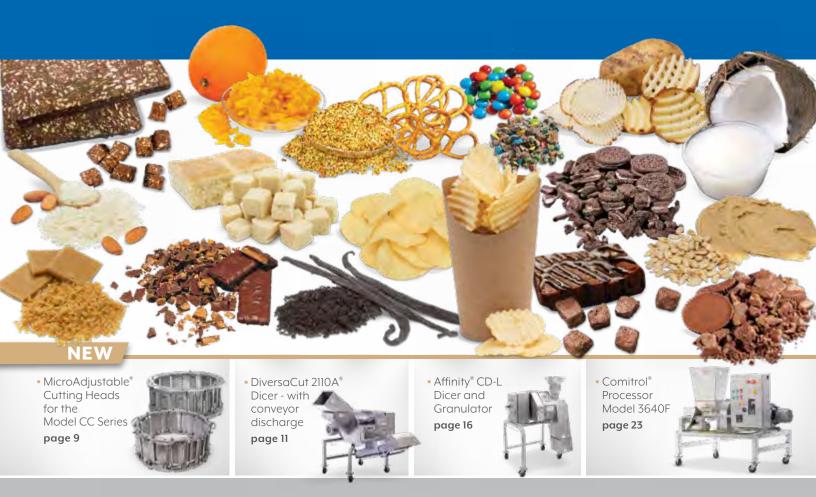
HOW TO CUT BAKERY&SNACK PRODUCTS



SLICE | DICE | MILL | PUREE







ADVANCING INTO THE FUTURE

Over 100 Years and Counting...

Invention meets innovation as the Urschel story continues. Founded by inventor, William E. Urschel in 1910, his dynamic spirit has remained a central part of our company.

Today's Urschel engineers embrace innovation and work with state-of-the-art manufacturing technology. As a 100% employee-owned company (ESOP), Urschel has continued to expand alongside our long-time customers. From a CAD drawing to mapping out every phase a new component travels to its completion, dedicated Urschel employees work together to create each crucial part under one roof.



FEATURED PRODUCTS

1. Granola Bar Granulation Comitrol Processor Model 1700

2. Potato 3/8" (9.5 mm) Crinkle Strip Sprint 2 Dicer

3. Peanut Butter **Comitrol Processor** Model 9300

4. Beef Jerky Crumble Comitrol Processor Model 1700

5. Pita Bread 2 x 2" (50.8 x 50.8 mm) Model |9-A 6. Jelly-filled Cookie

Comitrol Processor

Model 3600 7. Biscuit Bread 3/4" (19.1 mm) Dice Model M6

Granulation

8. Dried Citrus Comitrol Processor Model 3600

9. Potato Deep Lattice Slice Model CCL

10. Cracker Small Granulation Affinity Integra Dicer

11. Cookie Dough 1/2" (12.8 mm) Dice Sprint 2 with Conveyor Dicer

12. Candy Bar 1/2" (12.7 mm) Granulation DiversaCut 2110A Dicer

13. Peanut Butter Cup 3/4" (19.1 mm) Granulation Sprint 2 Dicer 14. Pecan

5/16" (7.9 mm) Granulation Model N

15. Sweet Potato .060" (1.5 mm) Flat E TranSlicer Cutter

#8 Grating Screen Model CC 17. Pitted Dried Date

3/8" (9.5 mm)

16. Peanut

Affinity CD-L Dicer **18. Taro** .060" (1.5 mm) Flat

E TranSlicer Cutter

19. Jelly-filled Cookie Model 1700

20. Bread Stick 3/16" (4.8 mm) Slice E TranSlicer Cutter

21. Cranberry Puree Comitrol Processor Model 1700

22. Flour Tortilla 1/4" (6.4 mm) Strip. 1 x 1" (25.4 x 25.4 mm) Model |9-A

23. Coconut/Banana **Energy Bar** 3/4" (19.1 mm) Dice Model M6

24. Peanut Butter Cracker Comitrol Processor Model 3600

25. Pork Rind 3/4 x 1-1/4" (19.1 x 31.8 mm) Model M6













The CC uniformly slices, strip cuts, shreds, and granulates a wide variety of snack and bakery foods at high production capacities including potato chips, potato sticks, coconut shreds, and nut slicing and granulating.

The Model CCL delivers unique lattice slicing capabilities. Both sides of the slice have crinkles, with the crinkles on each side of the slice running approximately 90° to each other to create potato lattice chips or thicker potato waffle fries. Slicing involves a revolving impeller made-up of holding tubes — as the impeller rotates, so do the tubes, so potatoes rotate on both the vertical and radial axes simultaneously. Centrifugal force holds potatoes in place for precise crinkle slicing.

MODEL CC

VERSATILE SLICER. SHREDDER. & GRANULATOR

The versatile machine features interchangeable cutting heads that enable the processor to change the type of cut in just minutes. Specially designed knives do not require sharpening and are inexpensive to replace. The Model CC features continuous operation for uninterrupted production and is designed for easy cleanup and maintenance. Maximum input product size is 4" (95.3 mm) in any dimension.

TYPES OF CUTS: MODEL CC SERIES

FLAT-V SLICES

**Z-CUT SLICES

V SLICES



SPECIFICATIONS

MODEL CC (standard hopper)

...48.03" (1220 mm) – 2 or 5 HP

.51.74" (1314 mm) – 10 HP Width: . 35.26" (896 mm) ..31.47" (799 mm) – 2 or 5 HP Height:

.30.28" (769 mm) – 10 HP **Net Weight:** 550 lb (250 kg) – 2 or 5 HP . 680 lb (310 kg) – 10 HP

Motor: 2, 5, or 10 HP (1.5, 3.7, or 7.5 kW)

Model CC

(funnel hopper with extension)

Length: 48.59" (1234 mm) – 2 or 5 HP 52.23" (1327 mm) – 10 HP

Width:..... 35.60" (904 mm) Height: 38.95" (989 mm) - 2 or 5 HP

40.39" (1026 mm) – 10 HP

Net Weight: 550 lb (250 kg) - 2 or 5 HP 680 lb (310 kg) - 10 HP

Motor: 2, 5, or 10 HP (1.5, 3.7, or 7.5 kW)



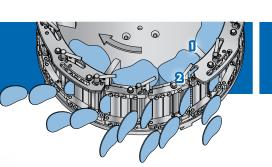
1. Impeller Paddles 2. Slicing Knives



MicroAdjustable® SH-14 & SL-14 heads offer increased capacity with 14 cutting stations versus the standard 8 head. Innovative design delivers quick adjustments, increased sanitation, and time/labor savings. New SlideLocc™ clamping system expedites knife changeovers with limited

tools necessary. To determine the availability of specific thicknesses

and styles, visit www.urschel.com.



MODEL CCL

UNIQUE LATTICE SLICER



TYPES OF CUTS



Fine Lattice: Translucent appearance with small lattice

holes visible

Width:.....35.26" (896 mm) Height:32.68" (830 mm) **Net Weight:** 540 lb (245 kg) **Motor:** 2 or 5 HP (1.5 or 3.7 kW)

SPECIFICATIONS

Length:......48.03" (1220 mm)

after frying. 8 corrugations per 1" (25.4 mm). Approximately .125" (3.2 mm) peak to peak.



Coarse Lattice: Small lattice holes visible. 5.7 corrugations per 1" (25.4 mm). Approximately .175" (4.4 mm) peak to peak.



Deep Lattice: Slightly larger lattice holes. 2.25 corrugations per 1" (25.4 mm).

Approximately .446" (11.2 mm) peak to peak.

CUTTING OVERVIEW

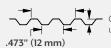
- 1. Revolving Impeller Assembly
- 2. Rotating Potato Holding Tubes
- 3. Crinkle Knife Stations



FULL & REDUCED FLAT-V* SHREDS

Full Flat-V Shred: Hexagonal-shaped cross section thickness (A) approximately .150" (3.8 mm) on each side using the .473 V knife.

Reduced Flat-V Shred: Flattened top and bottom that form a corrugated shred.



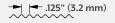
Offset .473 V knives make up each cutting station.



FULL SHREDS & REDUCED V SHREDS

Full Shred: Diamond-shaped cross section available in four thicknesses (A): .070" (1.8 mm) using the .125 V knife, .097" (2.5 mm) using the .170 V knife, .125" (3.2 mm) using the .212 V knife, or *.285" (7.2 mm) using the .445 V knife.

Reduced V Shred: "V"-shaped cross section



.070" (1.8 mm) Thickness Offset .125 V knives make up each cutting station.

.125" (3.2 mm) Thickness

Offset 212 V knives make

-.212" (5.4 mm)



*.285" (7.2 mm) Thickness Offset .445 V knives make

- .170" (4.3 mm)

.097" (2.5 mm) Thickness

Offset .170 V knives make

.500" (12.7 mm). Available in three different crinkle depths: .175" Slice: Crinkle depth .084" (2.1 mm), Center depth .175" (4.4 mm)

.300" Slice: Crinkle depth .080" (2.0 mm), Center depth .300" (7.6 mm), .480" Slice: Crinkle depth .076" (1.9 mm), Center depth .480" (12.2 mm).

Slice thickness (A) range is .040" (1.0 mm) to

Slice thickness **(A)** range of .040 – .180" (1.0 – 4.6 mm) with

2.1 (25.4 mm) corrugations per inch. Corrugation depth

Slice thickness (A) range is .030 - .115" (0.8 – 2.9 mm) with

2.54 corrugations per inch (25.4 mm). Corrugation depth

of .125" (3.2 mm); Center depth: .473" (12 mm).

is .135" (3.4 mm); Center depth: .394" (10 mm)

Slice thickness (A) range is .040" (1.0 mm) to

Center depth: .125" (3.2 mm).

Center depth: .212" (5.4 mm).

CRINKLE SLICES

.500" (12.7 mm) available in two different "V" depths:

.125" Slice: 8 "V's" per inch, "V" depth of .050" (1.3 mm),

.212" Slice: 4.7 "V's" per inch, "V" depth of .084" (2.1 mm),



FLAT SLICES

to .500" (12.7 mm).



up each cutting station. Slice thickness (A) range is .030" (0.8 mm)

*Limited availability based on customer application. Contact your local Urschel office to verify salability. **Z-Cut is only available in non-European countries.



OVAL & REDUCED OVAL (CRESCENT) SHREDS

Oval Shred: Oval-shaped cross section (A) approximately .125" (3.2 mm) thick by .250" (6.4 mm) wide using the .300 crinkle knife.

Wide Oval Shred: Wide oval-shaped cross section **(B)** .125" (3.7 mm) thick by .375" (9.5 mm) wide using the .480 crinkle knife.

Crescent Shred: Crescent-shaped cross section. Wide Crescent Shred: Wide crescent-shaped cross section

.125" (3.7 mm) thick x .250" wide (6.4 mm) Oval Shred

Offset .300 crinkle knives make up each cutting station. make up each cutting station



Rectangular cross section available in a variety of widths (A): 3/32, 1/8, 3/16, 1/4, 1/2, or 3/4" (2.4, 3.2, 4.8, 6.4, 12.7, or 19.1 mm)



GRATING OPTIONS

Grating heads offer cuts including powdered parmesan, coarse granules, and a variety of shreds.



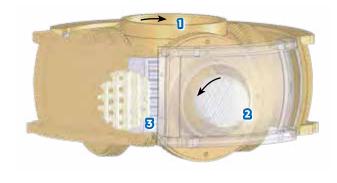
-480" (12.2 mm)

.125" (3.7 mm) thick

Wide Oval Shred

x .375" wide (9.5 mm)

Offset .480 crinkle knives



The ^{BB}DiversaCut line deliver one-, two-, or three-dimensional cuts to offer slices, strips, or dices. The crosscut spindle in conjunction with the other cutting components create a compact cutting zone establishing precision cuts as the product moves throughout the process.

The DiversaCut 2110A Dicer is available in an NSF (National Sanitation Foundation) International certified version.

DIVERSACUT 2110A[®] **DICER**

STANDARD MODEL

The DiversaCut 2110A Dicer accepts a maximum infeed product of 10" (254 mm) in any dimension and offers cost-savings by eliminating the need to precut products. Boundless versatility extends across food industries.

This dicer may be equipped with either a 5 (3.7 kW) or a 10 (7.5 kW) horsepower motor. The machine features continuous operation for uninterrupted production and is designed for easy cleanup and maintenance.

SPECIFICATIONS

Length:.......... 67.50" (1750 mm) Width:........... 65.81" (1672 mm) **Height:** 69.02" (1753 mm) **Net Weight:**. 1650 lb (749 kg) **Motor:**.....5 or 10 HP (3.7 or 7.5 kW)



Cutting zones are completely separate from mechanical zones. Rounded tube frame contributes to sanitary design and eases cleaning.

DIVERSACUT 2110A® DICER WITH DISCHARGE CONVEYOR

CONVEYOR VERSION

The DiversaCut 2110A (with Conveyor) Dicer offers a turnkey approach to processors. It accepts a maximum infeed product of 10" (254 mm) in any dimension and offers cost savings by eliminating the need to precut products. The built-in conveyor guarantees a successful transfer point to maximize product quality and improve yield. The conveyor facilitates batch processing into totes or onto conveying systems or platforms. The new machine also eases routine servicing by maintaining the machine at floor level.

The dicer is equipped with a 5 HP (3.7 kW) motor and 1/4 HP (.19 kW) conveyor motor. The machine features continuous operation for uninterrupted production and is designed for easy cleanup and maintenance. The tight proximity of each cutting station in relation to the next creates a compact cutting zone. This results in precision cuts as the product moves throughout the process.



SPECIFICATIONS

Length:......... 69.04" (1754 mm) **Width:**............ 84.66" (2150 mm) **Height:** 68.85" (1749 mm) **Net Weight:** 2025 lb (919 kg) **Motors:** 5 HP (3.7 kW),

1/4 HP (.19 kW) Discharge Conveyor

TYPES OF CUTS

www.urschel.com

Flat or Crinkle Slices: 1/16 – 1" (1.6 – 25.4 mm)

Dices/Crumbles/Strips: 2- and 3-dimensional cutting involves adjusting the slice thickness and using the required circular or crosscut spindles.

Circular Knife Cuts: 1/8 – 3" (3.2 – 76.2 mm)

Crosscut Knife Cuts: 3/32 – 3-1/2" (2.4 – 88.9 mm)

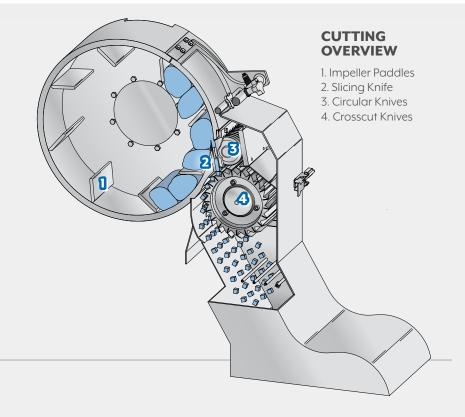
Crosscut Knife Crinkle Cuts:

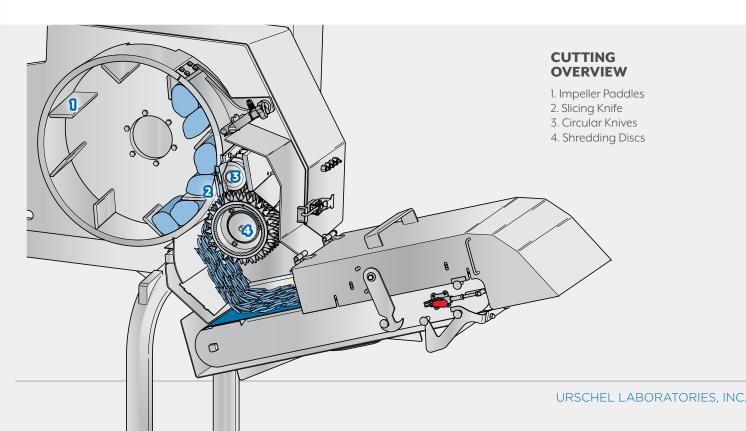
(.076" depth): 9/32 – .583" (7.1 – 14.8 mm)

Crosscut Knife Deep Crinkle Cuts: (.125" - .145" depth): 3/8 - 1/2" (9.5 - 12.7 mm)

Crosscut Knife V-Cuts: 5/16 – 1/2" (7.9 – 12.7 mm)

Shreds: Fine, medium, and coarse shreds can be produced on hot or chilled cooked meat products by using shredding disc spindle in place of the crosscut knife spindle.





The BB DiversaCut line of dicers includes the DiversaCut 2110A Dicer, the DiversaCut Sprint Dicer, and the Sprint 2 Dicer. Each DiversaCut features sanitary design, simple operation, and ease of maintenance.

The Sprint 2 with Conveyor and the DiversaCut Sprint® Dicer are individually available in an NSF (National Sanitation Foundation) International certified version.

The Sprint models offer small to mid-range processors efficiency and flexibility in a stainless steel, sanitary design. Each model accepts a maximum infeed product of 6.5" (165 mm) in any dimension. Similar to other models in the DiversaCut line, Sprint models offer 1-, 2-, or 3-dimensional cutting.

SPRINT 2 DICER

MID-SIZE HIGH CAPACITY DICER 2 MODELS: STANDARD OR WITH CONVEYOR

The Sprint 2 Dicer accepts a maximum infeed product of 6.5" (165 mm) in any dimension. May come equipped with VFD or with soft start in a 3 HP (1.5 kW) motor, or the cost-effective option of a 1.5 HP (1.1 kW) soft start. Features continuous operation for uninterrupted production.

The Sprint 2 Dicer with built-in discharge conveyor offers optimized, controlled complete discharge of cut product to reduce waste. Features continuous operation for uninterrupted production.



SPECIFICATIONS

Length:......70.31" (1786 mm) Width:.....58.30" (1481 mm) **Height:** 60.95" (1548 mm) **Net Weight:** 1000 lb (454 kg) Motor: 3 HP (2.2 kW) with VFD, 3 HP (2.2 kW) with soft start, or 1.5 HP (1.1 kW) with soft start



DIVERSACUT SPRINT[®] DICER

HIGH PERFORMANCE SMALL DICER

The ^{BB} DiversaCut Sprint Dicer is a high performance dicer. Efficiency and flexibility are key traits of the Sprint. The compact machine size combined with the ease of switching over from one cut size or type to another deliver flexibility.

TYPES OF CUTS

Slices

Flat slices: 1/16 – 1" (1.6 – 25.4 mm) **Crinkle slices:** 1/8 – 1" (3.2 – 25.4 mm)

Dices/Crumbles/Strips

Circular knife cuts: 1/8 – 3" (3.2 – 76.2 mm) **Crosscut knife cuts:** 3/32 – 1" (2.4 – 25.4 mm)

Crosscut knife crinkle cuts: 9/32 – 9/16" (7.1 – 14.3 mm)

SPECIFICATIONS

Length:.....53.82" (1367 mm) **Width:**.....54.33" (1380 mm) **Height:**65.59" (1666 mm) **Net Weight:**...860 lb (390 kg) **Motor:** 1.5 HP (1.1 kW)

TYPES OF CUTS

Flat or Crinkle Slices: 1/16 – 1" (1.6 – 25.4 mm)

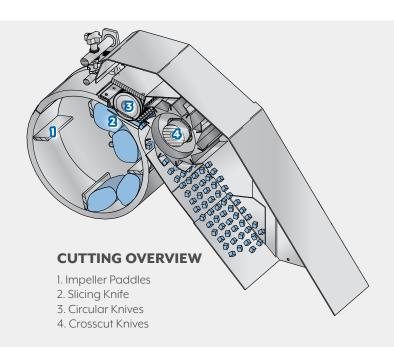
Dices/Crumbles/Strips:

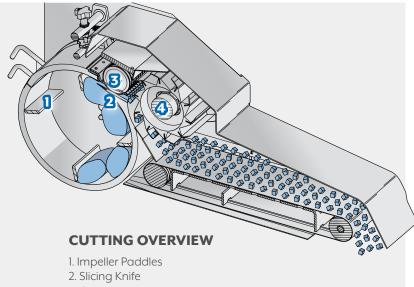
2- and 3-dimensional cutting involves adjusting the slice thickness, and using the required circular or crosscut spindles.

Circular Knife Cuts: 1/8 – 3" (3.2 – 76.2 mm) **Crosscut Knife Cuts:** 3/32 – 1" (2.4 – 25.4 mm) Crosscut Knife Crinkle Cuts: (.076" depth): 9/32 – 9/16" (7.1 – 14.3 mm)

Crosscut Knife Deep Crinkle Cuts: (.125 - .145" depth): 3/8 – 1/2" (9.5 – 12.7 mm)

Shreds: Fine, medium, and coarse shreds can be produced on hot or chilled cooked meat products by using shredding disc spindle in place of the crosscut knife spindle.





3 HP (2.2 kW) with soft start

- 3. Circular Knives
- 4. Crosscut Knives

CUTTING OVERVIEW 1. Impeller Paddles 2. Slicing Knife 3. Circular Knives 4. Crosscut Knives

The RRAffinity line sets itself apart with the ability to process high-fat, cold-temperature and otherwise normally difficult products. The advantage is in the additional feed assistance via the feed roll and feed drum as the product transitions throughout the cutting zone.

AFFINITY

DICER

ROBUST, HEAVY-DUTY DICER WITH FEED ASSIST

The [¥]Affinity Dicer is manufactured in different models — standard and built-in conveyor versions are shown.

The built-in conveyor assists in feeding and orientation of product. The standard Affinity accepts in-feed of products up to 7" (178 mm), while the built-in conveyor version accepts in-feed 7" (178 mm), or up to 10" (254 mm) in largest single dimension depending on product. Large product infeed combined with a powerful 25 HP (18 kW) motor achieves maximum capacity.

TYPES OF CUTS

Flat Slices: 1/8 – 3/4" (3.2 – 19.1 mm)

Dices/Crumbles/Strips: 2 and 3-dimensional cutting involves adjusting the slice thickness and using the required circular or crosscut spindles.

Circular Knife Cuts: 1/8 – 2" (3.2 – 50.8 mm) **Crosscut Knife Cuts:** 1/8 – 2" (3.2 – 50.8 mm)

Shreds: Fine, medium, and coarse shreds can be produced on hot or chilled cooked meat products by using shredding disc spindle in place of the crosscut knife spindle.

- 2. Impeller Paddles
- 4. Feed Roll
- 5. Feed Drum
- 6. Circular Knives
- 7. Crosscut Knives



SPECIFICATIONS

AFFINITY DICER

Length:.....60.33" (1533 mm) **Width:**.....62.52" (1588 mm) **Height:**69.64" (1769 mm) **Net Weight:** ... 2800 lb (1270 kg) **Motors:**5 HP (3.6 kW); 25 HP (18 kW)

AFFINITY DICER WITH CONVEYOR INFEED

Length:.....66.47" (1688 mm) Width:.....62.52" (1588 mm) Height:69.65" (1769 mm) **Net Weight:**...2800 lb (1270 kg) **Motors:**1/6 HP (.12 kW); 5 HP (3.6 kW);

25 HP (18 kW)

AFFINITY INTEGRA DICER

midrange dices to another level.

PROCESSING DIFFICULT-TO-CUT PRODUCTS

Similar to the Affinity dicer, the smaller Integra excels at processing challenging, difficult-to-cut applications such as cheese or soft meats, meats with high-fat content, cold temperature products, sticky bakery ingredients, or products like brined pickles. In addition to prevailing over challenging throughputs, the clean-cutting action achieves high yields of precise, targeted cut sizes well within customer parameters. The §Affinity Integra Dicer accepts infeed product up to 4.75" (120 mm). Outfitted with a 10 HP (7.5 kW) motor.

TYPES OF CUTS

Slices:

Flat Slices: up to 1/2" (12.7 mm)

Dices/Granulations/Crumbles:

A slicing knife, circular knife spindle, and crosscut knife spindle are used for dicing. Changing the dice size is done by adjusting the slice thickness and cutting spindles as needed.

Circular Knife Cuts: 1/8 – 2-1/2" (3.2 – 63.5 mm) **Crosscut Knife Cuts:** 1/8 – 1-1/2" (3.2 – 38.1 mm)

Strip Cuts/Shreds:

Flat strips can be made by removing either the crosscut knife spindle or the circular knife spindle. Combinations of circular knives or crosscut knives can be used to shorten the length of the strips.

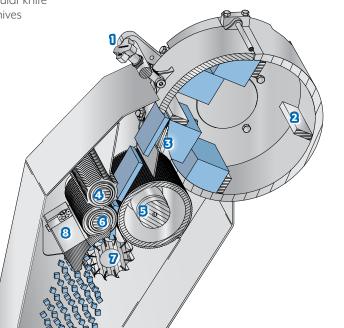
CUTTING OVERVIEW

- 1. Slice Adjustment Knob
- 2. Impeller Paddles
- 3. Slicing Knife
- 4. Feed Spindle
- 5. Feed Drum
- 6. Circular Knives
- 7. Crosscut Knives
- 8. Stripper Plate



SPECIFICATIONS

Length:......55.98" (1422 mm) **Width:**.....54.05" (1373 mm) **Height:**70.97" (1803 mm) **Net Weight:** ...1500 lb (680 kg) **Motor:**.....10 HP (7.5 kW)



The Affinity Integra® Dicer delivers small to mid range sized cuts. A slightly scaled down version of the bigger, original

Affinity, this dicer incorporates design elements from the long standing RA series and the Affinity. The Integra is designed to replace inline RA series machines offering processors a beneficial upgrade with a larger infeed, larger impeller case, newer

design, increased sanitation, and potentially 20 to even 50 percent higher capacities. The Integra takes heavy-duty small to

CUTTING OVERVIEW

1. Adjustable Slice Gate

3. Slicing Knife

8. Stripper Plate

The entire Affinity line provides sanitary design. The food zone is completely separated from the mechanical zone. Hinged access panels ease maintenance and washdowns, and offer full access to conveniently changeover parts.

AFFINITY® CD-L DICER

DICER, GRANULATOR, STRIP CUTTER

The new Affinity® CD-L Dicer produces uniform dices in the small to intermediate size range. The CD-L combines the utility of Urschel Models CD-A and L-A, plus working design elements from the Affinity Integra® Dicer. Processors replacing Model L-A's with the CD-L achieved more than twice the capacity.

Feed spindle, feed drum, and 5 HP (3.7 kW) motor work effectively with the cutting components in the successful processing of dried fruits and other products. Optional integrated oil spray system lubricates circular knives to assist in the processing of sticky products. Simple operation at the push of a button with high and low speeds. The dicer features continuous operation and is designed for easy cleanup and maintenance. Maximum infeed product should not exceed 1/2" (12.7 mm) depending on the compressibility of the product.

TYPES OF CUTS

DICES/STRIPS/GRANULATIONS

2-dimensional cutting is achieved by using the appropriate circular and crosscut spindle set-up.

3. Circular Knives

4. Crosscut Knives

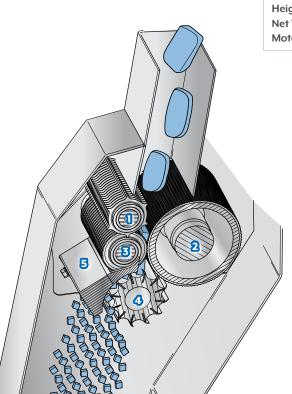
5. Stripper Plate

Circular Knife Cuts:

1/8 - 2" (3.2 - 50.8 mm)

Crosscut Knife Cuts:

1/8 – 1-1/2" (3.2 – 38.1 mm)



SPECIFICATIONS

. 42.25" (1073 mm) Length: . 45.89" (1166 mm) Height: . 67.53" (1715 mm) 1100 lb (499 kg) Net Weight:.... ..5 HP (3.7 kW) Motor:

The belt-fed ^{††}TranSlicer[®] line offers different cutting wheel configurations to produce a full gamut of slices and shreds. Feed belts synchronize with the cutting wheel for proper forward movement and cutting accuracy. Mechanical zone completely separate from the cutting zone. Hinged and sliding access panels, and sloped surfaces assist in sanitation and maintenance. With the smallest footprint in this line, the E TranSlicer® Cutter uses interchangeable 20" (508 mm) diameter cutting wheels and is ideally suited for elongated vegetables, fruits, bakery items, and cooked meats. Options include foldable prep table and remote stop (both shown).

🔀 The E TranSlicer Cutter is available in an NSF (National Sanitation Foundation) International certified version.

E TRANSLICER® **CUTTER**

SPECIALIZING IN ELONGATED PRODUCTS

The ^{††}E TranSlicer accepts firm products up to 4" (101.6 mm) in diameter and leafy-type, compressible products up to 6" (152.4 mm) in diameter. Optional static hold-down, nonpowered top belt, or powered top-belt holddown assemblies are available to maintain positive feeding assistance.

Interchangeable stainless steel cutting wheels include: slicing wheel, patented ^BMicroSlice [®] wheel. and julienne wheel. The number, placement, degree of pitch, and type of knives coordinate with the cutting wheel and feed belt speed to determine the size of cut. The unique MicroSlice delivers ultra-thin slices for popular applications such as cassava and taro chips. The machine features continuous operation for uninterrupted production.

TYPES OF CUTS

A. SLICING WHEEL

Flat & Crinkle Slices: 1/32 – 3" (.8-76.2 mm) Crinkle slices have 4-2/3waves per inch and with a crinkle depth of 1/16" (1.6 mm).

B. MICROSLICE® WHEEL

Flat Slices: .020 – .240" (.5 – 6 mm)

Crinkle Slice: .069" (1.8 mm) thickness with 3-1/3 waves per inch and a crinkle depth of .080" (2.0 mm)

Oval Shred: This shred has an ovalshaped cross section measuring approximately .125" (3.2 mm) thick by .250" (6.4 mm) wide.

Julienne Strips: A wide range of julienne strips can be made from firm products.

C. JULIENNE WHEEL

Julienne cuts ranging from $1/2 \times 1/2$ " (12.7 x 12.7 mm) to 2 x 2" (50.8 x 50.8 mm)

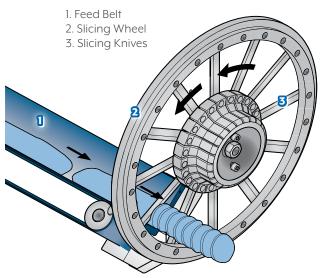


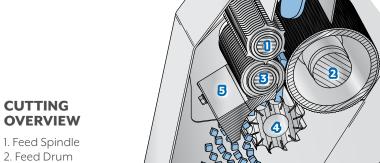
SPECIFICATIONS

Length:	.100.78" (2560 mm)
	.117.26" (2978 mm)
	with prep table
Width:	.35.31" (897 mm)
Height:	.61.79" (1569 mm)
	.66.36" (1686 mm)
	with remote stop
Net Weight:	.1300 lb (560 kg)

Cutting Wheel Motor: 3 HP (2.2 kW) Feed Belt Motor: 1 HP (.75 kW)

CUTTING OVERVIEW





The M6 and 19-A are both belt-fed, two-dimensional dicers. Each offers stainless steel contact parts.

The M6 offers hinged access panels and alternate gearing for heavy duty applications.

The OC is a 1-dimensional belt-fed slicer that produces unique bias slices of elongated products

The N features a simple operation to obtain granulations of a wide range of bakery products.

MODEL M6 2-DIMENSIONAL DICER

SPECIFICATIONS

Length:..........119.03" (3023 mm)

Width:.....33.48" (850 mm)

Height: 50.37" (1280 mm)

(3.7 or 5.6 kW)

Net Weight: 1642 lb (745 kg)

Motor:......5 or 7.5 HP

The M6 Dicer accepts infeed product up 1" (25.4 mm) in thickness. Equipped with a either a 5 HP (3.7 kW) or a 7.5 HP (5.6 kW) motor, the two-dimensional cutter produces dices, strips, or shreds through a wide range of sizes from product of a predetermined thickness.

TYPES OF CUTS

BELT-FED.

Dices: Many sizes of cuts are possible by combining the various selections of circular knife spacings with different crosscut knife spindles.

Circular knives:

3/16 – 1-1/2" (4.8 – 38.1 mm)

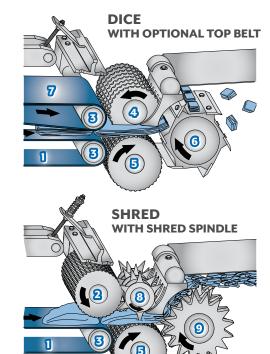
Crosscut knives: 1/8 – 3" (3.2 – 76.2 mm) standard sizes, up to 5.66" (144 mm) available with alternate gearing.

Strips: Strip cuts can be made by removing the crosscut knife spindle from the machine. The length and thickness of the strips will depend upon the size of the original product.

Shreds: Different shredding set-ups are available. Due to variables in applications, it is highly recommended that processors work with Urschel Laboratories to achieve optimum results.

CUTTING OVERVIEW

- 1. Feed Belt 2. Feed Roll
- 3. Drive Roll
- 4. Circular
- Knives 5. Rotating Feed Drum
- 6. Crosscut Knives
- 7. Top Belt
- 8. Shred Spindle
- 9. Shred Discs



MODEL 19-A

BELT-FED DICER AND STRIP CUTTER

The Model |9-A produces dices or strip cuts from various products including bakery/snack products, spinach, greens, peppers, citrus peel, celery, broccoli, parsley, and frozen-tempered meats.

When feeding a firm product using the Model 19-A equipped with standard parts, maximum infeed thickness is 3/8" (9.5 mm). When feeding a firm product using the Model 19-A equipped with an optional feed roll, maximum infeed thickness is 1/2" (12.7 mm). The Model 19-A will also accept thicker products depending on the product's degree of compressibility. The machine features stainless steel product contact parts, continuous operation for uninterrupted production, and is designed for easy cleanup and maintenance.

TYPES OF CUTS

Circular knives: 3/16 – 3" (4.8 – 76.2 mm)

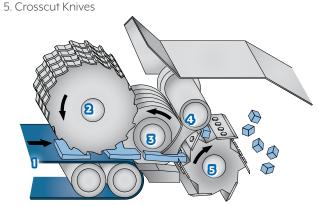
Crosscut knives: 3/16 – 3" (4.8 – 76.2 mm)

SPECIFICATIONS

Length:........99.08" (2517 mm) Width:.....44.34" (1126 mm) **Height:** 61.92" (1573 mm) **Net Weight:** 930 lb (420 kg) **Motor:**.....5 HP (3.7 kW)

CUTTING OVERVIEW

- 1. Conveyor Belt
- 2. Feed Roll
- 3. Circular Knives
- 4. Stationary Feed Plate



MODEL OC

CROSSCUT BIAS SLICER

The Model OC specializes in crosscut bias slicing of elongated products including bread, carrots, celery, okra, and plantain. The machine offers a variety of slice options, continuous operation for uninterrupted production, and simplified design for easy cleanup and maintenance. The OC accepts products up to 2.5" (63.5 mm) in diameter or width.

SPECIFICATIONS

Net Weight:.....770 lb (349 kg)

Feed Belt Motor: 3/4 HP (.56 kW)

.117.04" (2973 mm)

.35.08" (891 mm)

.44.70" (1135 mm)

.3 HP (2.2 kW)

Lenath:

Width:

Height:

Motor:..

TYPES OF CUTS

Bias Flat Slices & Bias **Crinkle Slices:**

Wide range from 1/16 – 1-3/4" (1.6 – 44.5 mm)

Bias Flat Slices When Specially Equipped With a MicroSlice® Wheel:

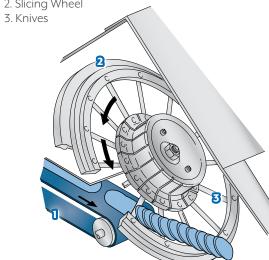
.030 - .120" (.8 - 3 mm). Consult factory. Requires certified print.

45-Degree Angle Cutting

Model OC-45 is also available to slice at a 45-degree angle.

CUTTING OVERVIEW

1. Conveyor Belt 2. Slicing Wheel



MODEL N

GRANULATOR. **SLITTER, & SCARIFIER**

The Model N granulates nuts, cookies, and crackers, and scarifies frozen or dehydrated vegetables

or fruits such as blueberries, cranberries, raisins, and peas. An adjustable gate, feed roll, and stripper plate accommodate changes in graded product size. By cutting the product, instead of hammering or chopping, fewer fines are produced and tighter product specifications are achieved.

The Model N features simplified operation for uninterrupted production, and is designed for easy cleanup and maintenance. Readjusting gate, stripper plate, and feed roll for additional passes to obtain smaller particle sizes is easily accomplished depending on desired end product dimension.

TYPES OF CUTS

Granulations

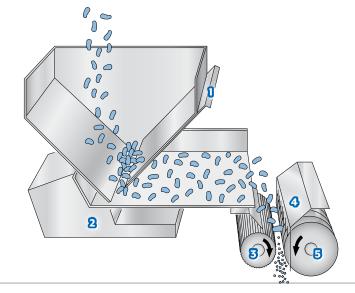
3/32 - 3/8" (2.4 - 9.5 mm)

CUTTING OVERVIEW

- 1. Adjustable Gate
- 2. Vibratory Feeder
- 3. Adjustable Feed Roll
- 4. Adjustable Stripper Plate
- 5. Circular Knives

SPECIFICATIONS

Height: 30.21" (767 mm) **Net Weight:** ... 450 lb (204 kg)



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The Model 1700 accommodates the three different styles of 6" (152.4 mm) diameter reduction heads. Recommended for free-flowing dry and semi-dry product applications including textured vegetable protein, peanut butter,

chicken slurries, surimi, baby food, and other products. This model is the most widely sold Comitrol.

COMITROL® PROCESSOR MODEL 1700

ALLOWS THE MOST VERSATILITY

The Comitrol Processor Model 1700 offers the most versatility in the Comitrol line capable of using any of the three styles of reduction heads and a variety of infeed options. Product input is dependent on the style of reduction head, impeller selection, and spacing within the head. Generally, maximum input size in any dimension should not exceed:

Cutting Head: 2-1/2" (63.5 mm) Microcut Head & Slicing Head: 3/8" (9.5 mm)

Slices: .020 – .060" (.5 – 1.5 mm)

Sealed enclosure deters escape of dust, vapor, and liquid when the Comitrol Processor is installed in conjunction with a collection system. Stainless steel construction ensures maximum durability and sanitation.

The machine features continuous operation for uninterrupted production, and is designed for easy cleanup and maintenance.

Offers the smallest in particle sizes

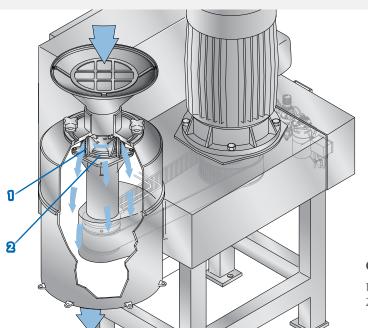
from .0012 – .0237" (.03 – .6 mm)



SLICING HEAD: MICROCUT HEAD:



Offers sizes from .010 – 1.5" (.254 – 38.1 mm)



SPECIFICATIONS

Length:	. 49.62" (1260 mm)
Width:	. 34.62" (879 mm)
Height:	. *70.12" (1781 mm)
Net Weight:	. 1100 lb (499 kg)
Motor:	. 15, 30, or 40 HP (11.2, 22.4, or 30 kW)

*Usual height with 40 HP motor. This height will vary depending on horsepower and motor manufacturer.

CUTTING OVERVIEW

1. Impeller

2. Reduction Head

The Model 1500 utilizes Microcut 6" (152.4 mm) diameter style reduction heads. Recommended for specific applications where refining or finishing of free-flowing liquids or viscous slurries is desired.

The Model 3000 employs 6" (152.4 mm) diameter Cutting Heads.

This model focuses on high moisture content applications.

COMITROL® PROCESSOR MODEL 1500

LIQUID & FINISHING APPLICATIONS

The Comitrol Processor Model 1500 is specifically designed for viscous and liquid product applications including finishing. Product input is dependent on the style of reduction head, impeller selection, and spacing within the head. Generally, maximum input size in any dimension should not exceed 3/8" (9.5 mm).

The Model 1500 is equipped with the microcut cutting head and corresponding impeller to process a variety of products including fruit nectars, soy beans, tomato catsup, barbecue sauce, vegetable purees, beverage concentrates, and creams and ointments. The machine features continuous operation for uninterrupted production, and is designed for easy cleanup and maintenance.

SPECIFICATIONS

Length:......51.90" (1318 mm) **Width:**.....33.03" (839 mm) Height:*72.17" (1833 mm) **Net Weight:** 1100 lb (499 kg) **Motor:**.....15, 30, or 40 HP (11.2, 22.4, or 30 kW)

*Usual height with 40 HP motor. This height will vary depending on horsepower and motor manufacturer.

COMITROL® PROCESSOR MODEL 3000

HIGH MOISTURE CONTENT APPLICATIONS

The Comitrol Processor Model 3000 is ideally suited for milling products with a high-moisture content such as whole kernel sweet corn, cooked meats, and vegetables. Product input is dependent on the style of reduction head, impeller selection, and spacing within the head. Generally, maximum input size in any dimension should not exceed 2-1/2" (63.5 mm).

The two-piece enclosure simplifies disassembly, cleaning, and care of the cutting parts. The machine features continuous operation for uninterrupted production, and is designed for easy cleanup and maintenance.

SPECIFICATIONS

Length:......51.69" (1313 mm) **Width:**.....32.92" (836 mm) **Height:***71.75" (1822 mm) **Net Weight:** 1100 lb (499 kg) Motor:.....15, 30, or 40 HP (11.2, 22.4, or 30 kW)

*Usual height with 40 HP motor. This height will vary depending on horsepower and motor manufacturer.

TYPES OF CUTS

MICROCUT HEAD:

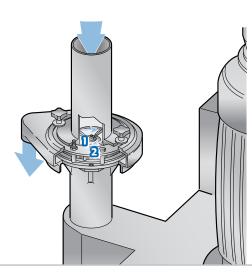
Offers the smallest in particle sizes from .0012 - .0237" (.03 - .6 mm)



CUTTING OVERVIEW

1. Impeller

2. Microcut Head



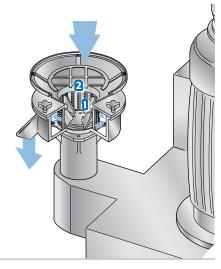
TYPES OF CUTS

CUTTING HEAD:

Offers sizes from .010 - 1.5" (.254 - 38.1 mm)

CUTTING OVERVIEW

1. Impeller 2. Cutting Head



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22 COMITROL® PROCESSOR LINE COMITROL® PROCESSOR LINE

The Comitrol Processor Model 9300 is equipped with the 12" (304.8 mm) diameter Microcut Head and is available in a pump-fed or screw-fed model. This ample-size Microcut Head combined with up to 200 HP (149.1 kW) powerful motor creates the ultimate in particle size reduction in terms of precision output and highest capacity.

COMITROL® PROCESSOR MODEL 9300

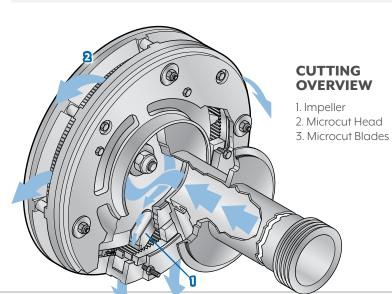
HIGH CAPACITY CONTROLLED PARTICLE SIZE REDUCTION

The Comitrol Processor Model 9300 is recommended for particle size reduction when the final product will be a slurry, paste, or liquid. Equipped with a 12" (304.8 mm) Microcut Head and impeller, the 9300 is designed for one-pass size reduction.

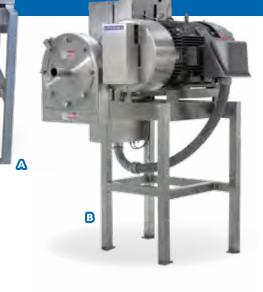
Widely sold for applications including nut milks, fruit purees, baby food, nut butters, polymers, vegetable juices, meat, poultry, meat/poultry byproducts, soy bean reductions, and to reduce active pharmaceutical ingredients. Choose between the 9300 equipped with a screw feeder or the pump-fed version.

Generally, maximum input size in any dimension should not exceed 3/8" (9.5 mm). Both models feature continuous operation for uninterrupted production, and are designed for easy cleanup and maintenance.

MICROCUT HEAD: 12" (304.8 mm) Diameter Microcut Head



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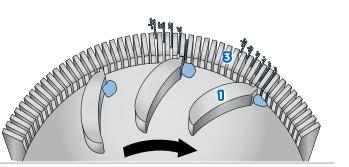
SPECIFICATIONS

A. MODEL 9300 WITH FEEDER

Length:	105.00" (2667 mm)	
Width:	60.84" (1545 mm)	
Height:	94.00" (2388 mm)	
Net Weight:	3900 lb (1769 kg)	
Motors:		
	(112 or 149.1 kW)	
Screw feeder: 2 HP (1.5 kW)		

B. MODEL 9300

Length:	64.57" (1640 mm)
Width:	60.84" (1545 mm)
Height:	94.00" (2388 mm)
Net Weight:	3600 lb (1633 kg)
Motor:	150 or 200 HP
	(112 or 149.1 kW)

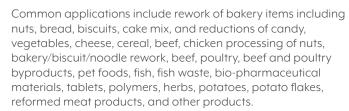


The Model 3600F and various 3600 Slant models are popular in both small volume and large-scale production environments. All of these rely on 6" (152 mm) diameter Cutting Heads. The 3600 Slant and 3600F both offer a 10 HP (7.5 kW) motor. In addition, the 3600F also is equipped with a screw feeder for positive feeding. For increased capacity, turn to either the 3640, 3660, or 3675 slant models (view www.urschel.com for additional specifications). Processors benefit from the wide selection of cutting heads and impellers for diverse applications such as chopping, flake cutting, granulating, pureeing, and emulsifying. The 3600 series is often used in conjunction with other Comitrol models as a precutter in tandem with a Microcut Head-equipped model Comitrol processor. Machines featured below all feature continuous operating for uninterrupted production, and are designed for easy cleanup and maintenance.

COMITROL® PROCESSOR MODELS 3600 SLANT, 3640 SLANT, 3600F, AND 3640F

SMALL VOLUME TO HIGH CAPACITY ENVIRONMENTS

These machines offer a compact size ideal for small volume to high capacity production environments. Different size motors support a wide array of production lines — from a 10 HP (7.5 kW) up to a 75 HP (56 kW). The 3600F comes equipped with a screw feeder controlled by a VFD (variable frequency drive) for positive feeding assistance.



Product input is dependent on the style of reduction head, impeller selection, and spacing within the head. Generally, maximum input size in any dimension should not exceed 2-1/2" (63.5 mm).

TYPES OF CUTS

CUTTING HEAD:

Offers sizes from .010 – 1.5" (.254 – 38.1 mm)



SPECIFICATIONS

A. MODEL 3600 SLANT

Length: 35.69 (907 mm)
Width: 29.21" (742 mm)
Height: 38.64" (981 mm)
Net Weight: 400 lb (181 kg)
Motor: Impeller 10 HP (7.5 kW)

B. MODEL 3640 SLANT D

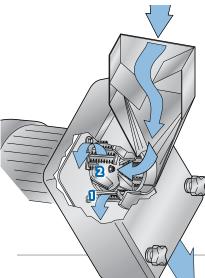
Length: 51.30" (1303 mm)
Width: 40.98" (1041 mm)
Height: 62.43" (1586 mm)
Net Weight: 1196 lb (542 kg)
Motor: Impeller 40 HP (29.8 kW)

Length: 61.18" (1554 mm)
Width: 32.13" (816 mm)
Height: 69.41" (1763 mm)
Net Weight: 800 lb (363 kg)
Motors: Impeller 10 HP (7.5 kW),
Screw Feeder 2 HP (1.5 kW)

D. MODEL 3640F

C. MODEL 3600F

Length: 82.25" (2089 mm)
Width: 48.00" (1219 mm)
Height: 69.27" (1759 mm)
Net Weight: 1850 lb (840 kg)
Motors: Impeller 40 HP (29.8 kW),
Screw Feeder 2 HP (1.5 kW)



CUTTING OVERVIEW

< MODEL 3600 SLANT

1. Impeller

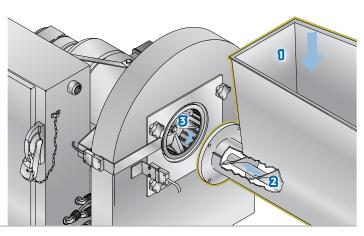
2. Cutting Head

MODEL 3600F >

1. Feed Hopper

2. Screw Feeder

3. Cutting Head



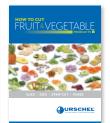
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DELIVERING TARGETED CUTTING SOLUTIONS AROUND THE WORLD

















Urschel continues to develop new cutting methods by working closely with our customers. This brochure contains a range of Urschel cutting capabilities, and we are always open to new challenges. In addition to the machines in this brochure, view even more Urschel cutting machinery at www.urschel.com.

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- th TranSlicer series cutters and may contain parts protected by U.S. Patent nos. 6148702, 6460444, 6792841, 6920813, 8104391, and European and other foreign patents.
- ß The MicroSlice Wheel may contain parts protected by U.S. Patent nos. 6148709, 7178440, 7721637, 8033204, and European and other foreign patents.
- 38 The DiversaCut 2110A Dicer may contain parts protected by U.S. Patent No. 6883411, and European Patent No. FP1377415.
- ‡‡ The Model CC series may contain parts protected by U.S. Patent nos. 6968765, 7270040, 7314353, 7658133, 8161856, 9193086, 9469041, D701366, D701670, D701671, D701672, D702417, D704919, D706017, D711068, D717516, D716522, D716523, D723244, and European and foreign patents.
- Y Affinity Dicers may contain parts protected by U.S. Patent nos. 6883411, 9296119, D760992, and European and foreign patents.
- § Affinity Integra Dicers may contain parts protected by patent nos. 6883411, 9296119, 9604379, and 9855669.
- The DiversaCut 2110A, DiversaCut Sprint, Sprint 2, and E TranSlicer are available in NSF (National Sanitation Foundation) International specific certified versions.
 - Affinity, Affinity Integra, Comitrol, DiversaCut, DiversaCut 2110A, DiversaCut Sprint, E TranSlicer, Flat-V, MicroAdjustable, MicroSlice, Sprint 2, The Global Leader in Food Cutting Technology, the Urschel logo symbol, TranSlicer, and Urschel are registered trademarks of Urschel Laboratories, Inc. U.S.A.
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