A C\&T COMPANY

## DIE SUPPLIES AND ACCESSORIES



## CONTENTS

## FLAT RULES

FLAT CUTTING RULES
COATED CUTTING RULES
CREASING RULES
SPECIAL RULES
HARDENED RULES
SUPRA Z

## MICROTOP

CREASING RULES
14
18

SPECIAL RULES
HARDENED RULES
PERFORATING RULES
WAVE RULES
TEAR EDGE / ZIPPER RULES
CREASING RULES

## ROTARY RULES

ROTARY CUTTING RULES
41
PROCUT ..... 49
EJECTION RUBBERS
EJECTION RUBBERS67
CREASING MATRIX
CREASING MATRIX ..... 91
STEEL PLATES \& PHENOLICS
STEEL PLATE, PHENOLICS ..... 113
PLATE CLEANER
DIE ROOM ESSENTIALS
ADHESIVES ..... 118
MALLETS ..... 120
RULE PULLERS \& EQUIPMENT ..... 122
OTHER EQUIPMENT ..... 123
STRIPPING \& BLANKING
STRIPPING ACCESSORIES ..... 128
BLANKING ACCESSORIES ..... 131
NICKING \& TOOLS
NICK GRINDERS ..... 134
NICKING CHISELS ..... 138
PLASTIC COMPONENTS
PLASTIC COMPONENTS ..... 140
MAKE READY ACCESSORIES
TAPES ..... 144
GUIDES, KNIVES \& TOOLS ..... 146
MITER CUTTERS \& PLIERS ..... 148
DIE CUTTING JACKETS ..... 149
QUOINS \& KEYS ..... 150
EQUIPMENT
BENDING \& STANDARD DIES ..... 152
MANDREL TOOLS \& ACCESSORIES ..... 156
CUTTER, MITER \& NOTCHER SERIES ..... 158
CUTAWL SAW ..... 161
PLAY MATRIX \& BENCH PRESS ..... 162
CLEAR GROUP CUTTERS \& PLOTTERS ..... 164

## 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: wwww.ccmdie.com
```


## © bohlerstrip

## FLAT CUTTING RULE



TOP
This bohlerstrip standard cutting rule offers good bendability and a wellbalanced 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, ...


## voestalpıne

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.

## 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.


## 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.

## © bohlerstrip

## FLAT CUTTING RULE



## 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

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


## © bohlerstrip



## 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 | Hardness |  | Bevel finish | Guaranteed Bending Properties |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Body | Edge |  | Bending Angle |  | Bending Radius R [mm] |  |  |
| TOP | $\sim 450$ HV (45 HRC) |  | S | $\alpha=80^{\circ}$ | 0.3 | 0.3 | 0.6 | 1.1 |
| H 75 | $\sim 525 \mathrm{HV}(51 \mathrm{HRC})$ |  | S | $\alpha=85^{\circ}$ | - | 1.7 | 3.5 | 6.5 |
| UNI VERSAL | ~340 HV | $\sim 660$ 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 | $\sim 660$ 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 | $\sim 450$ HV | $\sim 660 \mathrm{HV}$ | 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 | $\sim 525$ HV | $\sim 700 \mathrm{HV}$ | 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 | $\sim 720$ HV | S | $\alpha=85^{\circ}$ | - | 0.6 | 0.9 | - |
|  | (40 HRC) | (61 HRC) |  |  |  |  |  |  |
|  |  |  | S = shaved |  | 1.5 pt | 2 pt | 3 pt | 4 pt |
|  | $\mathrm{G}=$ standard ground |  |  |  | 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.


## voestalpıne

## 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: $53^{\circ}$ (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 $90^{\circ}$ cut edge and all the distortion from penetration is left on the material waste. The SFDB bevel is not available in a " G " execution.

SFDB


## © bohlerstrip

## 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.

rounded

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 costefficient 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 " $\mathrm{G}^{\prime}$.

## 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.

## voestalpıne

ONE STEP AHEAD.

## 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.

## Product information:

The cutting bevel of the Supreme rules are coated with a thin anti-frictionfilm 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 $\sim 2,400 \mathrm{HV}$ 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

Supreme coating


## © bohlerstrip

## 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 $\leq 3 \mathrm{pt}$.
HR - Hard Rolled:
This type of creasing rule is recommended for rules $\geq 4$ pt.

## voestalpıne

## 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 | $2 \mathrm{pt} / 3 \mathrm{pt} / 4 \mathrm{pt}$ |
|  | $0.71 / 1.05 / 1.42 \mathrm{~mm}$ |
| Height | $21.30-25.40 \mathrm{~mm}$ |
|  | $0.840^{\prime \prime}-1.000^{\prime \prime}$ |
| Spacing P | tooth / gap * |

* Minimum tooth / gap width is defined by rule thickness.


## 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 | $2 \mathrm{pt} / 3 \mathrm{pt} / 4 \mathrm{pt}$ |
|  | $0.71 / 1.05 / 1.42 \mathrm{~mm}$ |
| Height | $\mathrm{HS}=$ cutting part height |
|  | $\mathrm{HR}=$ creasing part height |
| Spacing P | cut / crease |



Please contact us for available combinations

## © bohlerstrip

## BOHLERSTRIP SPECIAL RULES

## Glue Flap Rule



| Grade | TOP, UNIVERSAL |
| :--- | ---: |
| Bevel profile | CF |
| Thickness | 2 pt |
| Height | 0.71 mm |
|  | $23.32 / 23.50 / 23.60 \mathrm{~mm}$ |
| Spacing P | $0.918^{\prime \prime} / 0.925^{\prime \prime} / 0.929^{\prime \prime}$ |
| (Tooth/gap) | $0.71 / 0.71 \mathrm{~mm}$ |
| Wave Spacing W | $2 \mathrm{pt} / 2 \mathrm{pt}$ |

## 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 | $2 \mathrm{pt} / 3 \mathrm{pt}$ |
|  | $0.71 / 1.05 \mathrm{~mm}$ |
| Height | $21.30-25.40 \mathrm{~mm}$ |
| Wave Spacing W | $0.840^{\prime \prime}-1.000^{\prime \prime}$ |
| Autobender qualified executions ( A) | 2.0 mm - super fine, 3.5 mm - very fine |

## voestalpıne

## 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 |
| Height | 1.05 mm |
|  | $30 / 40 / 45 / 50 / 55 \mathrm{~mm}$ |
| Optional Wave Spacing W | $1.181^{\prime \prime} / 1.575^{\prime \prime} / 1.772^{\prime \prime} / 1.969^{\prime \prime} / 2.165^{\prime \prime}$ |



## Stripping Rule with teeth

| Grade | TOP 36 |
| :--- | ---: |
| Bevel profile | CF |
| Thickness | 3 pt |
|  | 1.05 mm |
| Height | $50-55 \mathrm{~mm}$ |
| Toothshape pyramidal $(\mathrm{h}$ | $=0.5 \mathrm{~mm} / \mathrm{w}=0.5 \mathrm{~mm})$ |
| Spacing configuration | $0.5 / 1.5-0.5 / 5-0.5 / 10 \mathrm{~mm}$ |
| Optional Wave Spacing W | 7.0 mm |



## © bohlerstrip

## Zipper Edge Rules



## 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 | $1 / 2 \mathrm{pt}-6 \mathrm{pt}$ |
|  | $0.36-2.13 \mathrm{~mm}$ |
| Height | $15,17,18,20 \mathrm{~mm}$ |
|  | $5 / 8^{\prime \prime}, 3 / 4^{\prime \prime}$ |

# martin M miller 

## MARTIN MILLER <br> HARDENED CUTTING RULES

## martin $\times$ 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 ~800 HV (~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
$1.3 \mathrm{pt} / 0.45 \mathrm{~mm} \cdot 1.5 \mathrm{pt} / 0.53 \mathrm{~mm} \cdot 2 \mathrm{pt} / 0.71 \mathrm{~mm} \cdot 3 \mathrm{pt} / 1.05 \mathrm{~mm} \cdot$
$4 \mathrm{pt} / 1.42 \mathrm{~mm} \cdot 6 \mathrm{pt} / 2.13 \mathrm{~mm}$
Rule Height
$8 \mathrm{~mm} \cdot 9.5 \mathrm{~mm} \cdot 10 \mathrm{~mm} \cdot 12-100 \mathrm{~mm}$

## martin $\times$ miller

## BENDABILITY / HARDNESS SCALE



[^0]
## voestalpıne

## 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 $\mathbf{R}$ - 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 $\times$ miller

## SUPRA Z <br> 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:

- Plastics
- Blister
- 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

| Execution | Vikingflex 34 | Vikingflex 40 | Vikingflex 47 |
| :--- | ---: | ---: | ---: | ---: |
| Body hardness | $\sim 340 \mathrm{HV}(\sim 34 \mathrm{HRC})$ | $\sim 380 \mathrm{HV}(\sim 39 \mathrm{HRC})$ | $\sim 460 \mathrm{HV}(\sim 46 \mathbb{R C C})$ |
| Edge hardness | $\sim 640 \mathrm{HV}(\sim 57 \mathrm{HRC})$ | $\sim 700 \mathrm{HV}(\sim 60 \mathrm{HRC})$ | $\sim 700 \mathrm{HV}(\sim 60 \mathrm{HRC})$ |
| Cutting bevel | A, AA | A, AA, B, BB | A, AA |
| Bevel finish | fine ground | fine ground | fine ground |
| Bevel angle | $42^{\circ}$ | $30^{\circ} / 42^{\circ} / 54^{\circ}$ | $42^{\circ}$ |

SUPRA Z Plastic Cutting Rule

|  | Vikingflex 34 | Vikingflex 40 | Vikingflex 47 |
| :---: | ---: | ---: | ---: | ---: |
| Thickness | $2 \mathrm{pt} / 0.71 \mathrm{~mm}$ | $2 \mathrm{pt} / 0.71 \mathrm{~mm}$ | $2 \mathrm{pt} / 0.71 \mathrm{~mm}$ |
|  |  | $3 \mathrm{pt} / 1.05 \mathrm{~mm}$ | $3 \mathrm{pt} / 1.05 \mathrm{~mm}$ |
| Height | $23.60 \mathrm{~mm} / 23.80 \mathrm{~mm}$ | $23.30-50.00 \mathrm{~mm}$ | $23.30-50.00 \mathrm{~mm}$ |



60-times magnified

## SUPRA Z Label Cutting Rule

|  | Vikingflex 34 | Vikingflex 40 | Vikingflex 47 |
| ---: | ---: | ---: | ---: | ---: |
| Thickness | $1.3 \mathrm{pt} / 0.45 \mathrm{~mm}$ | $1.3 \mathrm{pt} / 0.45 \mathrm{~mm}$ | $1.3 \mathrm{pt} / 0.45 \mathrm{~mm}$ |
|  | $1.5 \mathrm{pt} / 0.53 \mathrm{~mm}$ | $1.5 \mathrm{pt} / 0.53 \mathrm{~mm}$ |  |
|  |  | $2 \mathrm{pt} / 0.71 \mathrm{~mm}$ |  |
| Height | $8 \mathrm{~mm} / 12 \mathrm{~mm}$ | $8 \mathrm{~mm} / 9.5 \mathrm{~mm} / 12 \mathrm{~mm}$ | $8 \mathrm{~mm} / 9.5 \mathrm{~mm} / 12 \mathrm{~mm}$ |

## voestalpine

ONE STEP AHEAD.

## MICROTOP THE CUTTING RULE WITH MORE POWER



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.HP 34 / 40 MICROTOP

| Execution | HP 34 |
| :--- | ---: |
| Thickness | HP 40 |
|  | $2 \mathrm{pt} / 0.71 \mathrm{~mm}$ |
| Height | $3 \mathrm{pt} / 1.05 \mathrm{~mm}$ |
| Cutting bevel | 23.80 mm |
| Bevel finish | A, AA |
| Bevel angle | shaved |

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.

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 $75^{\circ}$ tip angle improves robustness against cutting pressure overload. The rule tip remains sharp longer, thus increasing rule lifetime.

## martin $\times$ miller

## HP+ 34/ 40 MICROTOP <br> 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


## voestalpıne

## 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.


## martin $\times$ miller

## SPECIAL RULES

## Perforating Rules



| Execution | MM 44 | HP 40 |
| :--- | ---: | ---: |
| Hardness | $\sim 430 \mathrm{HV}$ | $\sim 380 / 700 \mathrm{HV}$ |
| Bevel | $2 \mathrm{pt} / 0.71 \mathrm{~mm}, 3 \mathrm{pt} / 1.05 \mathrm{~mm}, 4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |  |
| Thickness | $21.30-25.40 \mathrm{~mm} / 0.840^{\prime \prime}-1.000^{\prime \prime}$ |  |
| Height |  |  |
| Spacing (tooth/gap) <br> all common tooth/gap-variations available (in millimeter-, point- and inch-spacings) |  |  |

## Combination Cut / Crease Rules



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

## Glue Flap Rules



| Execution | MM 44 |
| :--- | ---: |
| Hardness | $\sim 430 \mathrm{HV}$ |
| Bevel | A (edge angle: $\left.54^{\circ}\right)$ |
| Thickness | $2 \mathrm{pt} / 0.71 \mathrm{~mm}$ |
| Height | $22.80-23.60 \mathrm{~mm} / 0.897^{\prime \prime}-0.929^{\prime \prime}$ |
| Spacing | $2 \mathrm{spt} / 2 \mathrm{pt} \cdot 1 \mathrm{~mm} / 1 \mathrm{~mm}$ |
|  |  |
|  | 5 mm |

## voestalpıne

## SPECIAL RULES

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

Standard heights for all common die boards avail able
Spacing Rules

Stripping Rules

| Execution | HW | MM 34 | MM 40 |
| :---: | :---: | :---: | :---: |
| Hardness | min. 270HV | ~340 HV | $\sim 380 \mathrm{HV}$ |
| Bevel | GK (cut edges), FT (shaved), Needle Point (with teeth), waved |  |  |
| Thickness | $3 \mathrm{pt} / 1.05 \mathrm{~mm}$ |  |  |
| Height | $45 \mathrm{~mm}, 50 \mathrm{~mm}, 55 \mathrm{~mm}, 65 \mathrm{~mm}$ |  |  |
| Spacing | $6: 2 \mathrm{~mm} \cdot 6: 2.5 \mathrm{~mm} \cdot 6: 3 \mathrm{~mm} \cdot 8: 3 \mathrm{~mm} \cdot 10: 4.5 \mathrm{~mm} \cdot 12: 6 \mathrm{~mm}$ |  |  |
| Needle Poi | cing: $5 \mathrm{~mm} \cdot 6 \mathrm{~mm}$ tooth depth: $0.5 \mathrm{~mm} \cdot 1 \mathrm{~mm}$ |  |  |



Wave Edge Rules


## martin $\times$ miller

## SPECIAL RULES

## TearM Flatbed Zipper Rules



| Execution | HP 34 |
| :--- | ---: |
| Hardness | $\sim 340 \mathrm{HV}$ |
| Bevel | AA |
| Thickness | $1.05 \mathrm{~mm} / 3 \mathrm{pt}$ |
| Height | 23.80 mm |
| Spacing |  |
| Direction left/right (separately packed) |  |

Used for creating hand holes and general zipper applications

## Zipper Rules



| Execution | MM 34 |
| :--- | ---: |
| Hardness | $\sim 340 \mathrm{HV}$ |
| Bevel | A (edge angle: $\left.54^{\circ}\right)$ |
| Thickness | $2 \mathrm{pt} / 0.71 \mathrm{~mm}, 3 \mathrm{pt} / 1.05 \mathrm{~mm}$ |
| Height | $21.30-25.40 \mathrm{~mm} / 0.840^{\prime \prime}-1.000^{\prime \prime}$ |
| Spacing | ${ }^{1)} 6 \mathrm{~mm}^{2)} 8 \mathrm{~mm}^{3)} 10 \mathrm{~mm}^{4)} 12 \mathrm{~mm}$ |
| straight - angled part | $3 / 5-2 / 5$ |

# helmold <br> ${ }^{\circledR}$ <br> ? 

HELMOLD
HARDENED CUTTING RULES

## helmold ${ }^{\circ}$ V

## HARDENED CUTTING RULES

## 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
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.

## 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 $60^{\circ}$, but our new 2 pt. shaved edge rule with a more acute angle of $53^{\circ}$ or $42^{\circ}$ (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 <br> 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; $1 / 8^{\prime \prime}$ SE or GE $3 / 16$ " or $1 / 4$ " GE only
FB Flush Bevel
MBB Minimum Back Bevel

SFB Side Face Bevel which is located close to one side (usually $0.005^{\prime \prime}$ to $0.008^{\prime \prime}$ from one side of the rule, but also available for limited application with the bevel $0.003^{\prime \prime}$ to $0.005^{\prime \prime}$ 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.


Ground bevels only available in $60^{\circ}$
Primary angle is shaved, secondary angle maybe ground or shaved

## helmold' V/



## 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 |  | $\begin{aligned} & \text { \#X3M } \\ & \text { \# X3F } \end{aligned}$ | \#X3M \#X3F | $\begin{array}{ll} \# 1 \mathrm{M} \\ \# 1 \mathrm{~F} \end{array} \longrightarrow$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Helmold 70 |  |  | $\begin{aligned} & \# X 3 M \\ & \# X 3 F \\ & \end{aligned}$ |  |  |
| Helmold 80 - extra hard <br> Helmold 85 - very hard |  |  | $\begin{aligned} & \# 2 \mathrm{M} \\ & \# 2 \mathrm{~F} \end{aligned}$ |  |  |
| Helmold Lazer Blade <br> Helmold Lazer Blade D | $\# 2 \mathrm{M}$ | $\underset{\# 2 \mathrm{~F}}{\# 2 \mathrm{M}}$ | $\begin{aligned} & \# \mathrm{UT} 14 \\ & \# 2 \mathrm{~F} \end{aligned}$ | $\begin{aligned} & \# 21 \mathrm{M} \\ & \# 2 \mathrm{~F} \end{aligned}$ | $\# 23 \mathrm{M}$ |
| Helmold Lazer Blade H Helmold Lazer Blade HD |  | $\begin{aligned} & \# 21 \mathrm{M} \\ & \# 21 \mathrm{~F} \end{aligned}$ | \#21M <br> \#21F | $\begin{aligned} & \# 22 \mathrm{M} \\ & \# 25 \mathrm{~F} \end{aligned}$ | $\begin{aligned} & \# 25 \mathrm{M} \\ & \# 17 \mathrm{~F} \end{aligned}$ |
|  |  |  | $\begin{aligned} & \# 22 \mathrm{M} \\ & \# 22 \mathrm{~F} \end{aligned}$ | $\begin{aligned} & \hline \text { \#24M } \\ & \# 17 \mathrm{~F} \end{aligned}$ | $\begin{array}{\|l\|} \hline \# 18 \mathrm{M} \\ \# 17 \mathrm{~F} \end{array}$ |
|  |  |  | $\begin{aligned} & \# 23 \mathrm{M} \\ & \# 23 \mathrm{~F} \end{aligned}$ |  |  |
|  |  |  | Straight work only | Straight work only |  |

[^1]
## helmold' V/

## 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 |  |
| 2 | 50 | 0.016 | 1.000 | 0.028 | 0.500 | 0.937 |  |
| 2 | 65 | 0.020 | 1.000 | 0.028 | 0.500 | 2.000 |  |
| 2 | 70 | 0.024 | 1.000 | 0.028 | 0.500 | 0.970 |  |
| 3 | 65 | 0.031 | 1.000 | 0.031 | 0.500 | 0.937 |  |
| 3 | 0 | 05 | 0.031 | 1.000 | 0.062 | 0.500 | 2.000 |
| 3 |  | 1.000 | 0.062 | 1.000 | 0.062 | 0.500 | 0.125 |
| 4 |  |  |  |  | 0.500 | 0.188 |  |
|  |  |  |  |  |  | 0.188 |  |

## voestalpıne

## COMMON PERFORATING PATTERNS

## Common Perforating Patterns

For the business form and carton industries

(Teeth per inch and decimal spacing)

For the corrugated industry (Fractional tooth width and spacing)


## helmold' V/



## WAVE RULES


nomsmonnoms




$\qquad$

unnnnnnnnnnnn


## 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.

## Profiles

| 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 |
| $3 p t$ | 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 |
| $11 / 2 \mathrm{pt}$. | .500 .625 .750 |
| 2 pt. | .500 .625 .750 |
| 3 pt | .500 .625 .750 |
| 4 pt. | .500 .625 .750 |
| 6 pt. | .500 .625 .750 |

## voestalpıne

## 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' V/



## SPECIFICATIONS



## Specifications

8" lengths, 2pt. body.
S series


Tear Edge Specifications

|  | A |  |  |  |  | B |  | C | 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 |

## voestalpıne

## 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

| $11 / 2 \& 2 \mathrm{pt}$ | 3 pt | 4 pt |
| :---: | :---: | :---: |
| .885 .895 .900 | .890 .895 | .840 .860 |
| .902 .905 .906 | .900 .905 | .875 .890 |
| .907 .908 .910 | .906 .907 | .895 .900 |
| .912 .914 .915 | .910 .912 | .905 .906 |
| .916 .917 .918 | .915 .918 | .907 .910 |
| .920 .921 .922 | .923 .930 | .912 .918 |
| .923 .924 .925 | .937 .950 | .923 .937 |
| .926 .927 .937 | .960 .970 | .940 |

Other heights and profiles are available. Call for details.


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

## helmold' V/



## 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. | A |  |

## 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.

| Body Hardness | $1.5 \mathrm{pt}=45 \mathrm{RC}$ |
| :--- | :---: |
| $2 \mathrm{pt}+3 \mathrm{pt}=40 \mathrm{RC}$ |  |
| $4 \mathrm{pt}+6 \mathrm{pt}=35 \mathrm{RC}$ |  |
| Bendability | Straight work only |
| Thickness | $1.5 \mathrm{pt} / 2 \mathrm{pt} / 3 \mathrm{pt} / 4 \mathrm{pt} / 6 \mathrm{pt}$ |
| Heights | $1.5 \mathrm{pt}=.500^{\prime \prime}$ thru $1.500^{\prime \prime}$ |
|  | $2 \mathrm{pt}+3 \mathrm{pt}=.500^{\prime \prime}$ thru $2.000^{\prime \prime}$ |
| $4 \mathrm{pt}=.500^{\prime \prime}$ thru $2.000^{\prime \prime}$ |  |
| Bevel Finish | spt $=.500^{\prime \prime}$ thru $1.250{ }^{\prime \prime}$ |

## © bohlerstrip

 ROTARY STEEL RULES
# © bohlerstrip 

## ROTARY STEEL RULES



## 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 | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
|  | Edge | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| Bevel type |  | CFB |



## CCMBIIFpry

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 | $-340 \mathrm{HV} \mathrm{(35HRC)}$ |
|  | Edge | $-340 \mathrm{HV} \mathrm{(35HRC)}$ |
| Quality | universal |  |
| Hardness | Body | $-340 \mathrm{HV} \mathrm{(35HRC)}$ |
|  | Edge | $-500 \mathrm{HV} \mathrm{(49HRC)}$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $3 / 1.05,4 / 1.42$ |
| 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 | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
|  | Edge | $-500 \mathrm{HV} \mathrm{(49HRC)}$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| Bevel type |  | CFB |

## voestalpıne

ONE STEP AHEAD.

## © bohlerstrip

## 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.

| Quality | UNIVERSAL |  |
| :--- | ---: | :--- |
| Hardness | Body | -340 HV (35HRC) |
|  | Edge | $-500 \mathrm{HV}(49 \mathrm{HRC})$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| Bevel type |  | CFB |

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 | -340 HV (35HRC) |
|  | Edge | -340 HV (35HRC) |
| Quality | TOP 40 |  |
| Hardness | Body | -390 HV (40HRC) |
|  | Edge | -390 HV (40HRC) |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| Bevel type |  | CF |

## voestalpıne

## 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 | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
|  | Edge | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| 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 | -340 HV (35HRC) |
|  | Edge | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| Bevel type |  | CFB |

## © bohlerstrip

## 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 | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
|  | Edge | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| 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 |  |
| :--- | ---: | :--- |
| Hardness | Body | -340 HV (35HRC) |
|  | Edge | -340 HV (35HRC) |
| Quality | UNIVERSAL |  |
| Hardness | Body | -340 HV (35HRC) |
|  | Edge | -500 HV (49HRC) |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| Bevel type |  | CF |

## voestalpıne

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 | -340 HV (35HRC) |
|  | Edge | -500 HV (49HRC) |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| 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 | -340 HV (35HRC) |
|  | Edge | $-340 \mathrm{HV} \mathrm{(35HRC)}$ |
| Quality | UNIVERSAL |  |
| Hardness | Body | -340 HV (35HRC) |
|  | Edge | $-500 \mathrm{HV} \mathrm{(49HRC)}$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $3 / 1.05$ |

## © bohlerstrip

## 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 | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
|  | Edge | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| Bevel type |  | CF |

# © bohlerstrip 

## PROCUT

THE RULE THAT STANDS STRONG ABOVE THE REST


## © bohlerstrip

## 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 | $-390 \mathrm{HV}(40 \mathrm{HRC})$ |
|  | Edge | $-500 \mathrm{HV}(49 \mathrm{HRC})$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| Heights |  | $25.15 / 25.40 / 25.98 / 26.16$ |
|  |  | $0.990^{\prime \prime} / 1.000 / 1.023^{\prime \prime} / 1.030^{\prime \prime}$ |
| 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


## voestalpıne

## 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 | -340 HV (35HRC) |
|  | Edge | $-340 \mathrm{HV}(35 \mathrm{HRC})$ |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $4 / 1.42$ |
| 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 $\mathrm{TPI})$ that penetrate the surface of Foam- $\mathrm{X} ®$ 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- $\mathrm{X} ®$ board. It outperforms conventional beveled rule, offering improved cosmetic finish to the cut foam composite board.

| Quality | UNIVERSAL 60 |  |
| :--- | ---: | :--- |
| Hardness | Body | -450 HV (45HRC) |
|  | Edge | -500 HV (49HRC) |
| Thickness | $(\mathrm{pt} / \mathrm{mm})$ | $3 / 1.05$ |
| Bevel type |  | SFS |

## © bohlerstrip

## OVERVIEW



## voestalpine



## © bohlerstrip

## 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 $\leq 3 \mathrm{pt}$.
HR - Hard Rolled:
For rule thickness $\geq 4$ pt.

| Brand | Hardness 3 | 3 pt <br> 1.05 mm | 4 pt <br> 1.42 mm | 6 pt <br> 2.13 mm |
| :--- | :---: | :---: | :---: | :---: |
| Bohlerstrip TOP 36 | $-340 \mathrm{HV}(34 \mathrm{HRC})$ | $\bullet$ | $\bullet$ | on request |
| Bohlerstrip HT | $-380 \mathrm{HV}(40 \mathrm{HRC})$ | $\bullet$ | - | - |
| Bohlerstrip HR | $\min 265 \mathrm{HV}\left(850 \mathrm{~N} / \mathrm{mm}^{2}\right)$ | - | $\bullet$ | $\bullet$ |

## voestalpıne

## CREASING RULE PROFILES

| SR WRT |  |
| :---: | :---: | :---: |



## 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

## 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 $6 \mathrm{~mm}\left(1 / 4^{\prime \prime}\right)$. This will give a more stable and consistent rule.

| Thickness |  | $4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |
| :--- | :--- | ---: |
| Heights |  | $23.80\left(.9377^{\prime \prime}\right)-25.40 \mathrm{~mm}\left(1.000^{\prime \prime}\right)$ |
| Standard configuration | Europe: | $6 \times 6 \mathrm{~mm}, 10 \times 10 \mathrm{~mm}, 12 \times 12 \mathrm{~mm}$ |
|  | USA: | $1 / 4^{\prime \prime} \times 1 / 4^{\prime \prime}, 3 / 8^{\prime \prime} \times 3 / 8^{\prime \prime}, 1 / 2^{\prime \prime} \times 1 / 2^{\prime \prime}$ |
| (others on request) |  |  |
| Standard gap depth |  | $4.75 \mathrm{~mm}\left(3 / 16^{\prime \prime}\right), 3.00 \mathrm{~mm}\left(1 / 8^{\prime \prime}\right)$ |
|  | (others on request) |  |

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 $6 \mathrm{~mm}\left(1 / 4^{\prime \prime}\right)$ or larger. This will help reduce crushing and flaking on the finished product.

| Thickness |  | $4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |
| :--- | :--- | ---: |
| Heights |  | $23.80\left(.9377^{\prime \prime}\right)-25.40 \mathrm{~mm}\left(1.000^{\prime \prime}\right)$ |
| Standard configuration | Europe: | $6 \times 6 \mathrm{~mm}, 10 \times 10 \mathrm{~mm}, 12 \times 12 \mathrm{~mm}$ |
|  | USA: | $1 / 4^{\prime \prime} \times 1 / 4^{\prime \prime}, 3 / 8^{\prime \prime} \times 3 / 8^{\prime \prime}, 1 / 2^{\prime \prime} \times 1 / 2^{\prime \prime}$ |
| (others on request) |  |  |
| Standard gap depth |  | $4.75 \mathrm{~mm}\left(3 / 16^{\prime \prime}\right), 3.00 \mathrm{~mm}\left(1 / 8^{\prime \prime}\right)$ |
|  |  | (others on request) |

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 |  | $4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |
| :--- | :--- | ---: |
| Heights |  | $23.80\left(.937^{\prime \prime}\right)-25.40 \mathrm{~mm}\left(1.000^{\prime \prime}\right)$ |
| Standard configuration | Europe: | $6 \times 6 \mathrm{~mm}, 10 \times 10 \mathrm{~mm}, 12 \times 12 \mathrm{~mm}$ |
|  | USA: | $1 / 4^{\prime \prime} \times 1 / 4^{\prime \prime}, 3 / 8^{\prime \prime} \times 3 / 8^{\prime \prime}, 1 / 2^{\prime \prime} \times 1 / 2^{\prime \prime}$ |
|  |  | (others on request) |

## voestalpıne

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 | $24.64\left(.970^{\prime \prime}\right)$ | $-26.16 \mathrm{~mm}\left(1.030^{\prime \prime}\right)$ |
| Standard tooth design | CFSTC12 |  |
| Minim um gap width | 1.42 mm |  |
| Gap depth | 6 mm |  |
| Back notch depth (N3) | 9.5 mm |  |
| 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 | $24.64\left(.970^{\prime \prime}\right)$ | $-26.16 \mathrm{~mm}\left(1.030^{\prime \prime}\right)$ |
| Standard tooth design | CFSTC12 |  |
| Tooth spacing | 4 mm |  |
|  | Left \& right |  |
| Smallest curving diameter for notch designs N2C/N7C | 319 mm |  |
| Available in SNN \& N7C execution |  |  |

## BBreaker



## Tear Edge



## © bohlerstrip

## FORMS OF DELIVERY

## Straight execution axial use

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

straight, with no notches

SN7


SN2

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 anticorrosion paper.

## voestalpıne

## Coiling directions and strip marking:

FA: Anti-clockwise winding direction: view on cutting bevel " $\partial$ " - outside printing
F: Clockwise winding direction: view on cutting bevel " 6 " - outside printing


|  | Tapered notches |  | Parallel notches |  |
| :--- | :---: | :---: | :---: | :---: |
|  | N7 |  | N2 |  |
|  | $(\mathrm{mm})$ | (inch) | (mm) | (inch) |
| Spacing T | 12.7 | $0.500^{\prime \prime}$ | 10.0 | $0.394^{\prime \prime}$ |
| Depth t | 12.7 | $0.500^{\prime \prime}$ | 12.2 | $0.480^{\prime \prime}$ |
| Radius r | 1.6 | $0.063^{\prime \prime}$ | 1.75 | $0.069^{\prime \prime}$ |
| Width b | - | - | 3.5 | $0.138^{\prime \prime}$ |

## © bohlerstrip

## 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 $\varnothing 177$ to $750 \mathrm{~mm}\left(7^{\prime \prime}-291 /{ }^{\prime \prime}\right)$. Starting from Ø $360 \mathrm{~mm}\left(143 / 16^{\prime \prime}\right)$ 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 $30.5 \mathrm{~m}(100 \mathrm{ft})$. For curving inner diameter (ID) < $300 \mathrm{~mm}=$ short coils only ( $15.2 \mathrm{~m} / 50 \mathrm{ft}$ ).
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)
$\mathbf{N}$ : Anti-clockwise (end of coil on the top to the left side)


# martin Y miller 

## martin $\times$ miller

## ROTARY CUTTING RULES

## TYPES OF BEVEL

| A-xx | AD-xx | B-xx | T-xx | Specification |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ! |  |  | Execution* | MM 34 | HP34/HF34 |
|  |  |  |  | Hardness body | ~340HV | $\sim 340 \mathrm{HV}$ |
|  |  | N | $A$ | Hardness edge | ~340HV | ~530HV |
|  |  |  | - | Bevel finish | ground teeth | g bevel shaved |
|  |  |  |  | Thickness | $3 \mathrm{pt} / 1.05 \mathrm{~mm}$, 4pt/1 | m, 6pt/2.13mm |
|  |  |  |  | Height | 21.30-30.1 | /0.840"-1.187" |
|  |  |  |  | * HP40 on request |  |  |
|  |  |  |  | Tooth shape Standard Rotary Cutting | g Rules |  |
|  |  |  |  | ST-Standard | RS-Round Shape | DC-Double Cut |
|  |  |  |  | Standard design | round gullet-pointed tooth | smaller gullet depth |
|  |  |  | $\upharpoonright_{1 / 3}{ }_{2 / 3}$ | Aggressive tooth shape for general use | best bendability | less wear on anvils |



| Profiles | TPI | Profiles | TPI | Profiles | TPI |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A-ST/AD-ST | $8 T$ | A-RS/AD-RS | $8 T$ | AD-DC | $8 T^{*}$ |
| A-ST/AD-ST | $10 T$ | $A-R S / A D-R S$ | $10 T$ | $A D-D C$ | $10 T$ |
| A-ST/AD-ST | $12 T^{*}$ | A-RS/AD-RS | $12 T^{*}$ | AD-DC | $12 T$ |
|  |  |  |  |  |  |

*preferred stock item

## voestalpıne

## 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 | $\sim 340 \mathrm{HV}$ | $\sim 430 \mathrm{HV}$ | $\sim 340 \mathrm{HV}$ |
| Hardness edge | $\sim 340 \mathrm{HV}$ | $\sim 430 \mathrm{HV}$ | $\sim 530 \mathrm{HV}$ |
| Thickness |  |  | $3 \mathrm{pt} / 1.05 \mathrm{~mm}$ |
|  |  | $4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |  |
| Height |  | $23.80-50.80 \mathrm{~mm}$ |  |
|  |  | $0.937^{\prime \prime}-2.000^{\prime \prime}$ |  |
| 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 | $\sim 340 \mathrm{HV}$ | $\sim 340 \mathrm{HV}$ |
| Hardness edge | $\sim 340 \mathrm{HV}$ | $\sim 530 \mathrm{HV}$ |
| Thickness |  | $4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |
| Height |  | $23.80-26.40 \mathrm{~mm}$ |
|  | $0.937^{\prime \prime}-1.039^{\prime \prime}$ |  |
| Bevel | B (Side bevel) |  |

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

| Execution | MM 34 | HP34 |
| :--- | ---: | ---: |
| Hardness body | $\sim 340 \mathrm{HV}$ | $\sim 340 \mathrm{HV}$ |
| Hardness edge | $\sim 340 \mathrm{HV}$ | $\sim 530 \mathrm{HV}$ |
| Thickness |  | $4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |
| Height |  | $23.80-26.40 \mathrm{~mm}$ |
|  |  | $0.937^{\prime \prime}-1.039^{\prime \prime}$ |

## martin $\boldsymbol{T}$ miller



## ROTARY SPECIAL RULES

## PERFORATING AND CUT-CREASE RULES



## Perforating and Cut-Crease Rules

| Execution | MM 34 |
| :--- | ---: |
| Hardness | $\sim 340 \mathrm{HV}$ |
| Bevel | A (shaved standard bevel) AD/ST, 12tpi |
| (ground teeth, long bevel shaved) |  |
| Thickness | $4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |
| Height | $21.30-26.70 \mathrm{~mm} / 0.840^{\prime \prime}-1.050^{\prime \prime}$ |

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

| Execution | MM 34 |
| :--- | ---: |
| Hardness | $\sim 340 \mathrm{HV}$ |
| Bevel | $\mathrm{AD} / \mathrm{ST}, 12 \mathrm{tpi}$ |
| Thickness | $4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |
| Height | $21.30-26.70 \mathrm{~mm} / 0.840 "-1.050^{\prime \prime}$ |
| Minimum gap | 1.42 mm |
| Back notch depth | 9.50 mm |

Available combinations on request.


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

| Execution | MM 34 |
| :--- | ---: |
| Hardness | $\sim 340 \mathrm{HV}$ |
| Bevel | $\mathrm{AD} / \mathrm{ST}, 12 \mathrm{tpi}$ |
| Thickness | $4 \mathrm{pt} / 1.42 \mathrm{~mm}$ |
| Height | $21.30-26.40 \mathrm{~mm} / 0.840 "-1.039^{\prime \prime}$ |
| Length of tooth | 4 mm |
| Direction | left/right (separately packed) |
| Others on request. |  |

## voestalpıne

## 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 $\mathrm{t}=12.7 \mathrm{~mm}-$ conical (CON), $\mathrm{t}=12.2 \mathrm{~mm}-$ parallel (PAR)
Notch distance T-12.7mm - conical (CON), T = 10mm - parallel (PAR)
Other notch depths on request.

## Forms of Delivery

|  |  | SNN | SN | CUR |
| ---: | :---: | :---: | :---: | :---: |

Due to our unique production method we achieve extremely small curving diameters: CUR $=177 \mathrm{~mm}, \mathrm{CNN}=270 \mathrm{~mm}$


## martin $\times$ miller

## HARDNESS CONVERSION <br> MARTIN MILLER CUTTING EDGE STEEL HARDNESS CONVERSION



| Vickers Hardness |  | Rockwell Hardness |  | Shore Hardness |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (HV) | (HV) | (HRC) | (HRC) | $\sim$ | $\sim(H S)$ | $\sim(H S)$ |
| 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 |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |



Monroe Rubber \& Plastic, Inc.

## 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.


## 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.

## MR1100 Series

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.


## 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

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.

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 $1 / 8^{\prime \prime}$ 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..


Ejectoflex


Side Wave


Scalloped


MR Point


Groovy Grilla


Monroe Rubber \& Plastic, Inc.

## NOT SURE WHAT EJECTION MATERIAL TO USE?

## USE THIS FUNCTIONAL RANGE OF MOTION CHART

Monroe Rubber \& Plastic, Inc.

## FUNGTIONAL RANGE OF MOTION

THE ONLY MOVING PARTS ON A CUTTING DIE ARE THE EJECTION MATERIALS.


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

## NOTES

DIANSUPLY, INC.
since 1949

## 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.


## 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.


## 6110

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


F-70
Firm, economic ejector used for both corrugated cartons and thicker substrates. Available in large sheet sizes.


6118
Firm, premium ejector used for both corrugated cartons and thicker substrates.


RD-73
Versatile, firm ejector that works well on high speed, flat die cutting, offering strong, consistent ejection force while not marking the product.


DIANSUPLY, INC.
since 1949


## BlueZoom

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


B-65
Economic ejector perfect for thick substrates and hand fed, flat die cutting. Available in large sheet sizes.


6220
Tan, premium ejector for thick substrates and hand fed, flat die cutting.


6320
Tan, premium ejector similar to 6220 but for thicker substrates.


K-60
Tan, economic ejector similar to B-65, except for thicker substrates. Available in large sheet sizes.


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

DIANSUPLY, INC.
since 1949

## 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.


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

## 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 5 mm and 8 mm 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


## C\&T MATRIX

## 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



## Easi-Crease

Incorporating a hollow centre which produces an efficient cushion to greatly reduce crushing of corrugated material. Optimum height is 1 mm 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 1 mm 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.


## C\&T MATRIX

## PROFILE EJECTION RUBBERS

## CORRUGATED BOARD PROFILES

## Point Flexi-Crease



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.


## C\&T MATRIX

## 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.


A C\&T COMPANY

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

OFF CENTER

| Metric | Imperial |
| :---: | :---: |
| $0.4 \times 1.0$ | 40 Buff |
| $0.4 \times 1.3$ | 50 White |
| $0.5 \times 1.5$ | 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


## Com/ DIE $C \subset M / \begin{aligned} & \text { DIE } \\ & \text { SUPPLY }\end{aligned}$

A C\&T COMPANY

## MATRIX SIZES

## CENTERED MATRIX

| f | $\xrightarrow{\frac{1}{4}}$ |  |
| :---: | :---: | :---: |
| $\rightarrow \rightarrow$ | $\leftrightarrow$ |  |
| Imperial | Metric |  |
| $12 \times 24$ | $0.3 \times 0.6$ | 2/3 |
| $12 \times 32$ | $0.3 \times 0.8$ | 2/3 |
| $12 \times 40$ | $0.3 \times 1.0$ | 2/3 |
| $12 \times 44$ | $0.3 \times 1.1$ | 2/3 |
| $12 \times 48$ | $0.3 \times 1.2$ | 2/3 |
| $12 \times 52$ | $0.3 \times 1.3$ | 2/3 |
| $12 \times 56$ | $0.3 \times 1.4$ | 2/3 |
| $12 \times 60$ | $0.3 \times 1.5$ | 2/3 |
| $12 \times 64$ | $0.3 \times 1.6$ | 2/3 |
| $12 \times 68$ | $0.3 \times 1.7$ | 2/3 |
| $12 \times 76$ | $0.3 \times 1.9$ | 2/3 |
| $16 \times 24$ | $0.4 \times 0.6$ | 2/3 |
| $16 \times 32$ | $0.4 \times 0.8$ | 2/3 |
| $16 \times 40$ | $0.4 \times 1.0$ | 2/3 |
| $16 \times 44$ | $0.4 \times 1.1$ | 2/3 |
| $16 \times 48$ | $0.4 \times 1.2$ | 2/3 |
| $16 \times 52$ | $0.4 \times 1.3$ | 2/3 |
| $16 \times 56$ | $0.4 \times 1.4$ | 2/3 |
| $16 \times 60$ | $0.4 \times 1.5$ | 2/3 |
| $16 \times 64$ | $0.4 \times 1.6$ | 2/3 |
| $16 \times 68$ | $0.4 \times 1.7$ | 2/3 |
| $16 \times 76$ | $0.4 \times 1.9$ | 2/3 |
| $18 \times 32$ | $0.45 \times 0.8$ | 2/3 |
| $18 \times 40$ | $0.45 \times 1.0$ | 2/3 |
| $18 \times 44$ | $0.45 \times 1.1$ | 2/3 |
| $18 \times 48$ | $0.45 \times 1.2$ | 2/3 |
| $18 \times 52$ | $0.45 \times 1.3$ | 2/3 |
| $18 \times 56$ | $0.45 \times 1.4$ | 2/3 |
| $18 \times 60$ | $0.45 \times 1.5$ | 2/3 |
| $18 \times 64$ | $0.45 \times 1.6$ | 2/3 |
| $18 \times 68$ | $0.45 \times 1.7$ | 2/3 |
| $18 \times 76$ | $0.45 \times 1.9$ | 2/3 |


| $\stackrel{1}{\square}$ | + |  |
| :---: | :---: | :---: |
| $\rightarrow$ | $\rightarrow$ |  |
| Imperial | Metric | $\cdots$ |
| $20 \times 32$ | $0.5 \times 0.8$ | 2/3 |
| $20 \times 44$ | $0.5 \times 1.1$ | 2/3 |
| $20 \times 48$ | $0.5 \times 1.2$ | 2/3 |
| $20 \times 52$ | $0.5 \times 1.3$ | 2/3 |
| $20 \times 56$ | $0.5 \times 1.4$ | 2/3 |
| $20 \times 60$ | $0.5 \times 1.5$ | 2/3 |
| $20 \times 64$ | $0.5 \times 1.6$ | 2/3 |
| $20 \times 68$ | $0.5 \times 1.7$ | 2/3 |
| $20 \times 76$ | $0.5 \times 1.9$ | 2/3 |
| $20 \times 84$ | $0.5 \times 2.1$ | 2/3 |
| $22 \times 90$ | $0.5 \times 2.3$ | 2/3 |
| $22 \times 32$ | $0.55 \times 0.8$ | 2/3 |
| $22 \times 48$ | $0.55 \times 1.2$ | 2/3 |
| $22 \times 52$ | $0.55 \times 1.3$ | 2/3 |
| $22 \times 56$ | $0.55 \times 1.4$ | 2/3 |
| $22 \times 60$ | $0.55 \times 1.5$ | 2/3 |
| $22 \times 64$ | $0.55 \times 1.6$ | 2/3 |
| $22 \times 68$ | $0.55 \times 1.7$ | 2/3 |
| $22 \times 76$ | $0.55 \times 1.9$ | 2/3 |
| $22 \times 84$ | $0.55 \times 2.1$ | 2/3 |
| $22 \times 92$ | $0.55 \times 2.3$ | 2/3 |
| $24 \times 40$ | $0.6 \times 1.0$ | 2/3 |
| $24 \times 44$ | $0.6 \times 1.1$ | 2/3 |
| $24 \times 48$ | $0.6 \times 1.2$ | 2/3 |
| $24 \times 52$ | $0.6 \times 1.3$ | 2/3 |
| $24 \times 56$ | $0.6 \times 1.4$ | 2/3 |
| $24 \times 60$ | $0.6 \times 1.5$ | 2/3 |
| $24 \times 64$ | $0.6 \times 1.6$ | 2/3 |
| $24 \times 68$ | $0.6 \times 1.7$ | 2/3 |
| $24 \times 76$ | $0.6 \times 1.9$ | 2/3 |
| $24 \times 84$ | $0.6 \times 2.1$ | 2/3 |
| $24 \times 92$ | $0.6 \times 2.3$ | 2/3 |
| $24 \times 100$ | $0.6 \times 2.5$ | 2/3 |
| $24 \times 108$ | $0.6 \times 2.7$ | 2/3 |
| $24 \times 120$ | $0.6 \times 3.0$ | 2/3 |
| $24 \times 128$ | $0.6 \times 3.2$ | 3/4 |
| $24 \times 140$ | $0.6 \times 3.5$ | 3/4 |
| $24 \times 160$ | $0.6 \times 4.0$ | 3/4 |
| $24 \times 200$ | $0.6 \times 5.0$ | 3/4 |
| $24 \times 250$ | $0.6 \times 7.0$ | 3/4 |


| ¢ |  |  | $\frac{f( }{\frac{f}{\text { Imperial }}}$ |  | \# |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\rightarrow$ |  |  |  |  |  |
| Imperial |  |  |  |  |  |
| $26 \times 52$ | $0.65 \times 1.3$ | 2/3 | $32 \times 160$ | $0.8 \times 4.0$ | 3/4 |
| $26 \times 56$ | $0.65 \times 1.6$ | 2/3 | $32 \times 180$ | $0.8 \times 4.5$ | 3/4 |
| $26 \times 76$ | $0.65 \times 1.9$ | 2/3 | $32 \times 200$ | $0.8 \times 5.0$ | 3/4 |
| $26 \times 84$ | $0.65 \times 2.1$ | 2/3 | $32 \times 240$ | $0.8 \times 6.0$ | 3/4 |
| $26 \times 92$ | $0.65 \times 2.3$ | 2/3 | $32 \times 280$ | $0.8 \times 7.0$ | 3/4 |
| $26 \times 108$ | $0.65 \times 2.7$ | 2/3 | $32 \times 320$ | $0.8 \times 8.0$ | 3/4 |
| $26 \times 120$ | $0.65 \times 3.0$ | 2/3 | $40 \times 92$ | $1.0 \times 2.3$ | 2/3 |
| $26 \times 128$ | $0.65 \times 3.2$ | 3/4 | $40 \times 100$ | $1.0 \times 2.5$ | 2/3 |
| $26 \times 140$ | $0.65 \times 3.5$ | 3/4 | $40 \times 108$ | $1.0 \times 2.7$ | 2/3 |
| $26 \times 160$ | $0.65 \times 4.0$ | 3/4 | $40 \times 120$ | $1.0 \times 3.0$ | 2/3 |
| $26 \times 180$ | $0.65 \times 4.5$ | 3/4 | $40 \times 128$ | $1.0 \times 3.2$ | 3/4 |
| $26 \times 200$ | $0.65 \times 5.0$ | 3/4 | $40 \times 140$ | $1.0 \times 3.5$ | 3/4 |
| $26 \times 240$ | $0.65 \times 6.0$ | 3/4 | $40 \times 160$ | $1.0 \times 4.0$ | 3/4 |
| $26 \times 280$ | $0.65 \times 7.0$ | 3/4 | $40 \times 180$ | $1.0 \times 4.5$ | 3/4 |
| $26 \times 320$ | $0.65 \times 8.0$ | 3/4 | $40 \times 200$ | $1.0 \times 5.0$ | 3/4 |
| $28 \times 52$ | $0.7 \times 1.3$ | 2/3 | $40 \times 240$ | $1.0 \times 6.0$ | 3/4 |
| $28 \times 60$ | $0.7 \times 1.5$ | 2/3 | $40 \times 280$ | $1.0 \times 7.0$ | 3/4 |
| $28 \times 68$ | $0.7 \times 1.7$ | $2 / 3$ | $40 \times 320$ | $1.0 \times 8.0$ | 3/4 |
| $28 \times 76$ | $0.7 \times 1.9$ | 2/3 | $48 \times 120$ | $1.2 \times 3.0$ | 3/4 |
| $28 \times 84$ | $0.7 \times 2.1$ | 2/3 | $48 \times 128$ | $1.2 \times 3.2$ | 3/4 |
| $28 \times 92$ | $0.7 \times 2.3$ | 2/3 | $48 \times 140$ | $1.2 \times 3.5$ | 3/4 |
| $28 \times 100$ | $0.7 \times 2.5$ | 2/3 | $48 \times 160$ | $1.2 \times 4.0$ | 3/4 |
| $28 \times 108$ | $0.7 \times 2.7$ | 2/3 | $48 \times 180$ | $1.2 \times 4.5$ | 3/4 |
| $28 \times 120$ | $0.7 \times 3.0$ | 2/3 | $48 \times 200$ | $1.2 \times 5.0$ | 3/4 |
| $28 \times 128$ | $0.7 \times 3.2$ | 3/4 | $48 \times 240$ | $1.2 \times 6.0$ | 3/4 |
| $28 \times 140$ | $0.7 \times 3.5$ | 3/4 | $48 \times 280$ | $1.2 \times 7.0$ | 3/4 |
| $28 \times 160$ | $0.7 \times 4.0$ | 3/4 | $48 \times 320$ | $1.2 \times 8.0$ | 3/4 |
| $28 \times 240$ | $0.7 \times 6.0$ | 3/4 | $56 \times 120$ | $1.4 \times 3.0$ | 3/4 |
| $28 \times 280$ | $0.7 \times 7.0$ | 3/4 | $56 \times 140$ | $1.4 \times 3.5$ | 3/4 |
| $28 \times 320$ | $0.7 \times 8.0$ | 3/4 | $56 \times 160$ | $1.4 \times 4.0$ | 4/6 |
| $32 \times 60$ | $0.8 \times 1.5$ | 2/3 | $56 \times 180$ | $1.4 \times 4.5$ | 4/6 |
| $32 \times 64$ | $0.8 \times 1.6$ | 2/3 | $56 \times 200$ | $1.4 \times 5.0$ | 4/6 |
| $32 \times 68$ | $0.8 \times 1.7$ | 2/3 | $56 \times 240$ | $1.4 \times 6.0$ | 4/6 |
| $32 \times 76$ | $0.8 \times 1.9$ | $2 / 3$ | $56 \times 280$ | $1.4 \times 7.0$ | 4/6 |
| $32 \times 84$ | $0.8 \times 2.1$ | 2/3 | $56 \times 320$ | $1.4 \times 8.0$ | 4/6 |
| $32 \times 92$ | $0.8 \times 2.3$ | 2/3 | $64 \times 120$ | $1.6 \times 3.0$ | 3/4 |
| $32 \times 100$ | $0.8 \times 2.5$ | 2/3 | $64 \times 128$ | $1.6 \times 3.2$ | 3/4 |
| $32 \times 108$ | $0.8 \times 2.7$ | 2/3 | $64 \times 140$ | $1.6 \times 3.5$ | 3/4 |
| $32 \times 120$ | $0.8 \times 3.0$ | 2/3 | $64 \times 160$ | $1.6 \times 4.0$ | 4/6 |
| $32 \times 128$ | $0.8 \times 3.2$ | 3/4 | $64 \times 180$ | $1.6 \times 4.5$ | 4/6 |
| $32 \times 140$ | $0.8 \times 3.5$ | 3/4 | $64 \times 200$ | $1.6 \times 5.0$ | 4/6 |
|  |  |  | $64 \times 240$ | $1.6 \times 6.0$ | 4/6 |
|  |  |  | $64 \times 280$ | $1.6 \times 7.0$ | 4/6 |
|  |  |  | $64 \times 320$ | $1.6 \times 8.0$ | 4/6 |

## 若 $\bigcirc \subset \rightarrow \underset{S U P}{\text { DIE }}$

## XTC／PLASTRIX MATRIX SIZES

## U BEND

| － | $\xrightarrow{\text { f }}$ | 三 |
| :---: | :---: | :---: |
| $\rightarrow$ | $\leftrightarrow$ |  |
| Imperial | Metric | ＊／4 |
| $24 \times 200$ | $0.6 \times 5.0$ | 3 |
| $24 \times 320$ | $0.6 \times 8.0$ | 5 |
| $28 \times 200$ | $0.7 \times 5.0$ | 3 |
| $28 \times 320$ | $0.7 \times 8.0$ | 5 |
| $32 \times 200$ | $0.8 \times 5.0$ | 3.7 |
| $32 \times 200$ | $0.8 \times 5.0$ | 4 |
| $32 \times 240$ | $0.8 \times 6.0$ | 5 |
| $32 \times 280$ | $0.8 \times 7.0$ | 5 |
| $40 \times 200$ | $1.0 \times 5.0$ | 3 |
| $40 \times 240$ | $1.0 \times 6.0$ | 5 |
| $40 \times 320$ | $1.0 \times 8.0$ | 7 |

MULTICREASE

## Subject to minimum order

| － | $\xrightarrow{\text { f }}$ | 를 |
| :---: | :---: | :---: |
| $\rightarrow$ | $\rightarrow$ |  |
| Imperial | Metric |  |
| $16 \times 40$ | $0.4 \times 1.0$ | 3.0 |
| $16 \times 40$ | $0.4 \times 1.0$ | 4.75 |
| $16 \times 48$ | $0.4 \times 1.2$ | 4.0 |
| $16 \times 52$ | $0.4 \times 1.3$ | 3.5 |
| $16 \times 52$ | $0.4 \times 1.3$ | 4.0 |
| $16 \times 52$ | $0.4 \times 1.3$ | 5.0 |
| $16 \times 52$ | $0.4 \times 1.3$ | 6.35 |
| $16 \times 60$ | $0.4 \times 1.5$ | 6.35 |
| $18 \times 52$ | $0.45 \times 1.3$ | 3.5 |
| $18 \times 52$ | $0.45 \times 1.3$ | 4.0 |
| $18 \times 52$ | $0.45 \times 1.3$ | 5.0 |
| $20 \times 40$ | $0.5 \times 1.0$ | 3.0 |
| $20 \times 40$ | $0.5 \times 1.0$ | 4.75 |
| $20 \times 48$ | $0.5 \times 1.2$ | 4.0 |
| $20 \times 52$ | $0.5 \times 1.3$ | 3.5 |
| $20 \times 52$ | $0.5 \times 1.3$ | 4.0 |
| $20 \times 52$ | $0.5 \times 1.3$ | 5.0 |
| $20 \times 52$ | $0.5 \times 1.3$ | 6.35 |
| $20 \times 52$ | $0.5 \times 1.5$ | 6.35 |

INTERNAL CHAMFER


|  | $\square$ | $\ldots$ |
| :---: | :---: | :---: |
|  | $\rightarrow$ |  |
| Imperial | Metric |  |
| $24 \times 100$ | $0.6 \times 2.5$ | 2／3 |
| $24 \times 108$ | $0.6 \times 2.7$ | 2／3 |
| $24 \times 120$ | $0.6 \times 3.0$ | 2／3 |
| $24 \times 128$ | $0.6 \times 3.2$ | 3／4 |
| $24 \times 140$ | $0.6 \times 3.5$ | 3／4 |
| $24 \times 160$ | $0.6 \times 4.0$ | 3／4 |
| $24 \times 200$ | $0.6 \times 5.0$ | 3／4 |
| $24 \times 240$ | $0.6 \times 6.0$ | 3／4 |
| $24 \times 280$ | $0.6 \times 7.0$ | 3／4 |
| $24 \times 320$ | $0.6 \times 8.0$ | 3／4 |
| $26 \times 52$ | $0.65 \times 1.3$ | 2／3 |
| $26 \times 56$ | $0.65 \times 1.4$ | 2／3 |
| $26 \times 60$ | $0.65 \times 1.5$ | 2／3 |
| $26 \times 64$ | $0.65 \times 1.6$ | 2／3 |
| $26 \times 68$ | $0.65 \times 1.7$ | 2／3 |
| $26 \times 76$ | $0.65 \times 1.9$ | 2／3 |
| $26 \times 84$ | $0.65 \times 2.1$ | 2／3 |
| $26 \times 92$ | $0.65 \times 2.3$ | 2／3 |
| $26 \times 100$ | $0.65 \times 2.5$ | 2／3 |
| $26 \times 108$ | $0.65 \times 2.7$ | 2／3 |
| $26 \times 120$ | $0.65 \times 3.0$ | 2／3 |
| $26 \times 128$ | $0.65 \times 3.2$ | 3／4 |
| $26 \times 140$ | $0.65 \times 3.5$ | 3／4 |
| $26 \times 160$ | $0.65 \times 4.0$ | 3／4 |
| $26 \times 170$ | $0.65 \times 4.5$ | 3／4 |
| $26 \times 200$ | $0.65 \times 5.0$ | 3／4 |
| $26 \times 240$ | $0.65 \times 6.0$ | 3／4 |
| $26 \times 280$ | $0.65 \times 7.0$ | 3／4 |
| $26 \times 320$ | $0.65 \times 8.0$ | 3／4 |
| $28 \times 52$ | $0.7 \times 1.3$ | 2／3 |
| $28 \times 56$ | $0.7 \times 1.4$ | 2／3 |
| $28 \times 60$ | $0.7 \times 1.5$ | 2／3 |
| $28 \times 64$ | $0.7 \times 1.6$ | 2／3 |
| $28 \times 68$ | $0.7 \times 1.7$ | 2／3 |
| $28 \times 76$ | $0.7 \times 1.9$ | 2／3 |
| $28 \times 84$ | $0.7 \times 2.1$ | 2／3 |
| $28 \times 92$ | $0.7 \times 2.3$ | 2／3 |


| ${ }^{\text {f }}$ | 婁口 |  |
| :---: | :---: | :---: |
| $\leftrightarrow$ | $\stackrel{ }{\rightarrow}$ |  |
| Imperial | Metric | $\cdots$ |
| $28 \times 100$ | $0.7 \times 2.5$ | 2／3 |
| $28 \times 120$ | $0.7 \times 3.0$ | 2／3 |
| $28 \times 128$ | $0.7 \times 3.2$ | 3／4 |
| $28 \times 140$ | $0.7 \times 3.5$ | 3／4 |
| $28 \times 160$ | $0.7 \times 4.0$ | 3／4 |
| $28 \times 170$ | $0.7 \times 4.5$ | 3／4 |
| $28 \times 200$ | $0.7 \times 5.0$ | 3／4 |
| $28 \times 240$ | $0.7 \times 6.0$ | 3／4 |
| $28 \times 280$ | $0.7 \times 7.0$ | 3／4 |
| $28 \times 320$ | $0.7 \times 8.0$ | 3／4 |
| $32 \times 60$ | $0.8 \times 1.5$ | 2／3 |
| $32 \times 64$ | $0.8 \times 1.6$ | 2／3 |
| $32 \times 68$ | $0.8 \times 1.7$ | 2／3 |
| $32 \times 76$ | $0.8 \times 1.9$ | 2／3 |
| $32 \times 84$ | $0.8 \times 2.1$ | 2／3 |
| $32 \times 92$ | $0.8 \times 2.3$ | 2／3 |
| $32 \times 108$ | $0.8 \times 2.7$ | 2／3 |
| $32 \times 120$ | $0.8 \times 3.0$ | 3／4 |
| $32 \times 128$ | $0.8 \times 3.2$ | 3／4 |
| $32 \times 140$ | $0.8 \times 3.5$ | 3／4 |
| $32 \times 160$ | $0.8 \times 4.0$ | 3／4 |
| $32 \times 180$ | $0.8 \times 4.5$ | 3／4 |
| $32 \times 200$ | $0.8 \times 5.0$ | 3／4 |
| $32 \times 240$ | $0.8 \times 6.0$ | 3／4 |
| $32 \times 280$ | $0.8 \times 7.0$ | 3／4 |
| $32 \times 320$ | $0.8 \times 8.0$ | 3／4 |
| $40 \times 92$ | $1.0 \times 2.3$ | 2／3 |
| $40 \times 100$ | $1.0 \times 2.5$ | 2／3 |
| $40 \times 108$ | $1.0 \times 2.7$ | 2／3 |
| $40 \times 120$ | $1.0 \times 3.0$ | 2／3 |
| $40 \times 128$ | $1.0 \times 3.2$ | 3／4 |
| $40 \times 160$ | $1.0 \times 4.0$ | 3／4 |
| $40 \times 180$ | $1.0 \times 4.5$ | 3／4 |
| $40 \times 200$ | $1.0 \times 5.0$ | 3／4 |
| $40 \times 240$ | $1.0 \times 6.0$ | 3／4 |
| $40 \times 280$ | $1.0 \times 7.0$ | 3／4 |
| $40 \times 320$ | $1.0 \times 8.0$ | 3／4 |

INTERNAL CHAMFER


| $\xrightarrow{\text { f }}$ | $\xrightarrow{1}$ | 三 |
| :---: | :---: | :---: |
| $\rightarrow$ | $\rightarrow$ |  |
| Imperial | Metric |  |
| $48 \times 120$ | $1.2 \times 3.0$ | 3/4 |
| $48 \times 128$ | $1.2 \times 3.2$ | 3/4 |
| $48 \times 140$ | $1.2 \times 3.5$ | 3/4 |
| $48 \times 160$ | $1.2 \times 4.0$ | 3/4 |
| $48 \times 180$ | $1.2 \times 4.5$ | 3/4 |
| $48 \times 200$ | $1.2 \times 5.0$ | 3/4 |
| $48 \times 240$ | $1.2 \times 6.0$ | 3/4 |
| $48 \times 280$ | $1.2 \times 7.0$ | 3/4 |
| $48 \times 320$ | $1.2 \times 8.0$ | 3/4 |
| $56 \times 120$ | $1.4 \times 3.0$ | 3/4 |
| $56 \times 128$ | $1.4 \times 3.2$ | 3/4 |
| $56 \times 140$ | $1.4 \times 3.5$ | 3/4 |
| $56 \times 160$ | $1.4 \times 4.0$ | 4/6 |
| $56 \times 180$ | $1.4 \times 4.5$ | 4/6 |
| $56 \times 200$ | $1.4 \times 5.0$ | 4/6 |
| $56 \times 280$ | $1.4 \times 7.0$ | 4/6 |
| $56 \times 320$ | $1.4 \times 8.0$ | 4/6 |
| $64 \times 120$ | $1.6 \times 3.0$ | 3/4 |
| $64 \times 128$ | $1.6 \times 3.2$ | 3/4 |
| $64 \times 140$ | $1.6 \times 3.5$ | 3/4 |
| $64 \times 160$ | $1.6 \times 4.0$ | 4/6 |
| $64 \times 180$ | $1.6 \times 4.5$ | 4/6 |
| $64 \times 200$ | $1.6 \times 5.0$ | 4/6 |
| $64 \times 240$ | $1.6 \times 6.0$ | 4/6 |
| $64 \times 280$ | $1.6 \times 7.0$ | 4/6 |
| $64 \times 320$ | $1.6 \times 8.0$ | 4/6 |



## JAZZ / MATRIX SIZES STANDARD MATRIX PLASTIC COUNTER / FILM BASE



| Color Code | A | B | Board Thickness |  | Board Wt |
| :--- | :---: | :---: | :---: | :---: | :---: |
| gms/m2 |  |  |  |  |  | Order Code

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.

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.


## JAZZ / MATRIX SIZES <br> LARGE MATRIX PLASTIC COUNTER / FILM BASE



With widths between shoulders of 3.2 mm and above Jazz large sizes are suitable for thicker board sizes and have 18 strips of 750 mm 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 |  | Board Wt gms/m2 | Order Code |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Microns | $0.001^{\prime \prime}$ |  |  |
| Canary | $0.60 \times 3.20$ | 820-1050 | 32-41 | 550-675 | JL-532-060 |
| Light Oak | $0.70 \times 3.20$ | 830-1100 | 33-43 | 550-685 | JL-532-070 |
| Leaf | $0.80 \times 3.20$ | 835-1175 | 33-46 | 550-685 | JL-532-080 |
| Violet | $1.00 \times 3.20$ | 850-1200 | 33-47 | 570-690 | JL-532-100 |
| Fudge | $1.20 \times 3.20$ | 850-1225 | 33-48 | 570-690 | JL-532-120 |
| Topaz | $0.60 \times 3.50$ | 850-1250 | 33-49 | 570-695 | JL-535-060 |
| Bottle Green | $0.70 \times 3.50$ | 850-1275 | 33-49 | 570-700 | JL-535-070 |
| Marine Blue | $0.80 \times 3.50$ | 875-1300 | 35-49 | 580-700 | JL-535-080 |
| Blush | $1.00 \times 3.50$ | 900-1325 | 35-49 | 590-700 | JL-535-100 |
| Midnight Blue | $1.10 \times 3.50$ | 900-1350 | 35-49 | 600-700 | JL-535-110 |
| Sky | $1.20 \times 3.50$ | 910-1350 | 36-49 | 620-700 | JL-535-120 |
| Mulberry | $1.40 \times 3.50$ | 920-1350 | 36-49 | 620-700 | JL-535-140 |
| Apricot | $0.50 \times 4.00$ | 920-1350 | 36-49 | 620-700 | JL-540-050 |
| Citrus | $0.60 \times 4.00$ | 920-1350 | 36-49 | 620-700 | J-540-060 |
| Aqua | $0.70 \times 4.00$ | 900-1300 | 36-50 | 620-700 | JL-540-070 |
| Cornelian | $0.80 \times 4.00$ | 910-1310 | 36-52 | 620-735 | JL-540-080 |
| Cyclamen | $0.90 \times 4.00$ | 930-1320 | 37-52 | 630-740 | JL-540-090 |
| Carnival Red | $1.00 \times 4.00$ | 940-1340 | 37-53 | 650-790 | JL-540-100 |
| Grey | $1.20 \times 4.00$ | 1000-1350 | 39-53 | 665-800 | JL-540-120 |
| Flamingo | $1.60 \times 4.00$ | 1000-1350 | 40-54 | 670-825 | JL-540-160 |
| Chestnut | $0.60 \times 5.00$ | 1025-1350 | 40-54 | 670-825 | JL-550-060 |
| Amber | $0.80 \times 5.00$ | 1025-1375 | 40-54 | 680-825 | J-550-080 |
| Sunflower | $1.00 \times 5.00$ | 1050-1400 | 41-55 | 700-850 | JL-550-100 |
| Forest Green | $1.20 \times 5.00$ | 1075-1450 | 46-57 | 750-875 | JL-550-120 |
| Charcoal | $1.50 \times 5.00$ | 1300-1500 | 51-59 | 800-900 | JL-550-150 |
| Caramel | $0.50 \times 6.00$ | 1350-1550 | 52-60 | 825-900 | JL-560-050 |
| Buttercup | $0.60 \times 6.00$ | 1350-1560 | 52-60 | 825-900 | JL-560-060 |
| Coconut | $0.80 \times 6.00$ | 1350-1560 | 54-62 | 850-925 | JL-560-080 |
| Cobalt Blue | $1.00 \times 6.00$ | 1400-1620 | 55-64 | 910-950 | JL-560-100 |
| Mauve | $1.20 \times 6.00$ | 1425-1650 | 56-64 | 910-950 | JL-560-120 |
| Shrimp | $1.60 \times 6.00$ | 1450-1660 | 57-65 | 910-950 | JL-560-160 |
| Cream | $1.70 \times 6.00$ | 1500-1700 | 59-67 | 900-980 | JL-560-170 |

## 襲 $\bigcirc \subset M /$ DIE

## 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) $=2 \mathrm{x}$ shoulder width (i.e. 1.5 mm ) plus creasing width required (B). Jazz Off-Center has 24 strips of 750 mm in each box.

| Color Code | A $\quad$ B | Board Thickness <br> Microns |  | $\mathbf{0 . 0 0 1 "}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Board Wt |  |  |  |  |
| gms/m2 |  |  |  |  | Order Code

[^2]A C\&T COMPANY

## 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


## ROSADIUM ${ }^{\circledR}$



## $C \rightarrow M / \int_{\text {SUPPLY }}^{\text {DIE }}$

## MATRIX SIZES

## CENTERED

| Metric | Imperial |
| :---: | :---: |
| $03 \times 08$ | $12 \times 32$ |
| $03 \times 10$ | $12 \times 40$ |
| $03 \times 12$ | $12 \times 48$ |
| $03 \times 13$ | $12 \times 52$ |
| $03 \times 15$ | $12 \times 60$ |
| $04 \times 08$ | $16 \times 32$ |
| $04 \times 10$ | $16 \times 40$ |
| $04 \times 12$ | $16 \times 48$ |
| $04 \times 13$ | $16 \times 52$ |
| $04 \times 14$ | $16 \times 56$ |
| $04 \times 15$ | $16 \times 60$ |
| $04 \times 17$ | $16 \times 68$ |
| $04 \times 19$ | $16 \times 76$ |
| $05 \times 10$ | $20 \times 40$ |
| $05 \times 12$ | $20 \times 48$ |
| $05 \times 13$ | $20 \times 52$ |
| $05 \times 14$ | $20 \times 56$ |
| $05 \times 15$ | $20 \times 60$ |
| $05 \times 16$ | $20 \times 64$ |
| $05 \times 17$ | $20 \times 68$ |
| $05 \times 19$ | $20 \times 76$ |
| $05 \times 21$ | $20 \times 84$ |
| $06 \times 15$ | $24 \times 60$ |
| $06 \times 16$ | $24 \times 64$ |
| $06 \times 17$ | $24 \times 68$ |
| $06 \times 19$ | $24 \times 76$ |
| $06 \times 21$ | $24 \times 84$ |
| $06 \times 23$ | $24 \times 92$ |
| $06 \times 25$ | $24 \times 100$ |
| $06 \times 27$ | $24 \times 108$ |
| $06 \times 32$ | $24 \times 128$ |
| $06 \times 35$ | $24 \times 140$ |
| $06 \times 40$ | $24 \times 160$ |
|  |  |
| 0 |  |

OFF CENTER

| Metric | Imperial |
| :---: | :---: |
| $03 \times 08$ | $12 \times 32$ |
| $03 \times 10$ | $12 \times 40$ |
| $03 \times 13$ | $12 \times 52$ |
| $04 \times 10$ | $16 \times 40$ |
| $04 \times 12$ | $16 \times 48$ |
| $04 \times 13$ | $16 \times 52$ |
| $04 \times 15$ | $16 \times 60$ |
| $05 \times 13$ | $20 \times 52$ |
| $05 \times 15$ | $20 \times 60$ |
| $05 \times 17$ | $20 \times 68$ |
| $06 \times 17$ | $24 \times 68$ |
| $06 \times 19$ | $24 \times 76$ |


| Metric | Imperial |
| :---: | :---: |
| $07 \times 23$ | $28 \times 92$ |
| $07 \times 25$ | $28 \times 100$ |
| $07 \times 27$ | $28 \times 108$ |
| $07 \times 30$ | $28 \times 120$ |
| $07 \times 32$ | $28 \times 128$ |
| $08 \times 21$ | $32 \times 84$ |
| $08 \times 23$ | $32 \times 92$ |
| $08 \times 25$ | $32 \times 100$ |
| $08 \times 27$ | $32 \times 108$ |
| $08 \times 30$ | $32 \times 120$ |
| $08 \times 32$ | $32 \times 128$ |
| $08 \times 35$ | $32 \times 140$ |
| $08 \times 40$ | $32 \times 160$ |
| $10 \times 27$ | $40 \times 108$ |
| $10 \times 30$ | $40 \times 120$ |
| $10 \times 32$ | $40 \times 128$ |
| $10 \times 35$ | $40 \times 140$ |
| $10 \times 40$ | $40 \times 160$ |
| $10 \times 45$ | $40 \times 180$ |
| $10 \times 50$ | $40 \times 200$ |
| $10 \times 60$ | $40 \times 240$ |
| $12 \times 40$ | $48 \times 160$ |
| $12 \times 50$ | $48 \times 200$ |


$\square$ $-2$正


## CCM료ipay

## 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


## CCM:IFinv

## MATRIX SIZES

## CENTERED

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


| Imperial | Metric |
| :--- | :---: |
| MARATHON VF 32110 | $0.8 \times 2.7$ |
| MARATHON VF 32120 | $0.8 \times 3.0$ |
| MARATHON VF 32136 | $0.8 \times 3.4$ |
| MARATHON VF 40100 | $1.0 \times 2.5$ |
| MARATHON VF 40120 | $1.0 \times 3.0$ |
| MARATHON VF 40136 | $1.0 \times 3.4$ |



## 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 $\mathrm{C}^{\prime}$ 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 20 mm 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

A C\&T COMPANY

## MATRIX SIZES

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

INTERNAL
CHAMFER

| Metric | Imperial |
| :---: | :---: |
| $06 \times 2.5$ | $24 \times 100$ |
| $06 \times 2.7$ | $24 \times 108$ |
| $06 \times 3.0$ | $24 \times 120$ |
| $07 \times 2.5$ | $28 \times 100$ |
| $07 \times 2.7$ | $28 \times 108$ |
| $07 \times 3.0$ | $28 \times 120$ |
| $08 \times 2.5$ | $32 \times 100$ |
| $08 \times 2.7$ | $32 \times 108$ |
| $08 \times 3.0$ | $32 \times 120$ |
| $08 \times 3.2$ | $32 \times 128$ |
| $08 \times 3.5$ | $32 \times 140$ |
| $08 \times 4.0$ | $32 \times 160$ |
| $08 \times 5.0$ | $32 \times 200$ |
| $10 \times 2.7$ | $40 \times 108$ |
| $10 \times 3.0$ | $40 \times 120$ |
| $10 \times 3.2$ | $40 \times 128$ |
| $10 \times 3.5$ | $40 \times 140$ |
| $10 \times 4.0$ | $40 \times 160$ |
| $10 \times 5.0$ | $40 \times 200$ |
| $10 \times 6.0$ | $40 \times 240$ |

U BEND

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

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


A C\&T COMPANY

## 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


## CHANNEL <br> CCMBIFipay

## MATRIX SIZES

## CENTERED

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



## 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.
4. 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.



| 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 <br> Back |
| 0.006 | 1 pt | 0.907 | 0.926 | $12 \times 24$ | $0.3 \times 0.6$ | 24 |
| 0.006 | 2 pt | 0.907 | 0.926 | $12 \times 40$ | $0.3 \times 1.0$ | 40 |
| 0.008 | 1 pt | 0.905 | 0.924 | $12 \times 32$ | $0.3 \times 0.8$ | 32 |
| 0.008 | 2 pt | 0.905 | 0.924 | $12 \times 40$ | $0.3 \times 1.0$ | 40 |
| 0.010 | 1 pt | 0.903 | 0.922 | $12 \times 32$ | $0.3 \times 0.8$ | 32 |
| 0.010 | 2 pt | 0.903 | 0.922 | $12 \times 48$ | $0.3 \times 1.2$ | 50 |
| 0.012 | 1 pt | 0.901 | 0.920 | $16 \times 40$ | $0.4 \times 1.0$ | 40 |
| 0.012 | 2 pt | 0.901 | 0.920 | $16 \times 52$ | $0.4 \times 1.3$ | 50 |
| 0.014 | 2 pt | 0.899 | 0.918 | $16 \times 52$ | $0.4 \times 1.3$ | 50 |
| 0.016 | 2 pt | 0.897 | 0.916 | $20 \times 56$ | $0.5 \times 1.4$ | 60 |
| 0.018 | 2 pt | 0.895 | 0.914 | $20 \times 60$ | $0.5 \times 1.5$ | 60 |
| 0.020 | 2 pt | 0.893 | 0.912 | $24 \times 64$ | $0.6 \times 1.6$ | 67 |
| 0.024 | 2 pt | 0.889 | 0.908 | $28 \times 68$ | $0.7 \times 1.7$ | 67 |
| 0.026 | 2 pt | 0.887 | 0.906 | $32 \times 76$ | $0.8 \times 1.9$ | 75 |
| 0.026 | 3 pt | 0.887 | 0.906 | $32 \times 92$ | $0.8 \times 2.3$ | 90 |
| 0.028 | 3 pt | 0.885 | 0.904 | $32 \times 92$ | $0.8 \times 2.3$ | 90 |
| 0.030 | 3 pt | 0.883 | 0.902 | $32 \times 100$ | $0.8 \times 2.5$ | 100 |
| 0.032 | 3 pt | 0.881 | 0.900 | $32 \times 100$ | $0.8 \times 2.5$ | 100 |
| 0.034 | 3 pt | 0.879 | 0.898 | $40 \times 100$ | $1.0 \times 2.5$ | 100 |
| 0.036 | 3 pt | 0.877 | 0.896 | $40 \times 108$ | $1.0 \times 2.7$ | 105 |
| 0.038 | 3 pt | 0.875 | 0.894 | $40 \times 108$ | $1.0 \times 2.7$ | 105 |
| 0.038 | 4 pt | 0.875 | 0.894 | $40 \times 128$ | $1.0 \times 3.2$ | 120 |
| 0.040 | 4 pt | 0.873 | 0.892 | $48 \times 128$ | $1.2 \times 3.2$ | 120 |


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


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

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

## NOTES

A C\&T COMPANY

## STEEL PLATES \& PHENOLICS

## CCM:Fany

## 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.


## $\frac{\text { m }}{\substack{\frac{1}{2} \\ \frac{2}{5} \\ \frac{2}{3}}} \begin{gathered}\text { DIE } \\ \text { SUPPLY }\end{gathered}$

A C\&T COMPANY

## PHENOLICS



## Countamat

Countamat is available in a sheet size of $1070 \times 1040 \mathrm{~mm}$ either with or without adhesive backing.
Countamat is black or brown depending on preference and is available in the following thicknesses:
0.40 mm [ 400 mic ]
0.45 mm [ 450 mic ]
0.50 mm [ 500 mic ]
0.55 mm [ 550 mic ]
0.60 mm [600 mic]
0.65 mm [650 mic]
0.70 mm [ 700 mic ]
1.00 mm [1000 mic]
0.75 mm [750 mic]
0.80 mm [ 800 mic ]
0.85 mm [850 mic]
0.90 mm [ 900 mic ]
0.95 mm [ 950 mic ]
1.10 mm [1100 mic]
1.30 mm [1300 mic]
1.40 mm [1400 mic]
1.70 mm [1700 mic]

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

## NOTES

A C\&T COMPANY

## DIE ROOM ESSENTIALS

## 

A C\&T COMPANY

## 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.


A C\&T COMPANY


## CF-100

Super glue in 50 g bottles.

## 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 20 g and 200 g tubes.

## 

A C\&T COMPANY

## MALLETS



## Elastomer Mallets

Available in the following sizes:
\#4-2" diameter
x 3-1/2" long head - 11 oz.
\#4L-2" diameter
$\times 5$ " long head -14 oz .
\#5-2-3/4" diameter
$\times 4-1 / 4^{\prime \prime}$ long head -22 oz .
\#6-2-3/4" diameter
x 4-3/4" long head - 24 oz.

## Rawhide Mallets

Available in the following sizes:
\#3-1-3/4" diameter
$\times 3-3 / 8^{\prime \prime}$ long head -11 oz.
\#4-2" diameter
$\times 3-1 / 2^{\prime \prime}$ long head -140 .
\#5-2-3/4" diameter
$\times 4-1 / 2^{\prime \prime}$ long head -22 oz.
\#6-2-3/4" diameter
x 4-3/4" long head - 24 oz.

A C\&T COMPANY

## 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.


Channellock Rule Pullers


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


Rule Tamper

Rule Tweaker

## $\frac{\text { m }}{\substack{\text { m } \\ \frac{2}{5}}}$

A C\&T COMPANY

## OTHER DIE ROOM EQUIPMENT



## Jigsaw Blades

Many sizes and tooth configurations available


## Type Perf \& Type Perf Holder

Available in standard ( $3 / 4^{\prime \prime}$ letter on a $1^{\prime \prime}$ base) or mini ( $3 / 8^{\prime \prime}$ letters on a 1/2" 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 14 mm


Centerline Location Screw

## CHANNEL CCM료ipery

## OTHER DIE ROOM EQUIPMENT



## Corrugated Fasteners

Available in $3 / 8^{\prime \prime}$ and $1 / 2^{\prime \prime}$ sizes.


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


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

## CENTERLINE PRODUCTS



Centerline Blocks
Red or Black


## Centering Piece

Red


Red or Blue

## 

A C\&T COMPANY


## Scribes

Sizes:
\#81 3/8"
\#83 ¼"
\#88
Replacement tips available.


## Legard

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


Wagner Punches
Tube
Tube Oval
Pin Point
Straight Outside Diameter
Rotary Tube
Feed-Thru
Self Cleaning

Cup Punches Self Cleaning Oval
Square
Cross Cut
Rule Connectors
Seamless
Hanger

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

## NOTES

A C\&T COMPANY

## STRIPPING AND BLANKING

## CCM

## 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

## 華

A C\&T COMPANY


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


Pinpoint
Packed in bags of 250


Quicklock Bar Sets


Side Pusher Block


Clamps


Stripping Bar
739 mm and 1049 mm available.


Bar Clamp


Telescopic Bar

## CHANNEL CCM ${ }_{\text {sifepry }}$

## STRIPPING ACCESSORIES



## CCM?

## BLANKING ACCESSORIES



C-Rail (2 pieces)


Mounting Clip and Flush Presser Screws

## CHANNEL 

## BLANKING ACCESSORIES



## Blanking Frames

All machine sizes, thicknesses and harnesses available on request.


A C\&T COMPANY

## 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.


## CHANNEL CCM ${ }_{\text {sifepry }}$

## 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.


## CCM PIEFry

A C\&T COMPANY

## 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 1.0 mm


A C\&T COMPANY

## PLASTIC COMPONENTS

## CCM?

## 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 $13 \mathrm{~mm}, 15 \mathrm{~mm}$ and 18 mm widths


## CCM ${ }_{\text {SFFFix }}$

A C\&T COMPANY


Distance Spacers
Available in a variety of heights.


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

## NOTES

A C\&T COMPANY

## MAKE READY ACCESSORIES

## 新

A C\&T COMPANY

## TAPES



## Shim Tape

Available in 25,50 and 125 micron in $10 \mathrm{~m}, 20 \mathrm{~m}, 30 \mathrm{~m}$ and 60 m rolls in red, blue or green.


## Profitape ${ }^{\odot}$

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



##  

A C\&T COMPANY

## OTHER ACCESSORIES



Die Matte Paper

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



## Carbon Paper

Available in .002" or .005"


## Counterboard



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



## Shim Packing Paper

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

## GUIDES, KNIVES AND TOOLS



Adjusto Guides


## Score Cutting Knives

Available in original and corrugated versions.


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


## Skiveready Knives

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

\section*{| $1 \pi$ |
| :--- |
| $\frac{1}{2}$ |
| $\frac{2}{4}$ |
| $\frac{3}{4}$ | CCMPIEprex}



## 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 1.0 mm


## Nicking Chisel Tips

Available in sizes from .010" to 0.60"

## CCM:

## 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



## CCM:

## 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

A C\&T COMPANY

## EQUIPMENT

## COMM DIE

## HELMOLD BENDER SERIES

| Model: | EZ Bender Bendall |
| :--- | :--- |
| Maximum pointage | 3 point |
| Maximum height | $1^{\prime \prime} / 25.4 \mathrm{~mm}$ |
| Machine size $(\mathrm{LxW} \times \mathrm{H})$ | $30.5^{\prime \prime} \times 4.375^{\prime \prime} \times 6.750^{\prime \prime}$ |
| Shipping Size | $44^{\prime \prime} \times 8^{\prime \prime} \times 8^{\prime \prime}$ |
| Net weight | 46 lbs. |
| Shipping weight | 69 lbs. |



| Model: | EZ Heavy Duty Bender |
| :--- | :--- |
| Maximum pointage | 6 point |
| Maximum height | $2^{\prime \prime} / 50.8^{\mathrm{mm}}$ |
| Machine size $(\mathrm{LxWxH})$ | $40^{\prime \prime} \times 5^{\prime \prime} \times 6^{\prime \prime}$ |
| Shipping Size | $44^{\prime \prime} \times 8^{\prime \prime} \times 8^{\prime \prime}$ |
| Net weight | 50 lbs. |
| Shipping weight | 72 lbs. |



## 

A C\&T COMPANY

## BENDING DIES



Bending dies are available in $1^{\prime \prime}, 1-1 / 4^{\prime \prime}, 1-1 / 2^{\prime \prime} \& 2^{\prime \prime}$
Most Common Accessories in Corrugated Die Shops


## Fractional Slot-Bending Die Sets

Specifications for slot tools and mandrels:
Available in $1 / 8^{\prime \prime}$ to $9 / 16^{\prime \prime}$ in $1 / 16^{\prime \prime}$ increments
$C=4 \mathrm{pt}$ Center Face
$\mathrm{F}=3 \mathrm{pt}$ Center Face
$R=4 p t$ Side Face

Most Common Accessories in Folding Carton Die Shops Sets


\section*{| 플 |
| :--- |
| $\frac{2}{2}$ |
| $\frac{2}{4}$ | $C M / \int_{\text {SUPPLY }}^{\text {DIE }}$}

## 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.
$\mathbf{\Delta}=$ These dies can be opened up for 3 or 4 pt. rule.
$\bullet$ = These dies can be opened up for 3 pt. rule only.

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


## CCM ${ }_{\text {SFFFPI }}$

A C\&T COMPANY

## STANDARD DIES

## FOR HELMOLD RULE BENDERS



## Offsets for Die \#35

352 - bends 2pt rule to a 2 pt offset 353 - bends 2pt rule to a 3pt offset 354 - bends 2pt rule to a 4 pt offset 356 - bends 2 pt rule to a 6 pt offset
$\mathbf{\Delta}=$ These dies can be opened up for 3 or 4 pt. rule.

- = These dies can be opened up for 3 pt. rule only.

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 ", $1-1 / 4$ ", $1-1 / 2^{\prime \prime} \& 2^{\prime \prime}$ rule height. Requires a dovetail extension and rear support post.
- 365 sets for 3pt., 65 temper rule, bending sets are available in $3 / 16^{\prime \prime}$, $1 / 4^{\prime \prime}, 5 / 16^{\prime \prime}$ and 3/8" diameters.

| Mandrel Diameter <br> (adapter, support, and bushing included) | $1 / 16^{\prime \prime}$ | $1 / 8^{\prime \prime}$ | $3 / 16^{\prime \prime}$ | $1 / 4^{\prime \prime}$ | $5 / 16^{\prime \prime}$ | $3 / 8^{\prime \prime}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Female Die Number | X-3B | 21B | 22B | 23B | $24 B$ | $25 B$ |

## 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 $1 / 8^{\prime \prime}$ to $9 / 16^{\prime \prime}$ in $1 / 16^{\prime \prime}$ increments.
$C=4 \mathrm{pt}$ Center Face
F $=3 \mathrm{pt}$ Center Face
$R=4 p t$ 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 4 pt.

A C\&T COMPANY

## MANDREL ACCESSORIES



Female Die
Number


Mandrel Set (For use in the following suggested combinations)

| Mandrel Diameter | $5 / 8^{\prime \prime}$ |  |  | $9 / 16^{\prime \prime}$ | $7 / 16^{\prime \prime}$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Sleeve | $1{ }^{\prime \prime}$ | $5 / 16^{\prime \prime}$ | $7 / 8^{\prime \prime} \quad 13 / 16^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | $1 / 1 / 16^{\prime \prime}$ | bushing included |
| Required \& included | $1^{\prime \prime}$ | bushing included |  |  |  |  |
| Female Die Number | 10.37 | UT28, 37 | 17,37 | 37 | 36 |  |

## Mandrel and Sleeve Set

- When combined with the standard bender accessories shown above, a complete set from $3 / 16^{\prime \prime}$ to $1^{\prime \prime}$ by sixteenths is obtained.
- Fits E-Z Bender Bendall ( $1^{\prime \prime}$ 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.


## channel $C C M / \begin{aligned} & \text { DIE } \\ & \text { SUPPLY }\end{aligned}$



## CUTTER SERIES

| Model: | $1-1 / 2^{\prime \prime}$ Helmold rule cutter |
| :--- | :--- |
| Maximum pointage | 6 point |
| Maximum height | $1-1 / 2^{\prime \prime} / 38.1 \mathrm{~mm}$ |
| Machine size | $28^{\prime \prime} \times 4^{\prime \prime} \times 7.750^{\prime \prime}$ |
| Shipping Size | $31^{\prime \prime} \times 7^{\prime \prime} \times 11^{\prime \prime}$ |
| 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 $24^{\prime \prime}$

A C\&T COMPANY

## MITER SERIES



| Model: | Single Miter Machine |
| :--- | :--- |
| Maximum pointage | 3 point |
| Maximum height | .937 |
| Miter bevels | 42,53, or 60 degrees |
| Machine size | $29.5^{\prime \prime} \times 4.125^{\prime \prime} \times 5.25^{\prime \prime}$ |
| Shipping Size | $31^{\prime \prime} \times 7^{\prime \prime} \times 11^{\prime \prime}$ |
| Net weight 32 lbs. |  |
| Shipping weight | 55 lbs. |

## Shim Requirements

| 2pt x.937 CF | $2 p t \times .923$ CF | $2 p t \times .918$ CF | 3pt x.937 CF |
| :--- | :--- | :--- | :--- |
| $0.937 "$ height | $0.923^{\prime \prime}$ height | $0.918^{\prime \prime}$ height |  |
| No shim needed | $.014^{\prime \prime}$ shim | $.019^{\prime \prime}$ shim | $.007^{\prime \prime}$ shim |

The width of each female knife must be kept at $0.310^{\prime \prime}$. 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 $0.310^{\prime \prime}$ 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 | $29.5^{\prime \prime} \times 4.125^{\prime \prime} 5.25^{\prime \prime}$ |
| Shipping Size | $31^{\prime \prime} \times 7^{\prime \prime} \times 11^{\prime \prime}$ |
| 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.

## 

A C\&T COMPANY

## NOTCHER SERIES

| Model: | Standard Notcher |
| :--- | :--- |
| Maximum thickness | 2 point |
| Standard notch size | $1 / 8^{\prime \prime} \times 5 / 8^{\prime \prime}, 1 / 4^{\prime \prime} \times 5 / 8^{\prime \prime}, 5 / 16^{\prime \prime} \times 3 / 4^{\prime \prime}$ |
| Machine size | $37.25^{\prime \prime} \times 4.75^{\prime \prime} \times 6^{\prime \prime}$ |
| Shipping Size | $44^{\prime \prime} \times 8^{\prime \prime} \times 8^{\prime \prime}$ |
| 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 | $1 / 8^{\prime \prime} \times 5 / 8^{\prime \prime}, 1 / 4^{\prime \prime} \times 5 / 8^{\prime \prime}, 5 / 16^{\prime \prime} \times 3 / 4^{\prime \prime}, 3 / 8^{\prime \prime} \times 5 / 8^{\prime \prime}$, |
|  | $1 / 2^{\prime \prime} \times 1 / 2^{\prime \prime}, 3 / 8^{\prime \prime} \times 3 / 4^{\prime \prime}, 1 / 2^{\prime \prime} \times 5 / 8^{\prime \prime}$ |
| Machine size | $37^{\prime \prime} \times 4.750^{\prime \prime} \times 7.750^{\prime \prime}$ |
| Shipping Size | $44^{\prime \prime} \times 7.125^{\prime \prime} \times 8.250^{\prime \prime}$ |
| 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.

## CCM PIEpry

A C\&T COMPANY

## CUTAWL SAW

## "THE DIEMAKER'S SAW"



| Model: | K-12F Cutawl Saw |
| :--- | :--- |
| Thickness | 2, 3, and 4 point |
| Electric | $115 \mathrm{~V}, 50-60 \mathrm{HZ}$ Standard <br> (Optional 220V 50-60 HZ) ** |
| Base | Flat |
| Machine size | $6^{\prime \prime} \times 10.5^{\prime \prime} \times 9.5^{\prime \prime}$ |
| Shipping Size | $14^{\prime \prime} \times 10^{\prime \prime} \times 12^{\prime \prime}$ |
| Net weight | 16 lbs. |
| Shipping weight | 21 lbs. |

## 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.
** An optional Radio Frequency Interference Suppressor is available.

| Model: | K-12C Cutawl Saw |
| :--- | :--- |
| Thickness | 2,3, and 4 point |
| Electric | $115 \mathrm{~V}, 50-60 \mathrm{HZ} \mathrm{Standard}$ <br> (Optional 220V 50-60 HZ) ** |
| Base | Curved (Specify $66^{\prime \prime}$ or 50") |
| Machine size | $6^{\prime \prime} \times 10.5^{\prime \prime} \times 10^{\prime \prime}$ |
| Shipping Size | $14^{\prime \prime} \times 10^{\prime \prime} \times 12^{\prime \prime}$ |
| Net weight | 16 lbs. |
| Shipping weight | 21 lbs. |


| Cutawl Blades | 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 |
| 44 HD | 0.175 | 0.042 | 10 |  |
| 44 HDL | 4 | 0.175 | 0.042 | 10 |

## CHANNEL CCM ${ }_{\text {sifepry }}$

## 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


## C\&T Matrix Bench Press

- Maximum cutting length: 500 mm
- Minimum cutting length: 10 mm
- Tolerance: $\pm 0.5 \mathrm{~mm}$
- 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.


## PLOTTER



## 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 $1000 \times 1000 \mathrm{~mm}$ and from $15^{\circ}$ to $65^{\circ}$ shores $A$ for dies.

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

## NOTES

## NOTES

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$ $[$ $\longrightarrow$ $\longrightarrow$

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


[^0]:    

    A
    

    AA
    

    B

    ## Cutting Bevel

    Bevels
    A - Center bevel
    AA - Long center bevel
    B - Side bevel
    BB - Long side bevel
    Standard angle of the bevel: $54^{\circ}$ (for all bevel-types)
    Other possible angles of the bevel: $30^{\circ} / 35^{\circ} / 42^{\circ} / 60^{\circ} / 75^{\circ}$ (A-bevel only)

[^1]:    Note: Bends shown are from actual impressions of bent rule, but are not actual size here.

[^2]:    Locators are suitable for rule size 2-3.

