

## Attachments ADD as needed for your applications

### Coulters

Coulters lead deep tillage shanks to cut through crop residue, killed cover crop or heavy weed growth to prevent stems and vines from wrapping around shanks. These are typically used on primary or post-harvest tillage equipment to generally cut up residue on the surface. Strip-till or conservation-type applications tend to feature wavy coulters at close, offset spacing to cut up surface organic matter and to mix soil between blades. Mulch Lifters use Coulters, leading the Ripper/Lifter Shanks. Rarely are these needed on row crop equipment. Do not lead S-tines with coulters.

For Beginners: Coulters are flat to cut and track in a straight line through the soil, which can pivot on an 1-1/2" round shank positioned in front of the hub. Disk blades on Hilling Disks are curved/concave for throwing soil and mounted on a shank aligned with the hub to carry the side load from throwing soil. Curved disks are not "Coulters".

Series 213 includes an integrated 18" coulters mounted on a ball-bearing hub. This is a relatively lightweight unit - but heavy and full-featured for Category-1 equipment - with a safety shear bolt.

Series 217 can be used with an 18" or 20" coulters blade, which is sold separately. This is heavy like the spring-cushion Series 291 but with the shear bolt safety feature. Unlike spring-cushion designs, this is more compact, lower priced and can be set-up left or right for customized specialty crop equipment.

Series 291 is the common spring-cushion design for 18" or 20" coulters blades, sold separately. These are most durable for heavy, high-acreage, high-speed farm equipment. Minimum 20" toolbar height. Series 217 and 291 Coulters are available with clamps for larger toolbars.

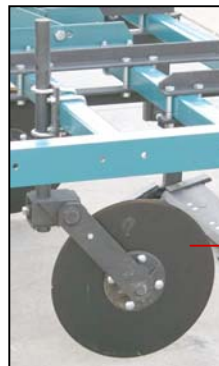
### Guide Disk

The conventional guide disk allows flat-bed cultivators to track without erratic side-shifting, presumably caused by erratic driving. Adjust the tractor 3-point hitch to side-sway, allowing the cultivator to temporarily stay the course until the tractor returns to center.

For beginners: Coulters pivot on round shanks to self-align. Guide Disks are rigid to control the Cultivator.



<b>213 Series</b>	
Coulters Asby, 18", Shear-Bolt & Clamp	
<b>20213</b>	-- for 2" square toolbar
<b>25213</b>	-- for 2-1/2" sq toolbar
Customized mounting for 2337-M Lifter:	
<b>20223</b>	-- for 2" square toolbar



<b>217 Series</b>	
Coulters Arm Asby, Shear-Bolt & Clamp	
<b>20217</b>	-- for 2" square toolbar
<b>25217</b>	-- for 2-1/2" sq toolbar
<b>ADD Coulters Blade</b>	
<b>17252</b>	Coulters Blade, 18" Plain
<b>17551</b>	Coulters Blade, 20" Plain
Wavy Coulters Blades available for coulters gangs	



<b>291 Series</b>	
Coulters Arm Asby, Spring-Cush & Clamp	
recommended for larger toolbar systems	



<b>835 Series</b>	
Guide Disk, 18" Rigid Mount	
<b>20835</b>	-- for 2" square toolbar
<b>25835</b>	-- for 2-1/2" sq toolbar