

SPEEDI~TEAR™

"The INNOVATION In PERFORATION For CORRUGATION"™

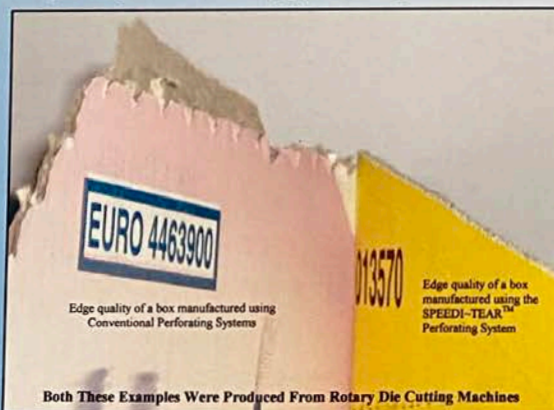
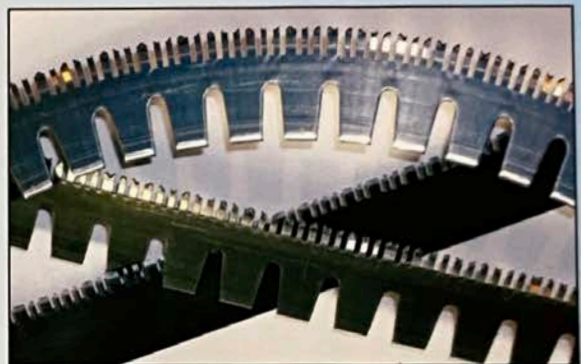
SPEEDI~TEAR™ perforating systems have been specifically developed to provide the rapid release of '*RIP-OFF STRIPS/KNOCKOUT PANELS*' on Self Shipper Display cases, performance packaging and Shelf/Retail Ready boxes.

SPEEDI~TEAR™ has been created from the needs of packaging designers, box makers, cutting rule suppliers, die makers, brand owners and retail end users. This consultation process has allowed our perforation experts to innovate this unique perforating system.

SPEEDI~TEAR™ perforating systems provide a unique balance of both accurate and clean tear lines on rapid and easy to remove panel sections, whilst maintaining box strength. These features are often compromised when using current and conventional perforating technology.

SPEEDI~TEAR™ has applied scientific principles to each rule design to provide individual tooth and gap profiles to suit all corrugated flutes. These profiles are readily available for application with 2pt/3pt rules for flatbed die-cutting and 4pt rules for rotary conversion. 6pt rules are manufactured to order.

SPEEDI~TEAR™ selection could not be easier for both the designer and die maker, simply specify the flute type being used and determine which direction the perforating line follows.



WF (*WITH FLUTE* direction)
and

XF (*CROSS FLUTE* direction)

E.g.: 3pt 0.937" Flatbed Rule - SPEEDI~TEAR™ BWF
This is for use on B flute – with flute applications

4pt 0.970" Rotary Rule - SPEEDI~TEAR™ BXF
This is for use on B flute – cross flute applications

(NB: product performance can vary according to actual corrugated board specification)

SPEEDI~TEAR™ allows the box makers for the first time to fulfil both the designer's vision and the brand owner's requirements. Through innovation **SPEEDI~TEAR™** provides the highest quality cosmetic solution, while maintaining essential box functions.

For further information or assistance, please contact us at
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SPEEDI~FLARE™

"Nothing compares to our PERFected FOLD that TEAR's"™

SPEEDI~FLARE™ has been designed specifically for use in corrugated applications that require a more refined element of both folding and tearing functions from a single perforated line.

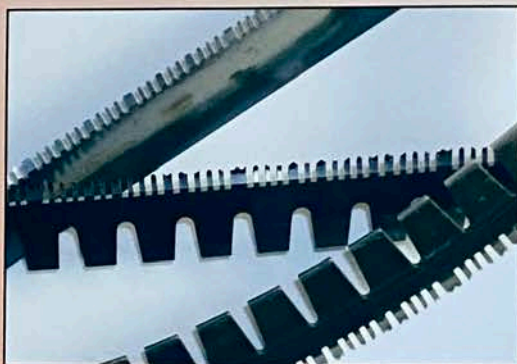
SPEEDI~FLARE™ compliments our current range of products by utilising the unique characteristics of both **SPEEDI~FOLDS™** and **SPEEDI~TEAR™** in one single product. This provides the box designer with a complete perforation selection to cover all box designs.

We realise that the actual box design will be influenced by the corrugated grade, die-cutting techniques, packed weight of contents and transit load strength as well as meeting the requirements of the retail end-user or brand owner to have an easy to tear box with a clean cosmetic finish.



For these reasons, **SPEEDI~FLARE™** has been designed with HYBRID perforations, which can be altered in small but effective increments allowing for slight adjustments in either FOLD strength or ease of TEAR. This revolutionary concept allows the designer for the first time, to request a bespoke perforation to suit his own production site and board grades, rather than resorting to a catalogued product, probably developed for another clients needs.

Standard **SPEEDI~FLARE™** systems are readily available as alternatives to the currently used perforating rules, like 1/8" x 1/8" (3mm x 3mm), 1/4" x 1/4" (6mm x 6mm), etc. These standard perforating rules can be replaced with a standard **SPEEDI~FLARE™** by ordering as follows:



*E.g.: Previous perf 3pt 0.937" High Flatbed Rule 1/8" x 1/8" (3mm x 3mm)
Use 3pt 0.937" **SPEEDI~FLARE™** "3"*

Remember that this standard **SPEEDI~FLARE™** system is for basic replacement of some perforating rules currently available to the industry. It can be easily altered through close consultation to provide the *perfect* folding or tearing characteristics to match the specific demands of any corrugated converters needs.

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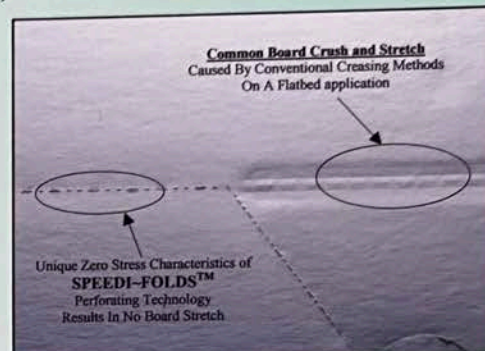


SPEEDI~FOLDS™

"Breaking the MOULD'S on how corrugated FOLDS"™

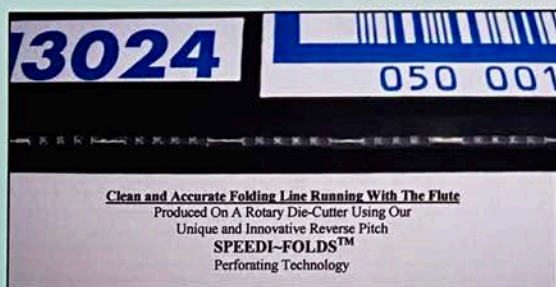
SPEEDI~FOLDS™ was conceived and developed to compliment our revolutionary **SPEEDI~TEAR™** perforating system. Working together in perfect synergy, **SPEEDI~FOLDS™** provides substantial improvements to the box production process by assisting folding and protecting 'tear out perforating lines', which often burst in production.

SPEEDI~FOLDS™ works by reducing the destructive effect of strong and difficult to fold box flaps. This provides a greater balance in strength through a unique, symbiotic relationship between the folding line and the corrugated flute, thus maximising box yields during every process within production. It also provides the ultimate solution in producing and maintaining, dimensional accuracy of the box when erected.



Another significant benefit of using **SPEEDI~FOLDS™** is the ability of the folding line to hinge 'bi-directionally' dramatically reducing the risk of board fatigue. Flap strength and integrity is still maintained after several folding movements, making it even easier for box contents to be inserted manually or automatically, without damage to the box flaps.

SPEEDI~FOLDS™ provides a quantum step forward in replacing standard folding systems like creasing rule and cut/crease (cut/score) combination rule. Crease rules rely upon critical height selection, matrix choice and make ready techniques. Conventional cut/crease



combination rules reduce folding strength but basic, 30 year old technology used to produce these products limits the performance due to inflexible manufacturing and ratios of tooth and gap.

SPEEDI~FOLDS™ uses innovative reverse pitch tooth and gap technology. This new and precision ground perforating geometry works by breaking down the specific flute style being used in box

production, while strength is maintained due to the unique hinge effect it creates.

Choose from our progressive strength range of **SPEEDI~FOLDS™** 3, 6, 9, 12 or 15

E.g.: Previous cut/crease 3pt 0.937" High Flatbed Rule 1/8" x 1/8" (3mm x 3mm)
Use 3pt 0.937" **SPEEDI~FOLDS™** "3"

E.g.: Previous cut/crease 4pt 0.970" High Rotary Rule 1/4" x 1/4" (6mm x 6mm)
Use 4pt 0.970" **SPEEDI~FOLDS™** "6"

(NB: product performance can vary according to actual corrugated board specification)

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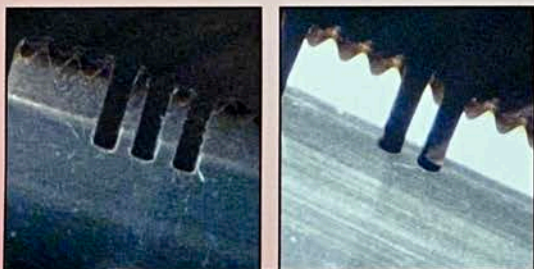
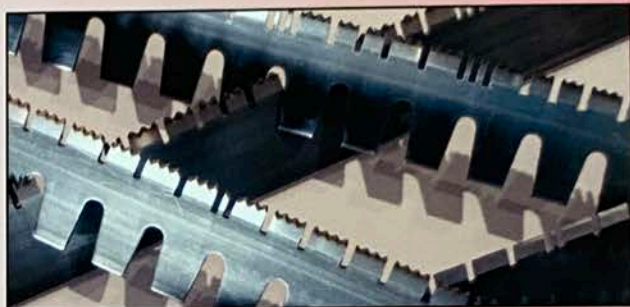
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SPEEDI~NICK™

"Our Revolutionary Pre-Nick, Get's Your Die's Running Quick"™

SPEEDI~NICK™ is our solution to the age-old problem of nicking to facilitate box production and increase speed through the die-cutter. This essential but sometimes unpleasant looking process is regarded by many within the industry, as very time consuming for both die maker and box maker. With no exact science to determine the actual amount of nicks required for each project, we have developed a range of geometries to assist box producers around the world.

SPEEDI~NICK™ has been designed after studying the nicking habits of the industry over the last 12 months. From the data collected we have been able to extract key elements, input our expertise and transfer the results via our manufacturing technology into a pre-nicked rule unlike any other manufacturers alternatives. Existing pre-nicked products used in box production are basically perforating rules that are easy to punch or fall in line with the gullets of the serrated rotary rule. **"This is more beneficial to the rule producers older production technology not those of the advancing requirements of today's modern box maker."**



Our Innovative Twin and Triple Nicks Can Provide Better Holding Power and Strength Ratio's Compared to Conventional Pre-Nicked Rules.

SPEEDI~NICK™ does not follow these dated principles, it incorporates our new age technology to place nicks anywhere on the rule without any restrictions. This allows for the first time single, twin, and triple nicks in very close proximity to occur in one single length of rule. This removes the need for small pieces of regular pre-nicked products to be inserted into the die, therefore removing the risk of these individual pieces becoming loose

during the high-speed die-cutting production process. Our evolutionary **SPEEDI~NICK™** rule provides consistent accuracy of tooth and gap patterns as well as offering time efficient die construction without producing harmful grinding dust.

Standard **SPEEDI~NICK™** systems are readily available and these standard configurations have been developed for ease of selection in an easy to understand progressive strength format for twin Nick's 240, 250, 260, 280 and triple Nick's 340, 350, 360, 380, with the numeric code increasing in line with the holding strength requirements.

3pt 0.937" **SPEEDI~NICK™ 240**

This would have a series of twin Nick's in very close proximity 0.040" wide in the rule

3pt 0.937" **SPEEDI~NICK™ 360**

This would have a series of Triple Nick's in very close proximity 0.060" wide in the rule

(NB: product performance can vary according to actual corrugated board specification)

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SPEEDI~MICROTM

"For Solid Board or Plastic Our MICRO-PERF is Fantastic"TM

SPEEDI~MICROTM perforating rules offer the end user, converter and die-maker an elite range of progressive strength and conventional Micro-Perf. This range provides the ideal solution for use on high quality packaging that requires the cosmetic benefit of a clean edge usually achieved by cutting rule. By implementing our Micro-Tie technology this can easily be achieved without compromising production speeds.

SPEEDI~MICROTM perforating technology provides almost invisible perforations on all substrates. The Die-Cutting of plastic components, allows for high quality tearing or folding/hinging without 'milky' discolouration, often caused by conventional creasing systems. Our unique ability to accurately position the Micro-Tie's onto any cutting rule, allows for new geometry combinations and rule types not readily available through existing supply networks.

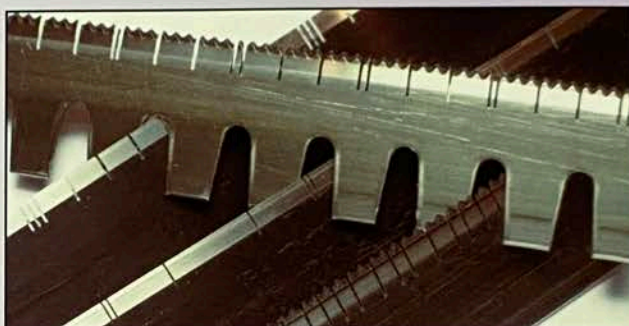
SPEEDI~MICROTM can be applied in our unique power cluster or our twin/triple nicking format resulting in a superior edge finish or accurate folding lines. These key features are allowing end users to replace conventional materials with more exotic, thinner and most importantly environmentally friendly substrates, yet still allow the finish die-cut product to be processed trouble free through many high speed applications without bursting or jamming.

SPEEDI~MICROTM is produced using state of the art grinding technology, which is capable of producing DEEP CUT Micro-teeth faster and more accurately than any other

manufacturer. Continuous development and investment allows us to offer the standard formats of 20, 30, 40, 50, 60 and 70TPI rules as well as our famous SPEEDI geometry combinations to suit the needs of multiple industries including, PHARMACEUTICAL, COSMETICS and FOOD PACKAGING, even when using difficult substrates like PVC, HDPE, PP, PET, FOIL BOARD and LAMINATED COMPOSITES.



This Plastic Food Sleeve Achieved More Accurate Fold Lines and Increased Product Insertion Rate With the Assistance of SPEEDI~MICROTM



Typical Micro Tie Sizes Range From 0.006" (0.15mm) – 0.020" (0.5mm)
Our Micro Tie Range is Available on 2pt and 3pt Rules with 4pt Rule Produced on Request

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SPEEDI~BREAK™

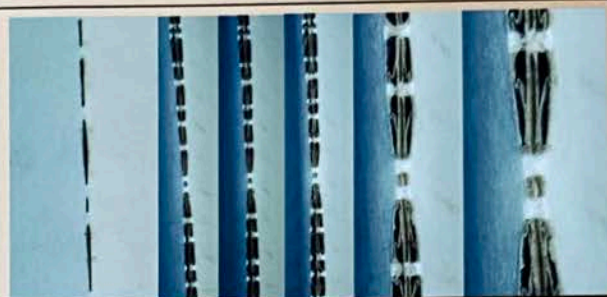
"A Superior Bundle Breaker For The High Speed Box Maker"™

SPEEDI~BREAK™ perforating geometry has been specifically developed to offer a cost effective, but high quality solution to multi out box production. Advanced manufacturing technology developed at **SPEEDI~TEAR™** is utilised to provide this unique solution.

SPEEDI~BREAK™ follows new principles never seen before, providing an effective perforating line system which, replaces the common knife within the multi out die design.

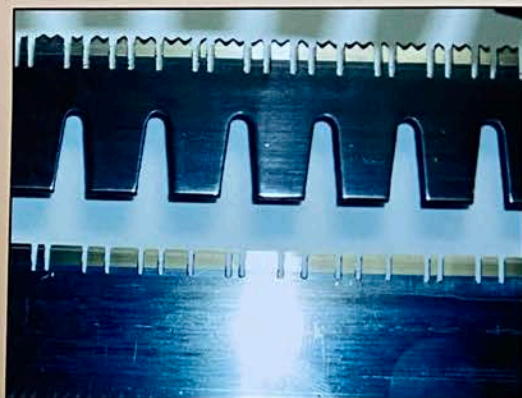
SPEEDI~BREAK™ when applied creates consistent edge finish to the corrugated board but essentially removes the need for over aggressive nicking, inconsistent nicking widths and the dangerous use of nick grinding equipment within the die room or machine area.

SPEEDI~BREAK™ provides improved stability during production by maintaining togetherness of the board through the die cutter while achieving fast, clean and effective separation of the board, therefore improving the bundle breaking process no matter if it is applied manually or mechanically.



As you can see from these photos of **SPEEDI~BREAK™** being progressively folded it offers hidden strength through innovative design providing a higher percentage hold ratio using less nicks, not possible when using the basic symmetrical perforating rule style products supplied by other manufacturers for this application.

The superior hold ability of **SPEEDI~BREAK™** is due to hidden technology embedded in the design which concentrates hold to allow safer passage through the die-cutter while maintaining edge finish after bundle breaking.



flatbed machine applications and approx 1/32" (0.8mm) lower than the cutting rule height on all rotary rule die-cutting machine applications.

SPEEDI~BREAK™ profiles are readily available for application with 2pt/3pt rules for flatbed die-cutting and 4pt rules for rotary conversion.

SPEEDI~BREAK™ selection is simple and available in our unique 5TPI emulating progressive strength format just ask for **SPEEDI~BREAK™** 5-35, 5-40, 5-50, 5-60, 5-80. We also provide a 4TPI and 6TPI version of our design, which are available on request. Remember **SPEEDI~BREAK™** should always be the same height as the cutting rule on all

**E.g.: 3pt 0.937" Flatbed Rule
SPEEDI~BREAK™ 5-35**

This is for our unique 5TPI emulating SPEEDI design with a 0.035" nick size

**E.g.: 4pt 0.970" Rotary Rule
SPEEDI~BREAK™ 5-50**

This is for our unique 5TPI emulating SPEEDI design with a 0.050" nick size

(NB: product performance can vary according to actual corrugated board specification)

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SPEEDI~STRIP™

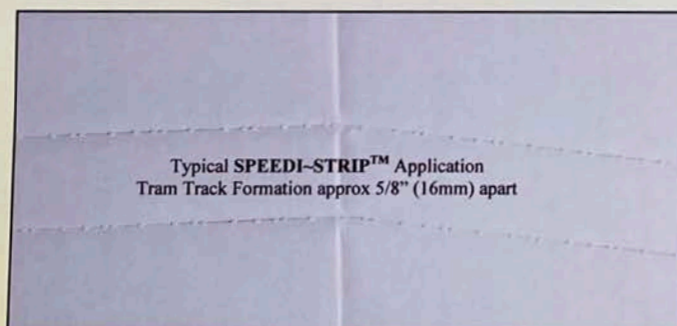
"A Cosmetic Dual Line Ripper For A Better Edge Finish Than Zipper"™

SPEEDI~STRIP™ Has been developed predominantly for flatbed application after many leading corrugated box producers asked us to improve the cosmetic appearance of existing box specifications. Most of these designs use Twisted tooth technology like Zipper rules, which can be often complicated, with the need to position the left and right hand options correctly. In today's competitive retail environment, a greater and more refined performance is often requested by clients from simple boxes with a dual perforated line, this improvement must also provide easier selection of rule types ensuring effective die production.

SPEEDI~STRIP™ is designed to run in parallel or tram track formation allowing the box to be opened with minimal effort, while retaining a superior clean edge finish on the remaining box section after opening or the lid removal.



The actual box design is always influenced by the board grade, die-cutting process, box erection methods, product filling techniques, packed weight of contents and transit load strength. However when **SPEEDI~STRIP™** is applied to boxes, which contain medium to light weight goods especially those within the Snacks, Toiletries/Cosmetics and chilled foods sector of the industry, superior results were produced over the previously used zipper rule products.



Another significant advantage of using **SPEEDI~STRIP™** is the ability to reduce the need for the time consuming secondary operation of ripper tape application, prior

to Die-Cutting. Retaining the original status of 100% recycle ability of a box design.

Standard **SPEEDI~STRIP™** systems are readily available, our standard configurations have been developed and can be selected from an easy to understand progressive strength format, with the numeric code increasing in line with tear strength requirements for specific board grade.

3pt 0.937" SPEEDI~STRIP™ "8" "9" "10"
Are commonly applied to Micro flute and E flute board grades

3pt 0.937" SPEEDI~STRIP™ "10" "12" "15"
Are commonly applied to B flute grades

(NB: product performance can vary according to actual corrugated board specification)

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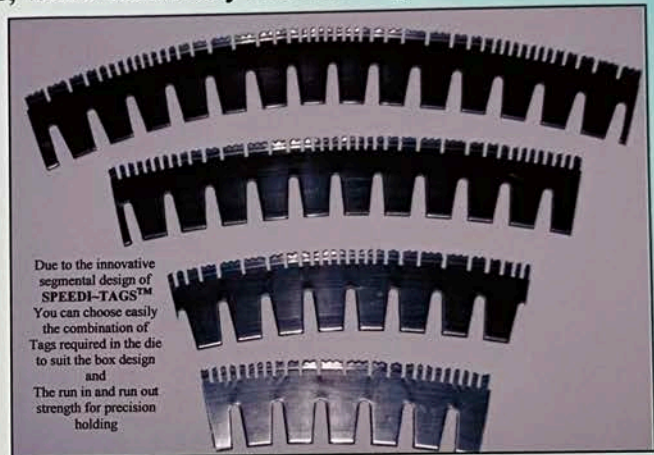
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SPEEDI~TAGS™

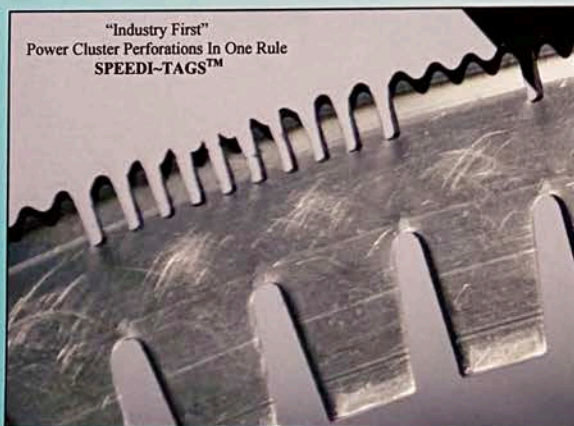
"When you require extra strength hold, our TAGS strike Gold"™

SPEEDI~TAGS™ offers two exclusive industry first's in one rule for problematic Multi Out Die designs especially those which have low contact area between each box, but edge quality and increased hold strength is needed to allow these box designs to pass through the production process and then separate in the Bundle Breaker, while essentially maintaining maximum production/operating speeds.

SPEEDI~TAGS™ design allows replacement of the common knife and works by providing extra powerful clusters of hold within a strategic or concentrated area. These **POWER CLUSTER PERFORATIONS** use the famous **SPEEDI Reverse Pitch Technology**, which when applied to cutting rule in our revolutionary segmental design, allows the die-maker to cut and insert them into the die board, providing superior holding strength directly in the areas required most.



SPEEDI~TAGS™ innovative **POWER CLUSTER PERFORATIONS** provide a unique balance of both accurate and clean separating lines while maintaining efficiency within the High-Speed box production facility. This is achieved because the production technology to produce **SPEEDI~TAGS™** is not limited, it can produce notches below 0.045" (1.15mm) in 3pt, 4pt and 6pt rule without difficulty, unlike other manufacturers who use older punching technology to manufacture its products. The Punching Process is cheap but needs more symmetrical (simple) shapes to punch, this has restricting for years the advancement of new perforating rules onto the market and essentially ignoring the needs of the modern box maker.



SPEEDI~TAGS™ cluster profile solutions are available for application with 3pt rules for flatbed die-cutting and 4pt rules for rotary conversion. Selection could not be easier due to our ascending strength numeric code, simply specify the number from the following 35, 40, 50, 60, 80.

E.g.: 3pt 0.937" Flatbed Rule - SPEEDI~TAGS™ 35
This would have **SPEEDI~TAGS™** power cluster perforations 0.035" wide

4pt 0.970" Rotary Rule - SPEEDI~TAGS™ 50
This would have **SPEEDI~TAGS™** power cluster perforations 0.050" wide

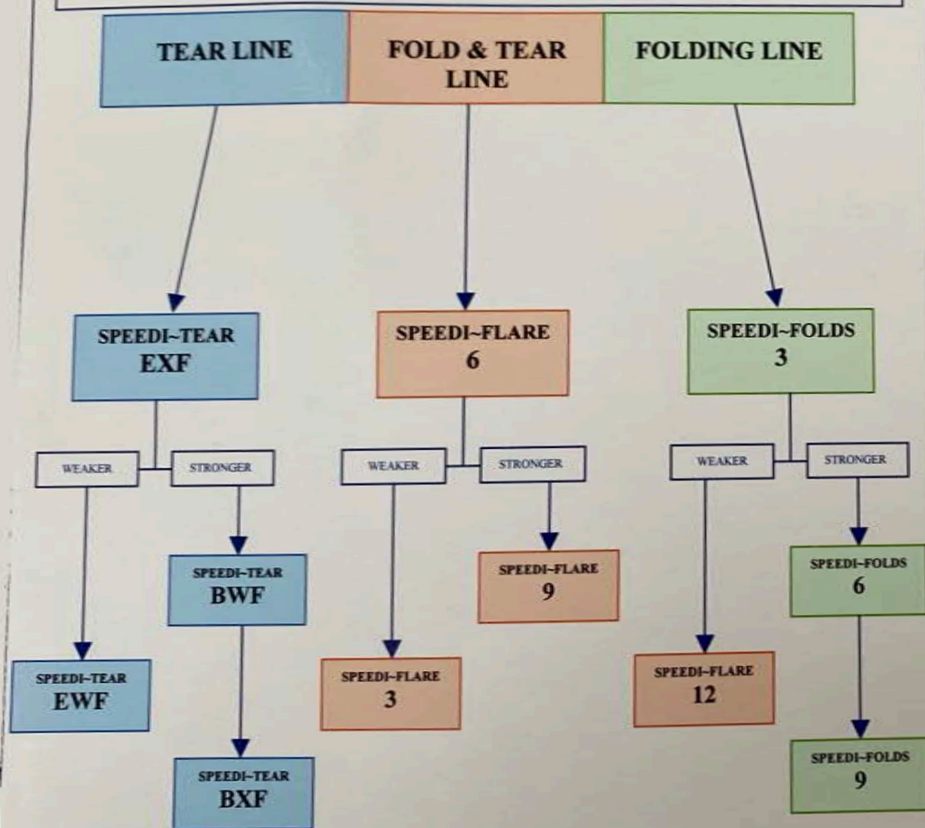
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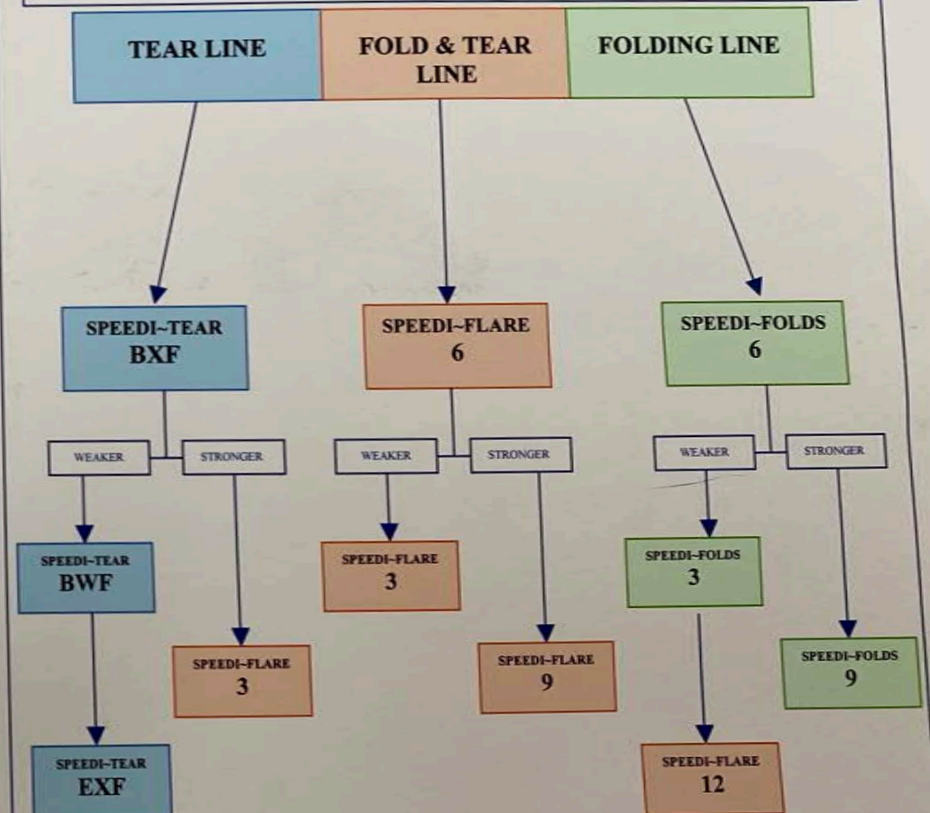
SPEEDI~TEAR[®] FLATBED APPLICATION

E FLUTE SPEEDI SELECTION



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B FLUTE SPEEDI SELECTION

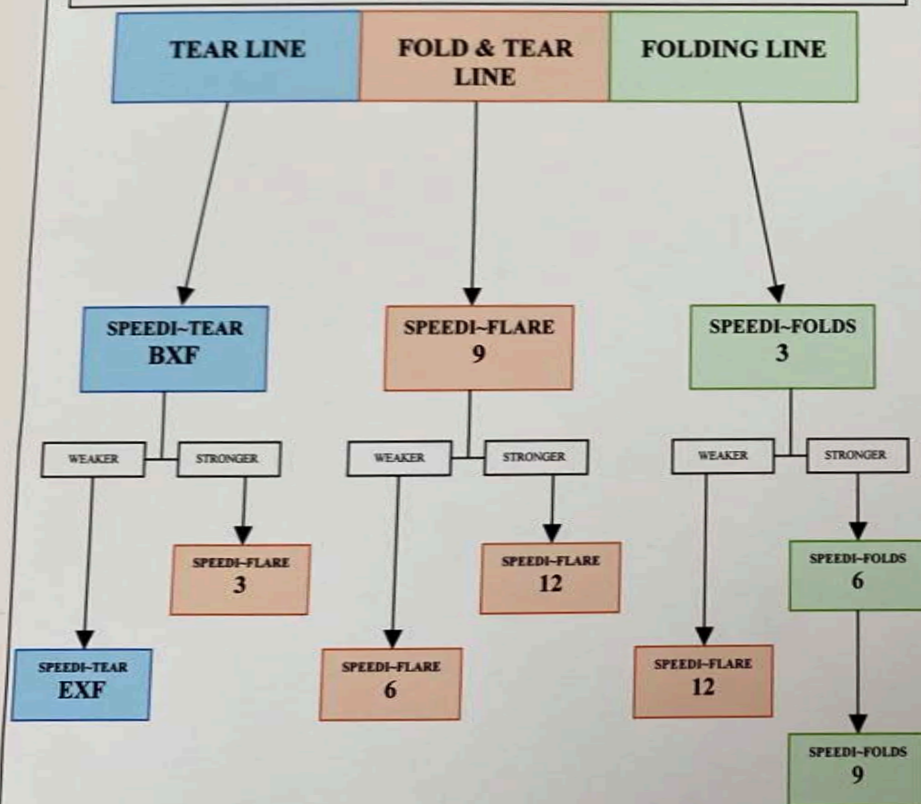


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THIS CHART IS FOR BASIC SELECTION PROCESS AND A TRUE SELECTION CAN ONLY BE DETERMINED AFTER EACH MANUFACTURERS BOARD GRADE HAS PRODUCED A LIVE TRIAL TO OBTAIN RESULTS
"SPECIAL SPEEDI~PERF'S CAN BE PRODUCED FOR CUSTOMERS EXACT NEEDS UPON REQUEST"

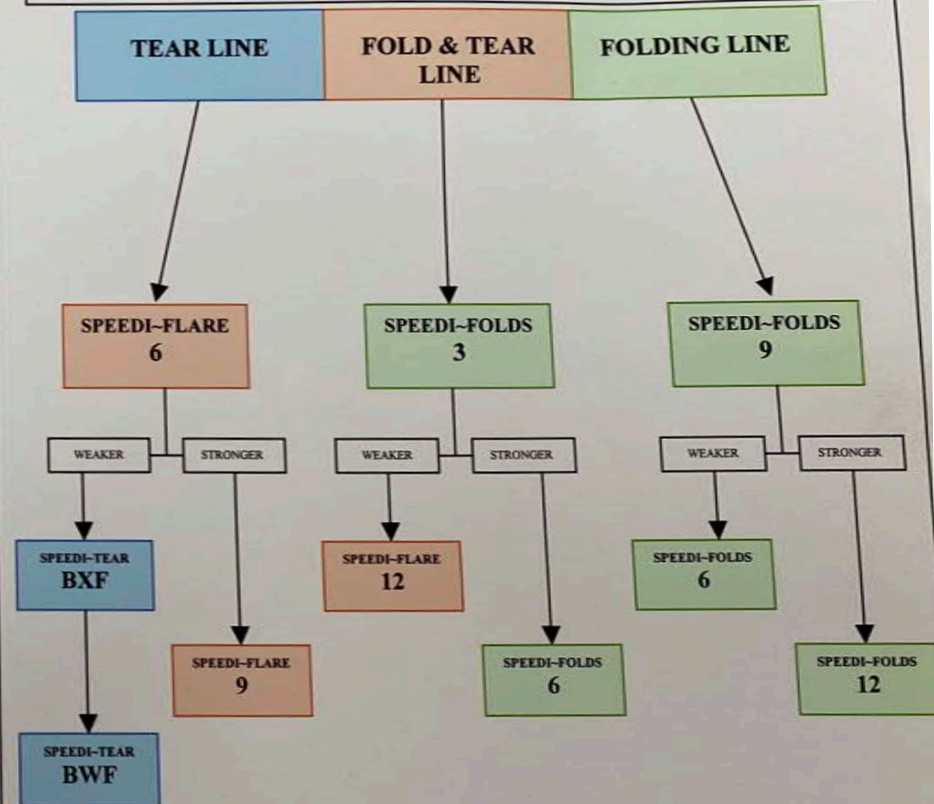
SPEEDI~TEAR® ROTARY APPLICATION

E FLUTE SPEEDI SELECTION



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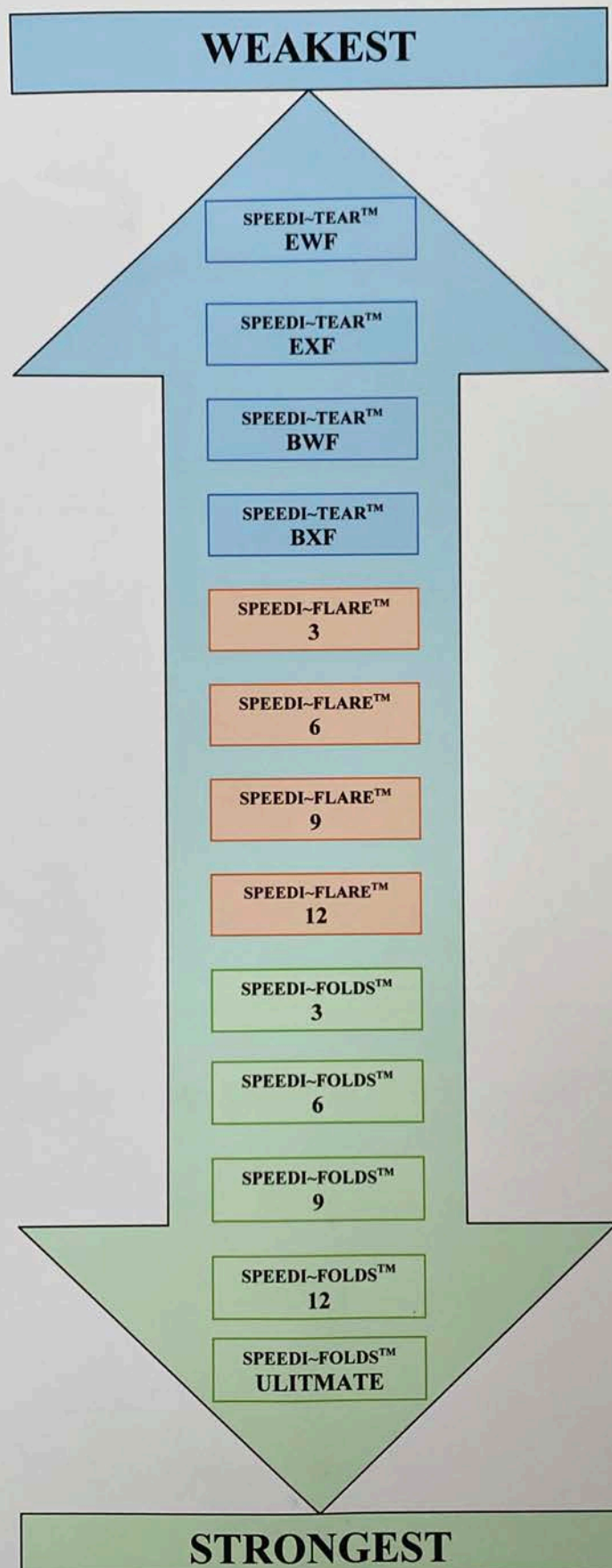
B FLUTE SPEEDI SELECTION



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"SPECIAL SPEEDI~PERF'S CAN BE PRODUCED FOR CUSTOMERS EXACT NEEDS UPON REQUEST"

SPEEDI PROGRESSIVE STRENGTH SCALE



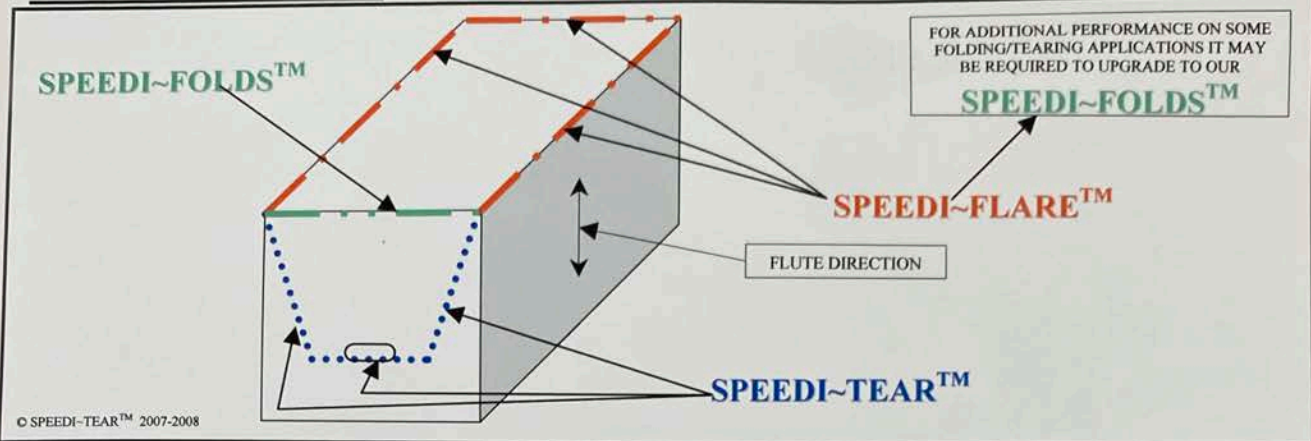
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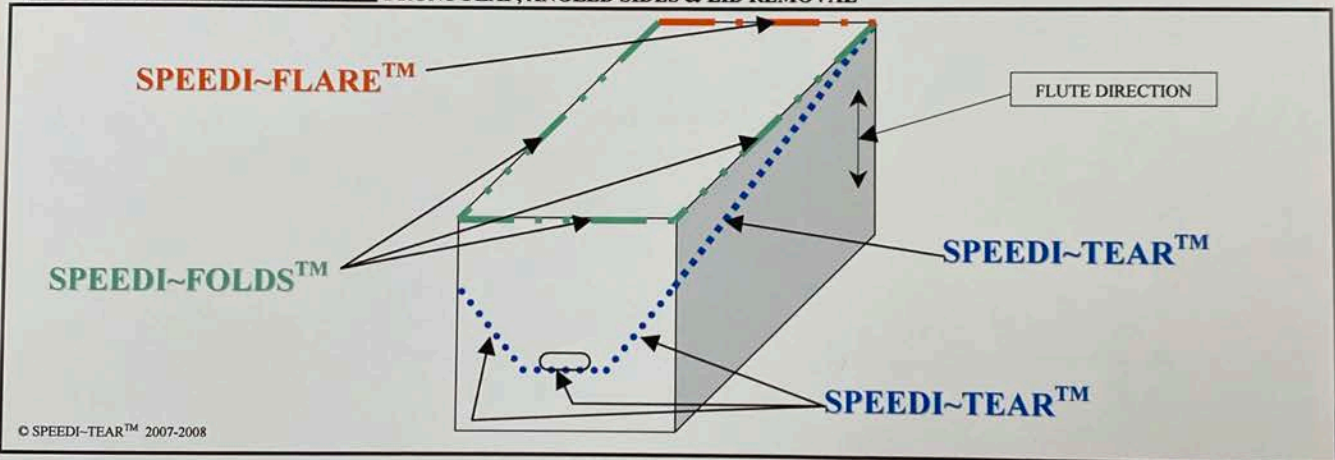
APPLICATION GUIDELINES

SPEEDI~TEAR™, SPEEDI~FOLDS™ & SPEEDI~FLARE™ SYSTEMS

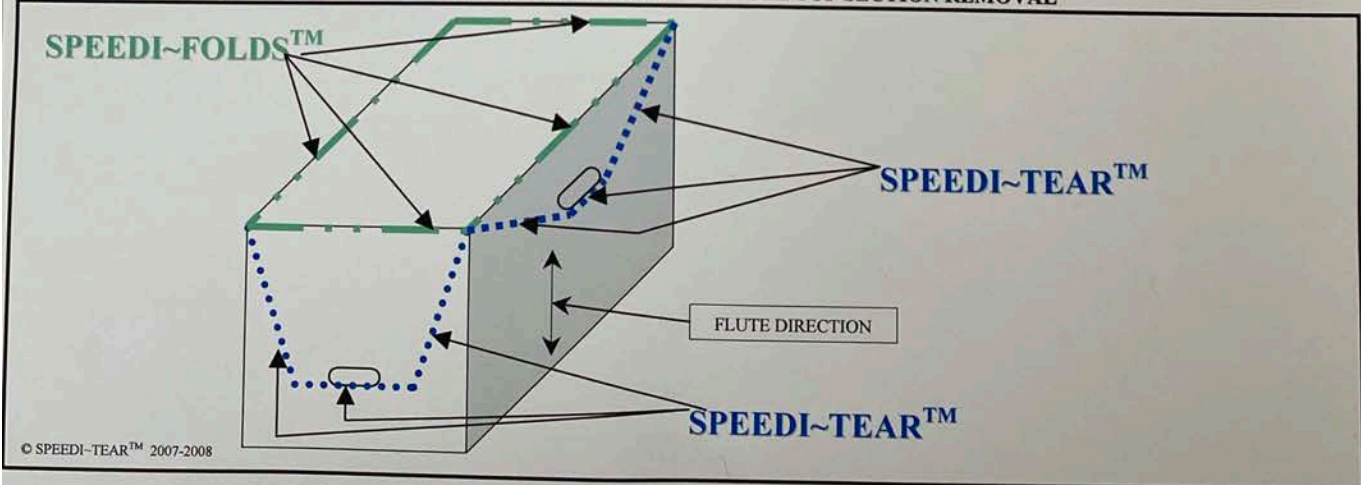
STYLE 1 “DUO-PANEL” FRONT FLAP & LID REMOVAL



STYLE 2 “TRI-PANEL” FRONT FLAP, ANGLED SIDES & LID REMOVAL



STYLE 3 – “QUAD PANEL” ANGLED SIDES TO GIVE A FULL TOP SECTION REMOVAL



DISCLAIMER: The above illustrations are for guidance only. The use of the SPEEDI~range within any application, is the responsibility of the purchaser of the SPEEDI~products. SPEEDI~TEAR™ cannot accept any loss or damages caused from using these guidelines.

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