#### Mandako Coulter Options

|                          |              | 8-Wave Wavy / |               |               |              | Soil Razor /      |
|--------------------------|--------------|---------------|---------------|---------------|--------------|-------------------|
|                          |              | 13 Wave - 20" | Notched - 20" | Samurai - 20" | Vortex - 20" | Stickleback - 20" |
| Twister 10/20 series     |              | Х             | Х             | X             | х            |                   |
| <b>Twister 30 Series</b> |              | Х             | Х             | X             | Х            |                   |
| Storm                    |              | Х             | Х             | X             |              | Х                 |
| Thickness(approx.)       |              | 6MM           | 6MM           | 6MM           | 6MM          | 5MM-6MM**         |
| Blade Type               | Straight     | Х             | Х             | X             | Х            |                   |
|                          | Concave      |               |               |               |              | Х                 |
| Agressiveness            | Low          |               |               | X             |              |                   |
|                          | Medium       | Х*            |               |               |              |                   |
|                          | High         | Х*            | х             |               | Х            | Х                 |
| Tillage Practice         | No-Till      | Х             |               |               |              |                   |
|                          | Reduced-Till |               | Х             | X             |              |                   |
|                          | Conventional |               |               |               | Х            | Х                 |
| Residue                  |              | х             |               |               | х            |                   |
| Management               | Good         | ^             |               |               | ^            |                   |
|                          | Better       |               | Х             | X             |              |                   |
|                          | Best         |               |               |               |              | Х                 |
| Soil Conditions          | Dry          | Х             | Х             | X             |              | Х                 |
|                          | Damp/Sticky  | Х             |               | X             |              | Х                 |
|                          | Sandy        | Х             | Х             |               | Х            | Х                 |
|                          | Heavy        |               |               |               |              | Х                 |
| Deep Placement           |              |               |               |               |              |                   |
| Soil Tilth               | Coarse       |               | Х             |               | Х            | Х                 |
|                          | Medium       | Х             |               | X             |              |                   |
|                          | Fine         |               |               |               |              |                   |
|                          | Extra Fine   |               |               |               |              |                   |
| Speed                    | Slow         |               |               |               |              | X                 |
|                          | Medium       |               |               |               | Х            | X                 |
|                          | High         | Х             | Х             | X             |              | Х                 |

\*Aggressiveness is dependent on the angle of tool bars. \*\* May vary with supplier

IMPORTANT: These are general description only. Please note results may vary by field, soil condition, operator, speed, etc.

Some customer may choose to use different style discs from front to rear of machine. While this may provide customers with the results they are looking for, in most cases Mandako does not recommend this as it can cause coverage issues or "gaps" in tillage.

## 13-Wave 20" Diameter R9915001



13 Wave 20"(6mm Thick)

The 13 wave blade is the standard blade used on the Mandako Twister and Storm. A good all around coulter that allows good soil penetration, residue management and tillage. This durable blade would be recommended for machines that operate in a range of soil and residue conditions and for true vertical tillage.

Pros: Good in wide variety of conditions, Durable and can wear down further than most blades due to its design.

Cons: Doesn't move as much dirt as the 8-wave or chop residue as well as the Samurai.

## Vortex 20" Diameter R9915002



Vortex

Vortex coulters work best in sandy soils and light residue. The design of the blade provides soil movement to help cover residue.

Pros: Aggressive soil movement and long life of blade.

Cons: Not ideal in heavy, wet soil or heavy residue.

8-Wave Wavy/Notched 20" Diameter R9915003R(Shown) R9915003-L Directional Installation



8 Wave Notched

The 8 Wave notched is an aggressive blade for soil movement. This strong blade is ideal if you are looking to move soil and cover your residue.

Pros: Great at moving soil and tilling residue even at low angles.

Cons: May clog in wet conditions and may not penetrate well in very hard soil.

#### Samurai w/Serrated Edges 20" Diameter R9915004



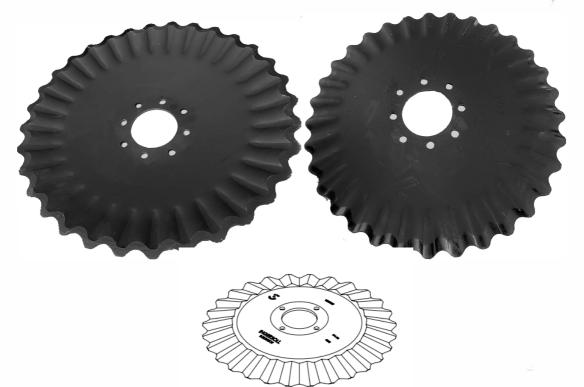
Samurai

The Samurai blade is the sharpest blade we have and comes with serrated edges for the best performance in cutting up stalk. Running the blade at an angle can allow you to size residue, move soil and penetrate hard conditions all in one pass.

Pros: Great at chopping residue and penetrating hard ground.

Cons: Since blade does not have much concavity to it, this blade will not disturb much soil, even when angled.

#### Soil Razor/Stickleback (Concave) 20" Diameter R9915008 \*



Soil Razor/Stickleback

Our Concave blades used on the Storm. Sharp and aggressive and great to penetrate the soil or to use for conventional tillage. Unique flute design means as the cutting edge wears away it maintains its cutting ability.

Pros: Moves soil and good penetration.

Cons: Can not be run at 0 degrees. Toolbar angle needs to be set at about 4 degress to allow concave blades to penetrate the ground.

<sup>\*</sup>Part number may vary with supplier (28 to 32 wave)

# Excalibur 20"Diameter R9915007



#### Excalibur - Limited Quantities

The Excalibur blade is a sharp blade ideal for cutting residue and penetrating the soil. This blade is designed to maintain a sharp edge by wearing on both sides of the blade. While considered a straight blade it does have a slight dish to its design.

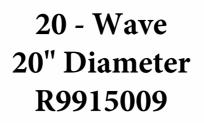
Pros: Great for residue and Penetrating ground.

Cons: Not as aggressive for soil movement as some of the other blades.

13 - Wave 18" Diameter R9915005



See notes on 20" 13- Wave Coulter(18" blade is 5mm thick) Limited Stock





20 Wave

The 20 Wave blade is a non-aggressive blade best used in true vertical till conditions for fracturing the ground.

Pros: Good at fracturing ground and great price point

Cons: Multiple waves means less soil movement.

13-Wave Concave 18" Diameter Inquire



13-Wave Concave (18 inch) - Limited Stock

Our 18 inch concave 13 wave discs have been used on Tilltech Twisters. Tilltech was bought by Mandako and is no longer being manufactured. Mandako is able to cut Tilltech hub hole patterns for all of our coulter blades upon request.

#### Soil Razor/Stickleback 22" Diameter



#### See notes on 20" Soil Razor/Stickleback Out of Stock