

A C&T COMPANY

# DIE SUPPLIES AND ACCESSORIES





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martin 🛪 miller







#### CCM Die Supply has been proudly and diligently serving our industry since 1964.

That's almost six decades of building and perfecting the way you order your die cutting and die making needs. Although we are not perfect, our approach to excellence comes from our entire CCM Family. We continue to evolve, while still providing exceptional service and the best customer experience in the industry. You may be a customer by definition, but you are family by the relationships we have built together.

It is because of these relationships that CCM has continued to grow and learn how to be better by making you better. Our success is measured by each and everyone of our customer's ability to keep our industry moving forward, always innovating and never resting on our laurels. We are honored to be a part of this community and we look forward to forming new bonds, as well as strengthening the existing ones.

Today, through our partnership with C&T International, we have expanded our knowledge, resources, and product range, to provide whatever you may need - whether it is for your make ready, die making, or die cutting needs. Not sure what you need?

Our employees are here to help, whether it be determining what type of rule to use, or which style and height of matrix will work best.

We will scour the earth to find that rare part that you need, from that blurry picture a customer sent you. We have distribution facilities in Martinsburg, West Virginia, and Tucker Georgia. We also have affiliates in the United Kingdom, Spain, Italy, India, and Asia.

And now, without further ado, start flipping the pages to see what CCM Die Supply can do for you.

#### Please reach out to us:

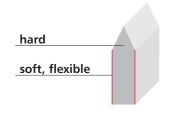
Phone: **800-451-7373** 

Email: sales@ccmdie.com
Website: www.ccmdie.com

# O bohlerstrip®

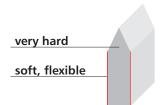
## **FLAT CUTTING RULE**





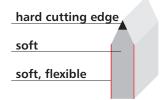
#### TOP

This bohlerstrip standard cutting rule offers good bendability and a well-balanced body-edge hardness for short runs whenever costs are the key factor, e.g. solid box-board, corrugated board, labels, postcards, ...



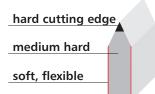
#### H75

Is a very hard cutting rule with a reduced bendability but very high stability in die-cutting operation. Service life is good when die-cutting difficult materials, e.g. gaskets, rubber, cork, felts, beer mats, grinding discs, ...



#### UNIVERSAL

bohlerstrip UNIVERSAL cutting rules combine the excellent bending properties of a soft body with an edge-hardened tip for an extended service life suitable for universal applications, e.g. folding carton / cardboard, corrugated board, labels, postcards, ...



#### **UNIVERSAL 40**

bohlerstrip UNIVERSAL 40 cutting rules withstand higher cutting forces in die-cutting better due to increased body hardness, e.g. folding carton / cardboard, corrugated board, labels, postcards, ...





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### voestalpine

ONE STEP AHEAD.

#### **UNIVERSAL 60**

bohlerstrip UNIVERSAL 60 cutting rules offer the body hardness of our TOP cutting rule with an HF-hardened cutting edge. This results in improved rule stability, reduced wear on the tip and bevel as well as an extended service life, e.g. solid board, plastics materials, thin gaskets, foils, puzzles, thermoforming industry.

hard cutting edge
hard
soft, flexible

#### **UNIVERSAL 75**

bohlerstrip UNIVERSAL 75 cutting rules offer premium stability and wear resistance but limited bendability. This is required when die-cutting heavy materials such as gaskets, thick substrates, various plastics materials, as well as abrasive materials.

very hard
soft, flexible

#### **EXTRA**

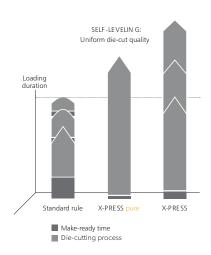
This cutting rule was designed to die-cut thick, rigid and abrasive materials such as gaskets, plastics, composites, solid board books, wood, etc. bohlerstrip EXTRA cutting rules offer extra high edge hardness for a long tool life along with deep hardening for maximum stability in the diecutting process while maintaining good bendability.

hard cutting edge deep hardened medium hard soft, flexible









#### X-Press

The innovation lies within the patented back-design of the cutting rule, which paves the way for the predefined compensation area for the cutting rule to self-level under pressure. The cutting tip is therefore under less strain and remains sharper for a longer period of time. In day-to-day operation, this means a substantially longer tooling life. X-PRESS is ideal for large volume jobs.

#### X-Press pure

The slimlined back execution of the cutting rule combined with the patented micro-serration is considerably more sensitive. In practical terms, this means that under ideal circumstances, make-ready is possible without patching. X-PRESS PURE provides the best results with medium to small size production runs of corrugated and solid board.



## voestalpine ONE STEP AHEAD.

#### Plast-X

Plast-X is a well-established bohlerstrip innovation to cut PET, PE, PVC, PP, PS, semiconductor elements, blister packs and thermoplastic materials. We apply technology from razor blade manufacturing to drastically improve the die-cutting performance. Plast-X is available in three versions. While PXS focuses on the best bendability, PXH offers the best tool life due to increased body and edge hardness. PX represents the ideal compromise between PXS and PXH.

#### Plast-X Hard 800

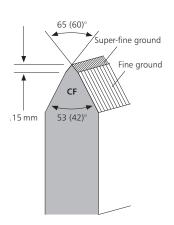
Made to make your die-cutting tools perform longer!

#### **Benefits**

Super hard rule tip durability
 Very hard secondary zone durability
 Deep hardened durability
 Super-fine ground bevel clean cut / no dust stability in die-cutting
 Shorter 2nd bevel stability in die-cutting

#### Stabilo-Cut SX

The specific bevel and rule tip design improves stability in the die-cutting operation and reduces dust and angel hair when die-cutting delicate materials. Also very suitable for thermoforming jobs.







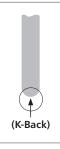
## **FLAT CUTTING RULE**

#### Hardness values and bending properties

All bohlerstrip cutting rules exhibit the best decarburisation characteristics due to our special process. The amount of decarburisation strongly correlates with bending properties. Narrow angle bending without cracking is the result of a well-controlled decarburisation process.



Brand	Hard	ness	Bevel finish Guaranteed Bending Properties					
	Body	Edge		Bending Angle	e 1	Bending Ra	dius R [mr	n]
TOP	~450 HV	(45 HRC)	S	$\alpha = 80^{\circ}$	0.3	0.3	0.6	1.1
H 75	~525 HV	(51 HRC)	S	$\alpha = 85^{\circ}$	-	1.7	3.5	6.5
UNIVERSAL	~340 HV	~660 HV	S	$\alpha = 60^{\circ}$	0.3	0.3	0.4	0.7
	(35 HRC)	(58 HRC)	G	$\alpha = 85^{\circ}$	0.3	0.4	0.6	1.1
UNI VERSAL 40	~390 HV	~660 HV	S	$\alpha = 70^{\circ}$	0.3	0.3	0.4	0.7
	(40 HRC)	(58 HRC)	G	$\alpha = 90^{\circ}$	0.3	0.4	0.6	1.1
UNI VERSAL 60	~450 HV	~660 HV	S	$\alpha = 80^{\circ}$	0.3	0.3	0.6	1.1
	(45 HRC)	(58 HRC)	G	$\alpha = 85^{\circ}$	0.5	0.5	0.6	1.1
UNI VERSAL 75	~525 HV	~700 HV	S	$\alpha = 90^{\circ}$	-	1.7	3.5	6.5
	(51 HRC)	(60 HRC)	G	$\alpha = 90^{\circ}$	-	1.7	3.5	6.5
EXTRA	~390 HV	~720 HV	S	$\alpha = 85^{\circ}$	-	0.6	0.9	_
	(40 HRC)	(61 HRC)						
			S = shaved		1.5 pt	2 pt	3 pt	4 pt
		G	=standard grou	nd	0.53 mm	0.71 mm	1.05 mm	1.42 mm



#### K-Back compensation back edge

Steel rules with a flat rule back generate tolerance problems when bending narrow angles due to bulging effects on the rule bottom. bohlerstrip K-Back (compensation back) minimises this effect and offers: Reduced back deformation when bending narrow angles, even without broaching. Easy rule insertion into plywood. Self-levelling effect as the rule back flattens out under pressure.



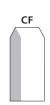


### **BEVEL PROFILES**

To cope with the various requirements in diemaking, bohlerstrip offers a complete range of bevels.

#### CF - Center Face, Single Bevel

Center Face (symmetric) bevel has become the norm for cutting standard packaging materials. Standard edge angle: 53° (others on request)



#### SF - Side Face, Single Bevel

SF (non-symmetric) bevels are best suited for cutting thick materials where a straight / vertical cut is required. The SF bevel is not available in a "G" execution.



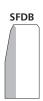
#### CFDB - Center Face, Double Bevel

This type of cutting bevel reduces the cutting force when cutting hard or thick materials such as glass fiber-reinforced laminates, leather, cork, rubber, jigsaw puzzles, corrugated board, plastics, plywood. The CFDB bevel is recommended for multi-layer cutting, when the thickness of the material exceeds the length of the first cutting bevel.



#### SFDB - Side Face, Double Bevel

An SFDB profile offers the same benefits as a CFDB bevel when cutting thicker materials. The substrate is left with a square 90° cut edge and all the distortion from penetration is left on the material waste. The SFDB bevel is not available in a "G" execution.



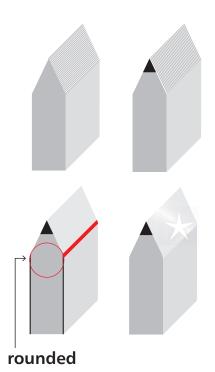


## POFF-TOWN

### **BEVEL FINISH**

#### Super-Fine Ground Bevel (X)

These cutting rules are processed on a unique grinding machine using razor blade technology, thus ensuring a super-sharp cutting edge with a super-fine ground bevel finish. Such properties are mandatory for the professional die-cutting of delicate materials including plastics materials, films, foils, semiconductor material, laminated and metallized folding cartons.



To cater for the full range of applications, bohlerstrip offers a large variety of bevel finishes.

#### **Shaved Cutting Bevel (S)**

The standard bevel finish for bohlerstrip cutting rules is a precision shaved quality surface bevel. These rules benefit from premium bendability and height consistency.

#### Polished Cutting Bevel (P)

Polished cutting rules combine the benefits of shaved and ground execution in one rule.

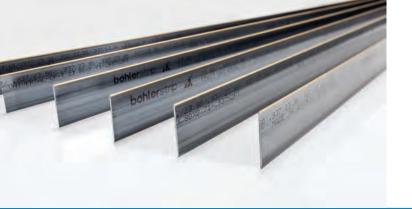
- Reduced dusting
- Less friction when penetrating the cut material, thus reducing cutting force
- Rounded transition zone between bevel and body reduces material surface cracking. This execution is also available with a polished double bevel (PL) in CFDB or SFDB.

#### Standard Ground Cutting Bevel (G)

A standard ground cutting edge has proven the best choice for the cost-efficient cutting of plastics, rubber, laminates and coated materials. We recommend our HF hardened cutting rules in a "G" finish as UNIVERSAL 40, UNIVERSAL 60 and UNIVERSAL 75. The ground cutting edge achieves easy material penetration at a reduced cutting pressure. For thermoforming jobs, we recommend UNIVERSAL 60 "G".

#### Fine Ground Bevel (GX)

Cutting rules with an emphasis on an advanced, fine-ground cutting bevel, designed for laminated /coated cardboard and materials for the thermoforming industry. This next-generation grinding technology opens the door for all kinds of new die-cutting applications where standard cutting rules achieve suboptimum results.





### **COATED CUTTING RULES**

Coated cutting rules provide various benefits such as reduced dusting, extended service life, less wear on the cutting edge and bevel.

#### **Supreme Dust Killer SUPREME**

Supreme coating was initially developed for die-cutting labels to prevent glue sticking to the rule bevel. Many of our customers experience reduced dusting when using Supreme coated cutting rules due to the lower edge/bevel friction.

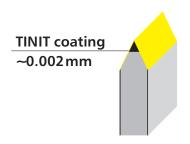
# Supreme coating

#### **Product information:**

The cutting bevel of the Supreme rules are coated with a thin anti-friction-film that fills the micropores and marks on the cutting bevel and thereby supports a smooth bevel surface. Supreme coated rules are offered in Universal, Universal 40, Universal 60, and Universal 75 grades.

#### Tinit (TiN) LONG LIFE

TiN coated cutting rules are coated with a thin (approx. 0.002 mm) layer of TiN on the cutting bevel only. The TiN coating hardness of  $\sim$  2,400 HV stands out in comparison with the standard UNIVERSAL edge hardness of  $\sim$  660 HV (4 times harder). Bendability, body structure, cutting profile and dimensions remain unchanged and match those of standard UNIVERSAL rules.



#### **TINIT** rule benefits:

- Significantly increased knife lifetime
- Anti-sticking effect due to smooth bevel surface
- Same bendability as uncoated cutting rules
- Reduced dusting due to smoother bevel surface
- Increased wear resistance when cutting abrasive materials





## **BOHLERSTRIP CREASING RULES**

High-precision creasing rules are needed to emboss box folding lines. Folding box designs and the precision of final products are becoming more demanding, calling for the use of high-quality creasing rules with tight tolerances.

Creasing rule tolerances have to be adjusted to the tolerances of cutting rules. This is of paramount importance for the best creasing results. bohlerstrip creasing rules offer:

- Very smooth crease head surfaces
- Perfectly radiused profile
- Smooth transition from radiused profile to the side faces
- Minimum eccentricity
- Minimum height and thickness tolerances

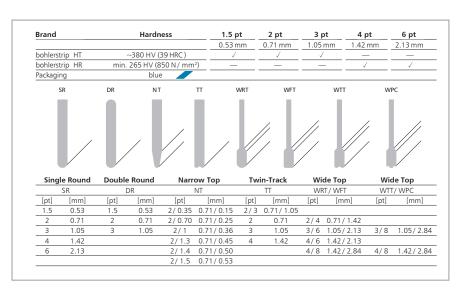
#### **Manufacturing Range**

bohlerstrip creasing rules are produced by two manufacturing methods, depending on the rule thickness:

**HT** – Hardened and Tempered: This process guarantees stability on creasing rules with a thickness ≤ 3 pt.

**HR** – Hard Rolled:

This type of creasing rule is recommended for rules  $\geq 4$  pt.







## **BOHLERSTRIP SPECIAL RULES**

#### **Perforating Rules**

bohlerstrip perforating rules are available in a wide range of thicknesses and tooth/ gap combinations. The spacing is usually given in mm. We also manufacture in point and inch spacings on request.

Grade	TOP, UNIVERSAL
Bevel profile	CF, CFDD B
Thickness	2 pt/ 3 pt/ 4 pt
	0.71 / 1.05 / 1.42 mm
Height	21.30 – 25.40 mm
	0.840″-1.000″
Spacing P	tooth / gap *



#### **Combination Rules (Cut-Crease)**

With cut-crease rules, there is no need to insert individual parts of cutting and creasing rules. bohlerstrip cut-crease rules are produced in standard punched (CF), or in flat- or round machined executions for high-quality jobs (CF / FT and CF / SR).

Grade	TOP, UNIVERSAL
Bevel profile	CF, CF / FT, CF / SR
Thickness	2 pt / 3 pt / 4 pt
	0.71 / 1.05 / 1.42 mm
Height	HS = cutting part height
	HR = creasing part height
Spacing P	cut/crease
	Please contact us for available combinations





<sup>\*</sup> Minimum tooth / gap width is defined by rule thickness.





## **BOHLERSTRIP SPECIAL RULES**

#### **Glue Flap Rule**

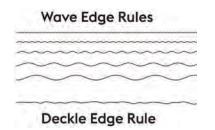
Glue flap rules are wave edge perforating rules, which are manufactured in the same heights as scoring rules. They are used to roughen the glue flaps on cardboard boxes so as to obtain a firm grip surface for the adhesive.



Grade	TOP, UNIVERSAL
Bevel profile	CF
Thickness	2 pt
	0.71 mm
Height	23.32 / 23.50 / 23.60 mm
	0.918"/ 0.925"/ 0.929"
Spacing P	0.71 / 0.71 mm
(Tooth/gap)	2 pt / 2 pt
Wave Spacing W	5.0 mm

#### Wave Edge and Deckle Edge Rules

The main application for wave edge rules is in the production of safety cutting edges on solid and corrugated board boxes, to avoid injuries during box handling. Deckle edge rules are used to cut post cards, greeting and business cards.



Grade	TOP, UNIVERSAL
Bevel profile	CF, CFD B
Thickness	2 pt/3 pt
	0.71 / 1.05 mm
Height	21.30 – 25.40 mm
	0.840″-1.000″
Wave Spacing W	2.0 mm – super fine, 3.5 mm – very fine
5	.0 mm – fine, 7.0 mm – medium, 10.0 mm – large
Autobender qualified executions (	A) in CFD B with
	wave spacing W $=1.7$ mm, $2.0$ mm, $3.5$ mm



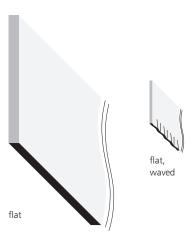


#### **Stripping Rules**

For ejecting waste material after the die-cutting process, bohlerstrip premium stripping rules secure optimum diecutter speeds.

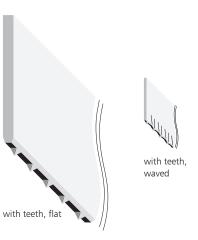
#### Flat (no teeth)

Grade	TOP 36
Bevel profile	FT (Flat Top)
Thickness	3 pt
	1.05 mm
Height	30/40/45/50/55 mm
	1.181″/ 1.575″/ 1.772″/ 1.969″/ 2.165″
Optional Wave Spacing W	3.5/ 5.0/ 7.0/ 10.0 mm
Optional Wave Spacing W	



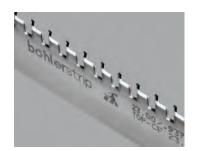
#### Stripping Rule with teeth

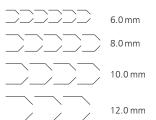
Grade	TOP 36
Bevel profile	CF
Thickness	3 pt
	1.05 mm
Height	50 – 55 mm
Toothshape pyramidal (h =0.5 mm/ w=0.5 mm)	1.969″–2.165″
Spacing configuration	0.5/ 1.5-0.5/ 5-0.5/ 10 mm
Optional Wave Spacing W	7.0 mm













#### **Zipper Edge Rules**

Zipper rules provide a tear-open solution especially for shelf ready packagings.

Grade	TOP 36
Bevel profile	CF
Thickness	2 pt/ 3 pt
	0.71 / 1.05 mm
Height	21.30 – 25.40 mm
	0.840″-1.000″
Tooth Spacing A	6.0/8.0/10.0/12.0 mm
Specification	straight – angled part: $3 / 5 - 2 / 5$
Packaging	in pairs

#### **Spacer Rules**

Spacer rules fill gaps between steel rules and wider laser cuts within the die board or backfill unwanted laser cuts within an existing die. The rules have a square cross sectional profile. bohlerstrip spacer rules are available in all common wood sizes used in the die making industry.

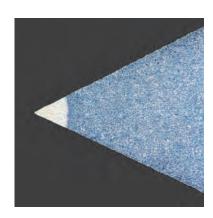
Grade	HT/HR		
Bevel profile	cut edges		
Thickness	½ pt − 6 pt		
	0.36 – 2.13 mm		
Height	15, 17, 18, 20 mm		
	5/8",3/4"		



## MARTIN MILLER HARDENED CUTTING RULES

## martin m miller

## **EDGE HARDENED CUTTING RULES**



#### HP plasma hardened

#### **HP Properties**

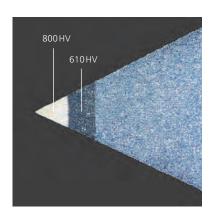
- Edge-hardened by special plasma hardening process
- Highest possible lifetime of the die, due to high cutting edge hardness of  $\sim$  700 HV ( $\sim$  60 HRC)
- HP is unique to Martin Miller cutting rules

#### **HP** Application

- For high to extremely high production runs / number of cuts
- Dust reduction in the cutting process
- Optimized for tight bends

#### Special execution

Vikingflex HF cutting rules on request



#### HP+

#### **HP+ Properties**

- Unique dual edge hardening process
- Multi layer combines HF and Plasma hardening technology with  $\sim\!800$  HV ( $\sim\!64$  HRC) on tip and deep edge hardened zone
- Extended lifetime of cutting tool

#### **HP+** Application

- Processing on automatic bending machines still possible
- Carton, duplex board, rigid and thick materials, gaskets, stiff plastic, compounds





## THROUGH HARDENED CUTTING RULES

#### MM through hardened

#### MM – Properties

- The same hardness of cutting edge and body
- Good bendability due to soft and ductile surface layer

#### MM - Application

- Small to medium size runs / number of cuts
- Good bending properties
- All purpose rule (carton, corrugated)



#### **Dimensions**

**Rule Thickness** 

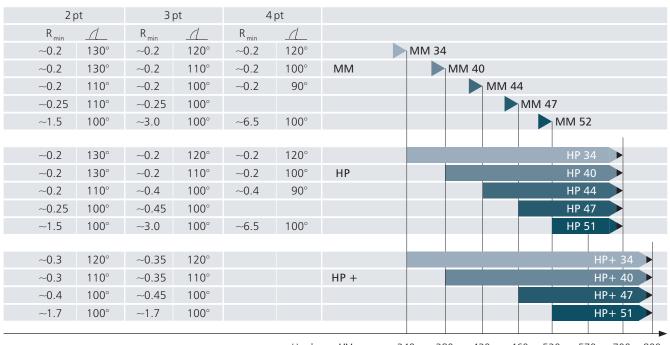
1.3 pt/ 0.45 mm  $\cdot$  1.5 pt/ 0.53 mm  $\cdot$  2 pt/ 0.71 mm  $\cdot$  3 pt/ 1.05 mm  $\cdot$  4 pt/ 1.42 mm  $\cdot$  6 pt/ 2.13 mm

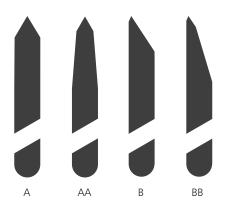
#### Rule Height

 $8 \text{ mm} \cdot 9.5 \text{ mm} \cdot 10 \text{ mm} \cdot 12 - 100 \text{ mm}$ 

## martin miller

## BENDABILITY / HARDNESS SCALE





#### **Cutting Bevel**

#### **Bevels**

A – Center bevel

AA – Long center bevel

B – Side bevel

BB – Long side bevel

Standard angle of the bevel: 54°

(for all bevel-types)

Other possible angles of the bevel:

30°/35°/42°/60°/75°

(A-bevel only)



### **BEVEL FINISH**

#### Shaved bevel – standard

Martin Miller cutting rules have a shaved bevel surface as standard which offers a very high degree of accuracy and edge straightness as well as excellent bending properties.



#### ExtraSharp ES bevel – vertical ground

This rule offers very good cutting results because of the micro-teeth on the bevel. For materials like plastics, rubber and laminates the ground execution has proven its highest efficiency. With high sharpness and low friction reducing formation of dust and angel hair. In comparison with the shaved execution, ES has a slightly reduced bendability.



#### Reflexion R – special bevel surface

Due to our latest manufacturing technology we are able to offer a very smooth bevel structure which greatly improves the bendability compared to rules with a ground cutting edge. The rounded transition area between the bevel and the body also provides a better workability on all rule processing tools and in die cutting. Reflexion is suitable for synthetic material as well as for paper boards.



## martin miller

## SUPRA Z ULTRA FINE GROUND BEVEL



#### SUPRA Z.

One of the latest developments by Martin Miller sets new standards regarding precision, sharpness and surface quality of the bevel.

#### Ideally this rule should be used for:

- PlasticsBlister
- Labels
   Laminated or coated carton boards

Especially in the field of label cutting sharpness, highest precision and tightest tolerances are required. When cutting plastic packaging materials, extraordinary sharp rules are requested, which reduce cutting pressure and permit smooth cutting. Our cutting rule SUPRA Z meets all these requirements and is the best choice for your perfect cutting result.



SUPRA Z



60-times magnified

Execution	Vikingflex 34	Vikingflex 40	Vikingflex 47
Body hardness	~340 HV (~34 HRC)	~380 HV (~39 HRC)	~460 HV (~46 IRC)
Edge hardness	~640 HV (~57 HRC)	~700 HV (~60 HRC)	~700 HV (~60 HRC)
Cutting bevel	A, AA	A, AA, B, BB	A, AA
Bevel finish	fine ground	fine ground	fine ground
Bevel angle	42°	30° / 42° / 54°	42°

#### SUPRA Z Plastic Cutting Rule

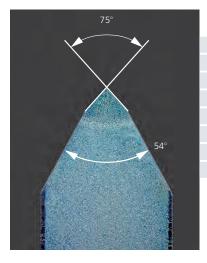
	Vikingflex 34	Vikingflex 40	Vikingflex 47
Thickness	2 pt / 0.71 mm	2 pt / 0.71 mm	2 pt / 0.71 mm
		3 pt / 1.05 mm	3 pt / 1.05 mm
Height	23.60 mm/23.80 mm	23.30-50.00 mm	23.30-50.00 mm

#### SUPRA Z Label Cutting Rule

	Vikingflex 34	Vikingflex 40	Vikingflex 47
Thickness	1.3 pt / 0.45 mm	1.3 pt / 0.45 mm	1.3 pt / 0.45 mm
	1.5 pt / 0.53 mm	1.5 pt / 0.53 mm	
		2pt/0.71 mm	
Height	8 mm / 12 mm	8 mm / 9.5 mm/12 mm	8 mm / 9.5 mm / 12 mm



## MICROTOP THE CUTTING RULE WITH MORE POWER



#### HP 34 / 40 MICROTOP

Execution	HP 34
	HP 40
Thickness	2 pt / 0.71 mm
	3 pt / 1.05 mm
Height	23.80 mm
Cutting bevel	A, AA
Bevel finish	shaved
Bevel angle	42°/75° or 54°/75°

The comprehensive strength of the MICROTOP rule is far higher compared to a rule with standard A-bevel. With the same edge hardeness, the rule stays in shape longer due to the higher pressure resistance achieved through the unique bevel design.

The well-established cutting rule MICROTOP developed by Martin Miller combines the properties of the unique HP plasma hardening technology with the advantages of higher bevel strength and improved rule stability. The key success factor lies in the special bevel geometry of the product that is manufactured with highest accuracy in order to ensure optimal shape. MICROTOP advantages and applications:

#### Reduction of make-ready time: The MICROTOP cutting rule bevel is less sensitive to high cutting pressure, resulting in quick and easy make-ready.

#### Longer rule lifetime:

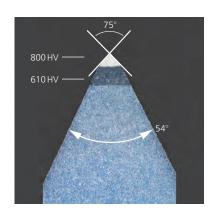
The cutting results of our MICROTOP rule show a reduced tendency to create angel hairs and dust. Even with very long runs MICROTOP offers optimum cutting quality.

#### Improved pressure distribution:

MICROTOP offers less risk of edge damage thanks to the specific bevel geometry. A 75° tip angle improves robustness against cutting pressure overload. The rule tip remains sharp longer, thus increasing rule lifetime.

## martin miller

## HP+ 34/ 40 MICROTOP THE CUTTING RULE FOR THE MOST CHALLENGING APPLICATIONS



#### **HP+34 MICROTOP**

HP+ 34 MICROTOP is the latest evolution by Martin Miller. The rule has all standard features of MICROTOP along with a special dual-hardened cutting edge with a tip hardness of approx. 800 HV. It performs best with long-run jobs which also require narrow-angle bending.

#### Ideally this rule should be used for:

- carton (e.g. cigarette boxes, food trays...)
- corrugated board
- duplex board



## **CREASING RULES**

#### **Execution**

Standard - hardened and tempered creasing rule HW - hardness is achieved through modern cold-rolling technology, non-tempered

#### General

Only creasing rules with an exact profile geometry and tight height tolerances achieve an excellent creasing result. Higher speeds are possible on automatic die presses and folder-gluers, also for challenging materials.

#### Standard Creasing Rules

Execution	HW	Standard	
Hardness	min. 270HV	~370 HV (≤3 pt)	
Profile		R, RD	
Thickness	1.5 pt / 0.5	3 mm-6 pt / 2.13 mm	
Height	20.30-24.4	0 mm / 0.800 "- 0.960"	



#### **Tapered Creasing Rules**

Execution	Standard
Hardness	~370HV
Profile	RR
Thickness	2/1 pt, 2/1.5 pt
Height	20.30-24.40 mm/0.800 "-0.960"



#### **Heavy Top Creasing Rules**

Execution	Standard
Hardness	~370 HV
Profile	RT, FRT, PT
Thickness	2/3 pt, 2/4 pt, 3/4 pt, 3/6 pt, 3/8 pt, 4/6 pt, 4/8 pt
Height	20.30-24.40 mm/0.800~0.960~



## martin miller

## **SPECIAL RULES**

#### **Perforating Rules**



Execution	MM 44	HP 40		
Hardness	~430 HV	~380/700 HV		
Bevel		A (edge angle: 54°)		
Thickness	2 pt/0.71 mm	2 pt/ 0.71 mm, 3 pt/ 1.05 mm, 4 pt/ 1.42 mm		
Height	21.	21.30-25.40 mm / 0.840 "- 1.000"		

Spacing (tooth/gap)

all common tooth/gap-variations available (in millimeter-, point- and inch-spacings)

#### **Combination Cut / Crease Rules**

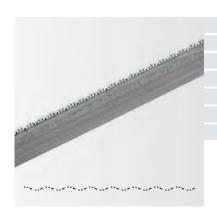


MM 44	
~430 HV	
A (edge angle: 54°)	
2 pt/0.71 mm, 3 pt/1.05 mm, 4 pt/1.42 mm	
21.30-25.40 mm / 0.840 "- 1.000"	
	~430 HV A (edge angle: 54°) 2 pt/ 0.71 mm, 3 pt/ 1.05 mm, 4 pt/ 1.42 mm

Spacing (cut/crease)

all common cut/crease-variations available (in millimeter- and inch-spacings)

#### **Glue Flap Rules**



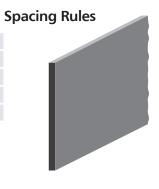
Execution		MM 44	
Hardness		~430 HV	
Bevel		A (edge angle: 54°)	
Thickness		2 pt/ 0.71 mm	
Height		22.80-23.60 mm/0.897 "-0.929"	
Spacing	spacing (tooth/gap)	2 pt/2 pt · 1 mm/1 mm	
	wave spacing	5 mm	



## **SPECIAL RULES**

Execution	HW	
Hardness	~370 HV (≤3 pt) min. 270 HV (>3 pt)	
Profile	GK (cut edges)	
Thickness	$0.5\mathrm{pt/0.18mm-6pt/2.13mm}$	
Height	14-18 mm	

Standard heights for all common die boards avail able



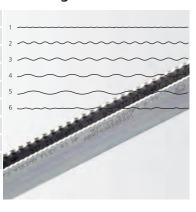
#### **Stripping Rules**

Execution		HW	MM 34	MM 40
Hardness		min. 270HV	~340 HV	~380 HV
Bevel		GK (cut edges), F	Γ (shaved), Needle	Point (with teeth), waved
Thickness				3 pt / 1.05 mm
Height			45 mr	m, 50mm, 55mm, 65mm
Spacing	waved:	6:2 mm · 6:2.5 m	nm · 6:3 mm · 8:3 m	nm · 10:4.5 mm · 12:6 mm
Needle Poi	<b>nt</b> spa	cing: 5 mm · 6 mr	n to	oth depth: 0.5mm · 1 mm



#### **Wave Edge Rules**

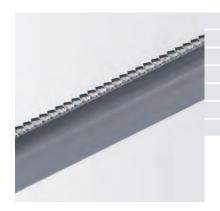
Execution	MM 40	HP 40
Hardness	~380HV	~380/700HV
Bevel		A, AA (edge angle: 54°)
Thickness		2 pt / 0.71 mm, 3 pt / 1.05 mm
Height		21.30-25.40 mm / 0.840 "- 1.000"
Spacing		
waved:	1.7 mm <sup>1)</sup> 2 mm · 2.5 mm <sup>2)</sup> 3 mm	$\cdot 3.5  \text{mm}^{-3)}  5  \text{mm}^{-4)}  7  \text{mm}^{-5)}  10  \text{mm}$
		<sup>6)</sup> irregular wave (deckle edge rules)
Autobender	r-qualified coils on request	



## martin miller

## **SPECIAL RULES**

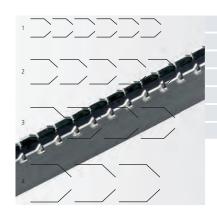
#### **TearM Flatbed Zipper Rules**



Execution	HP 34	
Hardness	~340 HV	
Bevel	AA	
Thickness	1.05 mm / 3 pt	
Height	23.80 mm	
Spacing	3 mm · 4 mm · 5 mm	
Direction left/ right (separately packed)		

Used for creating hand holes and general zipper applications

#### **Zipper Rules**



Execution	MM 34
Hardness	~340 HV
Bevel	A (edge angle: 54°)
Thickness	2 pt/0.71 mm, 3 pt/1.05 mm
Height	21.30-25.40 mm / 0.840 "- 1.000"
Spacing	<sup>1)</sup> 6 mm <sup>2)</sup> 8 mm <sup>3)</sup> 10 mm <sup>4)</sup> 12 mm
straight – angled part	3/5 – 2/5

# helmold W

## HELMOLD HARDENED CUTTING RULES

# helmold® W

### HARDENED CUTTING RULES

Our special edge hardening equipment allows us to offer Lazer Blade cutting rules with very precise edge hardness up to 58 RC. Furthermore, Helmold offers through- hardened cutting and creasing rule ideal for economically priced die-cutting jobs.

## Through-hardened cutting rules

Economical and stabile version of steel rules for rough application due to high body and edge hardness.

## Helmold 65 Ultraflex body / edge hardness 45 RC

#### Helmold 70 body / edge hardness 50 RC

## Helmold 80 body / edge hardness 54 RC

#### Helmold 85 body / edge hardness 58 RC

#### **Edge hardened cutting rules**

High rule and die-life due to extreme hard cutting edge in combination with a soft body hardness for optimized working on automatic bending machines.

#### Helmold Lazer Blade

body hardness 34 RC edge hardness 57 RC

#### Helmold Lazer Blade H

body hardness 45 RC edge hardness 57 RC

#### Deep edge hardened cutting rules

This rules offer highest stability on the cutting edge and longest tool life time especially when cutting rigid and abrasive materials.

#### Helmold Lazer Blade D

body hardness 34 RC edge hardness 57 RC

#### Helmold Lazer Blade HD

body hardness 45 RC edge hardness 57 RC





### **CHOOSING A BEVEL**

Today there are many more styles of bevels available. We still offer a standard Helmold bevel of 60°, but our new 2 pt. shaved edge rule with a more acute angle of 53° or 42° (available in center face and center face long bevel style) requires less pressure when die cutting. We offer the following styles:

**CFB** Center Face Bevel which is located in the center of the rule thickness:

**CFLB Center Face Long Bevel** which is used to help minimize press pressure when cutting thick material; 1/8 " SE or GE 3/16 " or 1/4" GE only

Flush Bevel FB

MBB Minimum Back Bevel

**SFB** 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);

SFLB 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.



	CFB	CFLB	FB	MBB	SFB	SFLB
Ground (GE)	•	•		•	•	
Shaved (SE)	•	•		•	•	
60°	•	•		•	•	
53°	•	•		•		
42°	•	•		•		
Distance (d)			.002	.004	.007	

Ground bevels only available in 60° Primary angle is shaved, secondary angle maybe ground or shaved



## helmold W



## **HARDENED CUTTING RULES**



#### **Helmold 65 Ultraflex**

Ultraflex is a through-hardened cutting rule with the same body and edge hardness.

This rule offers good life and is our all-purpose, recommended utility rule.

#### Helmold 70

Helmold 70 is a through-hardened cutting rule that offers increased beam strength yielding improved cutting life for the packaging industry. This product would be classified as a hard rule resulting in longer durability for more abrasive cutting situations.

#### Helmold 80 - extra hard

Helmold 80 recommended usage is for applications which require very high beam strength for straight use only. There is an 80 S and 80 M available for applications that require long life and improved bendability.

#### Helmold 85 – very hard

Helmold 85 rule would be for straight work only and for the most extreme wear applications.

#### Helmold Lazer Blade H

Lazer Blade H has all the characteristics of Lazer Blade with increased body hardness for more durable and abrasive applications.

#### Helmold Lazer Blade

Lazer Blade is an edge hardened rule that offers a softer body with a hardened-edge making this very attractive for many applications. This would be commonly used in packaging, folding carton and kiss-cut applications.





## **HARDENED CUTTING RULES**

#### Helmold Lazer Blade D

Lazer Blade D has all the characteristics of Lazer Blade and extra deep edge hardening.

#### Helmold Lazer Blade HD

Lazer Blade HD has all the characteristics of Lazer Blade H and extra deep edge hardening.

#### Choosing a temper

According to thickness and hardness there are different possibilities in achieving the required bending radius. For a complete overview see the data sheet with the possible angles and radius of all Helmold steel qualities.

Helmold 65 Ultraflex		#X3M	#X3M >	#1M	\/
		#X3F	#X3F	#1F	V
Helmold 70			#X3M -		
			#X3F		
Helmold 80 – extra hard			#2M		
Helmold 85 – very hard			#2F		
Helmold Lazer Blade	#2M \	#2M /	#UT14	#21M	#23M
Helmold Lazer Blade D	#2F	#2F	#2F	#2F	
Helmold Lazer Blade H		#21M	#21M	#22M	#25M
Helmold Lazer Blade HD		#21F	#21F	#25F	#17F
			#22M	#24M	#18M
			#22F	#17F	#17F
			#23M \		
			#23F		
			Straight work only	Straight work only	

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

## helmold W

### **PERFORATING RULES**



#### **Perforating Rules**

Helmold offers the largest variety and best quality perforating 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 up to 1.000"

Point	Hardness	Min. Space	Max. Space	Min. Tooth	Min. Height	Max. Height	Std Depth
1.5	65	0.016	1.000	0.028	0.500	1.500	0.125
2	50	0.016	1.000	0.028	0.500	0.937	0.125
2	65	0.020	1.000	0.028	0.500	2.000	0.125
2	70	0.024	1.000	0.028	0.500	0.970	0.125
3	50	0.031	1.000	0.031	0.500	0.937	0.188
3	65	0.031	1.000	0.062	0.500	2.000	0.188
3	70	0.039	1.000	0.062	0.500	0.937	0.188
4	65	0.062	1.000	0.062	0.500	2.000	0.188





## COMMON PERFORATING PATTERNS

#### **Common Perforating Patterns**

For the business form and carton industries

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")

(Teeth per inch and decimal spacing)

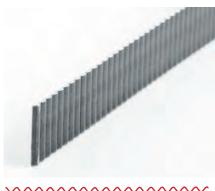
#### For the corrugated industry (Fractional tooth width and spacing)

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")

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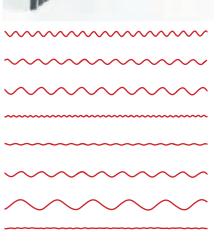
## **WAVE RULES**



#### **Wave Rules**

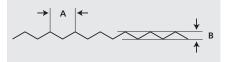
Helmold is the only producer of wave and zipper rules with the rule shape spread over the complete height of the rule. This gives the rule a very exact form and a very precise line in the center of the rule and a much higher stability. Helmold offers the wave rule in multiple numbers of standard dimensions and also provides the possibility for new customized versions.





Thickness	Description	Type of Wave	Length	Dim. A	Dim. B
1.5 pt	Fine Angle	Full Body	27.25	0.123	0.050
1.5 pt	Medium Angle	Full Body	26.5	0.185	0.065
1.5 pt	Coarse Angle	Full Body	24.75	0.225	0.095
1.5 pt	Deckle Edge	Flat Body	30	_	-
2 pt	Fine Angle	Full Body	29.25	0.133	0.045
2 pt	Medium Angle	Full Body	28.5	0.220	0.065
2 pt	Coarse Angle	Full Body	27	0.384	0.112
2 pt	Deckle Edge	Flat Body	30	_	-
2 pt	Scalloped Wave	Full Body	28.5	0.493	0.098
1.5 pt	Close Wave	Full Body	25.75	0.164	0.084
2 pt	Corrugatged Edge	Flat Body	30	_	0.043
3 pt	Corrugated Edge	Flat Body	30	_	0.050
3 pt	Micro	Flat Body	30	_	0.040







#### **Steel Spacing 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**

Thickness	Height
1 pt.	.500 .625 .687 .750
1½ pt.	.500 .625 .750
2 pt.	.500 .625 .750
3 pt.	.500 .625 .750
4 pt.	.500 .625 .750
6 pt.	.500 .625 .750



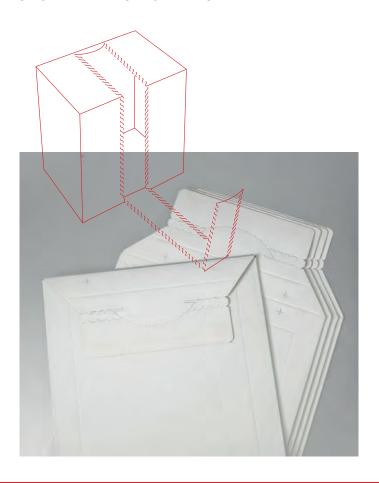
## **TEAR EDGE RULES (ZIPPER)**

#### **Tear Edge Rules (Zipper Rules)**

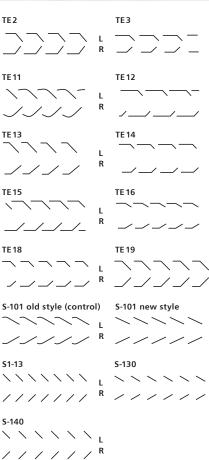
Tear edge rule is used to produce the "zipper opening" in ice cream, tissue, foil and plastic bag carton to name a few. The true advantage of Helmold's tear edge rule is that it can be bent from the bevel edge to the base, making it the strongest tear edge available.

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 costumers the best product; specify Helmold tear edge rule.







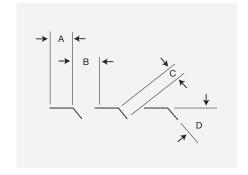
## helmold<sup>®</sup> W



## **SPECIFICATIONS**



**Specifications** 8" lengths, 2pt. body. S series



#### **Tear Edge Specifications**

		Α			В			С			D	
	Nominal	Min	Max	Nominal	Min	Max	Nominal	Min	Max	Nominal	Min	Max
TE 2	0.187	0.184	0.191	0.200	0.197	0.203	0.188	0.185	0.191	44	43	45
TE 3	0.250	0.248	0.151	0.194	0.193	0.196	0.125	0.124	0.127	44	43	45
TE 11	0.313	0.31	0.315	0.057	0.055	0.06	0.053	0.05	0.055	44	43	45
TE 12	0.313	0.3085	0.3165	0.127	0.123	0.131	0.125	0.121	0.129	49	48	50
TE 13	0.130	0.127	0.133	0.244	0.241	0.247	0.260	0.257	0.263	44	43	45
TE 14	0.250	0.247	0.253	0.148	0.145	0.151	0.125	0.122	0.128	44	43	45
TE 15	0.156	0.1545	0.1575	0.189	0.188	0.191	0.250	0.249	0.252	44	43	45
TE 16	0.188	0.184	0.192	0.136	0.132	0.14	0.125	0.121	0.129	44	43	45
TE 18	0.156	0.1525	0.160	0.186	0.182	0.189	0.125	0.122	0.129	44	43	45
TE 19	0.094	0.090	0.098	0.145	0.141	0.149	0.156	0.152	0.160	44	43	45





## **CREASING RULES**



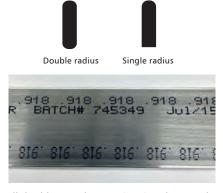
#### **Creasing Rules**

Helmold's hard (40 Rc) crease rule comes in the traditional profile with a radiused top and flat bottom, as well as a dual radiused profile. This shape allows either edge to be used for scoring, will not splinter wood, and produces well defined scores while inhibiting board cracking. Helmold stocks all standard creasing rule heights, and can custom manufacture virtually any size quickly. Our creasing rule is designed for all applications in the packaging and folding carton industry. The smooth face and quality tolerance makes this a selection for all applications.

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

	<u> </u>	
1 ½ & 2pt	3 pt	4pt
.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.



All double round crease is printed top and bottom so the printing can always be read.





## **CREASING RULES**

#### **Reverse Laser Crease**

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

Reverse	Laser	Crease

Body (A)	Face (B)
2 pt	1 pt
2 pt	1.5 pt
3 pt	1 pt
3 pt	1.5 pt
3 pt	2 pt

Available in 30" lengths.

#### **Helmold Creasing Rule**

Helmold creasing rule is designed for all applications in the packaging and folding carton industry. The smooth face and quality tolerances make this a selection for all applications.

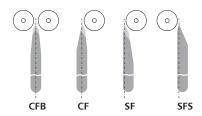
<b>Body Hardness</b>	$1.5\mathrm{pt} = 45\mathrm{RC}$
	2pt + 3pt = 40RC
	4pt + 6pt = 35RC
Bendability	Straight work only
Thickness	1.5 pt / 2 pt / 3 pt / 4 pt / 6 pt
Heights	1.5 pt = .500" thru 1.500"
	2 pt + 3pt = .500" thru 2.000"
	4pt = .500" thru 2.000"
	6pt = .500" thru 1.250"
Bevel Finish	single round (SR), double round (DR)

# (5 bohlerstrip)

## **ROTARY STEEL RULES**

# O bohlerstrip®

## **ROTARY STEEL RULES**



#### **Cutting Bevel Types**

**CFB** Centered cutting edge of steel rule (symmetrical)

**CF** Centered cutting edge (symmetrical)

**SF** Off-center bevel (unsymmetrical)

**SFS** Off-center bevel (unsymmetrical), teeth ground on short bevel

#### **CENTER BEVEL STANDARD SERRATED CUTTING RULES**

- Provide uniform edge appearance
- Ideal for automated diemaking equipment



Bohlerstrip USC 10 is one of the most versatile rotary cutting rules in this industry. USC 10 is a true center bevel rule that is recommended for cutting a wide range of corrugated materials. This profile also provides superior bending properties and reduced anvil wear.

Quality	TOP 36	
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		CFB





Bohlerstrip STC 12 is a standard center bevel cutting rule. This rule provides an enhanced finished product edge appearance for both lightweight singlewall and micro-flute corrugated board. Additionally, this profile is recommended for cutting a variety of foam materials.

Quality	TOP 36	
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Quality	universal	
Hardness	Body	-340HV (35HRC)
	Edge	-500HV (49HRC)
Thickness	(pt/mm)	3/1.05, 4/1.42
Bevel type		CFB



Bohlerstrip SWC 8 is engineered to cut heavy-weight double and triple wall corrugated board with minimal pressure. As with all the SWC rules, this material is also recommended for lead and trail edges to reduce the cutting pressure.

Quality	UNIVERSAL	
Hardness	Body	-340HV (35HRC)
	Edge	-500HV (49HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		CFB







## **ROTARY STEEL RULES**



Bohlerstrip SWC 10 performs superbly, in both directions, on 32 ECT and above singlewall corrugated board. SWC 10 can also be used on longer lead and trail edges to reduce cutting pressure and deflection. To see the benefit of the reduced gullet and anvil wear it is recommended to increase the creasing rule height.

UNIVERSAL	
Body	-340HV (35HRC)
Edge	-500HV (49HRC)
(pt/mm)	4/1.42
	CFB
	Body Edge



Bohlerstrip US 8 is a center bevel rule that is designed to combine the benefits of a side bevel rule with the convenience of a center bevel. This unique profile provides reduced edge crush along with improved stripping. To improve stripping it is recommended that the serrated edge goes towards the scrap (to crush it) to help removal. Although this rule has different finishes on each side the tip is still precisely in the center. This is very important to obtain dimensional accuracy when cutting multiple out designs.

Quality	TOP 36	
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Quality	TOP 40	
Hardness	Body	-390HV (40HRC)
	Edge	-390HV (40HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		CF



#### **CENTRE BEVEL SPECIAL SERRATED CUTTING RULES**

- Combines features of side bevel and center bevel
- The non ground side improves scrap ejection

Bohlerstrip ST5 is designed to cut heavy duty packaging materials. Big size precision ground teeth secure easy penetration. Also used for nicking and removable windows in corrugated containers.

Quality	TOP 36	
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		CF



Bohlerstrip USC 8 is an aggressive profile that permits minimal cutting pressure on thicker materials. The barbed tips and sharp gullets ensure easy penetration and shearing of the toughest materials.

Quality	TOP 36	
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		CFB





## **ROTARY STEEL RULES**



Bohlerstrip STC 8 has very sharp "V" shaped teeth that permit easy penetration through the toughest of corrugated materials. This provides easy and clean cutting on all double and triple wall board weights. Made from standard rotary tempered rule, this rule has good bendability to match many designs. For long runs edge hardened rules are available.

Quality	TOP 36	
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		CFB



Bohlerstrip US 10 has a shaved execution on one side whereas the opposing side is ground. This smooth side supports reduced edge crush on the finished product. The edge tip is still precisely in the center which is very important to sustain dimensional accuracy when cutting multiple-out designs.

Quality	TOP 36	
		2.401 " / (251 156)
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Quality	UNIVERSAL	
Hardness	Body	-340HV (35HRC)
	Edge	-500HV (49HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		CF



Bohlerstrip CF / CC 14 provides a shallow gullet along with an extremely sharp cutting edge. This combination achieves great cutting performance for fibrous materials, plastics, and microfluted corrugated boards. While this rule works to cut multiple materials it is recommended to cut against uniform and leveled anvils. Also suitable for soft anvil roller diecutters.

Quality	UNIVERSAL	
Hardness	Body	-340HV (35HRC)
	Edge	-500HV (49HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		CF

Bohlerstrip Shallow Profile 14 has a unique gullet profile that requires minimal penetration on various substrates. While this rule cuts many materials with little impression, a uniform and leveled anvil is strongly recommended. This is also a good option for soft anvil roller diecutters and higher durometer soft anvils.



Quality	TOP 36	
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Quality	UNIVERSAL	
Hardness	Body	-340HV (35HRC)
	Edge	-500HV (49HRC)
Thickness	(pt/mm)	3/1.05
-		



## **ROTARY STEEL RULES**



Bohlerstrip STC 20 is a symmetrically ground 20 teeth per inch rule. This sharp tipped rule cuts light weight paper and microfluted corrugated with ease. Bohlerstrip ST 20 is designed for cutting microflute corrugated board (E-, F-, N-flutes). It has also achieved an excellent reputation in the automotive industry. This rule is the perfect selection when a clean product edge is required. A uniform and leveled anvil is required when using this material.

Quality	TOP 36	
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		CF

# (7 bohlerstrip

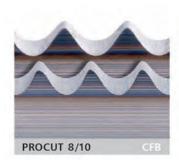
## **PROCUT**

THE RULE THAT STANDS STRONG ABOVE THE REST





## **PROCUT STEEL RULES**



Specifically for fruit and vegetable boxes made of corrugated cardboard, the market requires improved box stability that is more enhanced for printing graphics.

To support this trend, Bohlerstrip has developed a new generation rotary cutting rule to address many of these challenges relating to the die cutting of new age corrugated cardboards- ProCut.

Quality	UNIVERSAL	
Hardness	Body	-390HV (40HRC)
	Edge	-500HV (49HRC)
Thickness	(pt/mm)	4/1.42
Heights		25.15/25.40/25.98/26.16 0.990"/1.000"/1.023"/1.030"
Bevel type		CFB

#### **Benefits**

- Reduced anvil cover wear
- Low dusting risk
- Reduced cracking risk when bending narrow angles
- Cleaner finished cut appearance due to true center bevel.

#### **Features**

- Deeper hardened edge
- Thermally distressed curved rule
- Fine ground bevels
- Radius gullet
- Hybrid tooth geometry sharp but not too aggressive
- Symmetric edge profile





#### SIDE BEVEL STANDARD SERRATED CUTTING RULE

- Used for technologies with retention of the scrap in the cutting die
- Additional room for ejection materials in small areas

Bohlerstrip SFST 12 is the original profile for rotary diecutting. This profile was the standard cutting rule when rotary diecutting began. Today SFST 12 performs well for cutting light weight single wall and micro-flute corrugated paper as well as many types of foam.

Quality	TOP 36	
Hardness	Body	-340HV (35HRC)
	Edge	-340HV (35HRC)
Thickness	(pt/mm)	4/1.42
Bevel type		SF

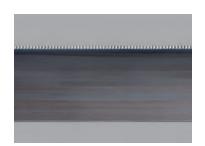


#### SIDE BEVEL SPECIAL SERRATED CUTTING RULE

• SFS - special unique design of SF bevel

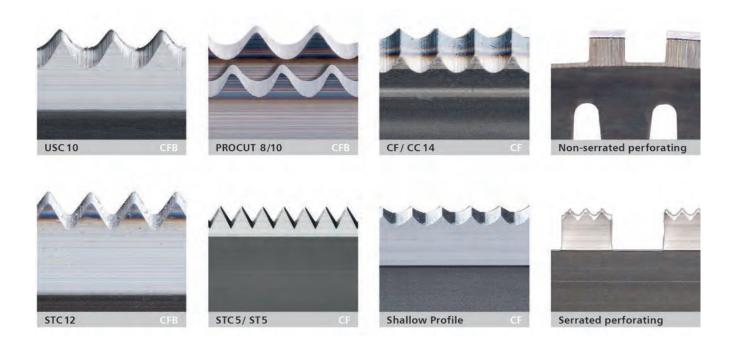
This new rule has a unique side bevel tooth shape with micro points (24 TPI) that penetrate the surface of Foam-X® board. It allows for easy parting from low loads without damaging the delicate foam structure. bohlerstrip's SFSUS24 extra sharp cutting edge and unique tooth shape provide unrivalled performance results on Foam-X® board. It outperforms conventional beveled rule, offering improved cosmetic finish to the cut foam composite board.

UNIVERSAL 60	
Body	-450HV (45HRC)
Edge	-500HV (49HRC)
(pt/mm)	3/1.05
	SFS
	Body Edge

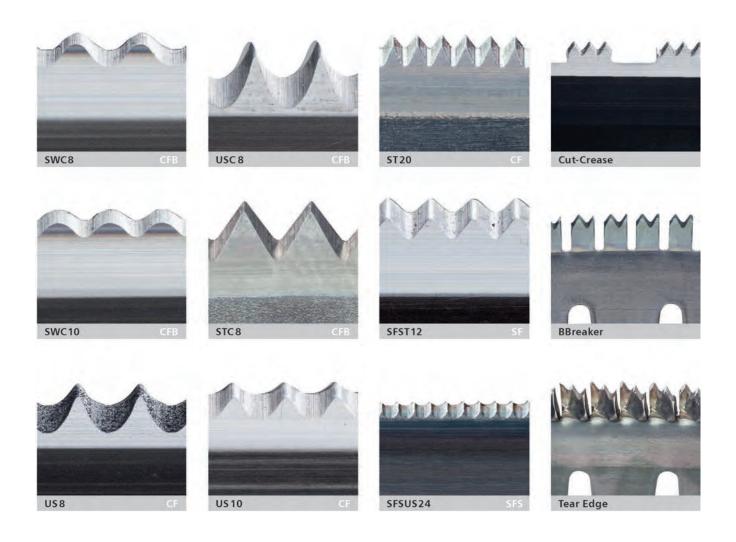


## **O** bohlerstrip

## **OVERVIEW**



## voestalpine ONE STEP AHEAD.





## **CREASING RULES**

For creasing the flaps of boxes high precision creasing rules are required. Folding box design and the precision of final products are becoming more demanding, which requires the application of high quality creasing rules with tight tolerances.

Creasing rule tolerances have to be adjusted to the tolerances of cutting rules. This is essential for best creasing results.

#### Bohlerstrip creasing rules offer:

- Very smooth crease head surface
- Perfectly radiused profile
- Smooth transition from radiused profile to the side faces
- Minimum excentricity
- Minimum height and thickness tolerances

#### **MANUFACTURING RANGE**

#### **TOP 36:**

Standard grade for Bohlerstrip rotary creasing rules.

#### HT - Hardened and Tempered:

This process guarantees stability on creasing rules with thickness≤3 pt.

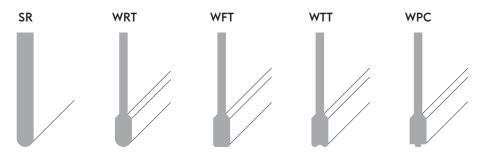
#### HR – Hard Rolled:

For rule thickness>4 pt.

Brand	Hardness 3	3pt 1.05mm	4pt 1.42mm	6pt 2.13mm
Bohlerstrip TOP 36	-340HV (34HRC)	•	•	on request
Bohlerstrip HT	-380HV (40HRC)	•	_	_
Bohlerstrip HR	min 265 HV (850N/mm²)	-	•	•



#### **CREASING RULE PROFILES**



Single	Single Round		Wide Top		Top Specials
	SR		WRT / WFT		TT / WPC
(pt)	(mm)	(pt)	(mm)	(pt)	(mm)
3	1.05	3/6	1.05/2.13	3/8	1.05/2.84
4	1.42	3/8	1.05/2.84	4/8	1.42/2.84
6	2.13	4/6	1.42/2.13		
		4/8	1.42/2.84		
		4/14	1.42/5.00		



#### **ROTARY WAVE CREASE**

RWC has an 8 pt wide waved top with a 4 pt base. This profile allows for an accurate fold due to its wider crease top, while reducing wear on die-making equipment.



## **BOHLERSTRIP SPECIAL RULES**

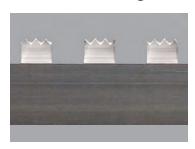
#### Non-serrated Perforating Rules



Bohlerstrip non-serrated perforating rules are center-beveled without teeth and available in a wide range of tooth/gap combinations. For soft anvil diecutting standard perforating rule is recommended for tooth size under 6 mm ( $\frac{1}{4}$ "). This will give a more stable and consistent rule.

Thickness		4pt/1.42mm
Heights		23.80 (.937") - 25.40mm (1.000")
Standard configuration	Europe:	6x6mm, 10x10mm, 12x12mm
	USA:	1/4"x1/4", 3/8"x3/8", 1/2"x1/2"
		(others on request)
Standard gap depth		4.75mm (3/16"), 3.00mm (1/8")
		(others on request)

#### **Serrated Perforating Rules**



Bohlerstrip serrated perforating rules have a standard profile of STC 12 tpi. Serrated perforation is recommended for soft anvil diecutting and when the tooth is 6 mm ( $\frac{1}{4}$ ") or larger. This will help reduce crushing and flaking on the finished product.

Thickness		4pt/1.42mm
Heights		23.80 (.937") - 25.40mm (1.000")
Standard configuration	Europe:	6x6mm, 10x10mm, 12x12mm
	USA:	1/4"x1/4", 3/8"x3/8", 1/2"x1/2"
		(others on request)
Standard gap depth		4.75mm (3/16"), 3.00mm (1/8")
		(others on request)

#### **Cut-Crease Rule**



Cut-Crease rule is a shallow-gullet profiled rule that only perforates and creases the inner liner. Cut-Crease allows for an accurate fold line when folding in direction of the corrugated flutes.

Thickness		4pt/1.42mm
Heights		23.80 (.937") - 25.40mm (1.000")
Standard configuration	Europe:	6x6mm, 10x10mm, 12x12mm
	USA:	1/4"x1/4", 3/8"x3/8", 1/2"x1/2"
		(others on request)



Bohlerstrip Rotary Pre-Nick rules are produced from the highest quality steel available. This line of rule helps control the corrugated sheet by consistently holding multiple-out diecuts together.

Quality	TOP 36
Thickness	4pt/1.42mm
Heights	24.64 (.970") - 26.16mm (1.030")
Standard tooth design	CFSTC12
Minim um gap width	1.42mm
Gap depth	6mm
Back notch depth (N3)	9.5mm
Available tooth/gap combinations on	request
Available in SNN & N3C execution	

Bohlerstrip Rotary Tear Edge rule is designed for detachable windows. This rule allows for a durable hold in shipping while still providing easy removal. Tear Edge is essential for today's shelf-ready packaging.

Quality	TOP 36	
Thickness		4pt/1.42mm
Heights	24	.64 (.970") - 26.16mm (1.030")
Standard tooth design		CFSTC12
Tooth spacing		4mm
		Left & right
Smallest curving diameter for notch	n designs N2C/N7C	319mm
Available in SNN & N7C execution		

#### **BBreaker**



#### **Tear Edge**





## **FORMS OF DELIVERY**

#### Straight execution axial use

Bohlerstrip rotary rules in straight execution are produced in cut lengths as well as in coils.

SNN SN7 SN2

straight, with no notches straight, with tapered notches straight, with parallel notches

#### Coils

Material delivered in coils is packed in dispenser boxes or if steel strapped (radial) in corresponding coil packaging.

#### Standard coil boxes:

For automatic bending machines various types of coils are offered. Based on the machine type the inner diameter and winding direction have to be specified. The standard inner diameters are 400 mm and 445 mm. Further diameters are available upon request.

Standard coil length: 45.7 m (150 ft) for SNN execution

**Dispenser boxes** (available only in SNN):

Dispenser boxes allow easy rule pull-out of the box for just the rule length required, thus minimizing rule waste. These boxes also protect the rule and are a safe way of storage.

Standard coil length: 30.5 m (100 ft)

Attention: Coils packed in dispenser boxes are not wrapped in anti-

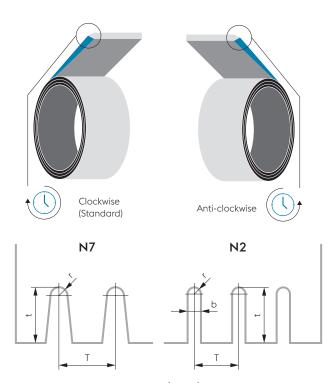
corrosion paper.



#### Coiling directions and strip marking:

FA: Anti-clockwise winding direction: view on cutting bevel "7" – outside printing

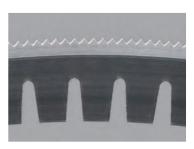
F: Clockwise winding direction: view on cutting bevel "6" – outside printing



	Tapered notches		Parallel	notches
	Ν	17	N	12
	(mm)	(inch)	(mm)	(inch)
Spacing T	12.7	0.500"	10.0	0.394"
Depth t	12.7	0.500"	12.2	0.480"
Radius r	1.6	0.063"	1.75	0.069"
Width b	_	-	3.5	0.138"



#### **CURVED EXECUTION RADIAL USE**



N2C/N7C



**NNC** 

Curved rules are required for radial use.

(Executions: N2C/N7C/NNC)

Curved rotary rules are always delivered in coils.

Standard inner diameters for different machine sizes vary from  $\emptyset$  177 to 750 mm (7"–29 1/"). Starting from  $\emptyset$  360 mm (14 3/16") we offer unnotched curved rotary rules (NNC).

All curved rotary rules are thermally stress relieved to eliminate stress generated during curving, reducing the risk of fatigue cracking during operation.

Standard coil length for curved execution is 30.5 m (100 ft). For curving inner diameter (ID) < 300 mm = short coils only (15.2 m / 50ft).

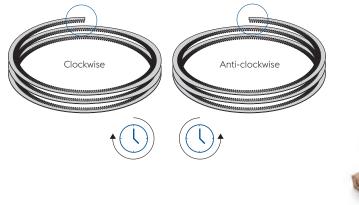
No dispenser boxes for curved rules (only in SNN).

#### **Coiling directions**

For curved material (N2C, N7C, NNC)

**U:** Clockwise (end of coil on the top to the right side)

**N:** Anti-clockwise (end of coil on the top to the left side)





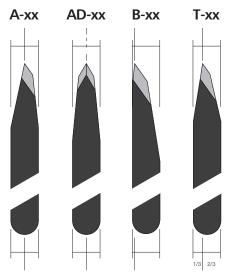


## MARTIN MILLER ROTARY CUTTING RULES

## martin miller

## **ROTARY CUTTING RULES**

#### **TYPES OF BEVEL**



#### **Specification**

Execution*	MM 34	HP34/HF34
Hardness body	~340HV	~340HV
Hardness edge	~340HV	~530HV
Bevel finish		ground teeth, long bevel shaved
Thickness	3pt/1.05mm, 4pt/1.42mm, 6pt/2.13mm	
Height	21.30-30.16mm/0.840"-1.187"	

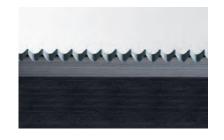
<sup>\*</sup> HP40 on request

#### Tooth shape

#### **Standard Rotary Cutting Rules**

ST-Standard	RS-Round Shape	DC-Double Cut
Standard design	round gullet-pointed tooth	smaller gullet depth
Aggressive tooth shape		
for general use	best bendability	less wear on anvils







Profiles	TPI	Profiles	TPI	Profiles	TPI	
A-ST/AD-ST	8T	A-RS/AD-RS	8T	AD-DC	8T*	
A-ST/AD-ST	10T	A-RS/AD-RS	10T	AD-DC	10T	
A-ST/AD-ST	12T*	A-RS/AD-RS	12T*	AD-DC	12T	

<sup>\*</sup>preferred stock item





## **SPECIAL ROTARY CUTTING RULES**

#### FINECUT 14T/BST 12T/AST 20T

## It performs with minimal penetration on many different types of materials.

Execution	MM 40	MM 44	HP34/HF34
Hardness body	~340HV	~430HV	~340HV
Hardness edge	~340HV	~430HV	~530HV
Thickness			3pt/1.05mm
			4pt/1.42mm
Height			23.80-50.80mm
			0.937"-2.000"
Bevel			T (Asymmetric)



#### 12T was the starting point in rotary diecutting and has moved more and more from side bevel. But side bevel still has some limited use today.

Execution	MM 34	HP34
Hardness body	~340HV	~340HV
Hardness edge	~340HV	~530HV
Thickness		4pt/1.42mm
Height		23.80-26.40mm
		0.937"-1.039"
Bevel		B (Side bevel)

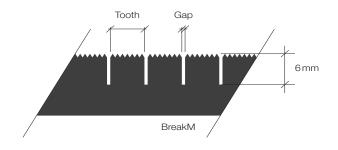


## This rule is appropriate when a clean edge appearance is required.

Execution	MM 34	HP34
Hardness body	~340HV	~340HV
Hardness edge	~340HV	~530HV
Thickness		4pt/1.42mm
Height		23.80-26.40mm 0.937"-1.039"



## martin miller



## **ROTARY SPECIAL RULES**

#### **PERFORATING AND CUT-CREASE RULES**



#### **Perforating and Cut-Crease Rules**

Execution	MM 34
	IVIIVI 54
Hardness	~340HV
Bevel	A (shaved standard bevel) AD/ST, 12tpi
	(ground teeth, long bevel shaved)
Thickness	4pt/1.42mm
Height	21.30-26.70mm/0.840"-1.050"



## **BreakM** Special tooth gap combination - for nicks on rotary knives with standard serration.

Execution	MM 34
Hardness	~340HV
Bevel	AD/ST, 12tpi
Thickness	4pt/1.42mm
Height	21.30-26.70mm/0.840"-1.050"
Minimum gap	1.42mm
Back notch depth	9.50mm

Available combinations on request.



## **TearM** Serrated rotary zipper rule - used for creating hand holes and general zipper applications.

Execution	MM 34
Hardness	~340HV
Bevel	AD/ST, 12tpi
Thickness	4pt/1.42mm
Height	21.30-26.40mm/0.840"-1.039"
Length of tooth	4mm
Direction	left/right (separately packed)

Others on request.



## **ROTARY SPECIAL RULES**

#### **BACK EXECUTIONS / FORMS OF DELIVERY**

SNN	SN	CUR	CNN
straight, no notches	straight, with notches	curved, with notches	curved, no notches









Notch depth t = 12.7mm - conical (CON), t = 12.2mm - parallel (PAR) Notch distance T - 12.7mm - conical (CON), T = 10mm - parallel (PAR) Other notch depths on request.

#### Forms of Delivery

		SNN	SN	CUR	CNN
in lengths rule length		1m/762mm (30")	1m/762mm (30")	_	_
in coils	coil length	3pt-70m • 4pt-50m	3pt-70m • 4pt-50m	4pt-30.5m	4pt-30.5m
standard inner coil-Ø		400mm	400mm	487mm	487mm
 (others on request)				(177mm-664mm)	(270mm-664mm)
winding direction		RU: coil end on top left hand "∂"		N: counter-clockwise	
(view on bevel)		RU: coil end on top right hand "6"		U: clockwise	
Due to our unique production method we achieve extremely small curving diameters: CUR = 177mm, CNN = 270mm					



## martin miller

## **HARDNESS CONVERSION**

#### MARTIN MILLER CUTTING EDGE STEEL HARDNESS CONVERSION

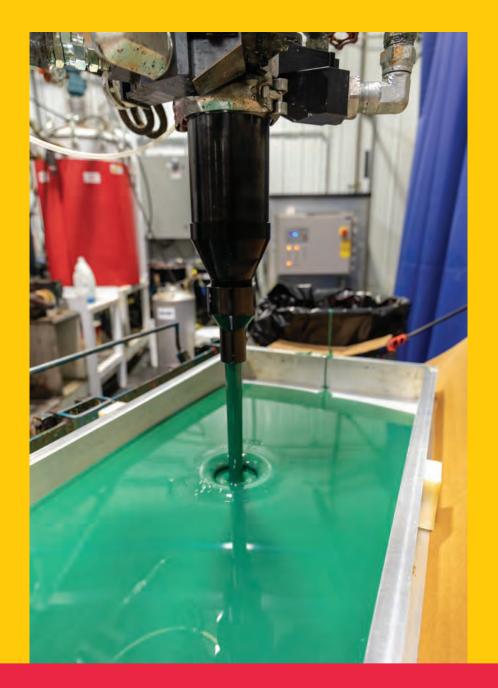


Vickers Hardness		Rockwell Hardness		Shore Hardness	
(HV)	(HV)	(HRC)	(HRC)	~(HS)	~(HS)
800	490	64.0	48.4	88	65
780	480	63.3	47.7	87	-
760	470	62.5	46.9	86	63
740	460	61.8	46.1	-	-
720	450	61.0	45.3	83	-
700	440	60.1	44.5	-	59
690	430	59.7	43.6	-	-
680	420	59.2	42.7	80	-
670	410	58.8	41.8	-	56
660	400	58.3	40.8	79	54
650	390	57.8	39.8	-	-
640	380	57.3	38.8	77	-
630	370	56.8	37.7	-	51
620	360	56.3	36.6	75	50
610	350	55.7	35.5	-	48
600	340	55.2	34.4	-	47
590	330	54.7	33.3	73	46
580	320	54.1	32.2	-	45
570	310	53.6	31.0	71	43
560	300	53.0	29.8	-	-
550	290	52.3	28.5	70	41
540	280	51.7	27.1	-	40
530	270	51.1	25.6	68	38
520	260	50.5	24.0	-	37
510	250	49.8	22.2	66	35
500	240	49.1	20.3	-	34



## **EJECTION RUBBER**

THE SCIENCE OF DIE EJECTION





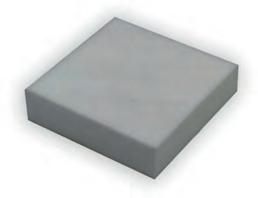


## **ROTARY DIE**



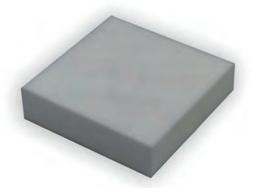
#### 10000 Series

Made specifically for recycled corrugated board, 10000 series offers soft, fast ejection. Multiple colors available. Also suitable for flat die cutting of recycled corrugated board.



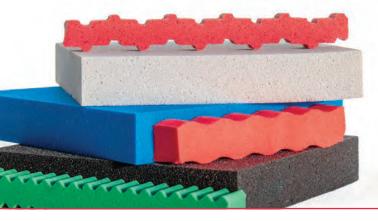
#### 12000 Series

Perfect for ejecting corrugated or foam core that is prone to dent, 12000 series is recommended for ejection on a rotary die and for flat die applications where crush is a concern. Available in multiple colors.



#### 22000 Series

With longer lasting performance when compared to standard black open cell, 22000 series is the best product to start with for all your corrugated dies, flat or rotary. Recommended for product and scrap ejection. Available in multiple colors.





A C&T COMPANY

#### **BK85 Series**

High density, super resilient ejector very similar to Green Grilla for use in both rotary and flat-bed die cutting for that extra push needed in slots or tightly ruled areas of the die. Also good as a trim breaker rubber. Also used in flat die cutting.

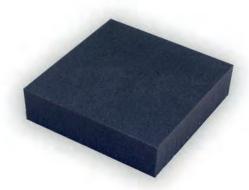


Longer lasting performance when compared to standard black open cell. Also used in flat die cutting.



#### **MR24 Series**

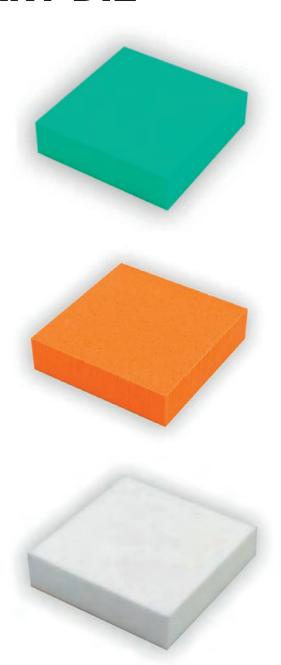
MR24 has a durometer and compression/deflection slightly less than Red Rhino, and was originally developed to be used on the lead edge of rotary dies. However, it has a wider functional range of motion than Red Rhino and as such, can fill other requirements, as well.





# \*\*\*\*\*\*\*

## **ROTARY DIE**



#### **MR35 Series**

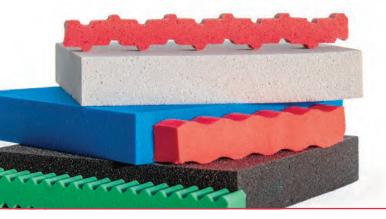
When Red Rhino is a little too soft and MR40 is a little too firm, MR35 is the perfect fit. Also used in flat die cutting.

#### **MR40 Series**

MR40 is an excellent alternative to using Super Strip in larger scrap areas. The PSI force of this product is lower than Super Strip but higher than Red Rhino.

#### **MR50 Series**

MR50 is the ideal elastomer for product ejection for soft recycled corrugated products or when fragile laminates are on the corrugated, or when 10000 series is too much.





Monroe Rubber & Plastic, Inc.

#### **Red Rhino Series**

Red Rhino is excellent for folding carton as well as for corrugated die cutting. It is a very economical, tight tolerance ejector that is recommended for both hand fed and machine fed flat bed cutting, as well as rotary die cutting. It was formulated to pair ideally with Green Grilla for a perfectly balanced die. Also ideal for use on male blanker faces.



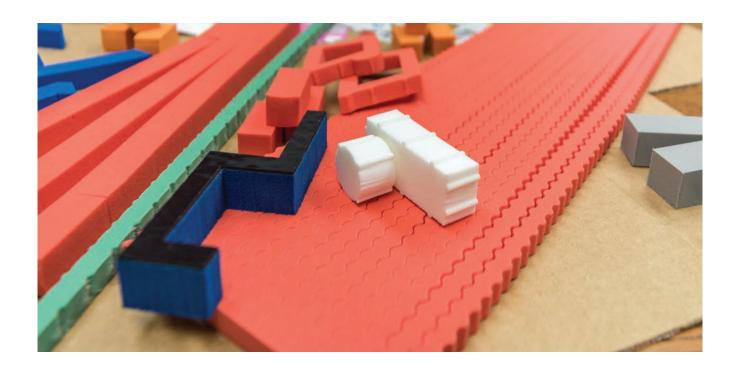
Super Strip is a European, high ejection force product used mainly for slot ejection in both rotary and flat-bed die cutting. As it compresses, it does not bulge, making it ideal for slots & punches.







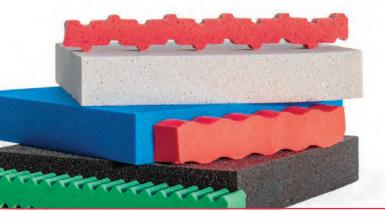
## **FLAT DIE**





#### Green Grilla

Used primarily for small area ejection, Green Grilla is a powerful, tight tolerance, highly resilient ejector. When cut in the Groovy Grilla shape, it does a fantastic job of ejecting material from slots as narrow as 1/8" wide. It is also known for its extreme durability.





Monroe Rubber & Plastic, Inc.

#### **13500 Series**

13500 is recommended in areas to flat crush the substrate. An extra firm material that should be used sparingly because of the possibility of tonnage overload, it is recommended for flat die cutting in areas where you want to flat crush the substrate (ie Glue tabs).

#### **MR75 Series**

MR75 is a microcellular polymer without all the large holes and thickness variances of the old standard 75 rubber. It is the new and improved version that can outperform and outlast old 75 rubber.

**Gray 6# Stripping Foam** 

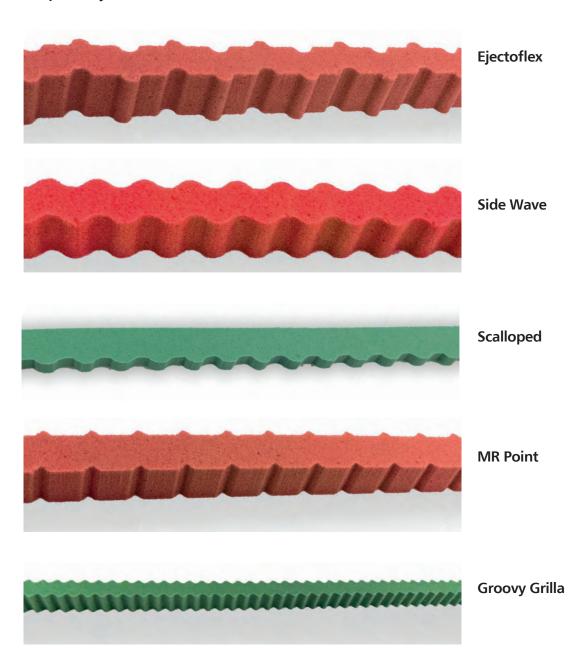




Monroe Rubber & Plastic, Inc.



All Monroe products are available in a variety of cuts (Sidewave, MR point, Ejectoflex, etc.) and with or without PSA..







# NOT SURE WHAT EJECTION MATERIAL TO USE?

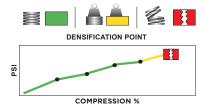
**USE THIS FUNCTIONAL RANGE OF MOTION CHART** 



	COMPRESSION / DEFLECTION FORCE (PSI) = FUNCTIONAL AREA				SHEET						
MATERIAL		PERCENTAGE OF COMPRESSION					SIZE				
	10%	20%	25%	30%	40%	50%	60%	70%	80%	90%	Inches
Poly - blue, yellow, orange	1.4	1.5	1.7	1.8	2	2.7	4.5	7.6	21	<u> </u>	26 x 37
MR 50	6	8.5	9	9.6	11.5	15	22.5	43.5	120		22 x 42
10000 Series	7	9.6	10.5	11.5	13.8	17.6	25.6	47.4	132	\$	22 x 42
12000 Series	8	11.5	13	14.4	18	23.5	36.5	77.5	190	Ŧ	22 x 42
MR 1100	10.2	15	16.8	18.4	22.5	29	44.5	82	205	1	18 x 36
22000 Series	11.3	16	17.8	19.5	24	31	46.3	90.4	220	1	22 x 42
EPDM - Gray Closed Cell*	7.2	11.2	13.4	16	22.7	33.2	52.2	95	243	1	
Black Open Cell	9.5	14.6	17.4	20.2	27.2	38	63.3	•			18 x 36
15700	8.9	14.2	17.7	21.4	33.1	57	1				18 x 36
2700	10.7	16.6	18.4	21.4	29.6	43	74.9	*			18 x 36
MR 24	13.6	20.3	22.7	25	32.2	44	77	191	1		18 x 36
Red Rhino	15.5	23	25.2	27.6	33	41.5	60	114	250	*	18 x 36
6500	14.7	25.3	30	36.4	58.4	103.6	*				18 x 36
MR 35	19.5	29.8	33	36	43.3	55	80.5	155	*		18 x 36
75 Open Cell*	17	25.6	30	34.5	45.3	63.7	114.8	¥			
MR 75	22.4	33	36.2	39.5	47.7	61	113.5	165	1		18 x 36
3500	18.5	30.2	35.6	42.5	64.6	113.2	*				18 x 36
MR 40	25.7	40	44.7	49.3	60.6	95	125	225	•		18 x 36
Green G'rilla	31	49.4	56	62	78.2	106.4	166	291	*		18 x 36
BK 85	32.4	52.5	59.5	66	82.8	110.5	167	300	*		18 x 36
Superstrip	39.5	59.7	66.2	72.5	86.8	110	154.2	267	-		10 x 20
13500 Cork	60.9	99.2	119.9	145.3	225.9	*					18 x 36

Failure

Functional Range of Motion Densification Point



As with any moving mechanical or compressible part there is a maximum functional range of motion. Once that range is exceeded the item no longer functions properly which will lead to failure.

This chart shows the maximum functional range of motion in green for each product. Once the functional range is exceeded it enters the yellow densification point where the rubber becomes a solid and can no longer compress. Go beyond this point and the rubber will fail, breaking apart. For the ejection rubber to work properly it must remain within the green Functional Range of Motion.



Phone: 800-451-7373 Email: sales@ccmdie.com Website: www.ccmdie.com

NOTES			



## **DIANSUPLY RUBBERS**





## **DIANSUPLY RUBBERS**



G-257

For rotary die cutting ejection, it is also used for corrugated flat die cutting and thicker substrates. Available in large sheet sizes. Also available in red, blue and black.



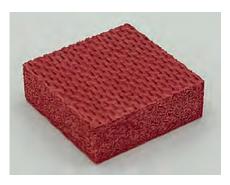
6110

Extra firm, premium ejector used for cartons, labels and other thin substrates.



6118

Firm, premium ejector used for both corrugated cartons and thicker substrates.



T-75

Extra firm, economic ejector used for cartons, labels and other thin substrates. Often used in Max Point or Sidewave profiles. Available in large sheet sizes.



F-70

Firm, economic ejector used for both corrugated cartons and thicker substrates. Available in large sheet sizes.

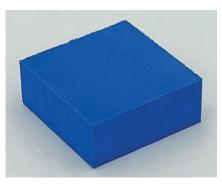


**RD-73** 

Versatile, firm ejector that works well on high speed, flat die cutting, offering strong, consistent ejection force while not marking the product.







#### BlueZoom

Versatile, firm ejector that works well on high speed, flat die cutting, offering strong, consistent ejection force while not marking the product.



#### 6220

Tan, premium ejector for thick substrates and hand fed, flat die cutting.



#### K-60

Tan, economic ejector similar to B-65, except for thicker substrates. Available in large sheet sizes.



#### **B-65**

Economic ejector perfect for thick substrates and hand fed, flat die cutting. Available in large sheet sizes.



#### 6320

Tan, premium ejector similar to 6220 but for thicker substrates.



#### Cork

Premium, durable cork and neoprene rubber combination used for flat crush. Best option for waterjet cutting.





## **DIANSUPLY RUBBERS**



**Soft White Foam** Available in pieces, strips, or sheets.



**Firm Blue Foam** Available in pieces or strips.



**Econo Cork**Economical cork option best suited for shorter runs.

All Diansuply products are available in a variety of cuts and with or without PSA.



Strong ejector for narrow slot ejection. Primary product for ZAG profile and available in large sheet sizes.



**Dura Bull**Popular slot ejector for both rotary and flat die cutting. Also used in blocks for rotary trim breaker and scrap ejection.



## **C&T MATRIX EJECTION RUBBERS**



## **SPRINT EJECTION RUBBERS**

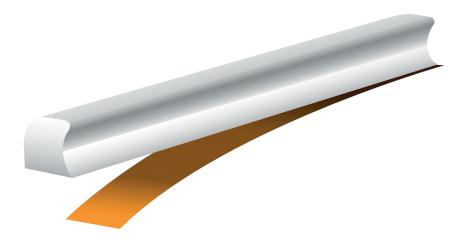
#### **SOLID BOARD PROFILES**

THE WORLD'S BEST SELLING PROFILE RUBBER OFFERS ALL THESE ADVANTAGES:



#### **Sprint Rubba**

- Impressions exceeding 1.5 million
- UV resistant
- High resistance to heat
- Unique rollover profile reduces nicking and delamination
- Approved for direct food contact



#### **Super Sprint**

- No glue residue cleaner die
- No solvents better for environment
- Won't damage plywood when removing
- Adheres to coated and uncoated plywood
- Supplied in 5mm and 8mm base widths
- Finger lift tape can be reapplied
- Easy to identify with yellow tape
- Health and safety benefits no need for super glue
- Rubber will not stick to rule due to excessive glue squeeze





#### **Sprint Trapezium**

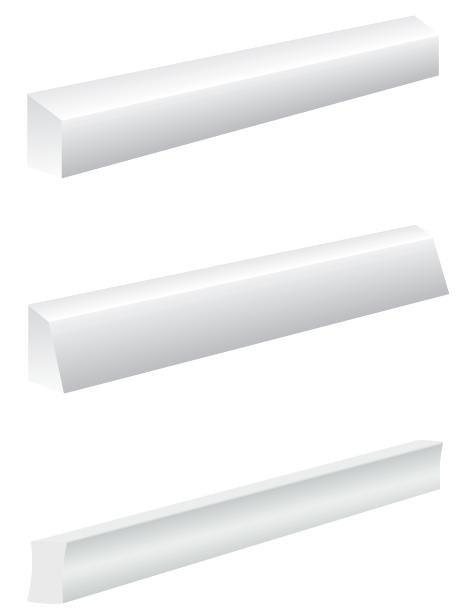
- Impressions exceeding 1.5 million
- UV resistant
- High resistance to heat
- Unique rollover profile reduces nicking and delamination
- Approved for direct food contact

#### **Sprint Trapezoidal**

- Impressions exceeding 1.5 million
- UV resistant
- High resistance to heat
- Unique rollover profile reduces nicking and delamination
- Approved for direct food contact

#### **Sprint Slot Rubba**

- Impressions exceeding 1.5 million
- UV resistant
- High resistance to heat
- Unique rollover profile reduces nicking and delamination
- Approved for direct food contact
- Unique narrow profile
- Perfect for small and tight ejection areas





## **PROFILE EJECTION RUBBERS**

### **SOLID BOARD PROFILES**



#### **C Profile**

The C profile incorporates all the features of T and D profile plus the unique roll together effect achieved by its proven design.



#### **G** Profile

Specifically designed to reduce the problems encountered when creasing recycled and short fibre boards.



#### Narrow C Profile

For the first time Die-Makers have the option to use a C profile on the inside as well as the outside of a glue flap maximising ejection as never before.



#### **D** Profile

Used in the same areas as 'T' Profile, our 'D' profile has the added advantage of its rounded front profile which reduces the chance of the sheet catching enabling better sheet transferral.

#### **Narrow D Profile**

As its name suggests it is a slimmer version of the now well known D profile especially designed for tight areas in particular on the inside of glue flaps or narrow gutters.





## **PROFILE EJECTION RUBBERS**

**CORRUGATED BOARD PROFILES** 



#### **Red Soft C**

Utilising the advanced shape of the standard 60 shore C the soft version is aimed at corrugated board where its 25 shore body will reduce cracking and deformation.

#### **Corrugate Crease**

Another development of C-profile specially designed to be used in conjunction with matrix. Will crush the flutes before creasing, reducing cracking and knuckling. When compressed it grips the board reducing fishtailing. Easy to apply locator, as the profile when positioned against the rule will allow enough space always.

#### **Soft Crease**

A combination of Soft-C and Flexi-Crease. The rubber fits up to the crease rule, but allows space for the locator to be fitted. The 'rollover' action of the 'C' profile part pulls close to the rule when compressed. The Flexi-Crease part allows the rubber to be stapled in position and has a wide compressable area which grips the the board when compressed preventing fishtailing. Corrugate Crease and Soft Crease available in 25m rolls of 8, 8.5, 9, 9.5, 10 and 11mm.





#### **Easi-Crease**

Incorporating a hollow centre which produces an efficient cushion to greatly reduce crushing of corrugated material. Optimum height is 1mm below creasing rule. Can either be glued or stapled to the die.



#### Flexi-Crease

Equally at home on flat bed or rotary die-cut operations, this product aids creasing without damage to corrugated boards. Optimum height is 1mm below creasing rule and can either be glued or stapled to the die.



#### **Special Flexi-Crease**

Identical to Flexi-Crease but with a chamfer to reduce cracking on the top liner.





## **PROFILE EJECTION RUBBERS**

#### **CORRUGATED BOARD PROFILES**



#### **Point Flexi-Crease**

Equally at home on flat bed or rotary die-cut operations, this product aids creasing without damage to corrugated boards. Optimum height is 1mm below creasing rule and can either be glued or stapled to the die.



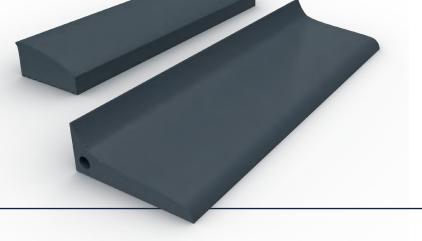
#### **Triangle Wedge Flat Top A1**

Triangle wedge flat top used for creasing corrugated, works well on rotary dies.



#### **Triangle Wedge D2**

Used mainly on corrugated board.





#### **Triangle Wedge B2**

Used mainly on corrugated board for cutting and creasing if not using creasing matrix.



#### **Stepping Wedge C3**

The step pushes up to the creasing rules when using creasing matrix. Used mainly on corrugated, very effective on rotary dies.



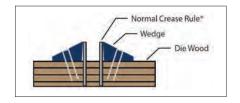
#### Ski-Jump D4

Profile often used for creasing corrugated with rotary dies especially for hard to crease areas.



## **BLUE WEDGE CREASE**

Blue wedge is a very hard, triangular strip that is utilized adjacent to crease rules primarily on rotary dies to create severe crush of corrugated board.



## **TOGGLES FOR FOIL STAMPING**

Toggles are used to lock in and register embossing and foil stamping dies.

Available in 4 sizes used to fit multiple die sizes and include a set screw.

Made with high quality steel to withstand hot or cold foil stamping and embossing and are heat treated to cut down on cracking and splintering.





## **CREASING MATRIX**



## **ORIGINAL CHANNEL**

#### **STEEL BASE MATRIX**



This product is the original matrix made since our inception. It is a metal based product with Plastic extruded sides. This matrix was once used in all applications for all types of presses. However, since we have introduced many new styles and variations, metal back matrix has shown to have a limited use in creasing.

Most common uses for metal backed matrix is on a cylinder or hand fed press. The reason this matrix works well on a cylinder is the rigidity of it in comparison to the Mylar backed matrix. It does not flex when the cutting plate does and will not change the width of the channel because the membrane is not flexible.

Metal backed matrix is usually a short to medium run matrix.

#### Features and benefits

- Widest range of metal based PVC matrix available on the market
- Available in centered and off center
- Perfect for cylinder die cutters as well as flat bed
- Color coded PVC plastic shoulders according to the size
- Available in both standard and extra strong tape





## **MATRIX SIZES**

#### **CENTERED**

Metric	Imperial
0.3 x 0.6	24 Gold
0.3 x 0.8	32 Orange
0.4 x 1.0	40 Buff
0.4 x 1.3	50 White
0.5 x 1.5	60 Yellow
0.6 x 1.9	75 Green
0.6 x 2.1	83 Rose
0.7 x 2.3	90 Red
0.8 x 2.7	105 Blue
1.0 x 3.0	120 Brown
1.3 x 4.0	150 Grey
1.6 x 5.0	200 Black
2.0 x 6.3	250 Cream

#### **OFF CENTER**

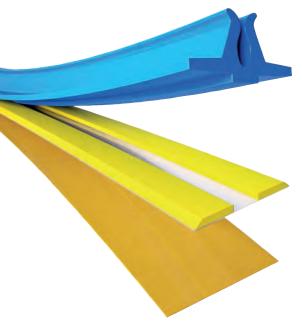
Metric	Imperial
0.4 x 1.0	40 Buff
0.4 x 1.3	50 White
0.5 x 1.5	60 Yellow





## XTC/PLASTRIX





XTC/Plastrix originated in 2001 with the idea that plastic matrix on a mylar base would provide a solid matrix that is bonded 100% down the strip sides. Metal-based matrix is a mechanically bonded matrix, bonding only at the perforated areas. With XTC/Plastrix you get the strength of the plastic sides on a mylar base so if you were to double sheet the lateral pressure would not separate the matrix shoulder from the base. The mylar base allows for a lower profile matrix.

It is also possible to perf score through the base of the matrix without damaging the knife.

The mylar base allows the perf to be run as it is, unlike when using a steel counter which must be milled to the specifications of the rule in the die exactly, or damage occurs. You can run any perforation through the base of XTC/Plastrix matrix. If you decide to change the perforation pattern you can simply replace a piece of matrix instead of milling a new plate. Because of the strength and versatility of XTC/Plastrix, it is a fast growing product in the USA. Unlike many other plastic sided matrix, it is easier to skive for the

operator and can help get them up

and running faster.

#### Features and benefits

- Widest range of creasing matrix available on the market
- Most cost effective solution within our range of products
- Available in specials such as U Bend, Off center, Multicrease and Mini
- Manufactured from high grade PVC for excellent cost/ performance ratio





## **MATRIX SIZES**

#### **CENTERED MATRIX**



Imperial	Metric	-
12 x 24	0.3 × 0.6	2/3
12 x 32	0.3 x 0.8	2/3
12 x 40	0.3 x 1.0	2/3
12 x 44	0.3 x 1.1	2/3
12 x 48	0.3 x 1.2	2/3
12 x 52	0.3 x 1.3	2/3
12 x 56	0.3 x 1.4	2/3
12 x 60	0.3 x 1.5	2/3
12 x 64	0.3 x 1.6	2/3
12 x 68	0.3 x 1.7	2/3
12 x 76	0.3 x 1.9	2/3
16 x 24	0.4 x 0.6	2/3
16 x 32	0.4 x 0.8	2/3
16 x 40	0.4 x 1.0	2/3
16 x 44	0.4 x 1.1	2/3
16 x 48	0.4 x 1.2	2/3
16 x 52	0.4 x 1.3	2/3
16 x 56	0.4 x 1.4	2/3
16 x 60	0.4 x 1.5	2/3
16 x 64	0.4 x 1.6	2/3
16 x 68	0.4 x 1.7	2/3
16 x 76	0.4 x 1.9	2/3
18 x 32	0.45 x 0.8	2/3
18 x 40	0.45 x 1.0	2/3
18 x 44	0.45 x 1.1	2/3
18 x 48	0.45 x 1.2	2/3
18 x 52	0.45 x 1.3	2/3
18 x 56	0.45 x 1.4	2/3
18 x 60	0.45 x 1.5	2/3
18 x 64	0.45 x 1.6	2/3
18 x 68	0.45 x 1.7	2/3
18 x 76	0.45 x 1.9	2/3

<u>_:-</u>	<u>_</u>	
Imperial Imperial	Metric	•
20 x 32	0.5 x 0.8	2/3
20 x 44	0.5 x 1.1	2/3
20 x 48	0.5 x 1.2	2/3
20 x 52	0.5 x 1.3	2/3
20 x 56	0.5 x 1.4	2/3
20 x 60	0.5 x 1.5	2/3
20 x 64	0.5 x 1.6	2/3
20 x 68	0.5 x 1.7	2/3
20 x 76	0.5 x 1.9	2/3
20 x 84	0.5 x 2.1	2/3
22 x 90	0.5 x 2.3	2/3
22 x 32	0.55 x 0.8	2/3
22 x 48	0.55 x 1.2	2/3
22 x 52	0.55 x 1.3	2/3
22 x 56	0.55 x 1.4	2/3
22 x 60	0.55 x 1.5	2/3
22 x 64	0.55 x 1.6	2/3
22 x 68	0.55 x 1.7	2/3
22 x 76	0.55 x 1.9	2/3
22 x 84	0.55 x 2.1	2/3
22 x 92	0.55 x 2.3	2/3
24 x 40	0.6 x 1.0	2/3
24 x 44	0.6 x 1.1	2/3
24 x 48	0.6 x 1.2	2/3
24 x 52	0.6 x 1.3	2/3
24 x 56	0.6 x 1.4	2/3
24 x 60	0.6 x 1.5	2/3
24 x 64	0.6 x 1.6	2/3
24 x 68	0.6 x 1.7	2/3
24 x 76	0.6 x 1.9	2/3
24 x 84	0.6 x 2.1	2/3
24 x 92	0.6 x 2.3	2/3
24 x 100	0.6 x 2.5	2/3
24 x 108	0.6 x 2.7	2/3
24 x 120	0.6 x 3.0	2/3
24 x 128	0.6 x 3.2	3/4
24 x 140	0.6 x 3.5	3/4
24 x 160	0.6 x 4.0	3/4
24 x 200	0.6 x 5.0	3/4
24 7 250	06470	2/4

24 x 250 0.6 x 7.0 3/4

Imporial	Motrio	<b>-</b>
Imperial	Metric	
26 x 52	0.65 x 1.3	2/3
26 x 56	0.65 x 1.6	2/3
26 x 76	0.65 x 1.9	2/3
26 x 84	0.65 x 2.1	2/3
26 x 92	0.65 x 2.3	2/3
26 x 108	0.65 x 2.7	2/3
26 x 120	0.65 x 3.0	2/3
26 x 128	0.65 x 3.2	3/4
26 x 140	0.65 x 3.5	3/4
26 x 160	0.65 x 4.0	3/4
26 x 180	0.65 x 4.5	3/4
26 x 200	0.65 x 5.0	3/4
26 x 240	0.65 x 6.0	3/4
26 x 280	0.65 x 7.0	3/4
26 x 320	0.65 x 8.0	3/4
28 x 52	0.7 x 1.3	2/3
28 x 60	0.7 x 1.5	2/3
28 x 68	0.7 x 1.7	2/3
28 x 76	0.7 x 1.9	2/3
28 x 84	0.7 x 2.1	2/3
28 x 92	0.7 x 2.3	2/3
28 x 100	0.7 x 2.5	2/3
28 x 108	0.7 x 2.7	2/3
28 x 120	0.7 x 3.0	2/3
28 x 128	0.7 x 3.2	3/4
28 x 140	0.7 x 3.5	3/4
28 x 160	0.7 x 4.0	3/4
28 x 240	0.7 x 6.0	3/4
28 x 280	0.7 x 7.0	3/4
28 x 320	0.7 x 8.0	3/4
32 x 60	0.8 x 1.5	2/3
32 x 64	0.8 x 1.6	2/3
32 x 68	0.8 x 1.7	2/3
32 x 76	0.8 x 1.9	2/3
32 x 84	0.8 x 2.1	2/3
32 x 92	0.8 x 2.3	2/3
32 x 100	0.8 x 2.5	2/3
32 x 108	0.8 x 2.7	2/3
32 x 120	0.8 x 3.0	2/3
32 x 128	0.8 x 3.2	3/4
32 x 140	0.8 x 3.5	3/4

<b>#</b>	<b>#</b>	
4+1	4+1	
Imperial	Metric	<b> </b>    4
32 x 160	0.8 x 4.0	3/4
32 x 180	0.8 x 4.5	3/4
32 x 200	0.8 x 5.0	3/4
32 x 240	0.8 x 6.0	3/4
32 x 280	0.8 x 7.0	3/4
32 x 320	0.8 x 8.0	3/4
40 x 92	1.0 x 2.3	2/3
40 x 100	1.0 x 2.5	2/3
40 x 108	1.0 x 2.7	2/3
40 x 120	1.0 x 3.0	2/3
40 x 128	1.0 x 3.2	3/4
40 x 140	1.0 x 3.5	3/4
40 x 160	1.0 x 4.0	3/4
40 x 180	1.0 x 4.5	3/4
40 x 200	1.0 x 5.0	3/4
40 x 240	1.0 x 6.0	3/4
40 x 280	1.0 x 7.0	3/4
40 x 320	1.0 x 8.0	3/4
48 x 120	1.2 x 3.0	3/4
48 x 128	1.2 x 3.2	3/4
48 x 140	1.2 x 3.5	3/4
48 x 160	1.2 x 4.0	3/4
48 x 180	1.2 x 4.5	3/4
48 x 200	1.2 x 5.0	3/4
48 x 240	1.2 x 6.0	3/4
48 x 280	1.2 x 7.0	3/4
48 x 320	1.2 x 8.0	3/4
56 x 120	1.4 x 3.0	3/4
56 x 140	1.4 x 3.5	3/4
56 x 160	1.4 x 4.0	4/6
56 x 180	1.4 x 4.5	4/6
56 x 200	1.4 x 5.0	4/6
56 x 240	1.4 x 6.0	4/6
56 x 280	1.4 x 7.0 1.4 x 8.0	4/6 4/6
56 x 320		3/4
64 x 120 64 x 128	1.6 x 3.0 1.6 x 3.2	3/4
64 x 140	1.6 x 3.5	3/4
64 x 160	1.6 x 4.0	4/6
64 x 180	1.6 x 4.5	4/6
64 x 200	1.6 x 5.0	4/6
64 x 240	1.6 x 6.0	4/6
64 x 280	1.6 x 7.0	4/6
64 x 320	1.6 x 8.0	4/6
0 T X 320	1.0 x 0.0	-1/-0



## **XTC/PLASTRIX MATRIX SIZES**

## S

#### **U BEND**





<b>4</b> ‡ <b>B</b>		
Imperial	Metric	riji"
24 x 200	0.6 x 5.0	3
24 x 320	0.6 x 8.0	5
28 x 200	0.7 x 5.0	3
28 x 320	0.7 x 8.0	5
32 x 200	0.8 x 5.0	3.7
32 x 200	0.8 x 5.0	4
32 x 240	0.8 x 6.0	5
32 x 280	0.8 x 7.0	5
40 x 200	1.0 x 5.0	3

40 x 240 1.0 x 6.0 5 40 x 320 1.0 x 8.0 7

#### **MULTICREASE**



Subject to
minimum
and an

<u>_</u>		
<b>**</b>	<b>4+</b>	
Imperial	Metric	<b>►</b>    •
16 x 40	0.4 x 1.0	3.0
16 x 40	0.4 x 1.0	4.75
16 x 48	0.4 x 1.2	4.0
16 x 52	0.4 x 1.3	3.5
16 x 52	0.4 x 1.3	4.0
16 x 52	0.4 x 1.3	5.0
16 x 52	0.4 x 1.3	6.35
16 x 60	0.4 x 1.5	6.35
18 x 52	0.45 x 1.3	3.5
18 x 52	0.45 x 1.3	4.0
18 x 52	0.45 x 1.3	5.0
20 x 40	0.5 x 1.0	3.0
20 x 40	0.5 x 1.0	4.75
20 x 48	0.5 x 1.2	4.0
20 x 52	0.5 x 1.3	3.5
20 x 52	0.5 x 1.3	4.0
20 x 52	0.5 x 1.3	5.0
20 x 52	0.5 x 1.3	6.35
20 x 52	0.5 x 1.5	6.35

#### **INTERNAL CHAMFER**



imperial	Metric	-
12 x 52	0.3 x 1.3	2/3
12 x 56	0.3 x 1.4	2/3
12 x 60	0.3 x 1.5	2/3
12 x 64	0.3 x 1.6	2/3
12 x 68	0.3 x 1.7	2/3
12 x 76	0.3 x 1.0	2/3
16 x 56	0.4 x 1.4	2/3
16 x 60	0.4 x 1.5	2/3
16 x 64	0.4 x 1.6	2/3
16 x 68	0.4 x 2.3	2/3
18 x 52	0.45 x 1.3	2/3
18 x 56	0.45 x 1.4	2/3
18 x 60	0.45 x 1.5	2/3
18 x 64	0.45 x 1.6	2/3
18 x 68	0.45 x 1.7	2/3
18 x 76	0.45 x 1.9	2/3
20 x 52	0.5 x 1.3	2/3
20 x 56	0.5 x 1.4	2/3
20 x 60	0.5 x 1.5	2/3
20 x 68	0.5 x 1.7	2/3
20 x 74	0.5 x 1.9	2/3
20 x 84	0.5 x 2.1	2/3
20 x 92	0.5 x 2.3	2/3
22 x 52	0.55 x 1.3	2/3
22 x 56	0.55 x 1.4	2/3
22 x 60	0.55 x 1.5	2/3
22 x 64	0.55 x 1.6	2/3
22 x 68	0.55 x 1.7	2/3
22 x 76	0.55 x 1.9	2/3
22 x 84	0.55 x 2.1	2/3
22 x 92	0.55 x 2.3	2/3
24 x 56	0.6 x 1.4	2/3
24 x 60	0.6 x 1.5	2/3
24 x 64	0.6 x 1.6	2/3
24 x 68	0.6 x 1.7 0.6 x 1.9	2/3
24 x 76 24 x 92	0.6 x 1.9	2/3
24 X 92	0.0 X 2.3	2/3

415	<b>_</b>	
<b>4+</b>		
Imperial	Metric	•
24 x 100	0.6 x 2.5	2/3
24 x 108	0.6 x 2.7	2/3
24 x 120	0.6 x 3.0	2/3
24 x 128	0.6 x 3.2	3/4
24 x 140	0.6 x 3.5	3/4
24 x 160	0.6 x 4.0	3/4
24 x 200	0.6 x 5.0	3/4
24 x 240	0.6 x 6.0	3/4
24 x 280	0.6 x 7.0	3/4
24 x 320	0.6 x 8.0	3/4
26 x 52	0.65 x 1.3	2/3
26 x 56	0.65 x 1.4	2/3
26 x 60	0.65 x 1.5	2/3
26 x 64	0.65 x 1.6	2/3
26 x 68	0.65 x 1.7	2/3
26 x 76	0.65 x 1.9	2/3
26 x 84	0.65 x 2.1	2/3
26 x 92	0.65 x 2.3	2/3
26 x 100	0.65 x 2.5	2/3
26 x 108	0.65 x 2.7	2/3
26 x 120	0.65 x 3.0	2/3
26 x 128	0.65 x 3.2	3/4
26 x 140	0.65 x 3.5	3/4
26 x 160	0.65 x 4.0	3/4
26 x 170	0.65 x 4.5	3/4
26 x 200	0.65 x 5.0	3/4
26 x 240	0.65 x 6.0	3/4
26 x 280	0.65 x 7.0	3/4
26 x 320	0.65 x 8.0	3/4
28 x 52	0.7 x 1.3	2/3
28 x 56	0.7 x 1.4	2/3
28 x 60	0.7 x 1.5	2/3
28 x 64	0.7 x 1.6	2/3
28 x 68	0.7 x 1.7	2/3
28 x 76	0.7 x 1.9	2/3
28 x 84	0.7 x 2.1	2/3
28 x 92	0.7 x 2.3	2/3

<u>_</u>	415	
<b>4+</b>		
Imperial	Metric	<b>•</b>
28 x 100	0.7 x 2.5	2/3
28 x 120	0.7 x 3.0	2/3
28 x 128	0.7 x 3.2	3/4
28 x 140	0.7 x 3.5	3/4
28 x 160	0.7 x 4.0	3/4
28 x 170	0.7 x 4.5	3/4
28 x 200	0.7 x 5.0	3/4
28 x 240	0.7 x 6.0	3/4
28 x 280	0.7 x 7.0	3/4
28 x 320	0.7 x 8.0	3/4
32 x 60	0.8 x 1.5	2/3
32 x 64	0.8 x 1.6	2/3
32 x 68	0.8 x 1.7	2/3
32 x 76	0.8 x 1.9	2/3
32 x 84	0.8 x 2.1	2/3
32 x 92	0.8 x 2.3	2/3
32 x 108	0.8 x 2.7	2/3
32 x 120	0.8 x 3.0	3/4
32 x 128	0.8 x 3.2	3/4
32 x 140	0.8 x 3.5	3/4
32 x 160	0.8 x 4.0	3/4
32 x 180	0.8 x 4.5	3/4
32 x 200	0.8 x 5.0	3/4
32 x 240	0.8 x 6.0	3/4
32 x 280	0.8 x 7.0	3/4
32 x 320	0.8 x 8.0	3/4
40 x 92	1.0 x 2.3	2/3
40 x 100	1.0 x 2.5	2/3
40 x 108	1.0 x 2.7	2/3
40 x 120	1.0 x 3.0	2/3
40 x 128	1.0 x 3.2	3/4
40 x 160	1.0 x 4.0	3/4
40 x 180	1.0 x 4.5	3/4
40 x 200	1.0 x 5.0	3/4
40 x 240	1.0 x 6.0	3/4
40 x 280	1.0 x 7.0	3/4
40 x 320	1.0 x 8.0	3/4





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#### **INTERNAL CHAMFER**

#### **PLASTRIX MICRO**



Subject to minimum order

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**PLASTRIX OFF CENTER** 

**		▶ 4
Imperial	Metric	FIII
48 x 120	1.2 x 3.0	3/4
48 x 128	1.2 x 3.2	3/4
48 x 140	1.2 x 3.5	3/4
48 x 160	1.2 x 4.0	3/4
48 x 180	1.2 x 4.5	3/4
48 x 200	1.2 x 5.0	3/4
48 x 240	1.2 x 6.0	3/4
48 x 280	1.2 x 7.0	3/4
48 x 320	1.2 x 8.0	3/4
56 x 120	1.4 x 3.0	3/4
56 x 128	1.4 x 3.2	3/4
56 x 140	1.4 x 3.5	3/4
56 x 160	1.4 x 4.0	4/6
56 x 180	1.4 x 4.5	4/6
56 x 200	1.4 x 5.0	4/6
56 x 280	1.4 x 7.0	4/6
56 x 320	1.4 x 8.0	4/6
64 x 120	1.6 x 3.0	3/4
64 x 128	1.6 x 3.2	3/4
64 x 140	1.6 x 3.5	3/4
64 x 160	1.6 x 4.0	4/6
64 x 180	1.6 x 4.5	4/6
64 x 200	1.6 x 5.0	4/6
64 x 240	1.6 x 6.0	4/6
64 x 280	1.6 x 7.0	4/6
64 x 320	1.6 x 8.0	4/6

<u>_</u>	<u>_</u>	
	Hatria.	•
Imperial	Metric	
12 x 20	0.3 x 0.5	2/3
12 x 24	0.3 x 0.6	2/3
12 x 32	$0.3 \times 0.8$	2/3
12 x 40	0.3 x 1.0	2/3
12 x 48	0.3 x 1.2	2/3
12 x 52	0.3 x 1.3	2/3
12 x 56	0.3 x 1.4	2/3
12 x 60	0.3 x 1.5	2/3
16 x 20	0.4 x 0.5	2/3
16 x 24	0.4 x 0.6	2/3
16 x 32	$0.4 \times 0.8$	2/3
16 x 40	0.4 x 1.0	2/3
16 x 48	0.4 x 1.2	2/3
16 x 52	0.4 x 1.3	2/3
16 x 56	0.4 x 1.4	2/3
16 x 60	0.4 x 1.5	2/3
16 x 64	0.4 x 1.6	2/3
16 x 68	0.4 x 1.7	2/3
18 x 20	0.45 x 0.5	2/3
18 x 32	0.45 x 0.8	2/3
18 x 48	0.45 x 1.2	2/3
18 x 56	0.45 x 1.4	2/3
18 x 60	0.45 x 1.5	2/3
20 x 32	0.5 x 0.8	2/3
20 x 40	0.5 x 1.0	2/3
20 x 48	0.5 x 1.2	2/3
20 x 52	0.5 x 1.3	2/3
20 x 56	0.5 x 1.4	2/3
20 x 60	0.5 x 1.5	2/3
20 x 64	0.5 x 1.6	2/3
20 x 68	0.5 x 1.7	2/3
22 x 52	0.55 x 1.3	2/3
22 x 56	0.55 x 1.4	2/3
22 x 60	0.55 x 1.5	2/3
22 x 64	0.55 x 1.6	2/3
22 x 68	0.55 x 1.7	2/3
24 x 60	0.6 x 1.5	2/3
24 x 64	0.6 x 1.6	2/3
24 x 68	0.6 x 1.7	2/3
24 x 76	0.6 x 1.9	2/3

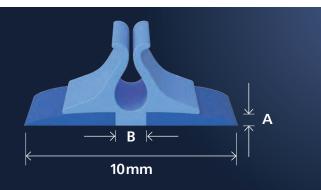
	<u>_</u>		Mo Cardy
Imperial	Metric	1  4	
12 x 24	0.3 x 0.6	2/3	4mm
12 x 24 12 x 32	0.3 x 0.8	2/3	
12 x 32 12 x 40	0.3 x 0.8	2/3	4mm
12 x 40 12 x 48	0.3 x 1.0	2/3	4mm 4mm
12 x 40 12 x 52	0.3 x 1.2	2/3	4mm
12 x 52	0.3 x 1.3		
12 x 50	0.3 x 1.4	2/3	4mm
12 x 60	0.3 x 1.5	2/3	4mm
	0.3 x 1.0		5mm
12 x 75		2/3	5mm
16 x 24	0.4 x 0.6	2/3	4mm
16 x 32	0.4 x 0.8	2/3	4mm
16 x 40	0.4 x 1.0	2/3	4mm
16 x 44	0.4 x 1.1	2/3	4mm
16 x 48	0.4 x 1.2	2/3	4mm
16 x 52	0.4 x 1.3	2/3	4mm
16 x 56	0.4 x 1.4	2/3	4mm
16 x 60	0.4 x 1.5	2/3	4mm
16 x 68	0.4 x 1.7	2/3	5mm
18 x 32	0.45 x 0.8	2/3	4mm
18 x 40	0.45 x 1.0	2/3	4mm
18 x 44	0.45 x 1.1	2/3	4mm
18 x 48	0.45 x 1.2	2/3	4mm
18 x 52	0.45 x 1.3	2/3	4mm
18 x 56	0.45 x 1.4	2/3	4mm
18 x 60	0.45 x 1.5	2/3	4mm
18 x 64	0.45 x 1.6	2/3	5mm
18 x 68	0.45 x 1.7	2/3	5mm
20 x 32	0.5 x 0.8	2/3	4mm
20 x 40	0.5 x 1.0	2/3	4mm
20 x 44	0.5 x 1.1	2/3	4mm
20 x 48	0.5 x 1.2	2/3	4mm
20 x 52	0.5 x 1.3	2/3	4mm
20 x 56	0.5 x 1.4	2/3	4mm
20 x 60	0.5 x 1.5	2/3	4mm
20 x 64	0.5 x 1.6	2/3	5mm
20 x 68	0.5 x 1.7	2/3	5mm
20 x 76	0.5 x 1.9	2/3	5mm
22 x 48	0.55 x 1.2	2/3	4mm
22 x 52	0.55 x 1.3	2/3	4mm
22 x 56	0.55 x 1.4	2/3	4mm
22 x 60	0.55 x 1.5	2/3	4mm
22 x 64	0.55 x 1.6	2/3	5mm
22 x 68	0.55 x 1.7	2/3	5mm
22 x 76	0.55 x 1.9	2/3	5mm
22 x 84	0.55 x 2.1	2/3	5mm

<b>4</b> :	at n		
<del></del>	410		Min Carcon
	Metric	<b>*</b>     <b>4</b>	Off Cores
Imperial			
22 x 92	0.55 x 2.3	2/3	5mm
22 x 32	0.55 x 0.8	2/3	4mm
24 x 44	0.6 x 1.1	2/3	4mm
24 x 52	0.6 x 1.3	2/3	4mm
24 x 56	0.6 x 1.4	2/3	4mm
24 x 60	0.6 x 1.5	2/3	4mm
24 x 64	0.6 x 1.6	2/3	5mm
24 x 68	0.6 x 1.7	2/3	5mm
24 x 76	0.6 x 1.9	2/3	5mm
24 x 84	0.6 x 2.1	2/3	5mm
24 x 92	0.6 x 2.3	2/3	5mm
24 x 120	0.6 x 3.0	2/3	6mm
26 x 52	0.65 x 1.3	2/3	4mm
26 x 56	0.65 x 1.4	2/3	4mm
26 x 60	0.65 x 1.5	2/3	4mm
26 x 64	0.65 x 1.6	2/3	5mm
26 x 68	0.65 x 1.7	2/3	5mm
26 x 76	0.65 x 1.9	2/3	5mm
26 x 84	0.65 x 2.1	2/3	5mm
26 x 92	0.65 x 2.3	2/3	5mm
26 x 100	0.65 x 2.5	2/3	5mm
26 x 108	0.65 x 2.7	2/3	6mm
26 x 120	0.65 x 3.0	2/3	6mm
28 x 52	0.7 x 1.3	2/3	4mm
28 x 56	0.7 x 1.4	2/3	4mm
28 x 60	0.7 x 1.5	2/3	4mm
28 x 64	0.7 x 1.6	2/3	5mm
28 x 68	0.7 x 1.7	2/3	5mm
28 x 76	0.7 x 1.9	2/3	5mm
28 x 84	0.7 x 2.1	2/3	5mm
28 x 108	0.7 x 2.7	2/3	5mm
28 x 120	0.7 x 3.0	2/3	5mm
32 x 64	0.8 x 1.6	2/3	5mm
32 x 68	0.8 x 1.7	2/3	5mm
32 x 76	0.8 x 1.9	2/3	5mm
32 x 108	0.8 x 2.7	2/3	6mm
32 x 120	0.8 x 3.0	2/3	6mm
40 x 92	1.0 x 2.3	2/3	5mm
40 x 100	1.0 x 2.5	2/3	5mm
40 x 108	1.0 x 2.7	2/3	6mm
40 x 120	1.0 x 3.0	2/3	6mm
40 x 130	1.0 x 3.5	2/3	6mm
48 x 124	3.2 x 3.2	3/4	6mm
48 x 130	3.5 x 3.5	3/4	6mm



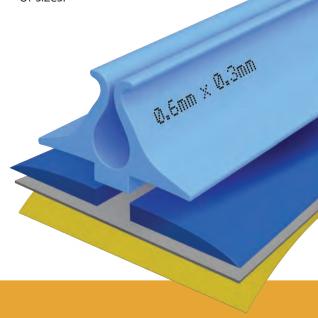
## JAZZ / MATRIX SIZES

### STANDARD MATRIX PLASTIC COUNTER / FILM BASE



Unique precision engineered curved plastic shoulders on micro thin polyester base with perfectly registered locator. Standard sizes of Jazz have 24 strips of 750mm in each box.

Available in a comprehensive range of sizes.



		Board Thickness		Board Wt	
Color Code	A B	Microns	0.001"	gms/m2	Order Code
Arctic White	0.30 × 0.50	50-100	2-4	50-100	JS-505-030
Platinum	0.40 × 0.50	50-100	2-4	50-100	JS-505-040
Daffodil	0.30 x 0.60	50-100	2-4	50-100	JS-506-030
Fire	0.40 x 0.60	50-100	2-4	50-100	JS-506-040
Alpine	0.30 x 0.80	50-150	2-6	50-100	JS-508-030
Orange	0.40 x 0.80	50-150	2-6	50-150	JS-508-040
Royal Blue	0.45 x 0.80	50-150	2-6	50-150	JS-508-045
Moss	0.50 x 0.80	50-150	2-6	50-150	JS-508-050
Blueberry	0.30 x 1.00	100-200	4-8	100-175	JS-510-030
Beige	0.40 × 1.00	100-200	4-8	100-175	JS-510-040
Peach	0.50 x 1.00	170-200	7-9	165-190	JS-510-050
Light Pink	0.30 x 1.20	190-230	7-9	170-195	JS-512-030
Lilac	0.40 x 1.20	150-240	6-9	150-200	JS-512-040
lvory	0.45 x 1.20	225-310	9-12	185-225	JS-512-045
Olive	0.50 x 1.20	285-330	11-13	210-240	JS-512-050
Rose Pink	0.30 x 1.30	300-350	12-14	200-250	JS-513-030
Pale Blue	0.40 x 1.30	320-400	13-16	225-275	JS-513-040
White	0.45 x 1.30	340-410	13-16	240-270	JS-513-045
Bright Green	0.50 x 1.30	340-420	13-17	240-290	JS-513-050
Black	0.55 x 1.30	340-450	13-18	240-300	JS-513-055
Aubergine	0.60 x 1.30	350-450	14-18	250-300	JS-513-060
Sherbet	0.70 x 1.30	350-450	14-18	250-300	JS-513-070
Titanium	0.30 x 1.40	320-420	13-17	225-290	JS-514-030
Ocean	0.40 x 1.40	330-420	13-17	225-290	JS-514-040
Toffee	0.45 x 1.40	350-420	14-17	240-290	JS-514-045
Terracotta	0.50 x 1.40	350-420	14-17	240-290	JS-514-050
Lagoon	0.55 x 1.40	350-420	14-17	240-290	JS-514-055
Light Orange	0.30 x 1.50	355-430	14-17	250-300	JS-515-030
Flame	0.40 x 1.50	370-440	14-17	250-300	JS-515-040
Apple Green	0.45 x 1.50	375-450	15-18	260-300	JS-515-045
Yellow	0.50 x 1.50	440-500	17-20	290-335	JS-515-050
Fuschia	0.55 x 1.50	450-510	18-20	300-335	JS-515-055
Navy Blue	0.60 x 1.50	460-520	18-20	300-335	JS-515-060
Rosewood	0.70 x 1.50	480-550	19-22	350-365	JS-515-070
Ruby	0.80 x 1.50	480-550	19-22	350-365	JS-515-080
Holly	0.40 x 1.60	440-500	17-20	290-335	JS-516-040
Cornflower	0.50 x 1.60	490-520	19-20	360-370	JS-516-050
Mango	0.55 x 1.60	490-520	19-20	360-370	JS-516-055
Spearmint	0.60 x 1.60	490-530	19-21	360-370	JS-516-060
Lavendar	0.80 x 1.60	490-540	19-21	360-375	JS-516-080
Moonstone	0.30 x 1.00	460-520	18-20	300-375	JS-510-080 JS-517-030
Vanilla	0.30 x 1.70 0.40 x 1.70	420-540	19-21	360-375	JS-517-030 JS-517-040
Avocado		500-550	20-22	350-375	JS-517-040 JS-517-050
Powder Blue	0.50 x 1.70	510-550	20-22	350-375 350-400	JS-517-050 JS-517-055
Purple	0.55 x 1.70 0.60 x 1.70	510-570	20-23	350-400	JS-517-055 JS-517-060
	0.60 x 1.70 0.70 x 1.70		21-24		JS-517-060 JS-517-070
Cinnamon	0.70 X 1.70	530-600	21-24	350-400	12-217-070



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## PRODUCT PROFILE

Color Code	А В	Board Thic	kness	Board Wt	Order Code
Color Code	А Б	Microns	0.001"	gms/m2	Order Code
Mustard	0.40 x 1.90	530-580	21-23	350-400	JS-517-080
Ice Blue	0.50 x 1.90	540-590	21-23	350-400	JS-519-040
Green	0.60 x 1.90	540-600	21-24	350-400	JS-519-050
Coffee	0.70 x 1.90	550-600	22-24	350-400	JS-519-060
Ash Grey	0.80 x 1.90	560-620	22-24	365-400	JS-519-070
Ebony	0.50 x 2.10	570-630	22-25	375-410	JS-519-080
Diamond White	0.60 x 2.10	580-630	23-25	385-410	JS-521-050
Burgundy	0.65 x 2.10	580-650	23-26	385-435	JS-521-060
Sandstone	0.70 x 2.10	600-680	24-27	400-450	JS-521-065
Pink	0.80 x 2.10	620-700	24-28	400-465	JS-521-070
Tangerine	0.60 x 2.30	630-700	25-27	400-465	JS-521-080
Red	0.70 x 2.30	640-700	25-28	420-465	JS-523-060
Lemon	0.80 x 2.30	680-760	27-30	450-500	JS-523-070
Bluebell	1.00 x 2.30	700-760	28-30	460-500	JS-523-080
Racing Green	0.60 x 2.50	700-780	28-31	460-500	*JS-523-100
Dusk	0.70 x 2.50	700-800	28-31	460-500	*JS-525-060
Manilla	0.80 x 2.50	700-800	28-31	460-500	*JS-525-070
Primrose	1.00 x 2.50	700-800	28-31	460-500	*JS-525-080
Lime	0.40 x 2.70	700-800	28-31	460-500	*JS-525-100
Sand	0.60 x 2.70	700-800	28-31	460-500	*JS-527-040
Peppermint	0.70 x 2.70	700-800	28-31	460-500	*JS-527-060
Blue	0.80 x 2.70	700-800	28-31	460-500	*JS-527-070
Polar White	1.00 x 2.70	710-720	28-32	475-550	*JS-527-080
Honeysuckle	0.60 x 3.00	750-850	30-33	485-565	*JS-527-100
Onyx	0.70 x 3.00	750-850	30-33	485-465	*JS-530-060
Nasturtium	0.80 x 3.00	780-880	31-35	490-575	*JS-530-070
Brown	1.00 x 3.00	800-1000	31-39	535-665	*JS-530-100

Jazz is the ultimate creasing technology. Decades of experience has been applied to its development. Precision engineering, plastic shoulders, micro thin polyester film base and a profile registered locator are manufactured to the highest quality standards.

Its unique curved profile shoulders

allow the substrate to glide easily over the matrix to allow increased press speed, decreased substrate stretching and reduced make ready. Jazz is available in a vast range of standard, large and offcenter sizes.

When only perfection will do, Jazz is the matrix.

3

- 1. Locator
- 2. Curved profile shoulders
- 3. Self-adhesive, micro thin polyester
- **4**. Finger-lift tape

#### **Key features include:**

- Precision engineered plastic shoulders are extremely accurate and durable.
- Micro-thin polyester film base to reduce height adjustments.
- Perfectly registered locator ensures accurate and high quality creasing.
- Reduced impact between substrate, material and curve shoulders allow longer runs and reduced set-up adjustments.
- Eliminate dress-down and finger lift tape across the range for a quick make ready.
- Profiles are individually color coded and labelled for easy reference, and to minimize the risk of mixing sizes during make ready.

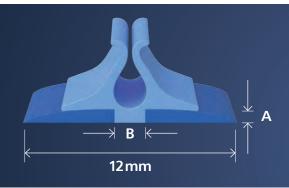
Standard locators are suitable for rule size 2-3.

<sup>\*</sup>Denotes locators are suitable for rule sizes 2-3 and 3-4. Please specify when ordering.



## JAZZ / MATRIX SIZES

LARGE MATRIX PLASTIC COUNTER / FILM BASE



With widths between shoulders of 3.2mm and above Jazz large sizes are suitable for thicker board sizes and have 18 strips of 750mm in each box.

Locators are suitable for rule size 2-3, 3-4 and 6. Please specify when ordering.

Color Code	A B Board Thickness		<b>Board Wt</b>	Order Code	
Color Code	АВ	Microns	0.001"	gms/m2	Order Code
Canary	0.60 x 3.20	820-1050	32-41	550-675	JL-532-060
Light Oak	0.70 x 3.20	830-1100	33-43	550-685	JL-532-070
Leaf	0.80 x 3.20	835-1175	33-46	550-685	JL-532-080
Violet	1.00 x 3.20	850-1200	33-47	570-690	JL-532-100
Fudge	1.20 x 3.20	850-1225	33-48	570-690	JL-532-120
Topaz	0.60 x 3.50	850-1250	33-49	570-695	JL-535-060
Bottle Green	0.70 x 3.50	850-1275	33-49	570-700	JL-535-070
Marine Blue	0.80 x 3.50	875-1300	35-49	580-700	JL-535-080
Blush	1.00 x 3.50	900-1325	35-49	590-700	JL-535-100
Midnight Blue	1.10 x 3.50	900-1350	35-49	600-700	JL-535-110
Sky	1.20 x 3.50	910-1350	36-49	620-700	JL-535-120
Mulberry	1.40 x 3.50	920-1350	36-49	620-700	JL-535-140
Apricot	0.50 x 4.00	920-1350	36-49	620-700	JL-540-050
Citrus	0.60 x 4.00	920-1350	36-49	620-700	JL-540-060
Aqua	0.70 x 4.00	900-1300	36-50	620-700	JL-540-070
Cornelian	0.80 x 4.00	910-1310	36-52	620-735	JL-540-080
Cyclamen	0.90 x 4.00	930-1320	37-52	630-740	JL-540-090
Carnival Red	1.00 x 4.00	940-1340	37-53	650-790	JL-540-100
Grey	1.20 x 4.00	1000-1350	39-53	665-800	JL-540-120
Flamingo	1.60 x 4.00	1000-1350	40-54	670-825	JL-540-160
Chestnut	0.60 x 5.00	1025-1350	40-54	670-825	JL-550-060
Amber	0.80 x 5.00	1025-1375	40-54	680-825	JL-550-080
Sunflower	1.00 x 5.00	1050-1400	41-55	700-850	JL-550-100
Forest Green	1.20 x 5.00	1075-1450	46-57	750-875	JL-550-120
Charcoal	1.50 x 5.00	1300-1500	51-59	800-900	JL-550-150
Caramel	0.50 x 6.00	1350-1550	52-60	825-900	JL-560-050
Buttercup	0.60 x 6.00	1350-1560	52-60	825-900	JL-560-060
Coconut	0.80 x 6.00	1350-1560	54-62	850-925	JL-560-080
Cobalt Blue	1.00 x 6.00	1400-1620	55-64	910-950	JL-560-100
Mauve	1.20 x 6.00	1425-1650	56-64	910-950	JL-560-120
Shrimp	1.60 x 6.00	1450-1660	57-65	910-950	JL-560-160
Cream	1.70 x 6.00	1500-1700	59-67	900-980	JL-560-170



## JAZZ / MATRIX SIZES

**OFF-CENTER MATRIX PLASTIC COUNTER / FILM BASE** 



Specially engineered for jobs that require two creases close together, Jazz off-center is placed on the creasing rules with the narrow sides adjacent enabling the smallest possible distance between creasing centers to be calculated as from the chart, right.

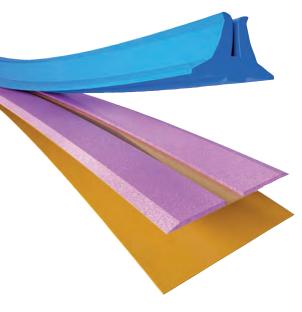
Distance center to center (C) = 2 x shoulder width (i.e. 1.5mm) plus creasing width required (B). Jazz Off-Center has 24 strips of 750mm in each box.

Color Code	or Code A B		ckness	<b>Board Wt</b>	Order Code
Color Code	Λ Β	Microns	0.001"	gms/m2	Order Code
Blueberry	0.30 x 1.00	100-200	4-8	100-175	JO-510-030 OC
Beige	0.40 x 1.00	100-200	4-8	100-175	JO-510-040 OC
Peach	0.50 x 1.00	100-200	7-9	165-190	JO-510-050 OC
Light Pink	0.30 x 1.20	170-220	7-9	170-195	JO-512-030 OC
Lilac	0.40 x 1.20	150-240	6-9	150-200	JO-512-040 OC
Rose Pink	0.30 x 1.30	300-350	12-14	200-250	JO-513-030 OC
Pale Blue	0.40 x 1.30	320-400	13-16	225-275	JO-513-040 OC
White	0.45 x 1.30	340-410	13-16	240-270	JO-513-045 OC
Bright Green	0.50 x 1.30	340-420	13-16	240-270	JO-513-050 OC
Toffee	0.45 x 1.30	350-420	14-17	250-290	JO-514-045 OC
Terracotta	0.50 x 1.30	350-420	14-17	240-290	JO-514-050 OC
Apple Green	0.45 x 1.50	375-450	16-19	270-335	JO-515-045 OC
Flame	0.40 x 1.50	400-480	15-18	260-280	JO-515-040 OC
Yellow	0.50 x 1.50	375-450	17-20	290-335	JO-515-050 OC
Navy Blue	0.60 x 1.50	440-450	18-20	200-350	JO-515-060 OC
Avocado	0.50 x 1.70	450-520	20-22	350-375	JO-517-050 OC
Powder Blue	0.55 x 1.70	510-570	20-23	350-400	JO-517-055 OC
Purple	0.60 x 1.70	525-600	21-24	350-400	JO-517-060 OC
Ice Blue	0.50 x 1.90	540-590	21-23	350-400	JO-519-050 OC
Green	0.60 x 1.90	540-600	21-24	350-400	JO-519-060 OC
Red	0.70 x 2.30	640-700	25-28	420-465	JO-523-070 OC
Blue	0.80 x 2.70	700-800	28-31	460-500	JO-527-080 OC
Nasturtium	0.80 x 3.00	780-800	31-35	490-575	JO-530-080 OC

Locators are suitable for rule size 2-3.



### **PINK**



This product is the result of years of R&D with engineers based on requests from our customers. Over the years many customers have asked for a product that was not only long lasting but one that could be easily skived. From our research we have been able to come up with a product that fits those needs.

The key component in this new matrix is Rosadium! This patent

protected product gives you the ability to feel confident in the long run and carefree knowing you can make changes on the fly if some product manipulation is necessary. This product is very suitable with thin plates. The strong adhesive bond provided gives you the confidence to leave it on the plate until the next run. The strength and durability allow it to stay on the plates for many repeat runs.

#### Features and benefits

- A high quality creasing matrix made from synthetic fiber
- Available in centered, and off center variations
- Available with both standard and extra strong tape
- Suitable for thin plate applications







## **MATRIX SIZES**

#### **CENTERED**

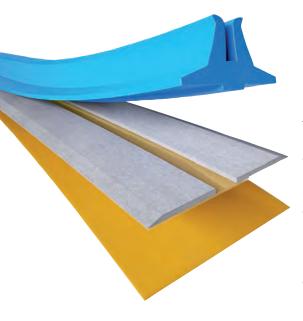
Metric	Imperial
03 x 08	12 x 32
03 x 10	12 x 40
03 x 12	12 x 48
03 x 13	12 x 52
03 x 15	12 x 60
04 x 08	16 x 32
04 x 10	16 x 40
04 x 12	16 x 48
04 x 13	16 x 52
04 x 14	16 x 56
04 x 15	16 x 60
04 x 17	16 x 68
04 x 19	16 x 76
05 x 10	20 x 40
05 x 12	20 x 48
05 x 13	20 x 52
05 x 14	20 x 56
05 x 15	20 x 60
05 x 16	20 x 64
05 x 17	20 x 68
05 x 19	20 x 76
05 x 21	20 x 84
06 x 15	24 x 60
06 x 16	24 x 64
06 x 17	24 x 68
06 x 19	24 x 76
06 x 21	24 x 84
06 x 23	24 x 92
06 x 25	24 x 100
06 x 27	24 x 108
06 x 32	24 x 128
06 x 35	24 x 140
06 x 40	24 x 160

#### **OFF CENTER**

Matria	Imporial		
Metric	Imperial		
03 x 08	12 x 32		
03 x 10	12 x 40		
03 x 13	12 x 52		
04 x 10	16 x 40		
04 x 12	16 x 48		
04 x 13	16 x 52		
04 x 15 05 x 13	16 x 60 20 x 52		
05 x 13	20 x 52 20 x 60		
05 x 13	20 x 60 20 x 68		
06 x 17	24 x 68		
06 x 19	24 x 76		
	THE TANK	THE WORLD SYSTEM	PIN PARTY AND PA
		MAN	



### **MARATHON**



This Vulcanized fiber (VF) material has been around since 1995 and was the result of many customers (who used to cut their own counters) requesting a matrix made from the VF. This product is long lasting and can be skived. The skiving is not as easy as it is with PINK but you can still skive it easier than many other matrices on the market today.

The longevity and dependability of Marathon has kept this product in our line of great products. Like PINK this product offers a lower profile due to the minimal base. Marathon is manufactured to allow you long runs and is not as susceptible to moisture as pressboard materials.

#### Features and benefits

- Superior quality creasing matrix manufactured from Japanese grade vulcanized fiber
- Very easy to chamfer





## **MATRIX SIZES**

#### **CENTERED**

Imperial	Metric
MARATHON VF 1240	0.3 x 1.0
MARATHON VF 1248	0.3 x 1.2
MARATHON VF 1640	0.4 x 1.0
MARATHON VF 1648	0.4 x 1.2
MARATHON VF 1652	0.4 x 1.3
MARATHON VF 1656	0.4 x 1.4
MARATHON VF 1664	0.4 x 1.6
MARATHON VF 1668	0.4 x 1.7
MARATHON VF 2060	0.5 x 1.5
MARATHON VF 2064	0.5 x 1.6
MARATHON VF 2068	0.5 x 1.7
MARATHON VF 2076	0.5 x 1.9
MARATHON VF 2080	0.5 x 2.0
MARATHON VF 20110	0.5 x 2.7
MARATHON VF 2464	0.6 x 1.6
MARATHON VF 2468	0.6 x 1.7
MARATHON VF 2472	0.6 x 1.8
MARATHON VF 2476	0.6 x 1.9
MARATHON VF 2480	0.6 x 2.0
MARATHON VF 24110	0.6 x 2.7
MARATHON VF 2872	0.7 x 1.8
MARATHON VF 2890	0.7 x 2.25
MARATHON VF 28100	0.7 x 2.5

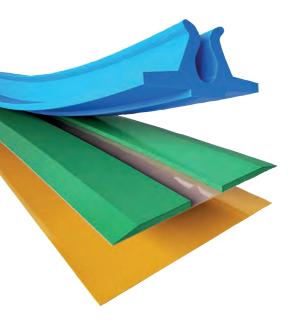
Imperial	Metric
MARATHON VF 32110	0.8 x 2.7
MARATHON VF 32120	0.8 x 3.0
MARATHON VF 32136	0.8 x 3.4
MARATHON VF 40100	1.0 x 2.5
MARATHON VF 40120	1.0 x 3.0
MARATHON VF 40136	10x34







## **CORRUGATE**



Corrugated material usage is on the rise and we are there to help you with it! Corrugated is no longer just brown boxes! We now have beautiful displays created from corrugated of various flutes. Boxes are being made from thin corrugated materials instead of always being fiber board. However, by the nature of manufacturing corrugated material, problems arise. Most of these problems are due to the softness of the liners and the ability to crush the product. This crush disfigures the product and can be seen as aesthetically displeasing. This is caused on the creasing side by

narrow base matrix, where the matrix shape is impressed into the product (witness marks/ghosting). This generally happens when rubber is used near a crease. Again, we hear you! Our company worked on a product that has a wider base and when that crush happens it occurs on top of the matrix not the sides so the crush does not show to the end user. This allows for an aesthetically pleasing product! An excellent complement to this product is the soft C' rubber. Ask one of our representatives about it.

#### **Features and benefits**

- A unique matrix range designed specifically for creasing corrugated board
- Features an extra wide 20mm specification to reduce pressure on the board when creasing
- Solves common problems associated with corrugated board such as cracking and fishtailing
- Available in centered, u-bend and internal chamfer variations



## **MATRIX SIZES**

#### **CENTERED**

#### **INTERNAL CHAMFER**

#### **U BEND**

Metric	Imperial
06 x 2.5	24 x 100
06 x 2.7	24 x 108
06 x 3.0	24 x 120
06 x 3.2	24 x 128
06 x 3.5	24 x 140
06 x 4.0	24 x 160
07 x 2.5	28 x 100
07 x 2.7	28 x 108
07 x 3.0	28 x 120
07 x 3.2	28 x 128
07 x 3.5	28 x 140
07 x 4.0	28 x 160
08 x 2.5	32 x 100
08 x 2.7	32 x 108
08 x 3.0	32 x 120
08 x 3.2	32 x 128
08 x 3.5	32 x 140
08 x 4.0	32 x 160
08 x 5.0	32 x 200
08 x 6.0	32 x 240
10 x 2.5	40 x 100
10 x 2.7	40 x 108
10 x 3.0	40 x 120
10 x 3.2	40 x 128
10 x 3.5	40 x 140
10 x 4.0	40 x 160
10 x 5.0	40 x 200
10 x 6.0	40 x 240
10 x 7.0	40 x 280
10 x 8.0	40 x 320
10 x 9.0	40 x 360
10 x 10.0	40 x 400

Metric	Imperial
06 x 2.5	24 x 100
06 x 2.7	24 x 108
06 x 3.0	24 x 120
07 x 2.5	28 x 100
07 x 2.7	28 x 108
07 x 3.0	28 x 120
08 x 2.5	32 x 100
08 x 2.7	32 x 108
08 x 3.0	32 x 120
08 x 3.2	32 x 128
08 x 3.5	32 x 140
08 x 4.0	32 x 160
08 x 5.0	32 x 200
10 x 2.7	40 x 108
10 x 3.0	40 x 120
10 x 3.2	40 x 128
10 x 3.5	40 x 140
10 x 4.0	40 x 160
10 x 5.0	40 x 200
10 x 6.0	40 x 240

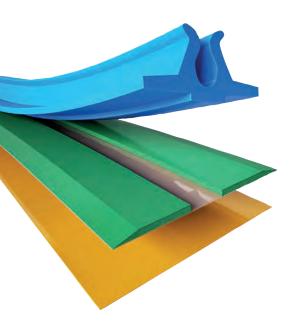
Metric	Imperial
0.6 x 5.0/3	24 x 100
0.6 x 6.0/4	24 x 108
0.6 x 7.0/5	24 x 120
0.6 x 8.0/5	28 x 100
0.6 x 9.0/6.5	28 x 108
0.6 x 10.0/8	28 x 120
07 x 5.0/3	28 x 200/.120
07 x 6.0/4	28 x 240/.160
07 x 7.0/5	28 x 280/.200
0.7 x 8.0/5	28 x 320/.200
0.7 x 9.0/6.5	28 x 360/.260
0.7 x 10.0/8	28 x 400/.320
0.8 x 5.0/3	32 x 200/.120
0.8 x 6.0/4	32 x 240/.160
0.8 x 7.0/5	32 x 280/.200
0.8 x 8.0/5	32 x 320/.200
0.8 x 9.0/6.5	32 x 360/.260
0.8 x 10.0/8	32 x 400/.320
1.0 x 5.0/3	40 x 200/.120
1.0 x 6.0/4	40 x 240/.160
1.0 x 7.0/5	40 x 280/.200
1.0 x 8.0/5	40 x 320/.200
1.0 x 9.0/6.5	40 x 360/.260
1.0 x 10.0/8	40 x 400/.320

The number appearing after the / is the distance center to center of the crease rules.





## COUNTAMAX



Phenolic counters have been used for many years, mostly with great success. However, too many times the counters did not match up with the die and had to be remanufactured, or the counter broke during the run and it was replaced or you had to wait for one to be made.

Downtime=lost profit.

Sometimes matrix was used to "fix" the problem and this helped, but sometimes that matrix was not the same height and it wore down faster than the counter.

We created Countamax Matrix from phenolic material at the same height as the phenolic you are using. The life is the same and this product can confidently be used to repair or replace any counter. In many cases companies are switching to using Countamax to replace the use of phenolic counters. Your crease rules are guaranteed to match with the female counters the first time every time.

#### Features and benefits

- The most durable creasing matrix in our range
- Made from phenolic resin the same material used to make counters
- Unbelievable durability tested to over 500,000 impressions
- Features extra strong tape for use on thin plate applications



# **MATRIX SIZES**

### **CENTERED**

Metric	Imperial
03 x 08	12 x 32
03 x 10	12 x 40
03 x 11	12 x 44
03 x 12	12 x 48
03 x 13	12 x 52
04 x 10	16 x 40
04 x 12	16 x 48
04 x 13	16 x 52
04 x 14	16 x 56
04 x 15	16 x 60
05 x 12	20 x 48
05 x 13	20 x 52
05 x 14	20 x 56
05 x 15	20 x 60
05 x 17	20 x 68
06 x 14	24 x 56
06 x 15	24 x 60
06 x 17	24 x 68
06 x 19	24 x 76
06 x 21	24 x 84





## **MATRIX SELECTOR**

The following charts make using matrix easy.

To use these charts simply follow these instructions.

- 1. Look down 1st column and find your material thickness.
- 2. Use 2nd column to decide which crease rule width you're using.
- 3. Choose your cut rule height from columns 3 or 4 this gives you your crease rule height.
- Columns 5 or 6 give you the proper matrix size to use depending on the style of matrix you're using.
- All styles except metal back fall under column 5. If using metal based matrix please refer to column 7.
- 5. Corrugated has its own chart and uses crush thickness and has results based on brown box or laminated sheet.







A C&T COMPANY

1	2	3	4	5	6	7
Fibre Material thickness	Crease rule width	Cut rule .918" Crease rule height	Cut rule .937"Crease rule height	Matrix	Metric	Metal Back
0.006	1pt	0.907	0.926	12 x 24	0.3 x 0.6	24
0.006	2pt	0.907	0.926	12 x 40	0.3 x 1.0	40
0.008	1pt	0.905	0.924	12 x 32	0.3 x 0.8	32
0.008	2pt	0.905	0.924	12 x 40	0.3 x 1.0	40
0.010	1pt	0.903	0.922	12 x 32	0.3 x 0.8	32
0.010	2pt	0.903	0.922	12 x 48	0.3 x 1.2	50
0.012	1pt	0.901	0.920	16 x 40	0.4 x 1.0	40
0.012	2pt	0.901	0.920	16 x 52	0.4 x 1.3	50
0.014	2pt	0.899	0.918	16 x 52	0.4 x 1.3	50
0.016	2pt	0.897	0.916	20 x 56	0.5 x 1.4	60
0.018	2pt	0.895	0.914	20 x 60	0.5 x 1.5	60
0.020	2pt	0.893	0.912	24 x 64	0.6 x 1.6	67
0.024	2pt	0.889	0.908	28 x 68	0.7 x 1.7	67
0.026	2pt	0.887	0.906	32 x 76	0.8 x 1.9	75
0.026	3pt	0.887	0.906	32 x 92	0.8 x 2.3	90
0.028	3pt	0.885	0.904	32 x 92	0.8 x 2.3	90
0.030	3pt	0.883	0.902	32 x 100	0.8 x 2.5	100
0.032	3pt	0.881	0.900	32 x 100	0.8 x 2.5	100
0.034	3pt	0.879	0.898	40 x 100	1.0 x 2.5	100
0.036	3pt	0.877	0.896	40 x 108	1.0 x 2.7	105
0.038	3pt	0.875	0.894	40 x 108	1.0 x 2.7	105
0.038	4pt	0.875	0.894	40 x 128	1.0 x 3.2	120
0.040	4pt	0.873	0.892	48 x 128	1.2 x 3.2	120

1	2	3	4	5	6
Corrugated Crushed thickness	Crease rule width	Cut rule .937" Crease rule height	Brown Box Matrix	Metric	Laminated Sheet
0.026	3pt	0.906	32 x 100	0.8 x 2.5	0.5 x 2.5
0.028	3pt	0.904	32 x 100	0.8 x 2.5	0.5 x 2.5
0.030	3pt	0.902	32 x 100	0.8 x 2.5	0.5 x 2.5
0.032	3pt	0.900	32 x 108	0.8 x 2.7	0.5 x 2.7
0.034	3pt	0.898	40 x 108	1.0 x 2.7	0.6 x 2.7
0.036	3pt	0.896	40 x 120	1.0 x 3.0	0.8 x 3.0
0.038	3pt	0.894	40 x 120	1.0 x 3.0	0.8 x 3.0
0.040	4pt	0.892	48 x 140	1.2 x 3.5	0.8 x 3.5
0.042	4pt	0.890	48 x 140	1.2 x 3.5	0.8 x 3.5
0.044	4pt	0.888	48 x 140	1.2 x 3.5	1.0 x 3.5
0.046	4pt	0.886	48 x 160	1.2 x 40	1.0 x 40
0.048	4pt	0.884	56 x 160	1.4 x 4.0	1.0 x 4.0
0.050	4pt	0.882	56 x 160	1.4 x 4.0	1.0 x 4.0
0.052	4pt	0.880	56 x 160	1.4 x 4.0	1.0 x 4.0
0.054	6pt	0.878	56 x 180	1.4 x 4.5	1.2 x 4.5
0.056	6pt	0.876	64 x 180	1.6 x 4.5	1.2 x 4.5
0.058	6pt	0.874	64 x 180	1.6 x 4.5	1.2 x 4.5
0.060	6pt	0.872	64 x 180	1.6 x 4.5	1.2 x 4.5
0.062	6pt	0.870	64 x 200	1.6 x 5.0	1.4 x 5.0
0.064	8pt	0.868	64 x 240	1.6 x 6.0	1.4 x 6.0
0.066	8pt	0.866	64 x 240 IC	1.6 x 6.0	1.4 x 6.0
0.068	8pt	0.864	64 x 240 IC	1.6 x 6.0	1.4 x 6.0
0.070	8pt	0.862	64 x 280 IC	1.6 x 7.0	1.5 x 7.0
0.072	8pt	0.860	64 x 280 IC	1.6 x 7.0	1.5 x 7.0
0.074	8pt	0.858	64 x 280 IC	1.6 x 7.0	1.6 x 7.0
0.076	8pt	0.856	64 x 280 IC	1.6 x 7.0	1.6 x 7.0
0.080	8pt	0.852	64 x 280 IC	1.6 x 7.0	1.6 x 7.0

Metal	XTC	Metal	XTC
24	0.4 x 0.6	90	0.7 x 2.3
32	0.4 x 0.8	100	1.0 x 2.5
40	0.4 x 1.0	105	1.0 x 2.7
50	0.5 x 1.3	120	1.0 x 3.0
60	0.5 x 1.5	150	1.2 x 4.0
67	0.6 x 1.7	200	1.2 x 5.0
75	0.6 x 1.9	250	1.2 x 6.0



Phone: 800-451-7373 Email: sales@ccmdie.com Website: www.ccmdie.com

NOTES			



# **STEEL PLATES & PHENOLICS**



# **STEEL PLATES**



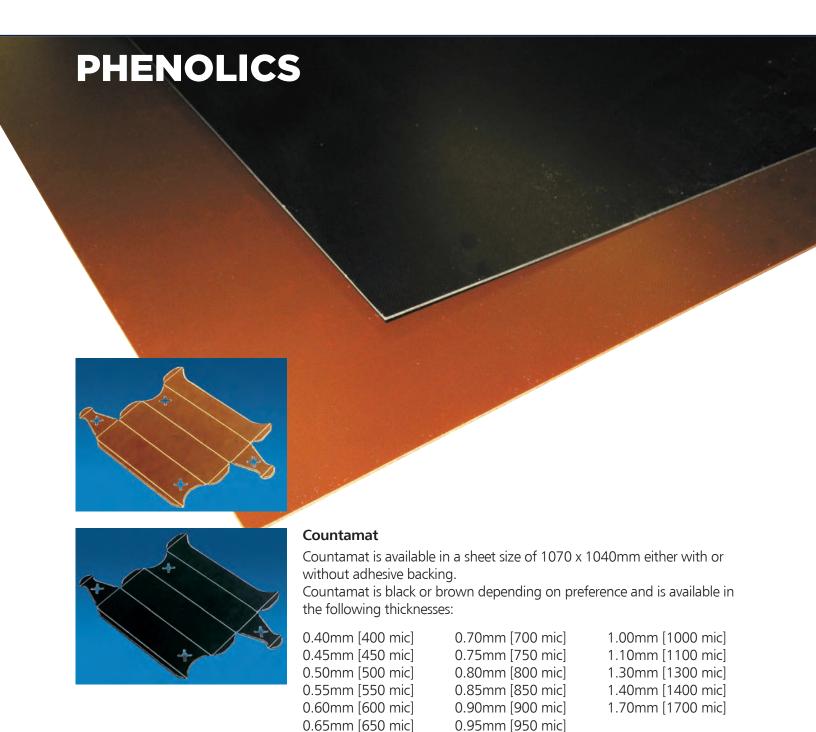
Hardnesses	Sizes							
Medium 35 Rockwell	102	103	104	106	130	142	145	162
Half Hard 42 Rockwell	102	103	104	106	130	142	145	162
Full Hard 48 Rockwell	102	103	104	106	130	142	145	162

# PLATE CLEANER

Available in one pint, one gallon or five gallons.









Phone: 800-451-7373 Email: sales@ccmdie.com Website: www.ccmdie.com

NOTES		



# **DIE ROOM ESSENTIALS**





## **ADHESIVES**

### **Grip N Strip**

Grip N Strip is the go-to adhesive when you want to be able to remove rubber from the die board with little to no leftover residue.



### Readyset I and II

Readyset I has a viscosity of 1500 cps (centipoise), which is about the thickness of honey.

Readyset II has a viscosity of 3-5 cps, which is slightly thicker than water. Set up time for both is 10-20 seconds if used alone, or instantaneous if used with activator.















### CF-100

Super glue in 50g bottles.

# **One-Step Perma-Bond**Easy as dip, slip and stick. Dip the

rubber piece into a pan of One-Step Perma-Bond, slip it across the edge of the pan to remove excess, and stick it where you want it. Does not require accelerator and does not ooze or crystallize.



### Superset I

High viscosity with 15-40 seconds cure time.

#### Superset II and III

Low viscosity with 5-15 seconds cure time.

### Superset I, II, and III

Available in 1-pound or 2-ounce bottles.

### **Superset Gel**

Available in 20g and 200g tubes.



# **MALLETS**





### **Elastomer Mallets**

Available in the following sizes:

#4 - 2" diameter

x 3-1/2" long head - 11oz.

#4L - 2" diameter

x 5" long head - 14oz.

#5 - 2-3/4" diameter

x 4-1/4" long head - 22 oz.

#6 - 2-3/4" diameter

x 4-3/4" long head - 24oz.



#### **Rawhide Mallets**

Available in the following sizes:

#3 - 1-3/4" diameter

x 3-3/8" long head - 11oz.

#4 - 2" diameter

x 3-1/2" long head - 14oz.

#5 - 2-3/4" diameter

x 4-1/2" long head - 22oz.

#6 - 2-3/4" diameter

x 4-3/4" long head - 24oz.



## **DICAR MALLETS**

### **Ergo Mallet**

The curved Ergo mallet handle adds increased space between the users hands and the cutting rule reducing the risk of injury. The Ergo handle also allows a better natural angle for the head to strike the rule squarely for better wear.



### **Large Round Mallet**

Available in large (rotary) and small (flat), these mallets have excellent weight balance for easy rule mounting with amazing life and wear resistance.



#### **Die Hard Mallet**

Available in large (rotary) and small (flat), Die-Hard mallets have amazing life and wear resistance, excellent weight balance for easy rule mounting, as well as a long flat side for challenging situations, and come with a heavy-duty lag bolt that makes the head easy to rotate over and over.





# **RULE PULLERS**



**Extractor 2000**Replacement parts (pads, jaws, screws, pins, etc.) also available.



**Clear Group** 2, 3 and 4pt plus 4 -6pt.



**Bar-Plate Rule Puller** 



**Channellock Rule Pullers** 

## **RULE EQUIPMENT**



**Rule Setter** 



**Rule Tamper** 



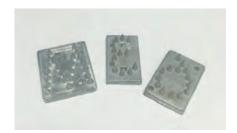
**Rule Tweaker** 



## OTHER DIE ROOM EQUIPMENT



Many sizes and tooth configurations available





Type Perf & Type Perf Holder

Available in standard (3/4" letter on a 1" base) or mini (3/8" letters on a ½" base).

Many different sizes of type perf holder available.



**Die Bolts** 

Various sizes available.



**T-Nut Fasteners** 

Many sizes available.





**Upper Stripping Pins** 

Available in flat, pointed and castled profile Diameters of 2, 3, 4, 6, 8, 10, 12, and 14mm



**Centerline Location Screw** 



## OTHER DIE ROOM EQUIPMENT



**Corrugated Fasteners** Available in 3/8" and ½" sizes.



**Hand Rule Sharpener** Economical sharpener for up to 3pt cutting rule.



**Super Rule Sharpener**Heavier duty sharpener for up to 4pt cutting rule.

## **CENTERLINE PRODUCTS**



**Centerline Blocks**Red or Black



**Centering Piece** Red







### **Scribes**

Sizes: #81 3/8"

#83 1/4"

#88

Replacement tips available.



### Legard

Lead Edge supports to prevent rule bending over on the die.



### **Wagner Punches**

Tube Cup Punches
Tube Oval Self Cleaning
Pin Point Oval

Pin Point Oval
Straight Outside Square
Diameter Cross Cut

Rotary Tube Rule Connectors Feed-Thru Seamless

Self Cleaning Hanger



Phone: 800-451-7373 Email: sales@ccmdie.com Website: www.ccmdie.com

NOTES		



# **STRIPPING AND BLANKING**



## STRIPPING ACCESSORIES



### Speedpin

- Reduces make-ready time and improves production efficiency
- Eliminates the need for stripping frames and bottom pins
- Pin frames and bottom pins are no longer required
- No waste is left hanging on the bottom pins resulting in less potential for blockages and stoppages





### **Stripping Frames**

All machine sizes, thicknesses and harnesses available on request.



**Lower Stripping Pins** 

Other types of pins and sizes available on request.





**Separating / Stripping Knives** 

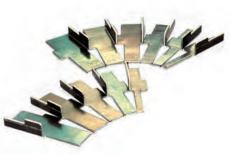


**Stripping Foam** 





**Pin Holders**Available in 3, 5, 7, 9 and 12 hole varieties.



**Pinpoint**Packed in bags of 250



**Stripping Bar** 739mm and 1049mm available.



**Quicklock Bar Sets** 



**Bar Clamp** 



**Side Pusher Block** 



Clamps



**Telescopic Bar** 



# **STRIPPING ACCESSORIES**



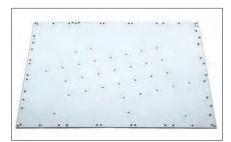
**Chase Loader** 



**Rescocell Plates\*** 



**Cutting Chase with Quicklock** 



**Chase Plates\*** 

\*All machine sizes, thicknesses and harnesses available on request.



**Micrometric System** 



**Cover Plates\*** 



# **BLANKING ACCESSORIES**



C-Rail (2 pieces)



**Spot Pressers** 



**Mounting Clip and Flush Presser Screws** 





# **BLANKING ACCESSORIES**





**Blanking Frames**All machine sizes, thicknesses and harnesses available on request.







# **NICKING AND TOOLS**





## **NICK GRINDERS**







### **Bar-Plate Quicknick Grinder**

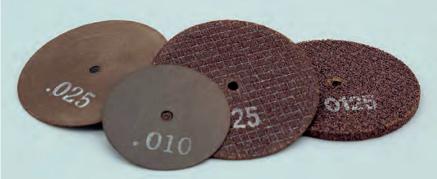
Available in either pneumatic or 110 and 220 volt electric versions, the Quicknick grinder features precision depth control by means of an adjustable depth stop and ensured safety with the attached Lexan guard. The base has an easy to read scale for accurate and consistent positioning of the nicks and a dense rubber matte finish on the bottom to protect the rule and ensure non-slip, stable grinding.





# **GRINDING WHEELS**









**Grinding Wheels** 

For Bar-Plate Quicknick Grinder.



## MITO QUICKNICK GRINDERS

#### **Electric**

The electric version of the Quick Nick grinder also includes an aluminum base which will not damage cutting rule, lightweight construction, easy to change discs, and plastic guarding to protect the operator.



#### **Pneumatic**

This pneumatic grinder features an aluminum base which will not damage cutting rule and lightweight construction with easy to change nicking discs, as well as plastic guarding to protect the operator.





# **MITO T-REX**



#### **Pneumatic**

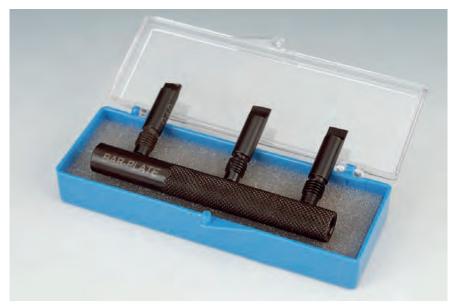
Pneumatic stripping machine for removing waste from pallets of die cut material. The design of the teeth of the chain gives optimum performance, and allows significant time savings compared to manual stripping.



# **NICKING CHISELS**

### **Nicking Chisel Set**

Available with a variety of replaceable tips.



**C&T Nicking Chisel**Available in widths 0.4, 0.5, 0.6, 0.7, 0.8, 0.9 and 1.0mm





# **PLASTIC COMPONENTS**



## **PLASTIC COMPONENTS**



Speedpin

- Reduces make-ready time and improves production efficiency
- Eliminates the need for stripping frames and bottom pins
- Pin frames and bottom pins are no longer required
- No waste is left hanging on the bottom pins resulting in less potential for blockages and stoppages



Corner Protectors

Available in 13mm, 15mm and 18mm widths



**Carrot Bolts** 

43mm Blue Nut & Bolt Set 50mm Blue Nut & Bolt Set



50mm Orange Nut & Bolt Set







**Distance Spacers**Available in a variety of heights.





**Centering Piece** Red



**Centerline Blocks**Red or Black



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# **MAKE READY ACCESSORIES**





## **TAPES**









### **Profitape**©

The original patch up/make-ready tape from Vossen Profitec- world renowned for over 30 years!

- up to 30% faster patching make-ready
- Self-adhesive- no moistening necessary
- Adheres to all standard make-ready sheets and stays where you put it
- Moisture-resistant and long lasting
- Dimensional stability
- Available in a variety of thicknesses & widths

**Shim Tape** 

Available in 25, 50 and 125 micron in 10m, 20m, 30m and 60m rolls in red, blue or green.





## **OTHER ACCESSORIES**



**Die Matte Paper** 

- Available in single matte and double matte
- Variety of widths available

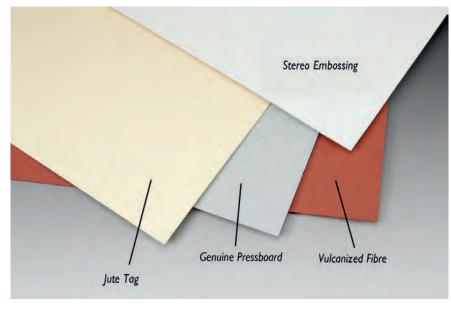


**Carbon Paper** Available in .002" or .005"



#### **Logitac Paper**

- Calibrated spot sheet made with two layers of paper with an inner layer of polyester film
- moisture-resistant
- tear-resistant
- long lasting and can be used for multiple make readies



Counterboard



#### **Shim Packing Paper**

Stocked in rolls.
Custom cut sheets available.
.002", .003", .004", .005" and
.006" available.



# **GUIDES, KNIVES AND TOOLS**



**Adjusto Guides** 



**Sample Makers Scoring Tool**Set comes with 2 fiber blades, 13 shims, an allen wrench and box.



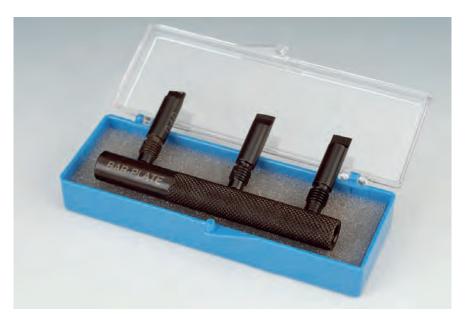


**Score Cutting Knives**Available in original and corrugated versions.



**Skiveready Knives**Comes complete with a center bevel blade, allen wrench and box.





Nicking Chisel Set

Available with a variety of replaceable tips.



**C&T Nicking Chisel**Available in widths 0.4, 0.5, 0.6, 0.7, 0.8, 0.9 and 1.0mm



**Nicking Chisel Tips**Available in sizes from .010" to 0.60"



## **MITER CUTTERS & PLIERS**

## Dolphin Matrix & Rubber Cutter

Cuts up to a 45% degree angle Replacement blades available



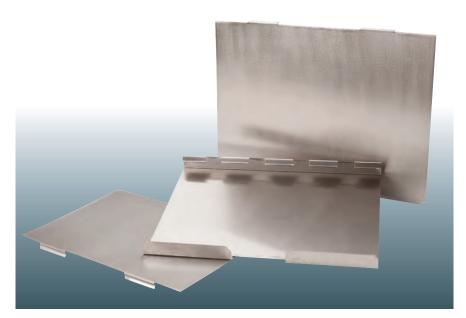
#### **CCM Miter Plier II**

- cuts all sizes and types of matrix accurately
- aluminum guides provide perfect alignment to hold matrix in place
- easy to replace steel blade
- sharpest pliers available
- durable and long-lasting



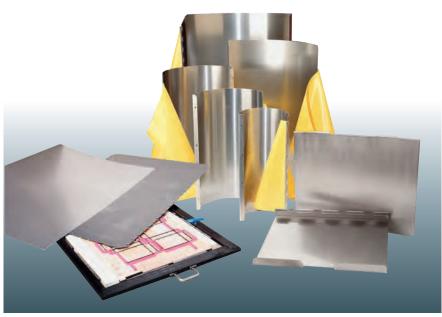


# **DIECUTTING JACKETS**



#### **Diecutting Jackets**

Available in standard (20RC) or boxmaker (35RC) steel grades in multiple thicknesses for most die cutting presses





# **QUOINS & QUOIN KEYS**



One piece T-handle quoin key



Right angle quoin key



5 tooth replacement shank for quoin key





Torque quoin key



# **EQUIPMENT**





# **HELMOLD BENDER SERIES**

Model:	EZ Bender Bendall
Maximum pointage	3 point
Maximum height	1" / 25.4 mm
Machine size (LxWxH)	30.5" x 4.375" x 6.750"
Shipping Size	44" x 8" x 8"
Net weight	46 lbs.
Shipping weight	69 lbs.

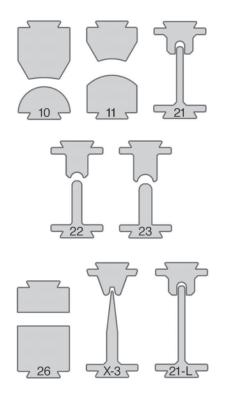


Model:	EZ Heavy Duty Bender		
Maximum pointage	6 point		
Maximum height	2" / 50.8 mm		
Machine size (LxWxH)	40" x 5" x 6"		
Shipping Size	44" x 8" x 8"		
Net weight	50 lbs.		
Shipping weight	72 lbs.		



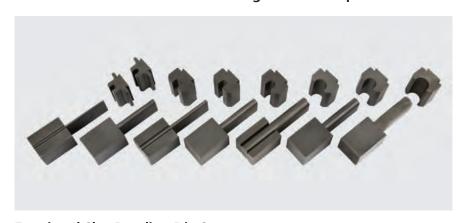


## **BENDING DIES**



Bending dies are available in 1", 1-1/4", 1-1/2" & 2"

#### **Most Common Accessories in Corrugated Die Shops**



#### **Fractional Slot-Bending Die Sets**

Specifications for slot tools and mandrels: Available in 1/8" to 9/16" in 1/16" increments

C = 4pt Center Face

F = 3pt Center Face

R = 4pt Side Face

#### Most Common Accessories in Folding Carton Die Shops Sets





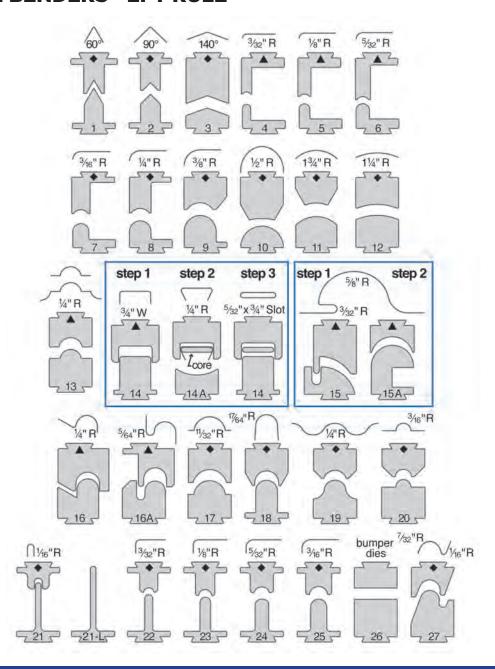
### STANDARD DIES

#### FOR HELMOLD RULE BENDERS - 2PT RULE

#### Legend

All standard dies shown in this catalog are for 2 pt. rule. The following symbols indicate those dies which can be opened up for thicker rule. Dies not marked with any symbol cannot be opened up to accommodate thicker rule.

- $\blacktriangle$  = These dies can be opened up for 3 or 4 pt. rule.

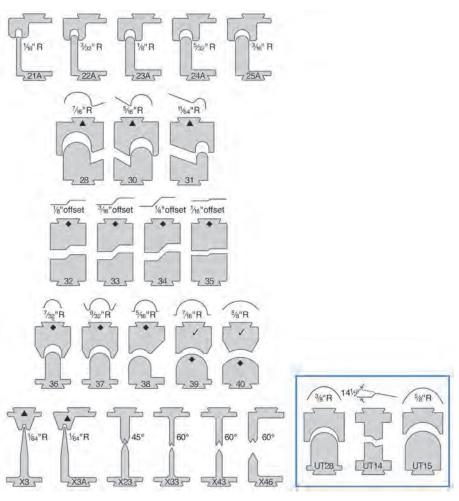


These illustrations are for approximate shape only and are not to true size.



## STANDARD DIES

#### FOR HELMOLD RULE BENDERS



#### Offsets for Die #35

352 - bends 2pt rule to a 2pt offset

353 - bends 2pt rule to a 3pt offset

354 – bends 2pt rule to a 4pt offset

356 – bends 2pt rule to a 6pt offset

 $\blacktriangle$  = These dies can be opened up for 3 or 4 pt. rule.

These illustrations are for approximate shape only and are not to true size.

# MANDREL SETS, SLOT TOOLS & DIMPLE DIE

#### **Special Mandrel Sets**

- For forming long, narrow slots
- For 2pt. rule.
- Fits E-Z Heavy Duty Bender and Bendall. Specify 1", 1-1/4", 1-1/2" & 2" rule height. Requires a dovetail extension and rear support post.
- 365 sets for 3pt., 65 temper rule, bending sets are available in 3/16", 1/4", 5/16" and 3/8" diameters.

Mandrel Diameter	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"
(adapter, support, and bushi	ng includ	ed)				
Female Die Number	X-3B	21B	22B	23B	24B	25B



#### **One Piece Slot Tool**

- Fits Heavy Duty Bender and E-Z Heavy Duty Bender for rule 1-1/4", 1-1/2", 2" high.
- For 3 and 4 point rotary rule.
- Order the following sizes as indicated. Specifications for slot tools and mandrels:

Available in 1/8" to 9/16" in 1/16" increments.

C = 4pt Center Face

F = 3pt Center Face

R = 4pt Side Face

#### **Dimple Dies**

- Dies fits all Helmold benders.
- Produces consistent 'dimples' in rule, compensating for loose kerf.
- Easily replaceable, long wearing dimple pin.
- Male die is for 2, 3 or 4pt.
- Female: Specify for 2, 3 or 4pt.







## **MANDREL ACCESSORIES**



Female Die Number



#### Mandrel Set (For use in the following suggested combinations)

Mandrel Diameter	5/8"				9/16"	7/16"		
Sleeve								
Required & included	1"	5/16"	7/8"	13/16"	3/4"	1/1/16"	bushing included	bushing included
Female Die Number	10.37		UT2	8, 37		17, 37	37	36



#### Mandrel and Sleeve Set

- When combined with the standard bender accessories shown above, a complete set from 3/16" to 1" by sixteenths is obtained.
- Fits E-Z Bender Bendall (1" high rule only).
- Fits E-Z Heavy Duty Bender, Specify your rule height: 1", 1-1/4", 1-1/2", & 2". Requires a mandrel adapter, dovetail extension, eccentric back post and links.





# **CUTTER SERIES**

Model:	1-1/2" Helmold rule cutter
Maximum pointage	6 point
Maximum height	1-1/2" / 38.1 mm
Machine size	28" x 4" x 7.750"
Shipping Size	31" x 7" x 11"
Net weight	27 lbs.
Shipping weight	42 lbs.

Model:	2-1/8" Helmold rule cutter
Maximum pointage	6 point
Maximum height	2-1/8" / 53.97mm
Machine size	28"x 4" x 7.750"
Shipping Size	31" x 7" x 11"
Net weight	27 lbs.
Shipping weight	42 lbs.

Model:	2-7/8" Helmold rule cutter
Maximum pointage	6 point
Maximum height	2-3/4" / 73.02 mm
Machine size	28" x 4" x 7.750"
Shipping Size	31" x 7" x 11"
Net weight	27 lbs.
Shipping weight	42 lbs.





- Equipped with front and rear gauges graduated by sixteenths
- The front gauge cuts up to 6"
- The long back gauge cuts up to 24"



## **MITER SERIES**



Model:	Single Miter Machine
Maximum pointage	3 point
Maximum height	.937
Miter bevels	42, 53, or 60 degrees
Machine size	29.5" x 4.125" x 5.25"
Shipping Size	31" x 7" x 11"
Net weight 32 lbs.	
Shipping weight	55 lbs.

#### **Shim Requirements**

2pt x .937 CF 0.937" height	•	2pt x .918 CF 0.918" height	3pt x .937 CF
No shim needed	.014" shim	.019" shim	.007" shim

The width of each female knife must be kept at 0.310". As the female knives are sharpened, shims are required between the sides of the female miter house and the outside vertical edges of the female knives to hold the 0.310" dimensions.



#### Helmold Right and Left Hand Miter Machine

Model:	Right and Left Miter Machine
Maximum pointage	3 point
Maximum height	.937
Miter bevels	42, 53, or 60 degrees
Machine size	29.5" x 4.125" 5.25"
Shipping Size	31" x 7" x 11"
Net weight	32 lbs.
Shipping weight	55 lbs.



Helmold recommends purchasing spare miter knives. This eliminates down time when sending knives to Helmold for sharpening.

## **NOTCHER SERIES**

Model:	Standard Notcher
Maximum thickness	2 point
Standard notch size	1/8" x 5/8", 1/4" x 5/8", 5/16" x 3/4"
Machine size	37.25" x 4.75" x 6"
Shipping Size	44" x 8" x 8"
Net weight	47 lbs.
Shipping weight	70 lbs.

- The standard notcher is made with an adjustable link that allows the male knives to be re-set and adjusted after sharpening
- Can notch even if the rule is bent
- When ordering notcher specify Width x Height





Model:	Heavy Duty EZ Notcher
Maximum thickness	4 point
Standard notch sizes	1/8" x 5/8", 1/4" x 5/8", 5/16" x 3/4", 3/8" x 5/8",
	1/2" x 1/2", 3/8" x 3/4", 1/2" x 5/8"
Machine size	37" x 4.750" x 7.750"
Shipping Size	44" x 7.125" x 8.250"
Net weight	49 lbs.
Shipping weight	72 lbs.



• This machine can be modified to accommodate curved rule

The knives on these tools are removable for sharpening at Helmold.



## **CUTAWL SAW**

#### "THE DIEMAKER'S SAW"



#### **Current Cutawl Blades:**

The high-speed, portable, precision saw specifically designed for making rotary and flat cutting dies. It cuts hard maple and birch dieboards quickly and easily. Straight lines, curves, or intricate patterns are simple to cut with the free floating 360 degree swivel head. The curved base plate for making rotary dies is of high quality, one-piece cast aluminum. The flat base in made of stainless steel.

Model:	K-12F Cutawl Saw
Thickness	2, 3, and 4 point
Electric	115V, 50-60 HZ Standard
	(Optional 220V 50-60 HZ) **
Base	Flat
Machine size	6" x 10.5" x 9.5"
Shipping Size	14" x 10" x 12"
Net weight	16 lbs.
Shipping weight	21 lbs.

Model:	K-12C Cutawl Saw		
Thickness	2, 3, and 4 point		
Electric	115V, 50-60 HZ Standard		
	(Optional 220V 50-60 HZ) **		
Base	Curved (Specify 66" or 50")		
Machine size	6" x 10.5" x 10"		
Shipping Size	14" x 10" x 12"		
Net weight	16 lbs.		
Shipping weight	21 lbs.		

<b>Cutawl Blades</b>	Pointage	Tooth Height	Material Thickness	TPI
32	2	0.120	0.025	8
33	3	0.120	0.035	8
34	4	0.120	0.035	8
42	2	0.175	0.025	10
43	3	0.175	0.035	10
44	4	0.175	0.035	10
44HD	4	0.175	0.042	10
44HDL	4	0.175	0.042	10

<sup>\*\*</sup> An optional Radio Frequency Interference Suppressor is available.

## **PLAY MATRIX**

#### **Automatic Matrix Cutter**

- Quick & efficient cutting speed
- Ability to simultaneously handle 6 different matrix styles
- Electric-pneumatic system
- Very intuitive and easy to use
- Tablet screen and software
- Ability to import the design & dimensions of the cutting die
- Significant time savings to the operator compared to manual handling
- All the cut pieces remain attached in a chain for ease of application



Maximum cutting length: 500mmMinimum cutting length: 10mm

• Tolerance: ±0.5mm

• Application: PVC, Pressboard, Fibre, Resin matrix

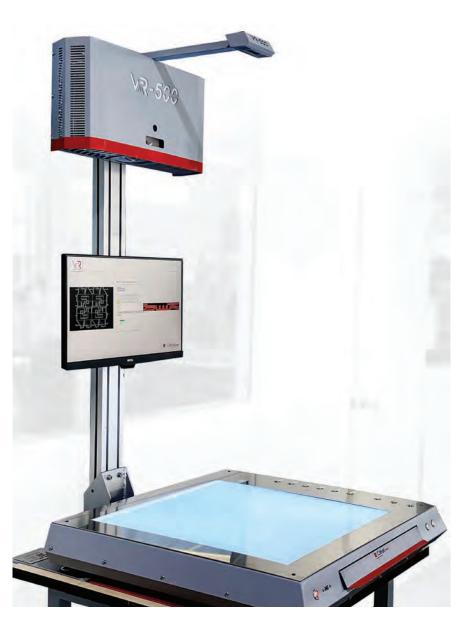








# Virtual Assistant for rubbering



#### **VR500**

Virtualrubber is a virtual assistant born from the need to solve the drawbacks of the current rubber, looking for the shapes of the rubbers within the nesting: higher nesting lower rubber waste - less nesting increases gumming time.







## **MATRIX CUTTER**



#### **Easy Matrix SM**

EasyMatrix SM is the new compact model that will provide you with comfort and maximum productivity in die preparation work. The EasyMatrix automatic countercrease cutting system is based on automatically capturing all the creases that exist in your die design, being able to differentiate creases in favor / against grain to be able to choose the ideal measure.





www.cleargroup.es



#### XPRO 1317 Plotter

Automatic machine for making samples and short series of various materials provided with a powerful pneumatic oscillator.

Its design, as well as an open

structure, allows the X-PRO to offer a complete range of digital solutions for cutting and creasing any type of material, as well as drawing job layouts.

X-PRO has a format specifically designed for automatic production in the cutting of rubber sheets of up to 1000 x 1000 mm and from 15° to 65° shores A for dies.



Phone: 800-451-7373 Email: sales@ccmdie.com Website: www.ccmdie.com

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Website: www.ccmdie.com