Unispacers fit into the recess in the 5000 & 5100 Bed Rails for punching holes in prototype parts. The second hole in the Unispacer aligns units for shaped hole punching.
- For staggered hole patterns, Unispacers are turned over and unit pilot pins are inserted in the slot.

UNISPACERS	
Part No.	For Use With Units
5060	Up to 1" wide
5061	1 ¼" to 2" wide
5062	2 ¼" to 3" wide
5067	3 ½" wide
5069	4" wide
5068	5" wide
5064	5 x 5 Notching Units



Keyed Mounting Templates — Used to support and position UniPunch modular tooling and gauges within a press brake.

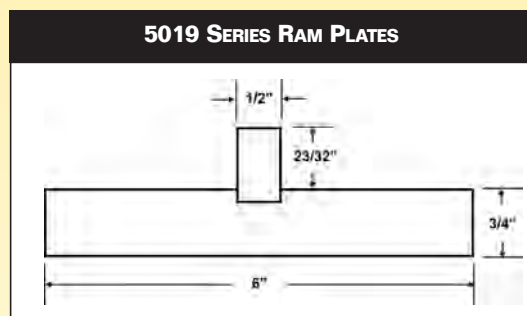
- Typically made from ¾" (19mm) HRS. CRS or Aluminum are made upon request. Other template thicknesses are available upon request.
- Drilled and reamed holes are in precise locations of the part to be punched.
- For pricing of all templates, contact the UniPunch Sales Department.



Keyed Mounting Templates are supplied with press brake key in bottom.

MOUNTING

Ram Plates — Provide additional ram area for staggered hole patterns.

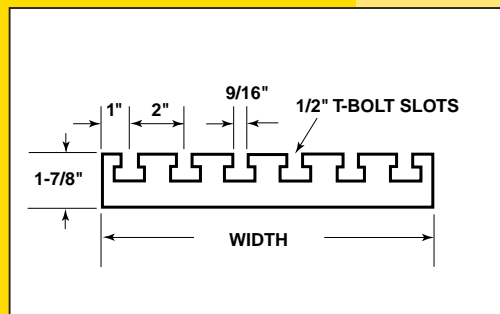


5019 SERIES RAM PLATES		
Part No.	Length	Weight
5019-24	24"	33 lbs.
5019-48	48"	66 lbs.
5019-72	72"	96 lbs.
5019-96	96"	128 lbs.
5019-120	120"	160 lbs.
5019-144	144"	192 lbs.

For custom designed Ram Plates, contact the UniPunch Sales Department.

T-Slotted Plates and Universal Base Plates

T-Slotted Plates — Used to mount modular tooling and gauges in punch presses or stamping presses.



First two digits of part number indicate the width and the last two (or three) digits indicate the length.

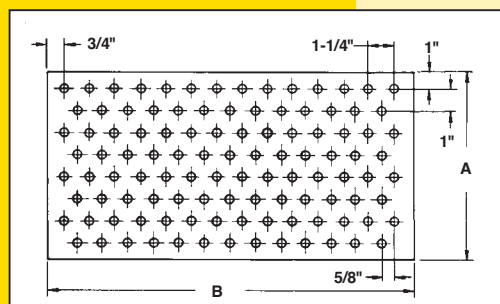
T-Slotted Plates, other than sizes shown, are available upon request. Contact the UniPunch Sales Department.

PP SERIES T-SLOTTED PLATES

Part No.	Weight
PP-1248	220
PP-1272	330
PP-12108	495
PP-12120	550
PP-12144	660
PP-1848	320
PP-1872	480
PP-18108	719
PP-18120	799
PP-18144	959
PP-2436	321
PP-2448	428
PP-2472	642
PP-24108	962
PP-24120	1069
PP-24144	1284
PP-3036	405
PP-3048	540
PP-3072	810
PP-30108	1215
PP-30120	1350
PP-30144	1620

- Can be used in press brakes with angle support brackets. A 1/2" (12.7mm) mounting key is available upon request.
- Standard widths from 12" (304.8mm) to 30" (762mm).

Universal Base Plates — Made of 3/4" (19.05mm) thick steel plate and completely covered with uniform pattern of 1/2"-13 tapped holes for bolting units in position.



First two digits of part number indicate the width "A" and the last two or three digits indicate the length "B". Special sizes made to order.

Special order Universal Base Plates can be made from aluminum tooling plate.

Universal Base Plates, other than sizes shown, are available upon request. For pricing, contact the UniPunch Sales Department.

UB SERIES UNIVERSAL BASE PLATES

Part No.	Part No.
UB-1224	UB-1872
UB-1236	UB-2424
UB-1248	UB-2436
UB-1260	UB-2448
UB-1272	UB-2460
UB-1824	UB-2472
UB-1836	UB-3036
UB-1848	UB-3048
UB-1860	UB-3060

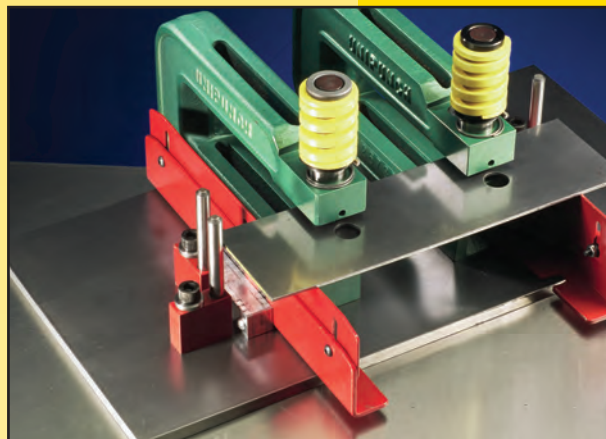
- Light weight for easier handling and storage.
- Ideal for short runs of small and medium sized parts.
- Standard widths from 12" (304.8mm) to 30" (762mm).

Mounting Accessories

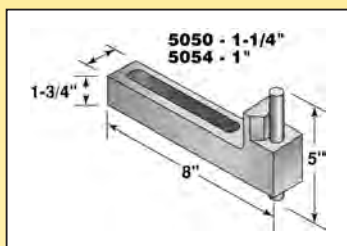
UniPunch offers a variety of mounting accessories, gauges (stops), part supports (feed rails), wrenches and hold down bolts to provide fast and easy assembly of modular tooling. The mounting accessories you will require depends on the mounting method you select and the type of part being punched.



Typical 3-pin gauging Template Mounting



Complete Setup with Accessories

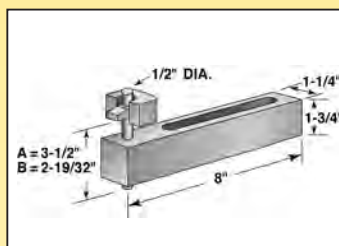


UNIVERSAL STOPS

Description	Part No.
Universal Stop (1 1/4" Wide)	5050
Universal Stop (1" Wide)	5054



For use with template or T-Slotted Plate mounting setups with either 'A' or 'B' Series Units.
A built in screw adjustment for variations in stock dimensions may be used by removing gauge pin and gauging against screw.

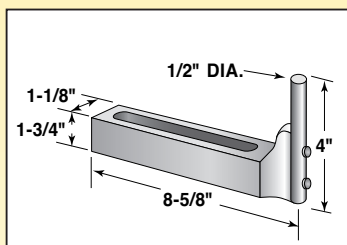


MAGNETIC STOPS

Description	Part No.
Magnetic Stop	5088
Magnet Only	5083



For template, T-slotted plate and Bed Rail mounting setups, these Magnetic Stops insure accurate gauging of all work pieces. The part is magnetically held, eliminating the necessity for the operator to hold the part against the stop.

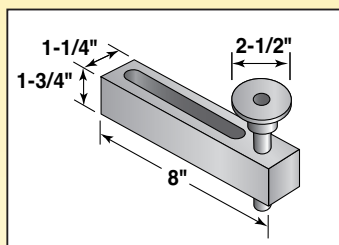


CLOSE EDGE STOPS

Part. No.
5084

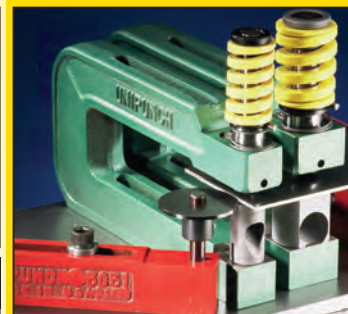


Close Edge Stops allow units to be set closer together and still have room for gauges.



CLOSE EDGE STOPS (DISC)

Description	Part. No.
Complete Ass'y	5099
Disc Only	5103

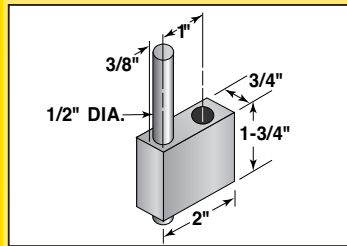


Disc Gauge allows work piece to be gauged inside a holder close to die. Disc can be adjusted to 'A' or 'B' Series die heights.

Mounting Accessories

DOWEL PIN STOPS

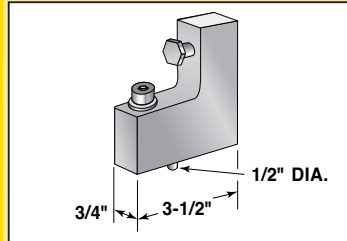
Description	Part No.
A & B Series	5055



This economical stop is designed for use with 'A' or 'B' Series units on template mounting.

ADJUSTABLE STOPS

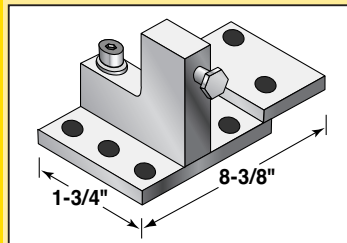
Description	Part No.
A Series	5092
B Series	5052



Adjustable Stop has an adjustment screw for quick compensation of various work piece sizes.

ADJUSTABLE END STOPS AND SPACER ASSEMBLY

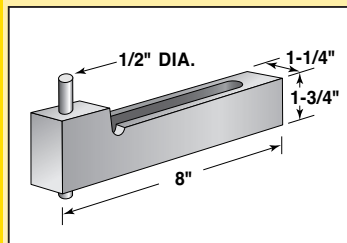
Description	Part No.
A Series	5135
B Series	5125



These End Stops are adjustable front-to-back in three positions on Unispacer.

DISAPPEARING PIN STOPS

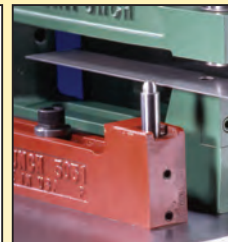
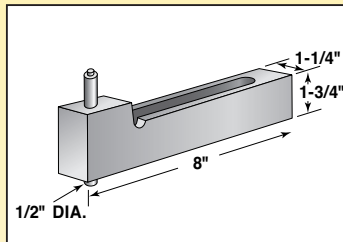
Description	Part No.
A Series	5048
B Series	5044



Disappearing Pin Stops are spring loaded and are used for edge and end gauging in progressive operations.

PICKUP GAUGES — FIXED (1 1/4\"/>

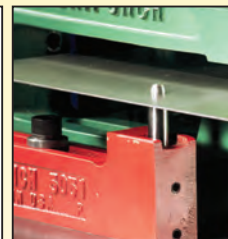
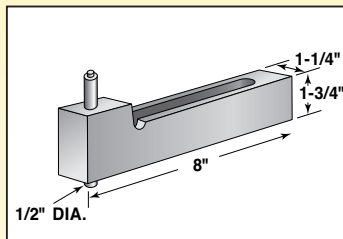
Description	Part No.	Part No.
Gauge for 1/2" Dia. & Under	5056-1	5058-1
Replacement Tip for Above	5057-1	5059-1
Gauge for Over 1/2" Dia.	5056-2	5058-2
Replacement Tip for Above	5057-2	5059-2



Specify hole size when ordering gauges. UniPunch stationary Pickup gauges are used to engage previously punched holes. Designed specially for pass-along multiple hit operations.

PICKUP GAUGES — SPRG. LD. (1 1/4\"/>

Description	Part No.	Part No.
Gauge for 1/2" Dia. & Under	5046-1	5042-1
Replacement Tip for Above	5047-1	5043-1
Gauge for Over 1/2" Dia.	5046-2	5042-2
Replacement Tip for Above	5047-2	5043-2



Specify hole size when ordering gauges. This UniPunch gauge is used in operations requiring retractable pickup pins, such as multiple hit setups.