CHD EEFTING B.V. AGRICULTURAL SPRAYERS



CHD EEFTING READY FOR THE FUTURE

You can see them in action in fields across the Netherlands and abroad: the green agricultural sprayers from CHD Eefting. Located in Ter Apel, our company was founded in 1994 by Albert and Marie Eefting. Over 25 years later, the now 81-year-old Eefting is still at the company's helm. His wife Marie has taken a step back. Since 2020, a new generation of the Eefting family can be seen wandering through the halls of the company: daughter Ingrid has joined the business. As Operations Manager, she runs the business together with her father. Ingrid's arrival means the company's continuity is guaranteed and CHD Eefting is ready for the future.

THE POWER OF CUSTOMISATION

Our team of 40 employees in Ter Apel mainly develops custom solutions related to agricultural spraying machines. The customer's requirements come first and there is little that is not possible. The green giants are made from start to finish in Ter Apel in close consultation with the customer. From drawing, welding, preservation and assembling to testing, we do basically everything at CHD. We only outsource what we really can't do ourselves, or can't do efficiently enough. We also manage our own servicing and parts supply.

INNOVATION FIRST

Our crop sprayers are packed with smart technologies and have a high-quality finish. Besides quality, innovation is paramount. Consequently, the machines are getting larger, precision farming is playing a key role, and we are constantly adapting to changing laws and regulations. CHD Eefting is the preferred supplier for Dutch field research. CHD machines are used on nearly all test fields in the Netherlands.



CHD DG2700-4000

The DG-Drawbar steered; a compact machine for the finer work. Its compact construction means the machine can be used in all circumstances. When folded, the DG series can take part in roadtravel with a total width of 2.5 metres, depending on the tyre size and track width. The DG series models are fitted with hand-operated valves as standard. All functions can easily be reached on the left-hand side of the machine. The drawbar houses the two suction filters that are easily accessible for cleaning when necessary.

For optimal filling of the main tank, an optional TANK Control Display can be fitted. You can see how many litres are left in the main tank on this display on both the machine and the terminal in the cab. You can also see how many hectares and metres you can spray with the remaining contents. As standard, the axle is mounted without suspension and comes with a two-hose air brake system. Upon request, the DG series can be fitted with leaf or air suspension. This comes with a hydraulic support leg as standard.

The following types of tanks are available:

- DG2700: Max. capacity 3,000 litres with 300 litres of clean water
- DG3000: Max. capacity 3,300 litres with 450 litres of clean water
- DG3600: Max. capacity 3,800 litres with 400 litres of clean water
- DG4000: Max. capacity 4,200 litres with 450 litres of clean water



DRAWBAR STEERING

As standard, the DG series comes with a drawbar that is mounted using fixed struts. The drawbar comes with an upper drawbar with a 40 mm towing eye as standard but it can be fitted with a K80 ball coupling as an option. This drawbar can also be optionally fitted with two cylinders which allow it to be automatically steered by TRAIL-Control. You can reach the platform alongside the drawbar using the easily folded-out steps. A spacious pesticide rack is supplied as standard. This allows you



to conveniently take your crop protection products along with you. Upon request, a lockable product container can be fitted. The (standard) container cleaner is fitted in the pesticide rack. This container cleaner can easily be positioned above the manhole.

CHD LIFTING MAST

The lifting mast consists of two U-sections made out of S355 quality steel. The middle frame moves inside these U-sections along high-quality steel rollers to raise and lower the spray boom. The lifting cylinder, without a steel cable, ensures a constant lifting speed and features an accumulator, which dampens the movements in the vertical plane. Hoses and cables, which move along with the lifting mast, are fitted inside a protective energy chain.

CHD BALANCE

The whole spraying boom is supported on a central roller. A cylinder provides the adjustments while a potentiometer ensures the boom is kept in the balanced centre position. Two struts prevent the movements of the machine from being transmitted to the crop spraying boom. The balance blocking (optional) is engaged and disengaged by two cylinders. This allows free movement of the boom even in its highest position. This configuration enables a spraying height of 2,600 mm below the nozzles.



CHD F3000-4100

Compact machines with outstanding manoeuvrability, the CHD Fusee models in 3,000 and 4,000 litres combine these features with high capacity. The solid foundation is formed by a robustly constructed frame made of quality steel (S355). The frame can withstand the toughest conditions in the fields and at high transport speeds with a full tank. The low centre of gravity gives excellent stability. The CHD Fusee series is fully resistant to the corrosive effects of liquid fertilisers. The high hitching of the machines gives CHD trailed crop sprayers plenty ground

clearance, minimising crop damage. The design of CHD crop spraying booms has been well thought out. By not placing the struts in the corners, a more obtuse angle is created. This creates a stronger weld seam and makes it easier to paint the spraying booms evenly. Since weld seams are stronger when placed in the corners rather than in the centre of the upright struts, we make the vertical struts with the same width as the upright struts.

Available in:

- 3,000 litres, max. capacity 3,250 litres and 650 litres of clean water
- 4,000 litres, max. capacity 4,200 litres and 650 litres of clean water





SPRAY LINE

Every CHD crop sprayer features a ring line on the spray boom as standard. Electric section valves are mounted along the boom. As soon as the power take-off is engaged, the spray liquid circulates in the upper section of the spray boom. The machines come with single nozzle holders as standard, but triple nozzle holders can be added as an option.

The machine can also be fitted with optional airactuated nozzle holders that can achieve 100% ring line circulation. The stainless steel spray line now operates as a ring line and no longer has end caps, which prevents contamination and accumulation of chemicals. The nozzles are opened and closed by compressed air. This system lets you reach your desired spray pressure immediately.

LIFTING MAST

CHD crop sprayers come with lowered boom height as standard. This is achieved thanks to a lifting cylinder that was specifically developed for CHD. The two sections of the cylinder allow a low spraying boom height. This ensures a constant lifting speed and features an accumulator, which dampens the movements in the vertical plane when unexpected bumps in the field cause the machine to move suddenly. Hoses and cables, which move along with the lifting mast are shielded for protection.

AXLE STEERING

CHD's trailed agricultural sprayers can be configured with steered wheels for better track following. Axle-steered sprayers are extremely stable. The steering cannot cause the spray boom to sway because only the wheels move, rather than the entire frame. Steering is done manually or by a fully automatic Trail-Control system. The optimum tank shape means very wide tyres can be fitted, so you can work under the very wettest conditions. Axle steering offers the following features: safe road transport at high speeds; an extremely low centre of gravity thanks to the specially designed tank shape; favourable weight distribution; easier turning; better with delay; greater ground clearance; less swaying of the spraying boom, and less damage to crops. As standard, the machine is controlled with a manually operated tractor valve. The TrailControl steering system from Müller Elektronik is available as an option. TrailControl is a proportional steering system.



CHD FG5300-6700

The FG5300 series is the most recent addition to the FG family. Its compact build and revolutionary lifting mast make this a complete machine for every farming operation. The FG5300 was designed for efficiency and convenience. The new model is available with tank capacities of 5,300 and 6,700 litres. The redesigned lifting mast ensures smooth and stable operation, even on uneven ground, and contributes to improved ease of maintenance. The mechanically height-adjustable lower drawbar is fitted with a K80 ball mount and a hydraulic ground

support leg as standard. The manually operated valves feature as standard on all FG models. All functions can easily be reached on the left-hand side of the machine. Here, you can also find the two suction filters. For optimal filling of the main tank, an optional TANK Control I-Display can be fitted. You can see how many litres are left in the main tank on the displays on both the machine and in the cab. You can also see how many hectares and metres you can spray with the remaining contents.

Tank variants:

- FG5300- Max. capacity 5,700 litres with 650 litres of clean water
- FG6700- Max. capacity 6,700 litres with 650 litres of clean water



LIFTING MAST

The redesigned lifting mast uses forklift mast profiles. Durability is the key consideration here, even under the toughest conditions. The completely new design puts the rollers on the outside. This maintenance-friendly approach makes performing all servicing tasks easier and quicker. By using eight rollers – four on each side – the lifting mast operates very smoothly. The new, smart design keeps the width of the machine well within three metres during transport.



CHD AUTOMATIC CLEANING SYSTEM

Every CHD sprayer can be equipped with an optional Automatic Rinsing System (ARS). The system is controlled by an ISOBUS control display and offers fully automatic, complete rinsing, partial rinsing, manual valve control, agitator control and automatic fill stop. All of these functions are operated by the tractor driver from the terminal in the cab or on the TANK Control III Display on the machine.

The unique construction of CHD sprayers makes the ARS one of the best of its kind on the market. With the push of a button, the sprayer can be cleaned fully automatically, taking between five and ten minutes and using around 350 litres of clean water. Flushing the machine with water several times and the unique placement of the pipes and valves give optimum results.



CHD FG6300-9000

The CHD FG is the powerhouse among single-axle sprayers. Its large tank capacities and boom configuration options make it a machine with truly high capabilities. The top-of-the-range model with a tank capacity of 9,000 litres is the largest single-axle sprayer in its class. The mechanically height-adjustable lower drawbar is fitted with a K80 ball mount and a hydraulic ground support leg as standard. The manually operated valves feature as standard on all FG models. All functions can easily be reached on the left-hand side of the machine.

Here, you can also find the two suction filters. For optimal filling of the main tank, an optional TANK Control I-Display can be fitted. You can see how many litres are left in the main tank on the displays on both the machine and in the cab. You can also see how many hectares and metres you can spray with the remaining contents. Its robust construction means this is a machine for the heavy-duty jobs. When folded, the FG series with a total width of 2.85 metres, depending on the tyre size track width, and can be driven on public roads.

The following tank capacities are available for the FG series:

- FG6300, maximum capacity 6,700 litres with 1,000 litre of clean water
- FG7300, maximum capacity 7,700 litres with 650 litres of clean water
- FG8000, maximum capacity 8,300 litres with 1000 litres of clean water
- FG9000, maximum capacity 9,300 litres with 650 litres of clean water



STEERING AXLE

As standard, the FF series comes with a 10-hole steering axle that is operated manually from the tractor by a double-action valve. As an option, the steering axle can be automatically controlled by TRAIL-Control. The optional electric-hydraulic boom functions and the automatic steering axle can be powered by open centre or load-sensing hydraulic systems. The steering cylinder is centrally mounted behind the steering axle to ensure maximum ground clearance. At the position where the steering axle is mounted under the main frame, the main frame is only 60 cm wide. This maximises the steering lock and therefore guarantees the machine will follow in the tractor's tracks in almost every imaginable condition. As standard, the axle is rigidly mounted and comes with a two-line air brake system.



LIFTING MAST

The lifting mast consists of two box sections made out of stainless steel. The middle frame, coated with high-quality plastic, moves over these sections to raise and lower the spray boom. The lifting cylinder, without a steel cable, ensures a constant lifting speed and features an accumulator, which dampens the movements in the vertical plane. The hydraulic balance adjustment with automatic centring system responds promptly to the commands from the terminal or joystick. Hoses and cables, which move along with the lifting mast, are fitted inside a protective energy chain.

WATER SYSTEM

The models in the FG series are fitted with reliable diaphragm pumps with a capacity of 2 x 280 litres.

The agitator pump serves the agitation system, offering three options controlled by valve R: normal agitation, intensive agitation, or agitation off. In addition to the agitation system, the agitator pump feeds the tank-cleaning discs (Z) and the emptying of the main tank to the external tank. The tank can be filled by the agitator pump, the spray pump or both pumps at once. An optional hydraulically driven centrifugal pump can be fitted. This can fill the main tank and/or the clean water tank to maximum capacity at low engine speed. Each pump has its own suction and pressure system (in the water system), which produces a considerable increase in capacity. For instance, you can use the agitator pump to clean the tank while using the spray pump to leave behind perfectly dosed residual liquid in the field. This way, you return home without residual liquid, farmyard emissions are minimised and you can easily switch to a different treatment.

CHD T11000-13000

The trusted technology used for the FG series is also available in a Tandem-axle variant. As you would expect from us, the T series can also be built to your specifications with a full range of options. The T series is designed for farms with remote fields requiring a large tank capacity. The two available tank sizes offer a high capacity allowing you to carry up to 13,800 litres of spray liquid. The Tandem comes with 2x400 litre pumps as standard. The lifting mast consists of two box sections made out of stainless steel. The middle frame, coated with high-quality plastic,

moves over these sections to raise and lower the spray boom. Its robust construction means this is a machine for the heavy-duty jobs. As standard, the T series comes with hydraulic axle suspension, automatic double-axle steering, a lower drawbar with K80 ball mount and electric-hydraulic boom functions, through a load-sensing system only.

The T-Series is available with two tank sizes.

• T11000: Main tank capacity of 11,500 litres with 800 litres of clean water

• T13000: Main tank capacity of 13,800 litres with 800 litres of clean water



DOUBLE-AXLE STEERING

The electronic forced steering on both axles keeps crop damage to a minimum. The front axle follows the track of the rear wheels of the tractor while the rear axle follows the track of the front wheels of the tractor. This means the sprayer follows in the tracks of the tractor so the spray boom is not adversely affected by steering movements.

On the compact control terminal, you can select from three steering modes:

- Street mode
- Field mode
 - Manual modus

When driving above 15 km/h on the road, the steering speed is reduced for reasons of safety.

SPRAY LINE

Every CHD crop sprayer features a ring line on the spray boom as standard. Electric section valves are mounted along the boom. As soon as the power take-off is engaged, the spray liquid circulates in the upper section of the spray boom. The machines come with single nozzle holders as standard, but triple nozzle holders can be added as an option. The machine can also be fitted with optional airactuated nozzle holders that can achieve 100% ring line circulation.

The stainless steel spray line now operates as a ring line and no longer has end caps, which prevents contamination and accumulation of chemicals. The nozzles are opened and closed by compressed air. This system lets you reach your desired spray pressure immediately.

SPRAY BOOM

Made out of high-quality S355 steel, the spray boom is available in operating widths ranging from 12 to 57 metres. Arrangements can be made for CHD to supply virtually any intermediate and custom operating widths. For spray booms up to 45 metres, folding three-section variants are possible (optionally four-section). Booms longer than 45 metres comprise four folding sections as standard. Spray booms with greater operating widths are reinforced. The top sections are also foldable as standard (the left and right sides can be folded independently as an option). Cable channels are fitted to all sections to protect all cables and hoses along the length of the boom. CHD crop sprayers come with lowered boom height as standard. This is achieved thanks to a lifting cylinder that was specifically developed for CHD. The two sections of the cylinder allow a low spray boom height. Hoses and cables, which move along with the lifting mast are fitted inside a protective energy chain.



CHD SPRAY TECHNOLOGY

AIR BAG

Air support using an airsleeve offers significant advantages in terms of drift reduction. By combining this technology with 25 cm nozzle spacing and CHD's standard lowered boom height, you can achieve up to a 97.5% drift reduction class in the Netherlands. The air support system has an integrated hydraulic system that drives the maintenance-free fan. The fan supplies air to the left and right airsleeves. The air exits the airsleeve at the bottom, behind the spray nozzles. This causes the droplets to be carried along by the airflow, which minimises spray drift. In addition to the

infinitely adjustable airspeed, the angle at which the air exits the sleeve can also be infinitely set within a 45-degree range. Another available option is the ability to set the airflow angle on each side. This allows perfect coverage and penetration during your spraying operations, enhancing the effectiveness of spraying in challenging leafy crops, such as onions, thus providing more effective treatment.

In addition to the above, there are many other options:

- Camera systems on the boom
- Pulsating nozzles (BBLeap). See also our other folder
- A wide range of nozzle holders and spray nozzles

Ask us for details.





AIRJET AND AIRTEC

The Airtec/Airjet System features an integrated hydraulic system on the machine, which powers a compressor. After passing through a pressure regulation system, the air is directed into a second spray line beneath the spray boom. This second spray line feeds the Airjet or Airtec nozzle with a set air pressure, creating a specified droplet size. When this air pressure is increased, either by you or the droplet size software in the ISOBUS Terminal, the droplets become finer. Conversely, reducing this pressure makes the droplets coarser. This system lets you maintain a consistent droplet size at different driving speeds and spraying rates. The droplet size can also be adjusted to finer or coarser while keeping the spray rate and forward speed constant. On average, with a spraying rate of 80 to 150 litres per hectare, excellent results can be achieved.

WINGSSPRAYER

Crop protection and spray drift reduction go hand in hand, but how do you spray for maximum effect? The Wingssprayer is an innovative system that ensures optimum dispersal of every spray fluid that achieves 99% spray drift reduction in the Netherlands. User friendly and suitable for all CHD spraying equipment with an operating width of up to 45 metres. The Wingssprayer is available with single and double wings.

LOWERED BOOM HEIGHT

In the current crop-sprayer market, a nozzle to nozzle spacing of 25 cm is basically a must. When combined with the CHD's standard lowered boom height, this allows you to achieve a 95% drift reduction by selecting the right nozzle with a top angle of 80 or 90 degrees. As CHD has already been producing sprayers with 25 cm nozzle spacing for 20 years, this is not unusual for us. We run our own production of spray lines, which means we can construct any variant. 25 cm nozzle spacing is an option that is available on any CHD sprayer and comes with what we call A-B regulation. This means the A nozzle (50 cm) and the B nozzle (25 cm) can be selected independently on the terminal, so you can spray with one or both sets simultaneously. This can be combined with single nozzle switching (EDS) allowing nozzle-independent control.



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