If it's important to you, it's important to us Find out how our attention to details forms the basis for your success.



R-K Press Brake Dies, Inc.

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For more than 30 years, leading sheet metal
fabricators have looked to R-K Press Brake Dies
for precision die design and tooling. Customers
specify our products because we offer the
combination of technical expertise, customer
service and product performance that exceeds
expectations.

You, too, can count on R-K Press to provide the tools that form your success. Here's why:

- We deliver outstanding customer service.
- You'll find that R-K Press creates customer value that goes beyond competitive pricing.
- We create effective and cost-efficient customized solutions for special applications.
- Unlike most competitors, we have a dedicated team of sales engineers to handle custom requests.
- Additionally, our service desk provides ongoing customer support when it's needed.

Whether you're ready to place an order now or you need advice to handle a more specialized need, contact your authorized R-K Press distributor or call us directly at 708-371-1756.

Let us show you how R-K Press can form the basis for your success.

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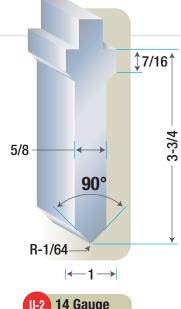


#### **Punches and Dies** Forming

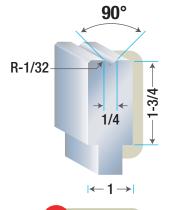
#### 90° Forming Punches and Dies

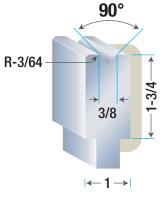
These punches and dies are the most widely used to form 90° and greater bends. By adjusting the ram, the depth of punch travel can be regulated to produce the desired angle of bend. The U-2 punch is used to form longer return bends; in addition the width of the U-2 punch is narrowed to form a short flange.

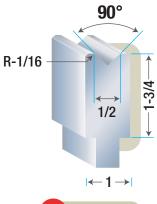
- Punches and dies are available from stock.
- Can be used for air bending or bottom bending.
- Can be modified to a special angle or radius.
- Can be sectionalized to fit your needs.
- Used for forming 10-gauge and lighter material.

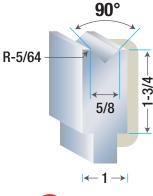


14 Gauge









22 Gauge

18 Gauge

16 Gauge

14 Gauge

**R-K Press Brake Dies can provide** tooling for any model press brake.

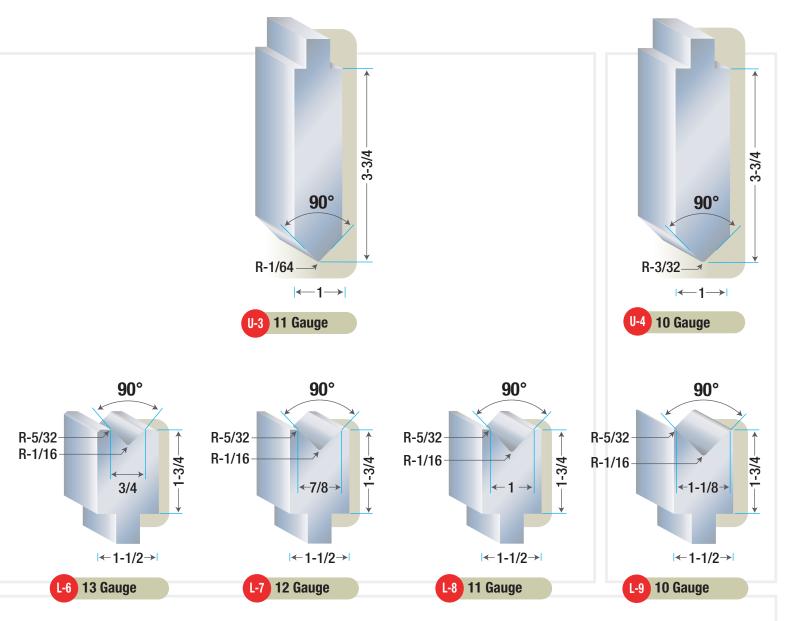














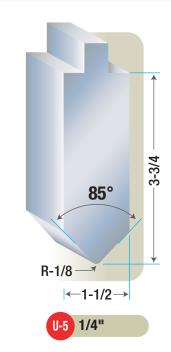


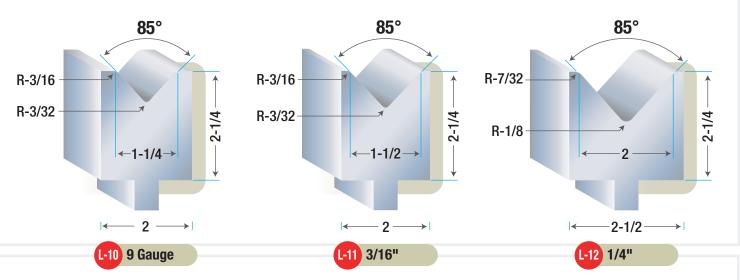
## 90° Forming Punches and Dies

#### 90° Forming Punches and Dies

These punches and dies are used for air bending heavier gauges of material. Air bending will minimize the press brake load and material fracture.

- Punches and dies are available from stock.
- Can be modified to a special angle or radius.
- Can be sectionalized to fit your needs.
- Used for forming 9-gauge and heavier material.





R-K Press Brake Dies can provide tooling for any model press brake.

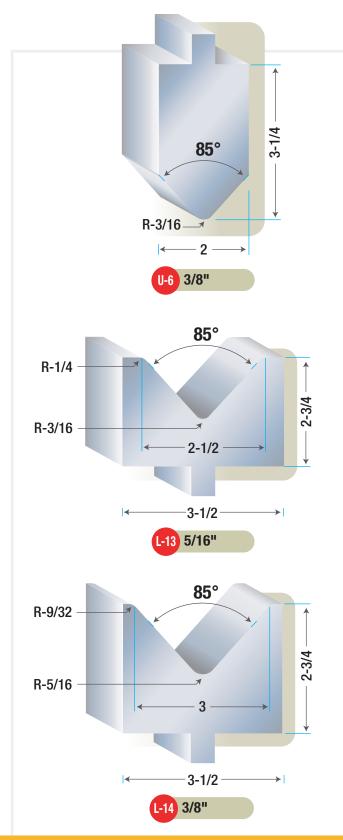


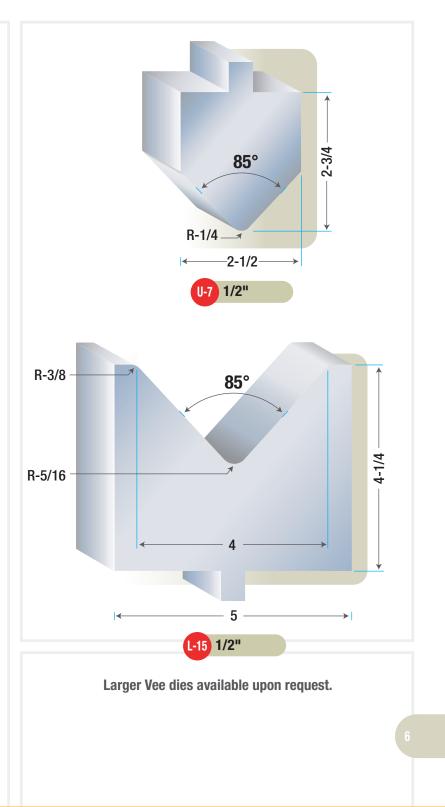














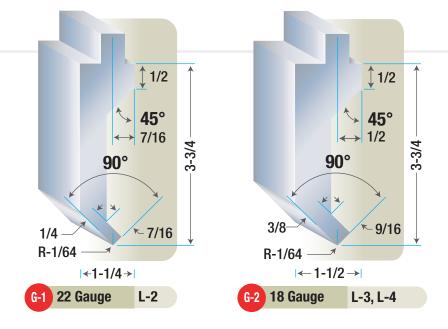


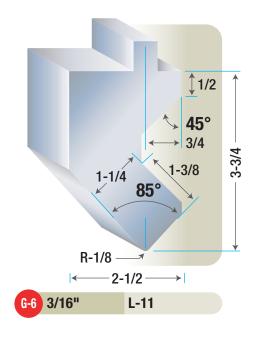
# **Gooseneck Punches**

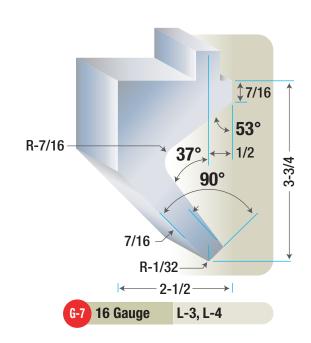
#### **Gooseneck Punches**

Gooseneck punches are used to form a channel in two strokes of the press brake. In addition special shapes where 90° punch would interfere can also be formed. The Gooseneck punches G-6, G-7, G-8, G-9 are cut back beyond centerline allowing longer return flanges. Because of the taper on the inside of the Gooseneck the width of the channel must be increased.

- Punches and dies are available from stock.
- Use to form a channel in two strokes of the press brake.
- Can be used for all air bending or bottom bending.
- Can be modified to a spial angle or radius.
- Can be sectionalized to fit your needs.







R-K Press Brake Dies can provide tooling for any model press brake.







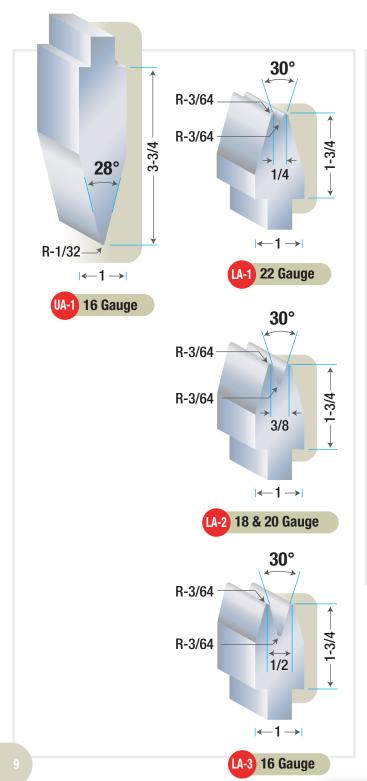


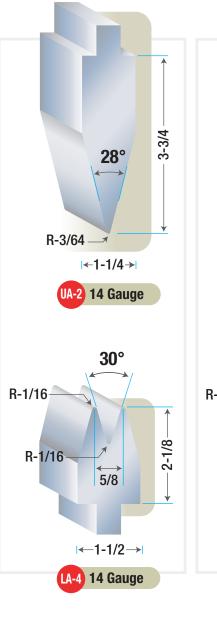


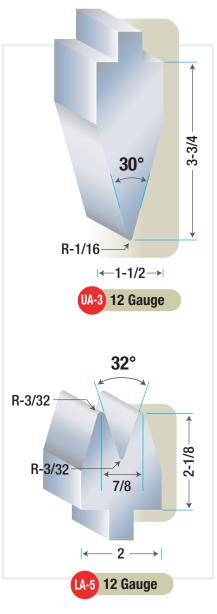




### 30° Forming Punches and Dies







R-K Press Brake Dies can provide tooling for any model press brake.

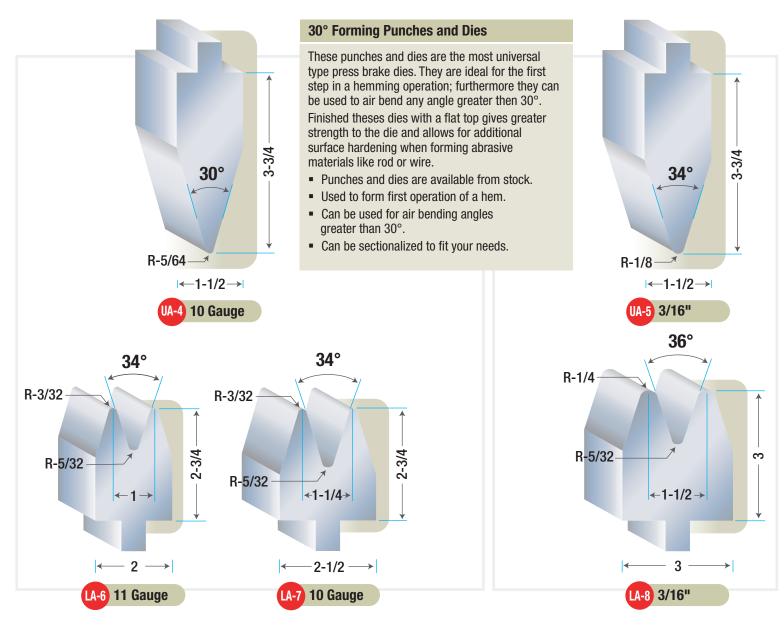














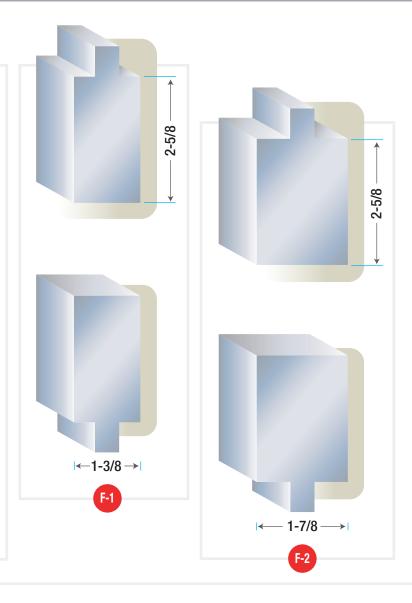


## Flattening Dies

#### **Flattening Dies**

Flattening dies are used in the final operation to close a teardrop hem or crused hem.

- Punches and dies are available from stock.
- Used to form an open or closed hem.
- Used to close a standing seam.
- Can be sectionalized to fit your needs.



R-K Press Brake Dies can provide tooling for any model press brake.

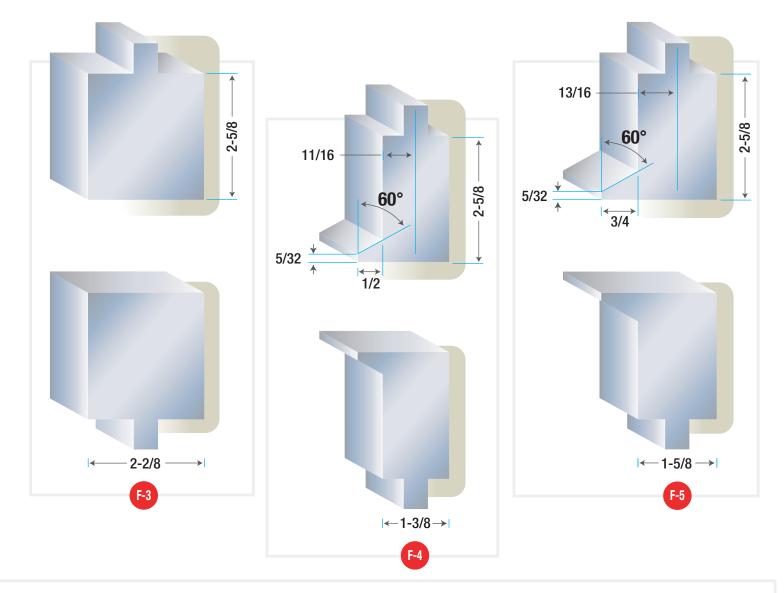












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Our customers demand quality, service and innovation. We deliver even more:

- Competitive pricing
- 30-foot capacity machines
- Fast & personal technical assistance
- Immediate availability on standard sets
- Customized solutions for special applications
- Large inventory of standard and specialized American punches and dies
- Specialized European and Wila style tooling
- Reliable delivery you can count on every time

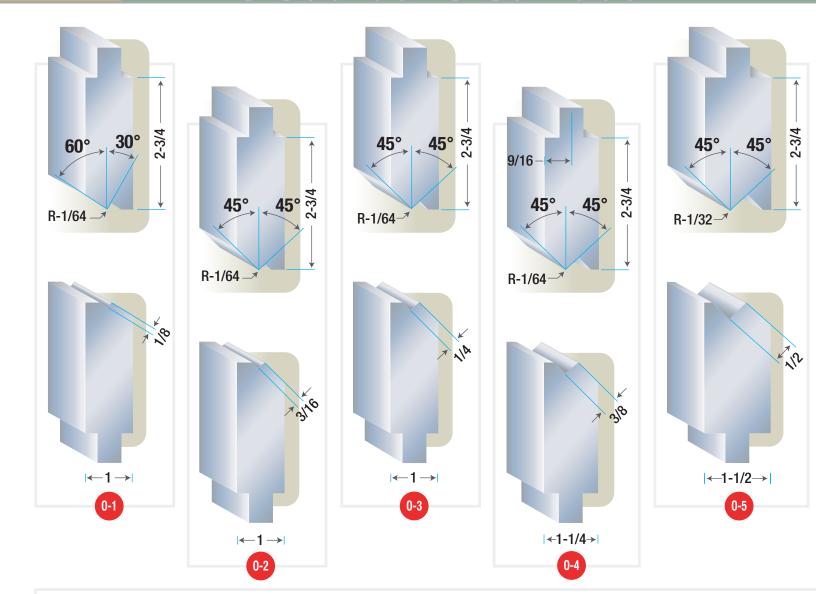
R-K Press Brake Dies, Inc.

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## Offset Forming Dies



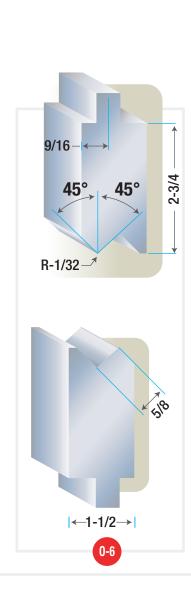
R-K Press Brake Dies can provide tooling for any model press brake.

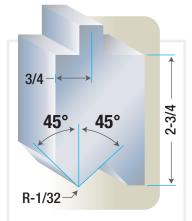


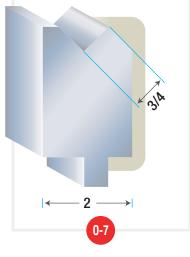


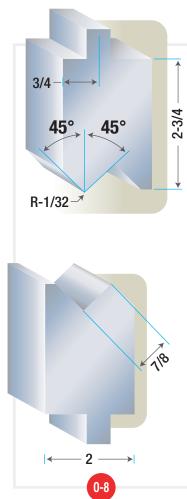


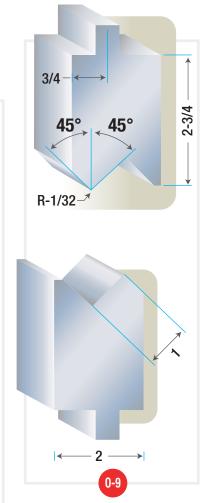












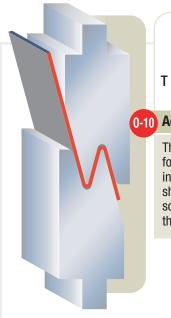
#### **Offset Forming Die Sets**

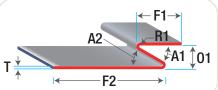
These offset die sets are used to form two bends in one stroke in 16-gauge and lighter material. If press brake capacity permits heavier gauges of material can be formed.

- Die sets available form stock.
- Can be used for air bending or bottom bending.



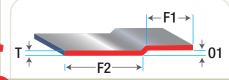
### Offset Forming Dies





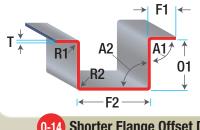
#### 0-10 Acute Offset Die Set

The 0-10 die set is used to form an acute-angle offset in one stroke. Whip-up should be a consideration so the sheet does not hit the ram of the press brake.



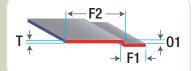
#### 0-11 Material Thickness Offset Die Set

The 0-11 die set is used to form a material thickness offset. In addition large radii and additional clearance help keep tonnage requirements to a minimum.



#### 0-14 Shorter Flange Offset Die Set

The 0-14 die set is used when the flange is considerable shorter than the offset being formed. The forming angle is tipped to reduce size of Vee opening and prevent bowing of offset web. The gauging is more accurate with this type of die set rather than the general purpose offset dies.



#### **Material Thickness Offset Die Set**

The 0-15 die set is used to form a material thickness offset.

The leader on the back side of the die limits the distance of the offset form the edge of the sheet; however the leader is needed to prevent spreading and to keep the dies in line.

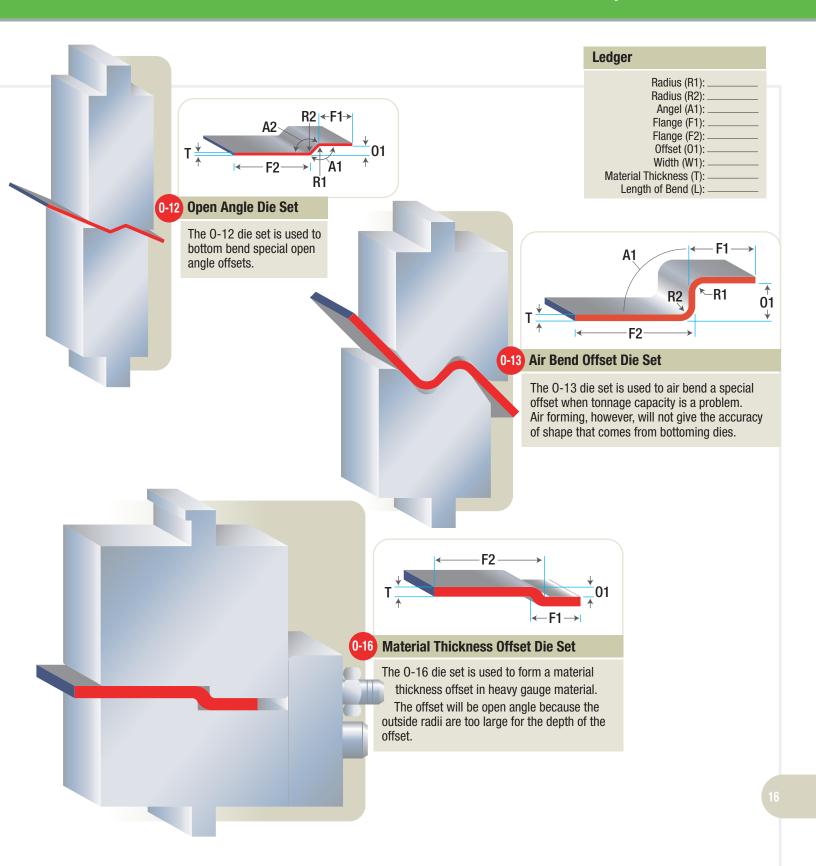
**R-K Press Brake Dies can provide** tooling for any model press brake.













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# **Hemming Dies**



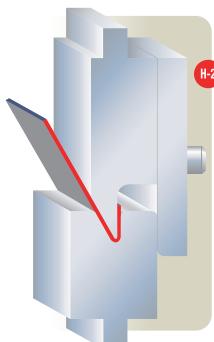
#### H-1 Hemming Die Set

Is a low cost hemming die set that forms a teardrop or an open hem in a single handling without die change or adjustment.

The greatest length of fold-over is 2 inches. In the closing operation, the material must be tilted and held high enough in the die to enable the punch point to pass the bend edge formed previously.

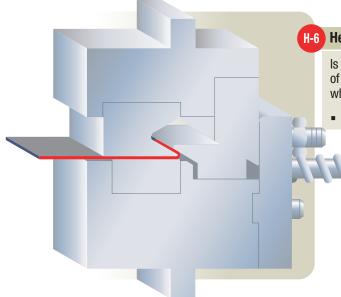
A slight bow in the length of the sheet can be anticipated.

 Used for 18-gauge and lighter material.



#### H-2 Hemming Die Set

 Used for 16-gauge and heavier material.



#### H-6 Hemming Die Set

Is a combination set that eliminates whip-up of the material. This curbs operator fatigue which is an important safety fac tor.

Used for 18-gauge and lighter material.

R-K Press Brake Dies can provide tooling for any model press brake.



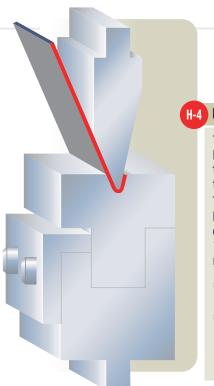






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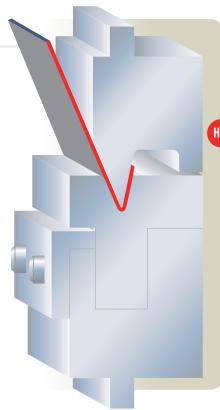
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#### H-4 Hemming Die Set

The H-4 hemming die set bends an acute angle in the upper level and closes the hem in the lower level. The closing operation may be shimmed to form an open or closed hem in 18-gauge and lighter material.

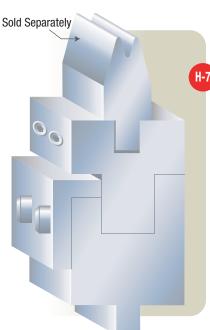
- Used for 18-gauge and lighter material.
- Closing operation is adjustable for forming open or closed hems.



#### H-5 Hemming Die Set

The H-5 hemming die set bends an acute angle in the upper level and closes the hem in the lower level. The closing operation may be shimmed to form an open or closed hem in 14-gauge and heavier material.

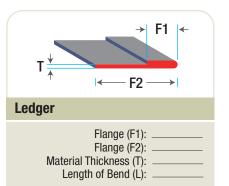
 Used for 14-gauge and heavier material.



#### H-7 Hemming Die Set

The H-7 die set allows for a standard acute die set to be used as shown for hemming; In addition the middle section can be locked in the closed position emulating a standard die holder.

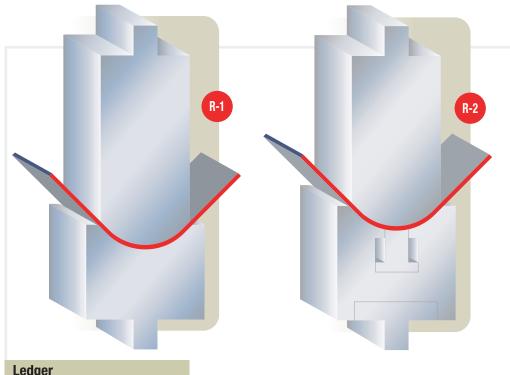
- Closing operation is adjustable for forming open or closed hems.
- The middle section can be locked in the closed position and used as a standard die holder.

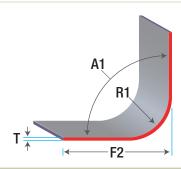


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## Radius Dies





#### R-1 Radius Die Set

Springback will occur and must be compensated for when a radius exceeds four times the thickness of material being formed. As the radius increases more overbend must be made to get the proper formed radius. Radius die sets are typical fitted for one gauge and type of material.

#### **Radius Die Set**

The R-2 contains a spring-pad in the die that keeps kinking to a minimum and offers better results when lighter gauge materials are used.

# R1

#### R-5 Bump Form Radius Die Set

The R-5 die set is used for forming a radius starting lip when a rolling process is required. The R-5 die set can also be used to bump different radii in a range of material. By adjusting to distance between bends lager radii can be bump formed.

#### Ledger

Radius (R1): Radius (R2): Angel (A1): Flange (F1): Flange (F2): Offset (01): Width (W1):

Material Thickness (T):

Length of Bend (L):

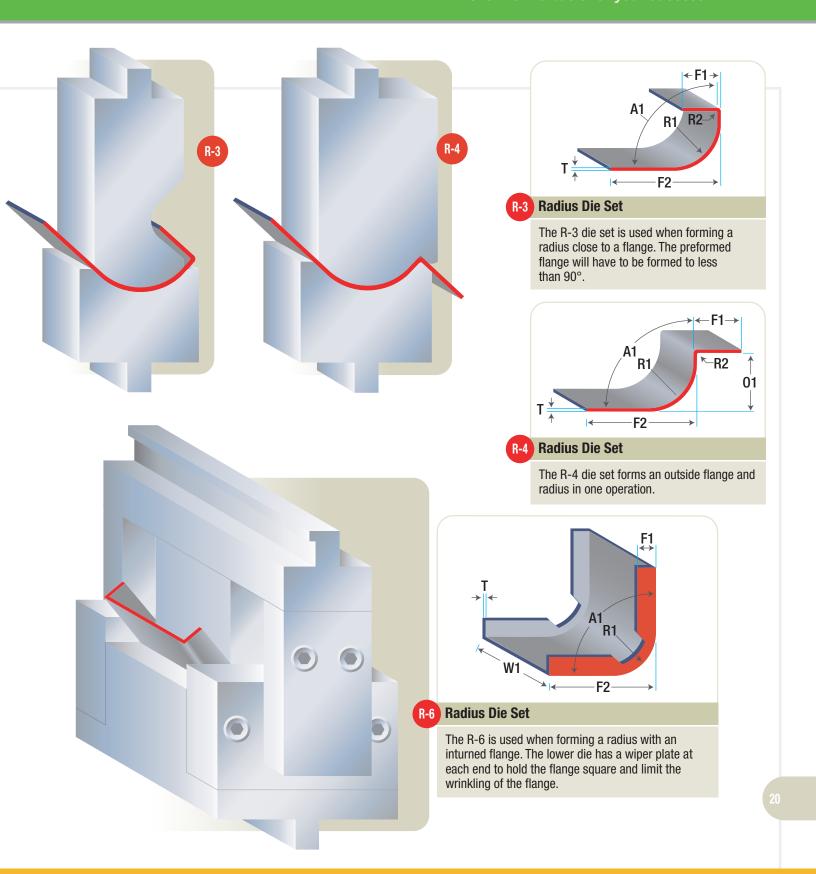
**R-K Press Brake Dies can provide** tooling for any model press brake.











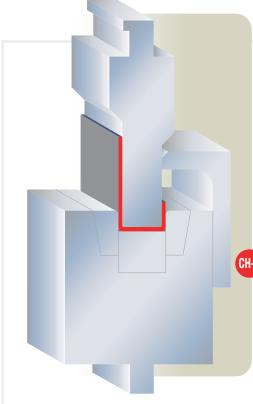
**Providing Tools To** 

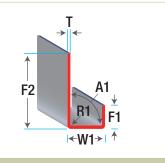
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# Channel Dies





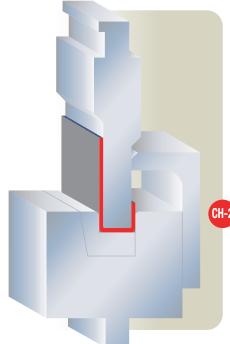


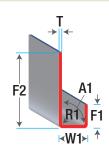
#### CH-1 Channel Die Set

Flatness of channels can be obtained in the CH-1 with constant pressure from a spring-loaded pad.

### Ledger

Radius (R1): \_\_\_\_\_\_\_ Angel (A1): \_\_\_\_\_\_ Flange (F1): \_\_\_\_\_\_ Flange (F2): \_\_\_\_\_\_ Width (W1): \_\_\_\_\_ Material Thickness (T): \_\_\_\_\_ Length of Bend (L): \_\_\_\_\_





#### CH-2 Channel Die Set

The CH-2 is used when the width of the channel being formed does not permit a spring pad in the die.

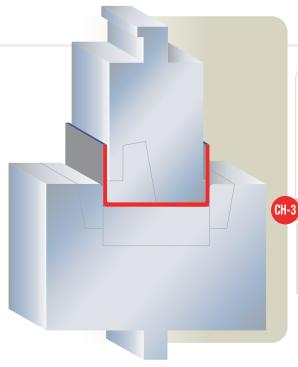
R-K Press Brake Dies can provide tooling for any model press brake.

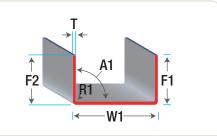






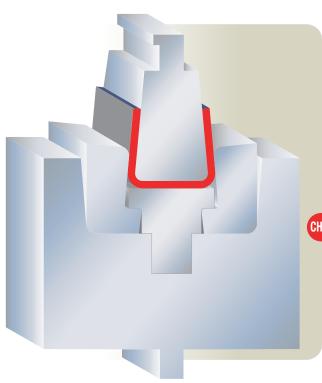


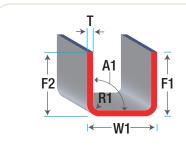




#### **CH-3** Channel Die Set

The CH-3 die set produces an accurate channel with consistency due to a spring pressure pad. Part removal is made easier by release wedges on the punch and die.





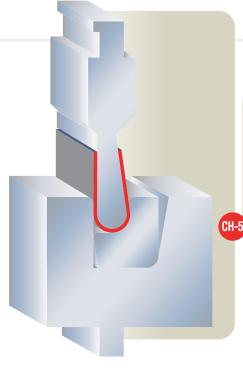
#### CH-4 Channel Die Set

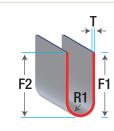
The CH-4 rocker channel die set is utilized when a particular stock or excessive radii are required. This die set produces the given amount of overbend required to make the legs parallel.



# Channel Dies

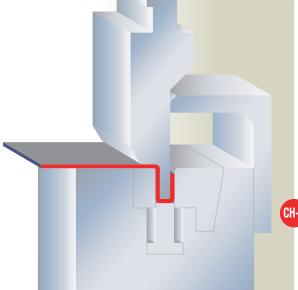


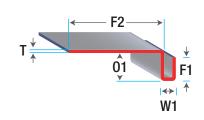




#### CH-5 Radius Channel Die Set

The CH-5 die set is designed for radius channels where overbend is built into the punch and die to compensate for springback.





#### CH-6 Semi-Hat Channel Die Set

The CH-6 die set forms a semi-hat channel at the edge of a sheet. The release wedge in the die and hook stripper assures positive part removal.

Ledger

Radius (R1):

Angel (A1): Flange (F1):

Flange (F2):

Offset (01):

Width (W1):

Material Thickness (T): Length of Bend (L):

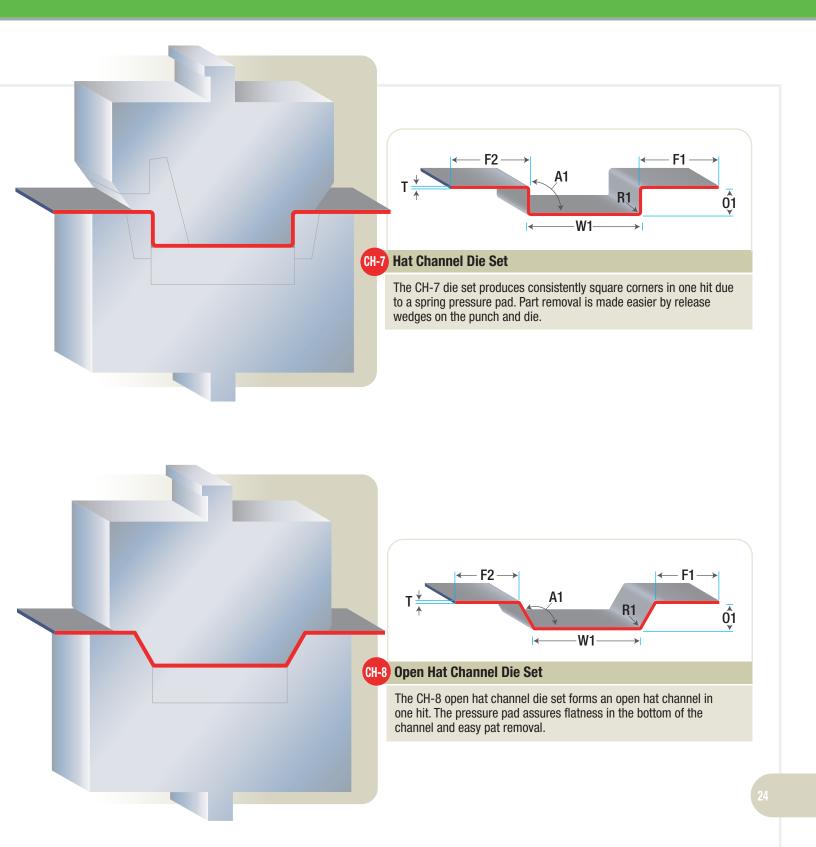
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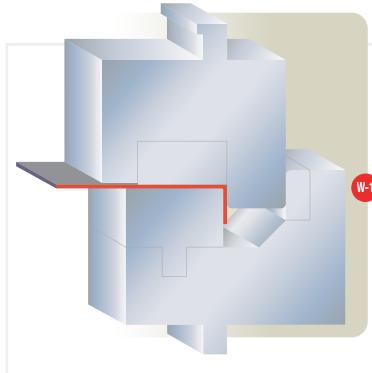


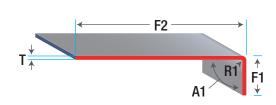








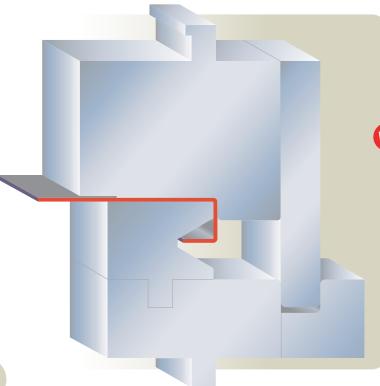


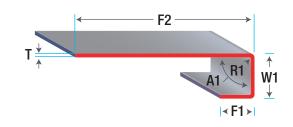


#### W-1 Wiping Die Set

The W-1 wiping die set produces a flange via a wiping action.

- The sheet is positioned horizontally and eliminates part whip up.
- Shimming an insert at the back of the die will adjust the small variations in material thickness.
- When forming on three or four sides the forming insert can be sectionalized for varying panel lengths.





#### W-3 Wiping Die Set

The die set W-3 produces an edge channel in two strokes. The sheet is positioned horizontally on the die and located against the back gauge for producing the second bend on the following stroke.

- The bends are formed down and eliminating whip up.
- Shimming an insert at the back of the die will adjust the small variations in material thickness.
- When forming on three or four sides the forming insert can be sectionalized for varying panel lengths.
- Over bend can be built into the die set to compensate for spring back in heavier materials.

R-K Press Brake Dies can provide tooling for any model press brake.



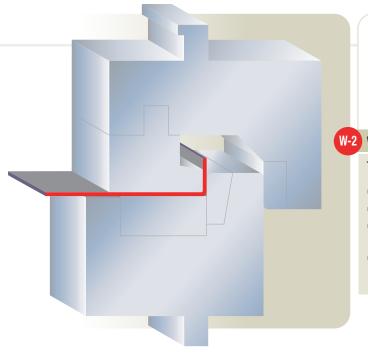


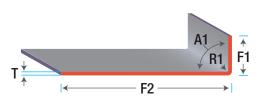




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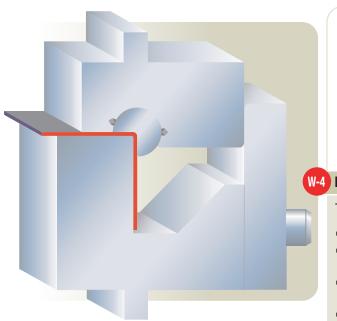


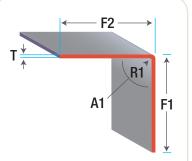


#### W-2 Wiping Die Set

The W-2 wiping die set produces a flange via a wiping action

- The sheet is positioned horizontally and eliminates part whip up.
- The spring pressure pad aids in easy part removal.
- Shimming an insert at the back of the die will adjust the small variations material thickness.
- When forming on three or four sides the forming insert can be sectionalized for varying panel lengths.





Ledger	
An Flai Flai	\ /

#### **N-4** Rotary Die Set

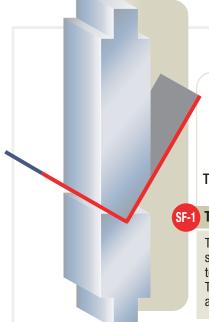
The W-4 iping die set produces a flange via a rotary wiping action

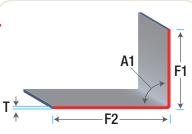
- The sheet is positioned horizontally and eliminates part whip up.
- Shimming the leader on the backside of the die will adjust the small variations in material thickness.
- When forming on three or four sides the W-4 can be designed with a sectionalized forming insert for varying panel lengths.
- Requires 30% less tonnage then other wiping dies.
- Over bend can be built into the die set to compensate for spring back in heavier materials.





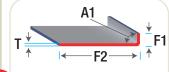
# Tipped Angle Dies





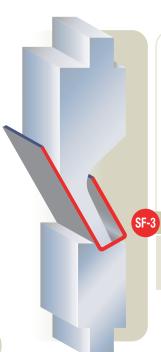
#### SF-1 Tipped Angle Die Set

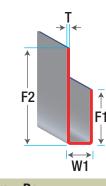
The SF-1 die set is used to minimize sheet whip up and provides clearance to the ram when forming a deep box. This die set is limited to 18-gauge and lighter material.



#### SF-2 Short Flame Die Set

The SF-2 die set is used to form a short flange that cannot be formed over a standard Vee die.





#### SF-3 Narrow Box

The SF-3 die set is used to form a narrow channel having a longer return flange.

27

R-K Press Brake Dies can provide tooling for any model press brake.

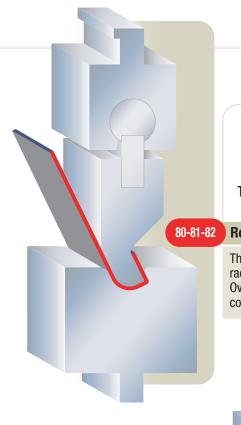


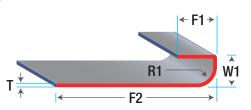






# Rocker Dies Charles



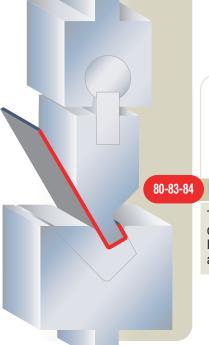


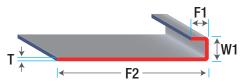
#### Rocker Die Set

The 80-81-82 rocker die set is used to form a radius and a return flange in a single stroke. Over bend can be built into the die set to compensate for spring back.

#### Ledger

Radius (R1): \_\_\_\_\_\_\_
Angel (A1): \_\_\_\_\_\_
Flange (F1): \_\_\_\_\_
Flange (F2): \_\_\_\_\_
Width (W1): \_\_\_\_
Material Thickness (T): \_\_\_\_\_
Length of Bend (L): \_\_\_\_\_





#### **Rocker Die Set**

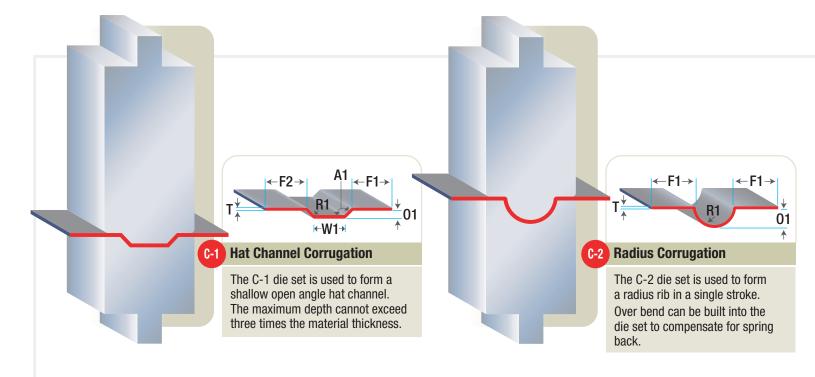
The 80-81-82 rocker die set is used to form a channel in a single stroke when the flange is too long to be formed in a conventional channel die set and would hit the ram of the press brake.

28



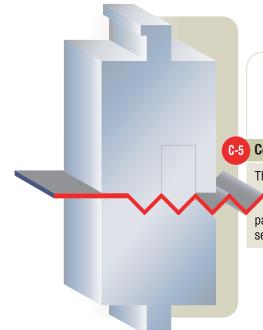


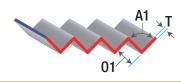
# **Corrugation Dies**





Radius (R1): Radius (R2): Angel (A1): Flange (F1): Flange (F2): Offset (01): Width (W1): Material Thickness (T): Length of Bend (L):





#### C-5 Corrugation Die Set

The C-5 die set is used to form continuous corrugations in a sheet. After the first operation the spring loaded pressure pad locates the sheet and becomes self-gauging.

**R-K Press Brake Dies can provide** tooling for any model press brake.

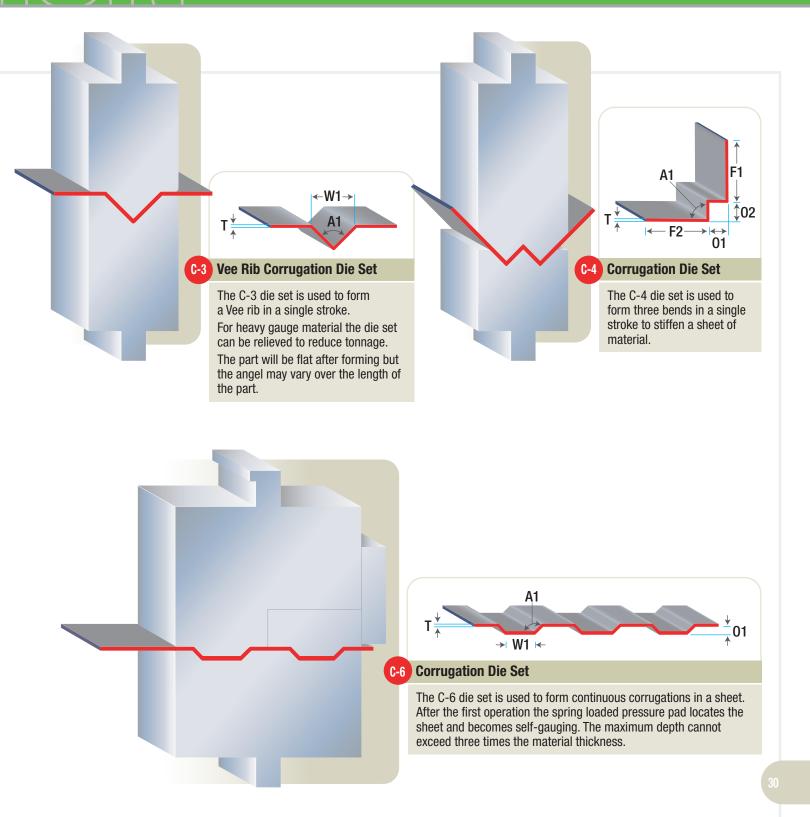








If it's important to you, it's important to us. Find out how our attention to details forms the basis for your success.

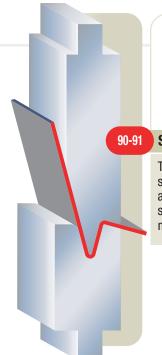


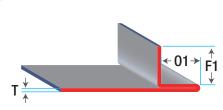
**Providing Tools To** 

Form Your Success



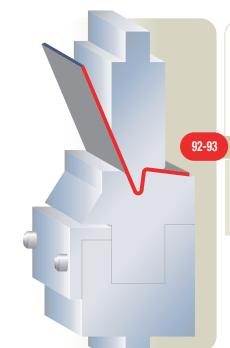
# Standing Seam Dies

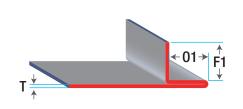




#### **Standing Seam Die Set**

The 90-91 die set forms the first operation of a standing seam. A standrad flattening die set such as the F-4 or F-5 would be used to close the standing seam. The die sets can be made with matched shut heights for progressive forming.





#### **Standing Seam Die Set**

The 92-93 standing seam die set forms a standing seam in two strokes. The first operation forms an acute and  $90^{\circ}$  bend that is closed in the second operation in the lower section of the die.

#### Ledger

Flange (F1): \_

Offset (01):

Material Thickness (T):

Length of Bend (L): -

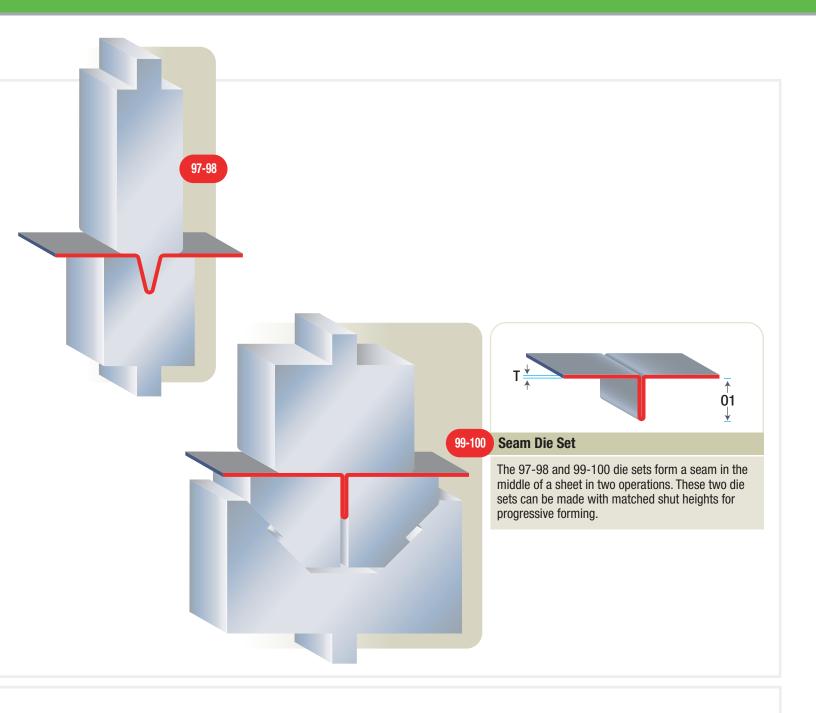
R-K Press Brake Dies can provide tooling for any model press brake.









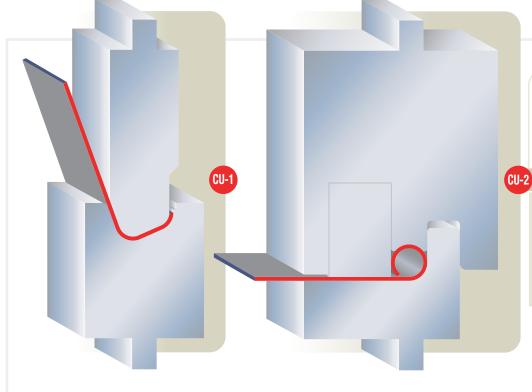


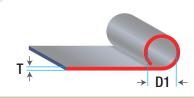
R-K Press has the perfect form for success with it's quality, price, and service. You can be assured that you are getting precision die design and tooling each and every time. Let us prove our claim!

Providing Tools To Form Your Success



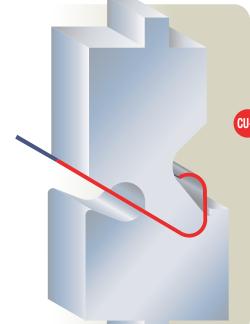
# Curling Dies

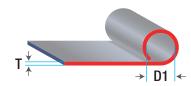




#### **CU-2** Curling Die Set

The CU-1and CU-2 curling dies sets when used in combination with each other form the tightest, most accurate off-center curl available in two press strokes. For progressive forming the die sets can be made with matched shut heights.





#### CU-4 Curling Die Set

The CU-4 curling die set forms a complete off-center curl in three operations. Whip-up is kept to minimum because of the small angle involved as the material travels through the first two operations. When forming heavier materials, a leader can be added to the backside of the punch which keeps the punch and die form spreading.

#### Ledger

Diameter (D1): \_\_\_\_\_ Material Thickness (T): \_\_\_\_ Length of Bend (L): \_\_\_\_

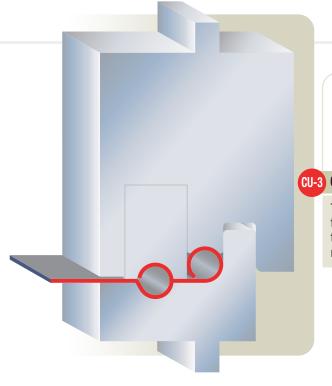
R-K Press Brake Dies can provide tooling for any model press brake.

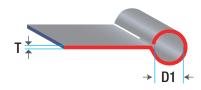






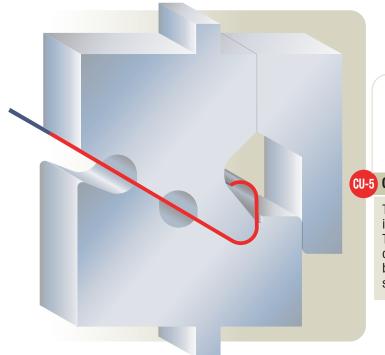


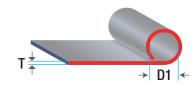




#### **CU-3** Curling Die Set

The CU-1 and CU-3 curling die sets form an off-center curl in three stokes or an on-center curl in three strokes. To maintain the diameter of the curl the part should be closed over a mandrel in the third operation.





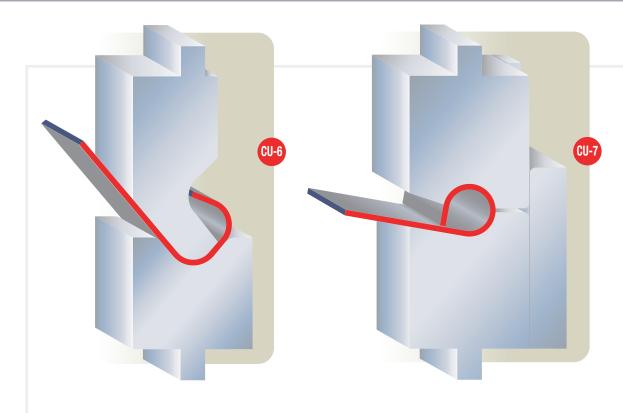
#### CU-5 Curling Die Set

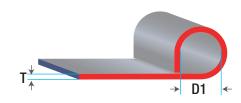
The CU-5 curling die set forms a complete off-center curl in three operations or an on-center curl in four operations. To maintain the diameter of the curl the part should be closed over a mandrel in the third operation. A leader is added to the backside of the punch which keeps the punch and die form spreading.





# **Curling Dies**





#### Ledger

Diameter (D1): Material Thickness (T): Length of Bend (L):

#### CU-6 CU-7 Large Curl Die Set

The CU-6 and CU-7 curling die sets are useful in forming larger diameter curls in three strokes. Three operations used in conjunction with both die sets will produce a closed curl, while an open curl up to 180° can be formed with just CU-6. Both dies may be placed next to each other for progressive forming.

R-K Press Brake Dies can provide tooling for any model press brake.







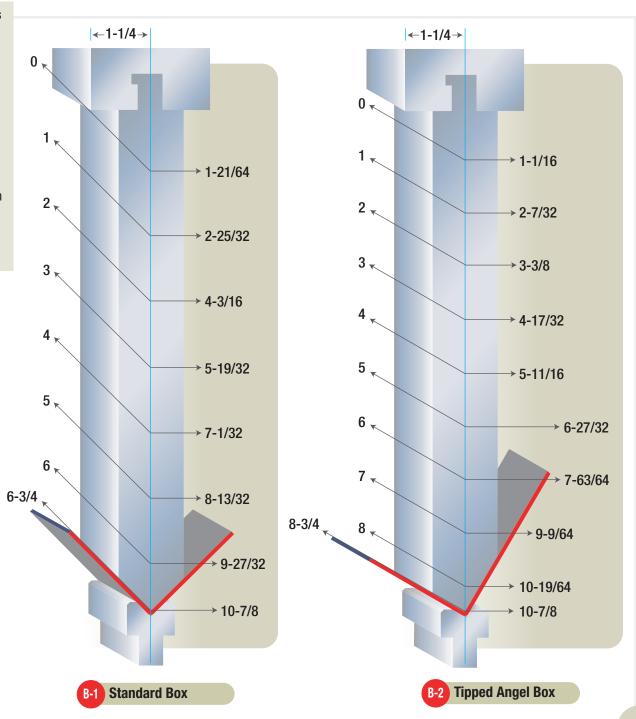


#### 90 Bends

Box forming die sets are used to form a pan, box, or similar part that requires the four sides to be bent up.

The punch must be high enough so that when the last two bends are made the preformed sides will not hit the ram.

The minimum punch height is shown for various box depths for forming 90° bends.







# 3-Way and 4-Way

# 4-Way Die 3-Way & 4-Way Dies

The 3-way die can be used as a flattening die as well as for general forming purposes.

The 4-way die as well as the 3-way die can be made up with Vee openings suitable to your forming needs. The charts below suggest the Vee-openings that can be used with a certain size square.



No.	Block Size	Three	Way Die O <sub>l</sub>	pening				
L3W225	2-1/4"	1/2"	3/4"	1"				
L3W275	2-3/4"	3/4"	1-1/8"	1-1/2"				
L3W325	3-1/4"	1"	1-1/2"	2"				
L3W375	3-3/4"	1-1/8"	2"	2-1/2"				
L3W425	4-1/4"	1"	2"	3"				
L3W475	4-3/4"	1-1/4"	2"	3"				
L3W525	5-1/4"	1-1/2"	2-1/2"	3-1/2"				
L3W575	5-3/4"	1-1/2"	2-1/2"	4"				
L3W675	6-3/4"	1-1/2"	2-1/2"	5"				
L3W775	7-3/4"	2"	3"	6"				
L3W10	10"	2-1/2"	4"	8"				
L3W12	12"	3"	6"	10"				

No.	Block Size		Four Way I	Die Opening	
L4W225	2-1/4"	1/2"	3/4"	1"	1-1/4"
L4W275	2-3/4"	5/8"	7/8"	1-1/8"	1-1/2"
L4W325	3-1/4"	3/4"	1"	1-1/2"	2"
L4W375	3-3/4"	7/8"	1-1/8"	2"	2-1/2"
L4W425	4-1/4"	1"	1-1/2"	2"	3"
L4W475	4-3/4"	1"	1-1/4"	2-1/2"	3"
L4W525	5-1/4"	1-1/8"	1-1/2"	3"	3-1/2"
L4W575	5-3/4"	1-1/4"	2"	3"	4"
L4W675	6-3/4"	1-1/2"	2-1/2"	3-1/2"	5"
L4W775	7-3/4"	2"	3"	3-1/2"	6"
L4W10	10"	2-1/2"	3-1/2"	4"	8"
L4W12	12"	3"	4"	5"	10"

R-K Press Brake Dies can provide tooling for any model press brake.



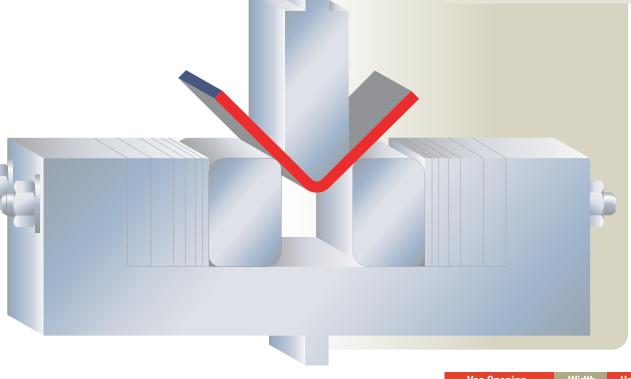








The AG-1 adjustable Vee die can be used for forming angle bends or large radii in various materials. The forming inserts may be shimmed in or out to create any Vee opening desired.



Vee Opening	Width	Height
3-8	16.25	5.75
4-10	19.5	7
5-12	20.5	10
8-15	28	10.5



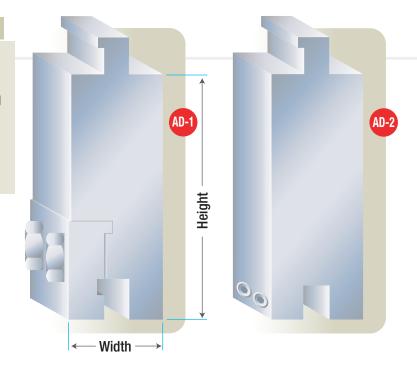


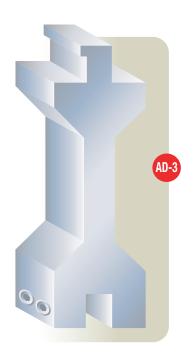
### **Special Ram Adapters**

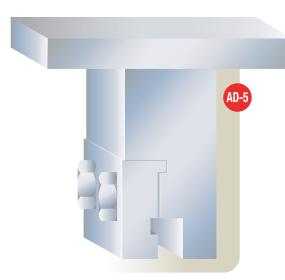
#### **Ram Adapters**

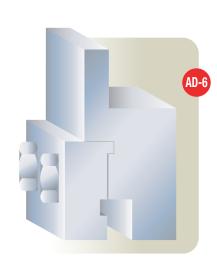
Often when there is not enough ram adjustment for a certain die set a space occurs. The ram adapters AD-1 through AD-6 are used to fill this die space.

When using a ram adapter the die set can be mounted directly to the press bed. The adapter can be used to increase the height of a standard type forming punch to form a tube or box. Adapters can be manufactured in any height or width depending on the particular application.









R-K Press Brake Dies can provide tooling for any model press brake.









# Die Ho

# Die Holders [ ] ] [ ] [ ]

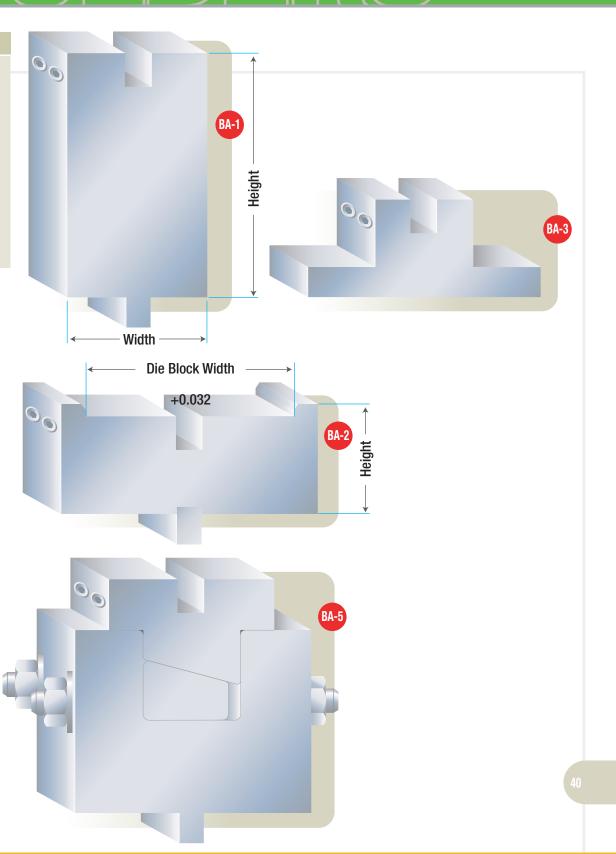
#### **Die Holders**

Die holders is used to hold the lower die to the bed of the press brake.

The flat top die holder are used with standard and special dies sets.

Universal die holders such as BA-2 are used to hold a three-way or four-way die.

The BA-5 die holder offers adjustment every 6" to compensate for deflection in the press brake.





# 

	terial kness				Wie	dth of F	emale	Vee Die	e Openi	ngs				
Gauge	Dec.	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1-1/8"	1-1/4"	1-1/2"	2"
20	.036	2.5	2	1.6	1.1	1.2								
18	.0478		3.5	2.8	2.1	1.7	1.3							
16	.0598			5.3	5.3	3.7	2.8	2.2	1.7					
14	.0747					5.5	4.6	3.5	3.0	2.5	2.1			
13	.0897						6.4	5.5	4.3	3.6	3.2	2.8		
12	.046						9.2	6.9	6.0	5.0	4.3	3.9	3.1	
11	.1196							10.1	8.0	7.0	6.1	5.3	4.3	2.9
10	.1345								10.3	8.7	7.8	6.9	5.7	3.9
9	.1495									11.9	9.8	8.8	7.0	5.0
3/16"	.187										16.9	13.9	11.2	8.3
1/4"	.250											27.5	22.1	15.0
5/16"	.312												39.2	26.5
3/8"	.375													42.7
7/16"	.438													
1/2"	.500													
5/8"	.625													
3/4"	.750													
7/8"	.875													
1"	1.00													
1-1/4"	1.25													
1-1/2"	1.50													
1-3/4"	1.75													
2"	2.0													
2-1/2"	2.5													
3"	3.0			T										

R-K Press Brake Dies can provide tooling for any model press brake.

Phone, fax or go online to our web site www.rkbrakedies.com T: 708.371.1756 • F: 708.371.8068



Vee →



10 x metal thickness.



 Approximate tons per lineal foot of Forming (based on air bending 90° bend in mild steel).
 Red type areas are recommend VEE opening where customer has ample tonnage.
 When using material 5/8" and thicker,

it is usual practice to have die opening



Width of Female Vee Die Openings															
	2-1/2"	3"	3-1/2"	4"	5"	6"	7"	8"	10"	12"	14"	16"	20"	24"	30"
	3.7														
	6.7	4.9													
	11.6	9.6	7.9	6.7											
	19.3	15.0	12.5	10.4	7.7										
	31.2	23.8	19.5	16.3	12.4	9.6									
	45.5	35.2	28.5	24.4	17.4	15.0	11.5								
		48.5	39.5	33.2	24.6	19.5	16.1	13.4							
			65.5	57.9	42.8	33.1	27.3	23.3	17.0						
		138	110	93	68.7	53.2	43.6	36.5	27.1	21.0					
			165	137	103.5	81	64	53	39.5	31.4					
				197	143	112.5	91	76	56	44					
								131	98	76	62	51	38		
									153	118.5	97.5	81	60	47	
										175	144	119	88	69	51
											199	165	122	97	71
												290	215	169	125
													338	266	197