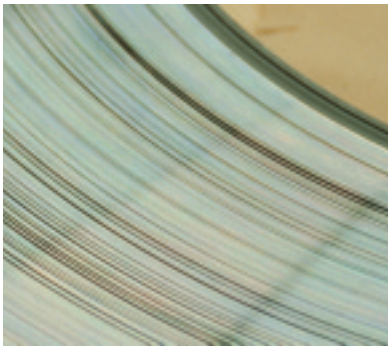
What sets Helmold rule apart?



Choosing an Edge Finish

We offer two main types of edge finishes: ground and shaved. Helmold is the only company in the world to offer both finishes across our entire product line. Both ground and shaved offer application benefits. The results depend upon the application or the material your rule is cutting.

Grinding produces an edge with microscopic "serrations" that aid in the cutting performance of vinyls, labels and most other non-fibrous materials.

Shaving produces an edge with a polished finish that aids in the cutting of most fibrous materials such as carton and corrugated stocks. It reduces "dusting" on these die cut materials and is also effective in recycled materials.

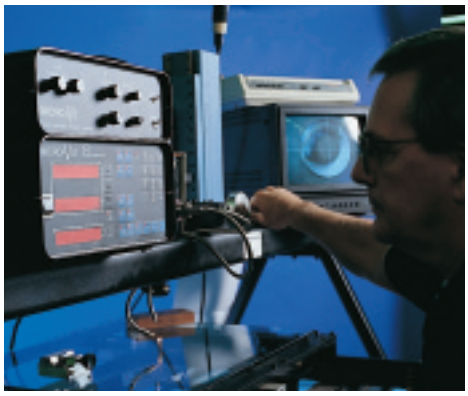
Uniform rule begins with careful raw material selection. And the unique partnerships we have had over the years with our materials sources have allowed us to participate directly in the development of strict quality parameters for producing this raw material. We make sure that the ductility, strength and wear life of all our materials conform to the most strict quality control standards in the industry. And we hire independent metallurgy labs to confirm our analyses. We take our product seriously and this pride has given Helmold a long-standing reputation for reliable quality.

Our excellent quality testing and documentation program includes statistical process control (SPC) checks for ductility, hardness, edge straightness, cross camber, flatness, lack of "dishing" or "concavity," bevel edge fidelity and accurate height dimensions. Rule height is controlled and examined via a fully automatic laser gauging machine. All of these procedures ensure the finest steel rule materials available in the world.

State-of-the-art equipment produces the highest quality rule available.

Continuous laser gauging automatically controls rule height.

Microhardness testing ensures proper edge hardness.



The most sophisticated measuring techniques ensure dimensional accuracy.

Choosing a Bevel

Today there are many more styles of bevels available than there were in the early days of rule. We still offer a standard Helmold bevel of 60˚, but our new 2 pt. shaved edge rule with a more acute angle of 50˚ or 40˚ (available in center face and center face long bevel style) requires less pressure when diecutting. We offer the following styles:

- **center face bevel** which is located in the center of the rule thickness;
- **side face bevel** which is located close to one side (usually 0.005" to 0.008" from one side of the rule, but also available for limited application with the bevel 0.003" to 0.005" from one side of the rule);
- **center face long bevel** which is used to help minimize press pressure when cutting thick material;
- **side face long bevel** also used to minimize press pressure when cutting thick material, this bevel creates a cleaner cut with less crush on the finished material.

Eight Fundamental Functions

As pioneers in the world of rule, we developed and were the *first* to produce cutting, creasing, perforating, zipper and wave rules. The first for all of these. Today, we offer many additional types of rule including rotary rule, laser creasing rule, and combination cut and crease rule. The functions of each are described below.

1. **Cutting rule** is designed to cleanly cut through the material being processed.
2. **Perforating rule** is designed to make alternate cuts in paper so that the material can be cleanly separated. This is widely used in the production of business forms.
3. **Creasing rule** is used to make a crease or score in material to create a flexible bend without the material cracking.
4. **Rotary rule** is made with a serrated cutting edge for easy penetration of heavy stock such as corrugated materials. This rule is available in curved as well as straight lengths.
5. **Combination Cut and Crease rule** is used when it is necessary for an alternate cut and crease to be used to assist in the folding of a carton or box.
6. **Laser creasing rule** is unique in that the body is thinner than the face, which produces a wider crease without a major change in die construction.
7. **Wave rule** has a more specialized application. It is used for design effect in making greeting cards and novelties as well as many other products. Helmold has developed a special wave rule with a slot in the center that is used as a tear strip for carton applications.
8. **Zipper or Tear Edge rule** was developed by Helmold to produce a tear strip in cartons and corrugated boxes. This rule is available in over fifteen standard styles.

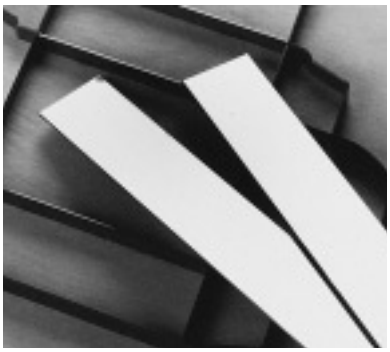
Bevel Availability

Options	CF Center Face	CFLB Center Face Long Bevel	SF Side Face	SFLB Side Face Long Bevel
Ground*	X	X	X	X
Shaved	X	X**		
60˚	X	X**	X	X
50˚	X	X**		
40˚	X	X**		

*Ground bevels available in 60˚ only. **Primary angle is shaved. Secondary angle is ground.

Flush bevel (.002 to .003 back bevel) available upon request.

Helmold Cutting Rule



Quality

Helmold is committed to meeting or exceeding all IADD specifications.

Every foot of rule is continuously laser-checked for the highest accuracy: during processing, and then again during packaging.

Because our quality control process is so advanced, we are able to offer an "Ultra-Precise" grade shaved rule with a height tolerance of ±0.0005".

Special Applications

As the pioneer and innovator in cutting rule, Helmold provides more customized options than any other manufacturer. Among the other offerings from Helmold:

- Teflon-coated and chrome-plated rule for difficult applications;
- Tandemer-Didde Glaser Blades (4 pt., 75 CF 14 to 15 in.);
- Dovey Style Side Face and Center Face Serrated Rule (2, 3, 4 and 6 pt);
- Stitch Flap Knives;

As well as Hanger Holes, Oblongs, Five Point Stars, Rule Locks, Rectangles and custom shapes of all kinds. To find out what products Helmold has available to match your application, call us today.

Helmold Standard

This range of cutting rule has been proven in a multitude of applications and is universally accepted in the diemaking industry. Proprietary metallurgical processing imparts optimum wear resistance and ductility over a wide range of tempers. And state-of-the-art manufacturing and quality assurance techniques ensure unsurpassed dimensional tolerances.

Helmold Standard cutting rule is available:

- In 9 tempers from 20 (dead soft) to 85 (very hard) for unsurpassed application flexibility.
- In ground or shaved edges for varied cutting applications from plastics to recycled paperboard.
- With a standard 60º bevel angle. Also available with a 50º or 40º bevel angle to reduce dusting with recycled paperboard.
- In an "Ultra-Precise" grade shaved edge with ± 0.0005" height tolerance for the most demanding applications.

Helmex

Helmex is a specially formulated steel alloyed with chrome, molybdenum, and nickel to yield an exceptionally durable cutting edge, with enough ductility to take sharp bends. As with all Helmold rule, Statistical Process Control (SPC) utilizing continuous laser gauging is used during beveling and final inspection to ensure unsurpassed dimensional tolerances.

Cutting Rule Ordering Chart (Specify in the following sequence)

STEP 1

Quantity in feet – (.937 Height)

Point	Thickness	Ft./Box	Weight/Box	Ft./Coil	Weight/Coil
1 pt.	.014	500	22.9 lb.	600	26.8 lb.
1 ½	.021	335	22.9	400	27.5
2	.028	250	22.9	300	27.5
3	.042	165	22.9	200	27.5
4	.056	125	23.5	150	27.5
6	.084	85	23.5	N.A.	N.A.

STEP 2

Thickness – (Point Size)

Helmold Standard	Helmex	Bendex	Duredge
1, 1½, 2, 3, 4, 6,	1, 1½, 2, 3	2, 3, 4	2

STEP 3

Temper – (Hardness)

Helmold Standard	Helmex	Bendex	Duredge
20, 35, 50, 55-60, 65, 70, 75, 80, 85	Helmex is a 60 temper Rc 40-42	Bendex is a 65 temper Rc 43-46	Duredge has a Rc 52 edge and a Rc 33 hard body

STEP 4

Bevel Type – Specify shaved or ground edge. See also "Choosing a Bevel" & "Choosing an Edge Finish"

CF **CFLB*** **SF** **SFLB**

*Long Bevel. State length required.

STEP 5

Height

Helmold Standard	Helmex	Bendex 2 pt.	Bendex 3 pt.	Bendex 4 pt.	Duredge
.892 to 1.500	.892 to 2.000 (Depending on pt.)	.918 .923 .937	.918 .923 .937 1.000 1.125	.918 .923 .937 1.000 1.125	.918 .923 .937

STEP 6

Length – Standard Lengths are 30", 36", Meter, Coil

EXAMPLE

(please specify the following)

Quantity	Thickness	Temper	Bevel	Height	Length
1000	2 pt.	S-70	CF	.937	30"
1500	2 pt.	Helmex	⅛ SFLB	.937	coil
660	3 pt.	Bendex	CF	.937	meter

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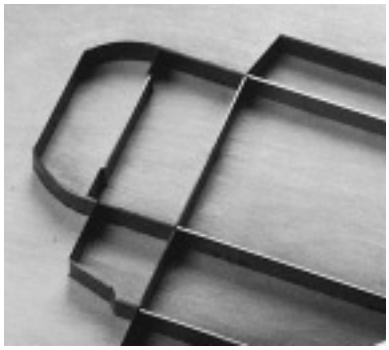


Helmex is available:

- In a 60 temper that takes a tight #X3 die bend (2 pt.).
- In ground or shaved edges to meet your cutting requirements.
- With a standard 60º bevel angle. Also available with a 50º or 40º bevel angle to reduce dusting with recycled paperboard.
- In an "Ultra-precise" grade shaved edge with ±0.0005" height tolerance.

Bendex

Bendex is a 65 temper (HRc 43-46) rule which has been specifically formulated to take a tighter bend than typical 65 temper rules. This is a cost effective rule which has gained wide acceptance in the corrugated industry.

Bendex is available:

- In a 65 temper rule that takes a #2 die bend (2 pt.)
- In a ground edge for cutting coated materials, plastics and adhesive backed materials. And a shaved edge for paperboard and other fibrous materials.
- With a standard 60º bevel angle. Also available with a 50º or 40º bevel angle to reduce dusting with recycled paperboard.
- In an "Ultra-precise" grade shaved edge with ±0.0005" height tolerance.

Duredge

Duredge is an edge hardened rule that combines the bendability of a medium soft body with the wear resistance of a hard edge. Duredge is an excellent rule for dies requiring tight bends where long press runs are expected.

Duredge is available:

- In a 75 temper tip on a 50 temper body that will take a #X3 bend requiring fewer joints.
- In a shaved edge with a 52º bevel for reduced dusting and easier penetration.

Choosing a Temper

Description	Brinell (B) Rockwell (C) Hardness	Scleroscopic Temper	Bend (Die Test)				
			1 pt.	1½ pt.	2 pt.	3 pt.	4 pt.
Helmex	C40-42	60		#X3M #X3F	#X3M #X3F	#1M #1F	
Bendex	C43-46	65		#1M #1F	#2M #2F	#2M #2F	#22M #2F
Duredge	C52 Tip C33 Body	75 Tip 50 Body			#X3M #X3F		
Dead Soft	B80	20			Double Bend Back		
Very Soft	B92-94	35		Double Bend Back	Double Bend Back	Double Bend Back	Double Bend Back
Medium Soft (MS)	C33-35	50			#2M #2F		
Medium Hard (MH)	C38-41	55-60			#2M #24F	#21M #1F	#22M #17F
Hard (H)	C43-46	65	#2M #2F	#2M #2F	#UT14	#21M #2F	#23M #2F
Hard (H)	C47-50	70		#21M #21F	#21M #21F	#22M #25F	#25M #17F
Hard (H)	C52-54	75			#22M #22F	#24M #17F	#18M #17F
Extra Hard (XH)	C54-55	80			#23M #23F		
Very Hard	C57-58	85			Straight work only	Straight work only	

Note: Bends shown are from actual impressions of bent rule, but are not actual size here.

Lazer Blade Cutting Rule

Lazer Blade - The All-American Rule

Helmold's Lazer Blade is the All-American edge-hardened cutting rule.

Lazer Blade is the most precise, most durable, most versatile cutting rule on the market today.

Here's why. Laser hardening of fine-grained base steel using a patented process produces a unique microstructure and an ultra-hard edge with significantly less anisotropy in grain size between the body and edge. That means less intergranular stress and a tougher transition zone between the hardened edge and the body. And because the laser beam impacts only the edge being hardened, there's no distortion to the rule body.

Here are the benefits Lazer Blade provides:

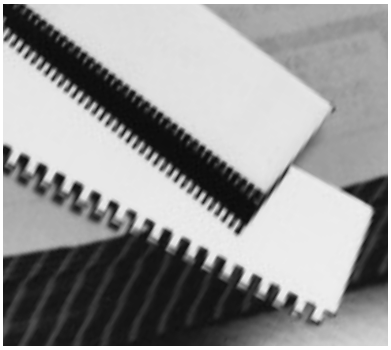
- Less chance of fracture at the transition zone.
- Unexcelled consistency in the hard edge.
- Significantly less wear when cutting harder materials.
- Easy bending in a tight radius without cracking.
- Guaranteed dimensional integrity.
- Shaved edge is standard; ground edge is available.
- Since it's made in America, delivery is not a problem.

Characteristics of Popular Helmold Rule

RULE CHARACTERISTICS	LAZER BLADE	LAZER BLADE H	HELMEX	HELMEX	S-70	S-70	70	70	BENDEX	BENDEX
Bevel Angle	40,50,60	40,50,60	40,50,60	60	40,50,60	60	40,50,60	60	40,50,60	60
Edge Type	Shaved	Shaved	Shaved	Ground	Shaved	Ground	Shaved	Ground	Shaved	Ground
Body Rockwell	33-35	40-42	40-42	40-42	43-46	43-46	47-50	47-50	43-46	43-46
Cutting Edge Rockwell	59-61	59-61	40-42	40-42	43-46	43-46	47-50	47-50	43-46	43-46
Cutting Edge Hardening	Laser	Laser	None	None	None	None	None	None	None	None
Min. Bend Radius	.005"	.015"	.015"	.015"	.040"	.040"	.062"	.062"	.020"	.020"
Max Angle@Min.Radius	160	160	160	160	180	180	180	180	90	90
Standard Heights	Standard Heights for all rule are .918, .923 & .937. Other heights are available.									
Height Tolerance: +/-	.00025"	.00025"	.001"	.001"	.001"	.001"	.001"	.001"	.001"	.001"

Note: Bending characteristics listed above are for 2-point rule.

Perforating and Microperforating Rule



Helmold offers the largest variety and best quality perf and microperf rule to the business forms, corrugated, folding carton and label industries. We use only superior high carbon steel in the manufacture of our perforating rule. The result is longer press life and fewer set-ups. Our advanced manufacturing process produces a clean, precise space which doesn't require a secondary bevel to remove a burr. Helmold customers enjoy a tooth and space accuracy which is unsurpassed in the industry.

Our perforating rule is available in virtually any combination of teeth and spaces, controlled depths, tempers, bevels, heights, cut lengths or coils. For wider perforation spaces than those indicated here, see the combination cut and crease rule section.

Perforating Rule		
Thickness	**Scleroscopic Hardness**	**Minimum Space**
2 pt.	50	.016"
2 pt.	65	.020"
2 pt.	70	.024"
2 pt.	75	.031"
2 pt.	80	.062"
3 pt.	65	.031"
3 pt.	70	.039"
4 pt.	65	.062"

Standard depths:
2 pt.....From 3/32" to 1/8"
3 pt. and 4 pt.....3/16"

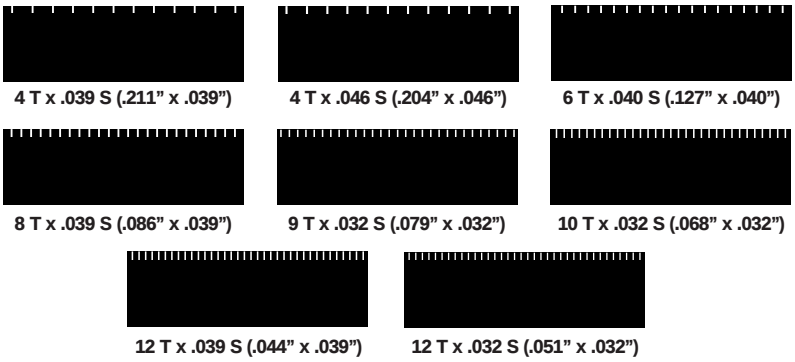
Controlled depths of space:
From .005" to .490"

Maximum space width:
.875"

(For wider spaces see combination cut and crease.)

Common Perf Patterns

For the business form and carton industries
Teeth per inch and decimal spacing

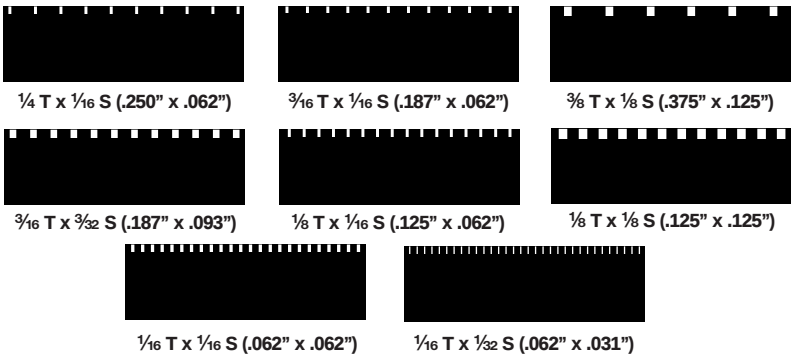


4 T x .039 S (.211" x .039") | **4 T x .046 S (.204" x .046")** | **6 T x .040 S (.127" x .040")**

8 T x .039 S (.086" x .039") | **9 T x .032 S (.079" x .032")** | **10 T x .032 S (.068" x .032")**

12 T x .039 S (.044" x .039") | **12 T x .032 S (.051" x .032")**

For the corrugated industry
Fractional tooth width and spacing



1/4 T x 1/16 S (.250" x .062") | **3/16 T x 1/16 S (.187" x .062")** | **3/8 T x 1/8 S (.375" x .125")**

3/16 T x 3/32 S (.187" x .093") | **1/8 T x 1/16 S (.125" x .062")** | **1/8 T x 1/8 S (.125" x .125")**

1/16 T x 1/16 S (.062" x .062") | **1/16 T x 1/32 S (.062" x .031")**

Ordering Example: (please specify the following)

Quantity	Thickness	Temper	Bevel	Tooth & Space	Depth of Space	Height	Length
300 ft.	2 pt.	70	CF	8 x .039"	standard	.918"	coil
250 ft.	2 pt.	65	CF	12 x .039"	.018"	.918"	30"
180 ft.	2 pt.	80	CF	1/8", 1/8"	standard	.937"	18"
100 ft.	2 pt.	65	CF	.135" T, .032" S	standard	.937"	36"

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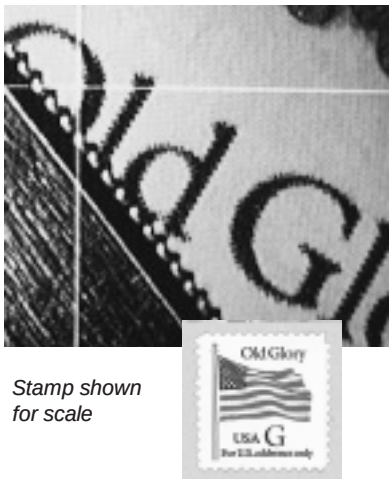
Microperf Rule



Stamp shown for scale

Microperf rule is ideally suited for perforating forms, continuous letterheads, checks, labels, coupons and other single parts on thin stock products. This high quality rule produces a clean, easy to separate perf consistently throughout its long life.

Microperf Rule: 2 pt.				
Teeth per Inch	Height	Tooth	Space	Maximum Stock Thickness
50	.750”	.010”	.010”	.009”
70	.750”	.007”	.007”	.006”
30	.918”	.016”	.016”	.012”
40	.918”	.012”	.012”	.010”
50	.918”	.010”	.010”	.009”
60	.918”	.008”	.008”	.008”
70	.918”	.007”	.007”	.006”
50	.938”	.010”	.010”	.009”
60	.938”	.008”	.008”	.008”
70	.938”	.007”	.007”	.006”
36” lengths and coils are standard. Other lengths and heights are available.				

Ordering Example: (please specify the following)

Quantity	Teeth per Inch	Height	Length
250 ft.	50	.918”	36”

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MicroMax™ Perf Rule

MicroMax™ 2 pt. perf rule has a 21º bevel to minimize material displacement and square teeth that are 0.020” deep. This unique configuration makes MicroMax™ ideal for perforating multi-part forms, card stock, packaging materials and other heavyweight stock.

MicroMax Perf Rule: 2 pt.			
Teeth per Inch	Height	Tooth	Space
30	.918”	.026”	.007”
50	.918”	.013”	.007”
60	.918”	.010”	.007”
70	.918”	.007”	.007”
100	.918”	.005”	.005”
50	.937”	.013”	.007”
60	.937”	.010”	.007”
70	.937”	.007”	.007”
50	.938”	.013”	.007”
60	.938”	.010”	.007”
70	.938”	.007”	.007”
Available in 12”, 18” and 36” lengths.			

Ordering Example: (please specify the following)

Quantity	Teeth per Inch	Tooth and Space	Height	Length
250 ft.	70	.007” T .007” S	.937”	36”

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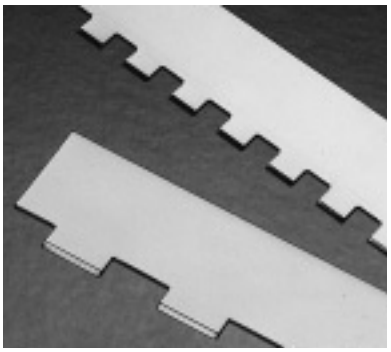
(™ Zimmer Industries)

Combination Cut and Crease Rule



Helmold's combination cut and crease rule provides a cost effective solution when the die requires alternating cuts and creases. This rule is available in 1½, 2, 3, and 4 pt. thicknesses with creasing depths of 0.005" to 0.490". Strip length and depth options are shown in the chart at the right.

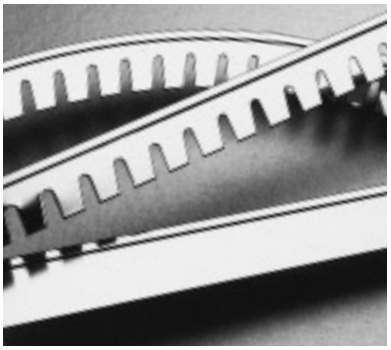
Options for Space Widths of:		
	≤ ⅞"	> ⅞"
Controlled Depth	.005" - .490"	.005" - .062"
Max Strip Length	none	30"

Ordering Example: (please specify the following)

Quantity	Thickness	Cut Length	Crease Length	Crease Depth	Height	Length
250 ft.	2 pt.	1/16"	1/16"	.019"	.937"	30"

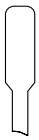
Call us toll-free at: 800-323-8898

Laser and Reverse Laser Creasing Rule



Laser Crease rule provides a wider scoring edge while fitting in standard 2 pt. die slot.

Reverse laser crease rule provides a thinner scoring edge on a standard 2 or 3 pt. body.

Laser Crease (Hard Temper)		
Profile	**Thickness**	**Maximum Height**
	2 pt. body 3 pt. face	.950"
	2 pt. body 4 pt. face	.945"
Available in 30" lengths.		

Reverse Laser Crease (Hard or Soft Temper)		
Profile	**Thickness**	**Height**
	2 pt. body 1 or 1½ pt. face	.885" to .937"
	3 pt. body 1 or 1½ or 2 pt. face	.885" to .970"
Available in 30" lengths.		

Ordering Example: (please specify the following)

Quantity	Thickness & Style	Temper	Height	Length
250 ft.	2 pt. body 3 pt. face	hard	.950"	30"

Call us toll-free at: 800-323-8898

Ordering Example: (please specify the following)

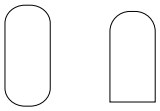
Quantity	Thickness & Style	Temper	Height	Length
500 ft.	2 pt. body 1 pt. face	hard	.895"	30"

Call us toll-free at: 800-323-8898

Hard Crease and Soft Crease Rule

Helmold's hard (60-70 temper) crease rule comes in the traditional profile with a elliptical top and flat bottom, as well as a dual elliptical profile. The dual elliptical rule has a radius which is twice the rule thickness. This shape allows either edge to be used for scoring, will not splinter wood, and produces well defined scores while inhibiting board cracking.

Helmold's soft (35 temper) crease rule is available with either a flat or elliptical top. Soft crease rule is best suited for use in block dies or where rule can be easily inserted. Soft crease rule can bend or deform if not correctly inserted. Helmold also offers full radius profile crease rule.

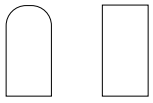


Dual Elliptical — **Elliptical Top/ Flat Bottom**

Hard Crease Standard Heights (in.)
Available in cut lengths or coils

1½ & 2 pt.	3 pt.	4 pt.
.885 .895 .900	.890 .895	.840 .860
.902 .905 .906	.900 .905	.875 .890
.907 .908 .910	.906 .907	.895 .900
.912 .914 .915	.910 .912	.905 .906
.916 .917 .918	.915 .918	.907 .910
.920 .921 .922	.923 .930	.912 .918
.923 .924 .925	.937 .950	.923 .937
.926 .927 .937	.960 .970	.940

Other heights and profiles are available. Call for details.



Elliptical Top/ Flat Bottom — **Flat Top/ Flat Bottom**

Soft Crease Standard Heights (in.)
Standard Length is 30"

1½ & 2 pt.	3 pt.	4 pt.	6 & 8 pt.
.885 .895 .900	.890 .895	.840 .860	.850 .860
.902 .905 .906	.900 .905	.875 .890	.875 .890
.907 .908 .910	.906 .907	.895 .900	.895 .897
.912 .914 .915	.910 .912	.905 .906	.900 .905
.916 .917 .918	.915 .918	.907 .910	.906 .907
.920 .921 .922	.923 .930	.912 .918	.910 .912
.923 .924 .925	.937 .950	.923 .937	.915 .918
.926 .927 .937	.960 .970	.940	.923 .937
			.950

Other heights and profiles are available. Call for details.

Ordering Example: (please specify the following)

Quantity	Thickness	Temper	Style	Height	Length
1,500 ft.	2 pt.	Hard	Dual Elliptical	.895	36"
2,000 ft.	3 pt.	Soft	Round Top	.900	30"

Call us toll-free at: 800-323-8898

Steel Leads

Steel leads are used to replace cutting or creasing rule in a die when a modification is required. Lead height matches dieboard thickness.

Steel Leads
Available lengths and coils

Thickness	Length	Coil
½ pt.	N/A	250 ft.
1 pt.	30"	250 ft.
2 pt.	30"	300 ft.
3-8 pt.	30"	N/A

Steel Leads

Hard		Soft	
Thickness	**Height**	**Thickness**	**Height**
½ pt.	.625 or .750	2 pt.	.500 .625 .750
1 pt.	.500 .625 .687 .750	3 pt.	.500 .625 .750
1½ pt.	.500 .625 .750	4 pt.	.500 .625 .750
2 pt.	.500 .625 .750	6 pt.	.500 .625 .750
3 pt.	.500 .625 .750	8 pt	.500 .625 .750
6 pt.	.500 .625 .750		

Ordering Example: (please specify the following)

Quantity	Thickness	Temper	Height	Length
300 ft.	2 pt.	Hard	.750"	Coil

Call us toll-free at: 800-323-8898

Wave Rule

Helmold's wave rule is made from the same high quality steel as our other rule products using the same stringent process controls. These products have wide ranging application; from cutting safety edges on cartons to avoid hand injuries, to the deckle edge for greeting cards and the cutting edge for foil boxes.

Specify as below to order.

Wave Rule				
Profile	**Thickness**	**Description**	**Length**	**Height**
	1 ½ pt.	Fine Angle	27 ⅜"	.945" Max.
	1 ½ pt.	Medium Angle	26 ⅝"	.945" Max.
	1 ½ pt.	Coarse Angle	24 ¾"	.945" Max.
	2 pt.	Extra Fine Angle Hard Temper	7 ½"	.945" Max.
	2 pt.	Extra Fine Angle Soft Temper	30"	.945" Max.
	2 pt.	Fine Angle	29"	1¼" Max.
	2 pt.	Medium Angle	28 ⅝"	1⅛" Max.
	2 pt.	Coarse Angle	26 ¾"	1½" Max.
	2 pt.	Deckle Edge	30 ⅝"	.945" Max.
	2 pt.	Scalloped Wave (Specify center to center distance and depths of scallops.)	28 ¾"	.937" Max.
	1 ½ pt.	Close Wave (Available with 1/64" or 1/32" slot.)	23 ½"	.945" Max.
	2 pt., 3 pt.	Corrugated Edge, Flat Body	30"	1½" Max.

Call us toll-free at: 800-323-8898

Note: Profiles are larger than actual size.

Zipper or Tear Edge Rule

Tear Edge Specifications

Use diagram 1		
TE2	A = .197”	C = .170”
	B = .200”	D = 42˚
TE3	A = .232”	C = .139”
	B = .216”	D = 42˚
TE8	A = .129”	C = .184”
	B = .167”	D = 36˚
TE12	A = .280”	C = .120”
	B = .160”	D = 47˚
TE13	A = .276”	C = .233”
	B = .247”	D = 42˚
TE14	A = .249”	C = .120”
	B = .149”	D = 48˚
TE14M	A = .254”	C = .124”
	B = .095”	D = 38˚
TE15	A = .182”	C = .147”
	B = .180”	D = 48˚
TE16	A = .165”	C = .129”
	B = .160”	D = 41˚
TE18	A = .162”	C = .118”
	B = .213”	D = 48˚
TE19	A = .136”	C = .116”
	B = .115”	D = 50˚

Use diagram 2		
TE6	A = 22˚	F = .0945”
	B = 40˚	G = .420”
	C = —	H = .109”
	E = —	I = .259”
TE7	A = 28˚	F = .340”
	B = 14˚	G = .416”
	C = —	H = .109”
	E = —	I = .307”
TE9	A = 32˚	F = .150”
	B = 57˚	G = .402”
	C = —	H = .699”
	E = .115”	I = .326”
TE11	A = 43˚	F = .640”
	B = 8˚	G = .375”
	C = —	H = .194”
	E = .135”	I = .161”

Use diagram 3		
TE4	A = .232”	H = .078” (L)
	B = .258”	.094” (R)
	C = .232”	I = .101” (L)
	D = .258”	.070” (R)
	E = .109”	J = .490”
	F = 33˚	K = .120”
	G = .104”	M = .043” (L)
		.064” (R)
TE5	A = .189”	F = 38˚
	B = .244”	G = .075”
	C = .189”	H = .109”
	D = .244”	I = .109”
	E = .125”	J = .433”

8” lengths, 2 pt. body.

Tear edge rule is used to produce the “zipper opening” in ice cream, tissue, foil and plastic bag cartons to name a few. The true advantage of Helmold’s tear edge rule is that it is bent from the bevel edge to the base, making it the strongest tear edge available.

Other manufacturers don’t make their rule this way. This special design prevents the teeth from snapping off and causing the zipper on the carton to fail.

When ordering your die, insist on the rule that will give your customers the best product; specify Helmold tear edge rule.

Diagram 1

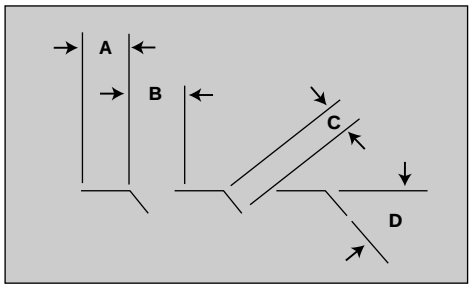


Diagram 2

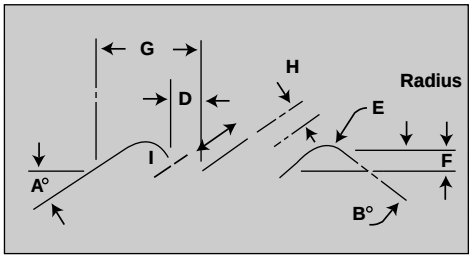
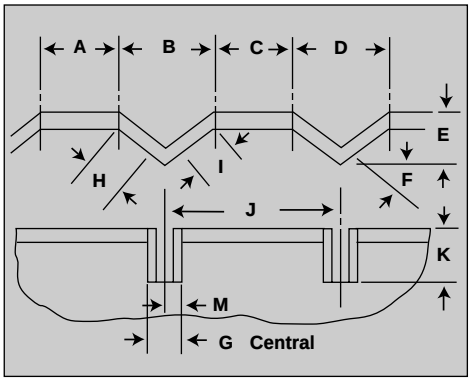
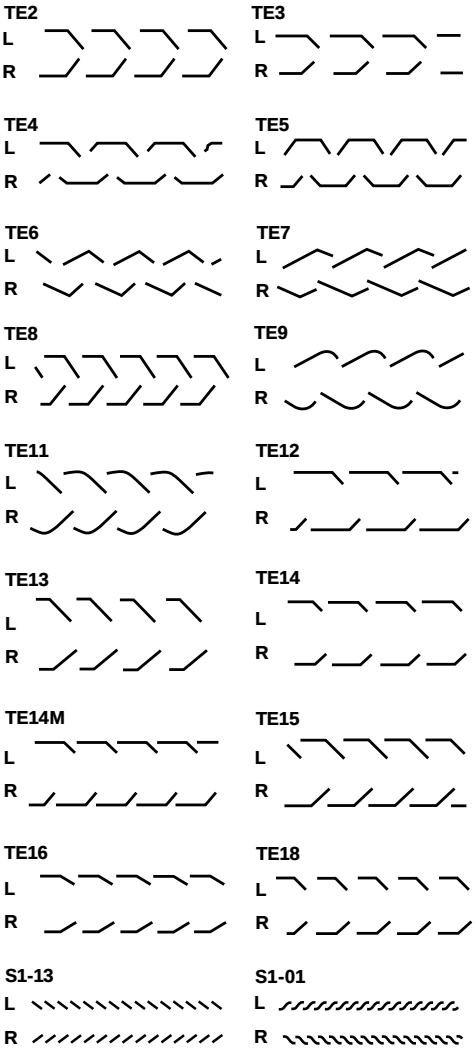


Diagram 3





Note: Profiles are smaller than actual size.

Call us toll-free at: 800-323-8898

Rotary Diecutting Rule

For corrugated die makers

Helmold rotary diecutting rule is available for the most modern high production rotary diecutting and creasing presses including Ward, Koppers, Martin and others. Helmold offers serrated cutting rule in center or side face with 8, 10, 12, 16, or 20 tooth combinations. The unique shaved edge allows less penetration with lower pressure and improved release.

To compliment our line of rotary cutting rules, we stock a complete line of Rotary Zipper, Perforating, Creasing and Steel Leads. All products are available straight, straight notched, or curved. No matter what brand of diecutter you have, Helmold can supply a rotary rule to fit your application.

For your ease and convenience, use the chart below to determine the items Helmold has available.

"X" indicates availability.

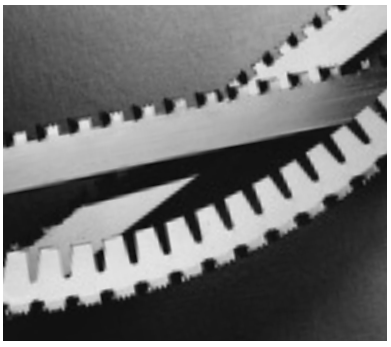
Rotary Cutting Rule				
Thickness	**SNN**	**SN**	**Curved Standard Dia.**	**Standard Heights**
2 pt.	X	X	X	.840" to 1.050"
3 pt.	X	X	X	
4 pt.	X	X	X	
6 pt.	X	X	X	
8 pt.	X	X	X	

Available in 100 ft. coils or cut lengths.

Ordering Example: (please specify the following)

Quantity	Thickness	Bevel	Teeth	Height	Length
500 ft.	4 pt.	CF	12 T	.970"	coil 66 x 90
500 ft.	6 pt.	SF	16 T	.990"	coils SNN

Call us toll-free at: 800-323-8898



Serrated Zipper Rule				
Thickness	**SNN**	**SN**	**Curved Standard Dia.**	**Standard Heights**
2 pt.	X	–	–	.840" to 1.050"
3 pt.	X	–	–	
4 pt.	X	X	X	

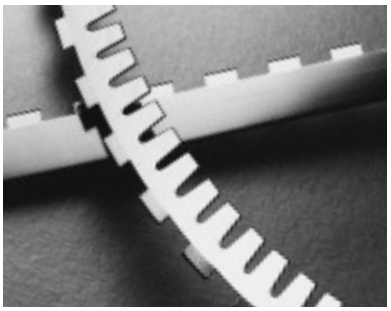
Available in 50 ft. curved coils or cut lengths.

Ordering Example: (please specify the following)

Quantity	Thickness	Type	Bevel	Height	Length
300 ft.	3 pt.	Serrated Zipper	CF	.890"	36" SNN
500 ft.	4 pt.	Serrated Zipper	CF	.990"	coil 66 x 90

Call us toll-free at: 800-323-8898

Standard curved diameter 11" ID or over.



Perforating Rule				
Thickness	**SNN**	**SN**	**Curved Standard Dia.**	**Standard Heights**
2 pt.	X	–	–	.840” to 1.050”
3 pt.	X	X	–	
4 pt.	X	X	X	
6 pt.	X	X	X	
8 pt.	X	–	–	

Available in 100 ft. coils or cut lengths serrated or non-serrated. Available in cut and crease combinations for additional price.

Ordering Example: (please specify the following)

Quantity	Thickness	Bevel	Tooth & Space	Height	Length
500 ft.	4 pt.	CF	¼ x ¼	1.000”	30” SNN
500 ft.	4 pt.	CF	½ x ½	.970”	coil 66 x 90

Call us toll-free at: 800-323-8898

Rotary Creasing Rule				
Thickness	**SNN**	**SN**	**Curved Standard Dia.**	**Standard Heights**
3 pt.	X	X	X	.790” to 1.000”
4 pt.	X	X	X	
6 pt.	X	X	X	
8 pt.	X	X	X	

Available in 100 ft. coils or cut lengths.

Ordering Example: (please specify the following)

Quantity	Thickness	Type	Height	Length
300 ft.	3 pt.	Crease	.970”	36” SN
600 ft.	6 pt.	Crease	1.000”	coil 66 x 90

Call us toll-free at: 800-323-8898

Steel Leads				
Thickness	**SNN**	**SN**	**Curved Standard Dia.**	**Standard Heights**
4 pt.	X	–	X	.500” .625” only
6 pt.	X	–	X	
8 pt.	X	–	X	

Available in 100 ft. coils or cut lengths.

Ordering Example: (please specify the following)

Quantity	Thickness	Type	Height	Length
300 ft.	4 pt.	Leads	.500”	30” SNN
300 ft.	6 pt.	Leads	.625”	coil SNN

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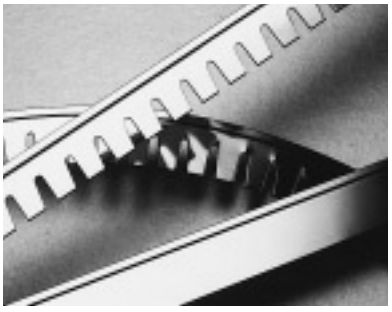

Laser Crease					
Thickness Top	**Base**	**SNN**	**SN**	**Curved Standard Dia.**	**Standard Heights**
3 pt.	2 pt.	X	–	–	.790” to .930”
4 pt.	2 pt.	X	–	–	
6 pt.	3 pt	X	X	X	
6 pt.	4 pt.	X	X	X	
8 pt.	3 pt.	X	X	X	
8 pt.	4 pt.	X	X	X	

Available in 50 ft. curved coils or cut lengths.

Ordering Example: (please specify the following)

Quantity	Thickness Top	Thickness Base	Type	Height	Length
100 ft.	3 pt.	2 pt.	Laser Crease	.880”	coil SNN
100 ft.	8 pt.	4 pt.	Laser Crease	.918”	coil 66 x 90

Call us toll-free at: 800-323-8898

Standard curved diameter 11” ID or over.
Special curving available.