# SDM & SDH COMPACT DISC CULTIVATORS



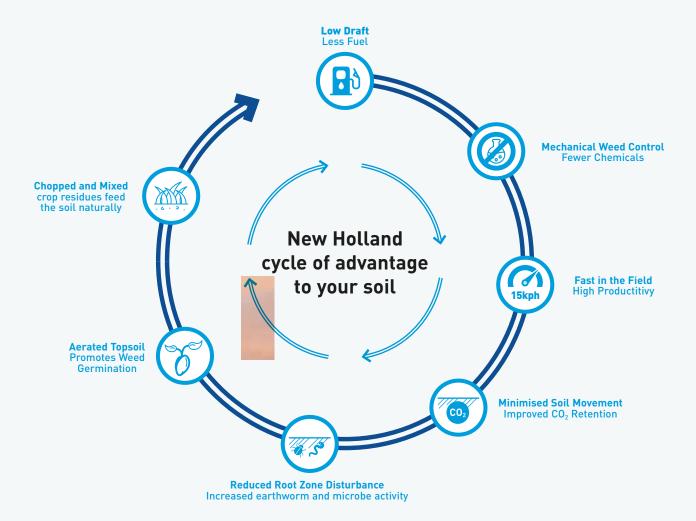


# Engineered for the benefit of your soil.

In addition to proven environmental benefits, soil health is the key to productivity and sustainable profitability. There are a number of systems that can be adopted to help promote good soil health, with minimal tillage having gained in popularity thanks to advances in the design and development of cultivation equipment. New Holland SDM and SDH compact disc cultivators form a part of these

Developed to meet the diverse demands of combinable, forage and root crop producers, New Holland SDM medium-duty and SDH heavy-duty disc cultivators offer tremendous versatility. Engineered to deliver excellent performance across different soils and in varied working conditions, SDM and SDH discs combine economy of operation with high levels of productivity. Key applications include minimal tillage, slug control, over-wintered stubble management, secondary cultivation, crop residue management, post root crop soil levelling and seedbed preparation.





# Why choose a disc cultivator...?

Suitable for use across all types of soil, disc cultivators have a number of advantages:

- Crop residues. Discs chop and mix crop residues into the topsoil without disturbing soil at lower levels
- Root zone moisture retention. By minimising soil disturbance, discing can help conserve moisture by leaving soil under the cultivated surface undisturbed
- Seed ready topsoil. Shallow disc cultivated soils are aerated and can provide an ideal seedbed across a wide range of soils
- Reduced draft. Disc cultivators have a lower draft requirement, reducing fuel use and enabling more ground to be covered at higher working speeds
- **Protection of the root zone.** A disc cultivator mixes crop residues into a shallower depth of topsoil, leaving soil lower down undisturbed
- **Working with nature.** Shallow disc cultivation aerates the topsoil and incorporates the organic matter that feeds worms and other beneficial soil organisms





#### ... why choose New Holland?

Disc cultivators have evolved, with New Holland SDM medium and SDH heavy-duty models meeting the demand for affordable, high performance and versatile cultivators. Designed to operate across a range of soils in hugely variable conditions, the New Holland advantage includes:

- **Simplified choice.** Two distinct ranges, with a choice of model to match available tractor power. Just select the model for your key soil types, working width and your preferred rear roller and that is it
- Ease of set up. Simple adjustments make selecting the working depth fast and accurate. There are no complex settings to remember
- **Robust.** High strength steel chassis, robust disc mounts, maintenance free bearings & inherent weight for effective disc penetration
- Efficiency. Disc angle balanced between optimising soil and crop residue mixing and reduced draft
- Farm proven. Developed following extensive operation across a range of soils, conditions and following all key crop types
- Unrivalled New Holland dealer support



Range		SDM						SDH		
Model		300 R	400	500	500 T	600 T	700 T	300 R	500 T	600 T
Working width	(cm)	300	400	500	500	600	700	300	500	600
Recommended power	(hp)	100 - 110	120 - 160	150 - 200	160 - 220	200 - 260	240 - 320	140 - 170	220 - 280	260 - 360
Disc diameter	(mm)	520	520	520	520	520	520	610	610	610
Working depth	(cm)	3 - 10					6 - 12			



#### SDM- shallow cultivation in varied conditions

Primarily aimed at growers with lighter soils or where there is a reduced need to incorporate high volumes of surface crop residues, New Holland SDM medium-duty disc cultivators are available in working widths from 3.0m to 7.0m. Fitted with notched concave discs, attached to the cultivator chassis via a maintenance free, four-point silent block rubber mount, SDM cultivators are designed to operate accurately at depths of between 3cm to 10cm.

Mounted in tandem, the double row of 520mm discs have the clearance necessary to mix and incorporate lighter crop residues, weeds and applied materials into the topsoil. On both mounted and trailed models a choice of roller options are available to suit a wide variety of soil types.

Trailed SDM 500 T, 600 T and 700 T cultivators can be specified with front mounted blade rollers or soil leveling boards. Blade rollers are developed to aggressively chop dense weeds, cover crops or maize stalks ahead of the discs, the blade rollers feature hydraulic depth control and can be raised out of work when not needed. The optional hydraulic front leveling board is ideal for working in ploughed ground and levels lumps and fills hollows to present a uniform surface for the following discs to operate in.





#### SDH - deeper working, heavier soils, higher residue levels

Offered in 3.0m mounted or 5.0m and 6.0m trailed versions, New Holland SDH heavy-duty cultivators are fitted with 610mm notched discs. SDH models can be worked to depths of between 6cm to 12cm and are suitable for use across all soil types.

A key feature of these models is the extremely robust 80mm by 20mm C spring disc mounts. These allow up to 200mm of vertical movement and can accommodate up to 50mm of lateral movement. In work, this '3D' flexibility allows an individual disc to ride up and over large stones without compromising the working depths of adjacent units. This ensures consistent depth control across the cultivators working width. In addition, the discs suspension enables them to vibrate in work, improving performance in difficult conditions.

Developed to meet the needs of growers tasked with duties to include mixing and incorporating heavy cover crops, maize stubble or applied materials such as farmyard manure, sludge or digestate into the topsoil, SDH models are offered with a choice of rear roller.

# New Holland SDM medium-duty disc cultivators: looking after your soils and budget.

With models from 3.0m to up to 7.0m working width, New Holland SDM medium-duty compact disc cultivators are available to suit farms large and small. The mounted SDM 300 R can be operated behind a tractor of just 100hp, with its simple design and ease of set up delivering easily accessible performance economically. The widest model, the trailed SDM 700 T, is suitable to use behind tractors of between 240hp and 320hp. With low draft relative to its working width, thanks to the shallow concave disc design, wide 250mm disc spacing for good crop residues clearance and low lateral soil throw even at operating speeds of up to 15kph, all models deliver high work rates matched to reduced fuel use.



#### SDM - mounted rigid & folding models

New Holland SDM fully mounted models are available in 3m SDM 300 R rigid design and SDM 400 4m & SDM 500 5m folding configurations. On all folding SDM models, when folded open the wings are pressurised to maintain rigidity and uniform working depth, and maintain continuous weight on each disc.



#### Shallow concave discs

With its shallow concave design, the disc on New Holland SDM cultivators offers key advantages over more traditional designs:

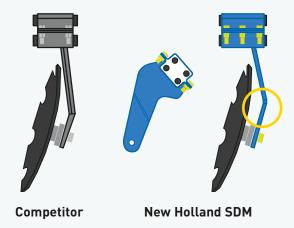
- Improved penetration of hard, dry soils
- Reduced chance of soils sticking within the disc
- Reduced lateral soil throw
- Work at a higher speed with no compromise in levelling

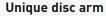
#### SDM T - trailed models

New Holland SDM 500 T, SDM 600 T and SDM 700 T trailed models offer working widths of 5.0m, 6.0m and 7.0m. The CAT 3 drawbar attaches to the tractor lower links via pivoting headstock, the central position of the transport wheels reducing the overall length of the cultivator. The folding outer wings are pressurized in work to ensure uniform depth control. At the headland, the rear roller is powered down to raise the cultivator for faster turns and, by spreading the weight of the cultivator across its entire width, machine stability is increased and ground compaction is greatly reduced.









- SDM models feature a unique disc arm design to provide extra clearance for residue to pass through
- Unlike competitor designs, the SDM arm is shaped to allow the maximum space between the disc and arm
- Suspension is via the proven rubber silent block system allowing 10cm vertical movement
- The arm assembly is secured by a six bolt clamp
- SDM features one disc per arm for maximum contour following ability and robustness
- 17° tilt into work & 7° off vertical disc angle ensures aggressive mixing





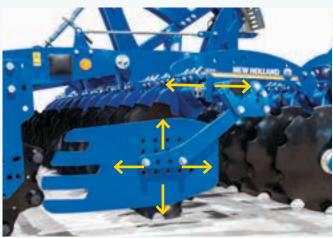
### Maintenance free bearings

- Maintenance free bearings for maximum uptime
- Fully sealed and protected
- Industry leading bearings are used to offer enhanced service life



#### High clearance frame

- SDM cultivators feature an open, slim profile design with generous frame clearance and 800mm disc row spacing
- Crop residue flow is uninterrupted resulting in less chance of residue build up and blockages
- Faster forward speeds are possible in high residue situations
- Less than ideal conditions are less of a challenge



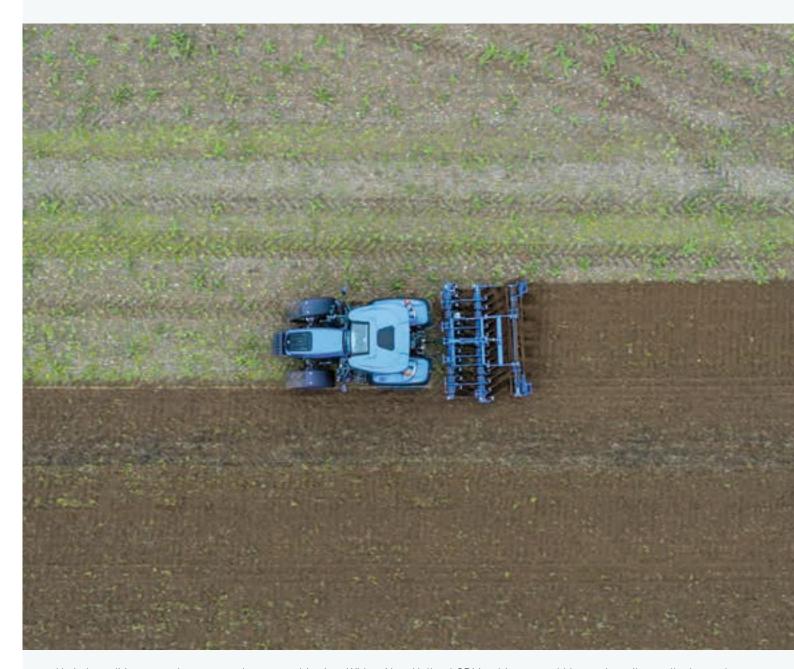
#### Adjustable side panels

- Soil deflector panels control soil throw from the outer discs to leave a quality finish after each pass
- Finger notches allow soil to escape and avoid blockages
- Three dimensional adjustment to suit all soil types and conditions
- Support arm can be set to float or fixed positions

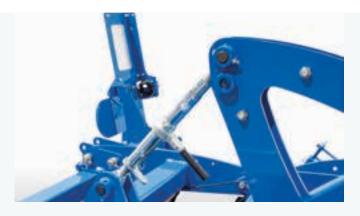
# New Holland SDM medium-duty disc cultivators: the right tool for your business.

New Holland SDM medium-duty disc cultivators are offered with a choice of rear roller. This enables the cultivator to be matched to a range of soil types. Dependent upon model, there is a choice between mechanical or hydraulic depth control, but ease of set-up comes as standard.

A key feature of these SDM medium disc cultivators is how they can be worked at shallow working depths and at speed. This enables operators to have minimised impact upon the soil structure, high work rates enabling the cultivator to be worked quickly within a short time frame. When conditions are right, these affordable cultivators are easy to get into the field to get the job done quickly and economically.



Varied conditions post-harvest can hamper cultivation. With a New Holland SDM cultivator, stubbles and sterile seedbeds can be worked at depths to incorporate varying levels of crop residues, to include maize stubble. By only moving the surface topsoil, the deeper soil structure is not disturbed. This has numerous agronomic and cost saving benefits.



#### Visible depth control

- All mounted SDM models feature a depth gauge visible from the cab
- Depth control on mounted model is via a mechanical turnbuckle or hydraulic cylinder
- SDM working depth ranges from 3cm 10cm accuracy



#### Front gauge wheels

- Front depth control wheels are optional on trailed models
- Consistent and repeatable working depth is achievable across the wider models up to 7m
- Graduated ram spacer clips ensure the wheels are set at the desired height



#### **Consistent pressure**

- Folding models all feature pressurised wings when in work
- Consistent depth control and penetration is guaranteed
- The inherent weight of the frame also helps maintain effective pressure on each disc across the full working width



## SDM T depth control

- SDM 500 T, 600 T & 700 T feature hydraulic depth adjustment as standard on the rear roller
- On the move depth adjustment is possible
- The tractor rear linkage controls the depth of the front of the machine by setting the drawbar height level



#### Variable roller position

- All mounted SDM models feature an adjustable rear roller mounting position
- The distance between the rear roller and discs can be varied by 14cm



#### Front attachments

- All SDM T trailed models can be specified with an optional blade roller or front leveling bar
- Blade roller is designed to knock over standing cover crops and maize stubble, chopping material ahead of the discs for better incorporation
- Front leveling bar levels lumps and fills hollows in ploughed ground ahead of the discs

# New Holland SDH heavy-duty disc cultivators: reduced tillage, long-term benefit.

With models from 3.0m to up to 6.0m working width, New Holland SDH heavy-duty disc cultivators represent a simple but modern approach to sustainable crop production. Designed to operate at sub-soil friendly depths of 6cm to 12cm, there is a choice of three models, the fully mounted SDH 300 R and the trailed SDH 500 T and 600 T. All are fitted with large, 610mm diameter concave discs with an aggressive tilt angle for effective mixing and penetration. Operating speeds of up to 15kph can be achieved with no compromise in levelling or crop residue incorporation.

The mounted SDH 300 R can be operated behind a tractor of just 140hp, its simple design and ease of set up delivering easily accessible performance economically. The widest model, the trailed SDH 600 T, is suitable use behind tractors of between 260hp and 360hp.

A key advantage of the New Holland disc cultivator models is their low draft relative to working width. This, combined with wide 250mm disc spacing for good crop residue clearance ensures all models can deliver high work rates matched to reduced fuel use.



#### Looking after your most precious asset - the soil

The ability to chop and mix crop residues throughout the working depth is a key agronomic benefit of an SDH cultivator. Aerating, mixing and incorporating organic matter into the top few centimetres of soil is proven to aid soil health. Even organic matter distribution promotes microbial and worm activity, so crop residues are broken down faster within the root zone. Overall soil health is also improved as the natural structure of the soil below the cultivated surface is not disturbed.

#### Crop residues mixed in a single pass

A combination of individual 3D disc suspension and generous frame and inter-body clearance enables SDH models to work without blocking in the most challenging conditions. In a single pass, the chopping action of the discs can help incorporate high volumes of trash, the lifting and mixing action of the concave discs helping to incorporate material throughout the cultivated





## **Unique C-Spring suspension**

- All SDH cultivator discs are mounted on a unique heavy duty C-Spring disc arm assembly
- The C shape design is robust and stiff but provides enough movement to deal with tough conditions and obstacles
- C springs allow the discs to move 200mm vertically and up to 50mm laterally for heavy residue situations
- The 3D vibrating spring protects the hub and disc from impacts with stones and obstacles
- The vibrations produced help breakdown the soil and incorporate the residue



#### **SDH 300 R**

- SDH 300 R features a fully mounted, rigid frame design with a 3m working width
- Features the same 610mm discs as the wider trailed SDH models & 6cm - 12cm working depth
- Power requirement is from 140hp and working speed is up to 15kph
- The heavy duty frame and inherent weight of the machine helps soil penetration in tough soils
- Hydraulic folding outer discs reduce transport width to under 3m



### SDH T trailed models

- SDH 500 T & 600 T are available in 5m & 6m working widths
- High workrates are possible at speeds up to 15kph across varied soils and conditions
- Pivoting headstock and CAT 3 lower link connection ensure excellent maneuverability
- During headland turns the rear wheels are powered down to rapidly raise the machine out of work

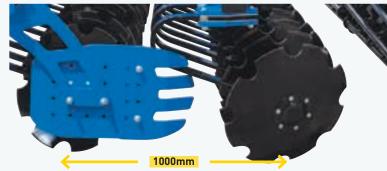


Heavy crop residues, weeds or applied materials can, when worked into the topsoil, be beneficial to overall soil health. The key is to mix material into the soil at levels where aerobic conditions promote decomposition and worm activity. Although well-understood, this practice is not always easy to achieve in the field. With SDH disc cultivators, the shape and spacing of the 610mm notched discs is aggressive. When combined with a high weight per disc for effective penetration of even dry and hard soils, SDH cultivators can deliver excellent results with a reduced chance of blockages thanks to wide clearances across the working width.



#### **Agressive Discs**

- Large aggressive 610mm hardened deep concave discs cope with heavy thrash and maize residue with ease
- Each disc features 8 notches for aggressive penetration in hard soils and to keep turning in difficult conditions
- 22° tilt into work and 10° off vertical for maximum mixing
- 25cm space between each disc for unobstructed material flow in extreme conditions



#### Open frame design

- Generous 1000mm space between disc rows ensures fluid material flow
- Massive under frame clearance of 700mm combined with 200mm vertical disc movement copes with lumps and obstacles with ease
- Disc to roller clearance allows high forward speed without overthrow onto the roller



#### Maintenance free bearings

- 100% maintenance free Cultihub bearings
- Robust design with Duo-cone seals and oil bath lubrication
- Double oblique design ensures higher contact area between the bearing balls and housing for smooth running
- A large test machine was run for over 10,000Ha in extreme conditions with no need for any attention to the disc bearings



# Adjustable side panels

- The side panels retain the soil within the working zone to leave a quality finish without ridges between passes
- Rectangular design captures all the soil thrown from the disc and features multi-directional adjustability
- The arm is mounted on silent block rubber suspension to allow it to follow contours while providing a degree of rigidity
- Finger gaps allow some soil overflow to avoid blockages in difficult conditions



# Quality finish guaranteed

Pressurised wings on SDH 500 T & SDH 600 T trailed models ensure:

- Accurate contour following is provided by the 200mm range of movement on each disc
- Leveling ability is not compromised and the adjustable outer disc ensures no ridges or furrows are left between passes





### Simple depth control

- SDH 300 R depth control is set by regulating the rear roller height hydraulically form the cab
- A clear visual scale lets the operator know the working depth at all times
- Simple pin/hole system is used to set working depth on SDH T models
- The machine is raised off the ground by lowering the transport wheels and setting the pins to the desired height
- Tractor linkage takes care of front depth control

# New Holland compact disc cultivators: consistent depth control. Reliable soil management.

SDH disc cultivators are built to allow fast operation at speeds of up to 15kph. This can be achieved thanks to a number of design features. These include heavy-duty bearings supporting the 610mm diameter discs, robust independent disc suspension and a strong frame with a high clearance to ensure a reduced risk of blockages in extreme conditions.

The build strength of SDH cultivators is part of the design story. New Holland works with growers and soil experts to ensure the entire SDM and SDH range can help improve soil management. By working just the topsoil, these disc cultivators reduce the disturbance of the soil lower down but can still operate at a depth that is sufficient to bury higher levels of crop residue, level the soil surface and improve surface aeration to promote worm activity and microbial action. The discs can also help promote the germination of weed and spilt crop seeds.



### Work to the right depth

When setting up SDH cultivators, it pays to look at the soil in the rootzone both before and following a pass. This approach enables the operation depth to be set to optimise mixing performance whilst also preserving the structure of the soil lower in the rootzone profile. Minimal tillage can help encourage earthworm activity.



#### Generous wheel size

SDM T & SDH T feature large 500/45 R22.5 tyres and are fitted with optional air brakes and are designed to accommodate transport speeds of up to 40kph.





#### Cage roller

- Hollow tubes provide good crumbling and leveling on light
- Roller position can be moved 14cm to bring the weight forward
- SDM features 450mm diameter cage roller
- SDH features 550mm diameter cage roller

# Ring roller

- The 600mm ring roller is extremely versatile and available on mounted and trailed SDH & SDM models
- It is well suited to working in all conditions to include consolidating wet heavy soils
- Designed to leave a soft surface layer, with a more consolidated layer underneath
- Sprung scrapers between the rings reduce blockages
- Soil is not consolidated between the rings so moisture can easily drain through the cultivated soil
- Ring roller leaves an ideal finish for over-wintered ground





#### Single & Double U rollers

- SDM & SDH trailed can be specified with the 560mm Double U roller
- Double U roller is a versatile all-rounder suitable for a variety of soils and has excellent carrying capacity
- The U rings fill with soil and produce a soil on soil contact effect, thereby avoiding capping the surface and causing a
- SDM & SDH mounted models are available with a single U roller

#### Double cage roller

- SDH T trailed models can be specified with a pivoting twin cage roller suitable for heavier soils
- Front 460mm roll is made up of eight hollow tube bars, the rear 430mm unit having solid square bars
- The rollers rotate at different speeds and produce a more aggressive crushing action and finer tilth
- The pivoting feature allows the roller to accurately follow contours and maintain consistent consolidation

Rollers						
SDM	300 R	400	500	500 T	600 T	700 T
	Ring roller Cage roller Single U roller	Ring roller Cage roller Single U roller	Ring roller Cage roller Single U roller	Ring roller Double U roller	Ring roller Double U roller	Ring roller Double U roller

Rollers			
SDH	300 R	500 T	600 T
	Ring roller	Ring roller	Ring roller
	Cage roller	Double cage roller	Double cage roller
	Single U roller	Double U roller	Double U roller

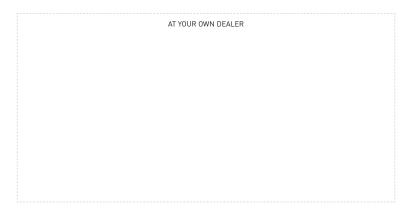
Range		SDM						SDH		
Model		300 R	400	500	500 T	600 T	700 T	300 R	500 T	600 T
Working width	(cm)	300	400	500	500	600	700	300	500	600
Recommended working depth	(cm)	3 - 10	3 - 10	3 - 10	3 - 10	3 - 10	3 - 10	6 - 12	6 - 12	6 - 12
No. of discs		24	32	40	40	48	54	24	40	48
Disc diameter	(mm)	520	520	520	520	520	520	610	610	610
Front wheels		-	-	-	0	0	0	_	_	-
Rear roller type		Ring/Cage/ Single U roller	Ring/Cage/ Single U roller	Ring/Cage/ Single U roller	Ring/Double U	Ring/Double U	Ring/Double U	Ring/Cage/ Single U roller	Ring/ Double cage/ Double U roller	Ring/ Double cage/ Double U roller
Front blade roller		_	_	_	0	0	0	_	_	_
Front leveling bar		-	_	_	0	0	0	_	_	_
Hitch size (CAT)		II & IIIN	IIIN	IIIN	III	III	III	IIIN	III	III
Recommended power	(hp)	100 - 110	120 - 160	150 - 200	160 - 220	200 - 260	240 - 320	140 - 170	220 - 280	260 - 360
Hyd. requirement		-	1 DA	1 DA	4 DA	4 DA	4 DA	N/A	2 DA	2 DA
Weight	(kg)	1665*	2690*	3065*	5335**	5880**	6050**	2350*	6470***	6870***

Cage roller

\*\* Double U Roller \*\*\* Double cage roller

Models noted with an R are rigid frame, models without a letter following have a hydraulically folding frame, the T represents trailed and hydraulically folding models

• Standard O Optional - Not available















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#### For more details, ask your New Holland dealer!

Calls to the Top Service team are free from landlines in the United Kingdom and Republic of Ireland. UK-based mobile calls are also free, but Republic of Ireland mobile users should call 01 2421881 and this will be charged at your standard network rate.