



Multihog®

INTRODUCING THE NEW CV MULTI-PURPOSE SWEEPER



CV 350: KEY FEATURES

- 75 HP Hatz diesel engine
- 1.5m³ (2 yd³) hopper
- T2 tractor type approval & Stage V emissions
- 3500 - 4000 kg (7716 – 8818 lb) gross vehicle weight
- Spacious cab with excellent visibility
- 4 wheel independent suspension with integrated anti-roll bar for maximum stability
- Single sided service access with wide opening side panels
- Low noise & vibration levels
- On-board diagnostics with remote diagnostics capability optional using optional telematic system
- Optional high back seat with 3-point seat belt, air-suspension adjustable lumbar support and integrated seat base and back support heating.



OPERATING ON SLOPES

- The CV has been designed to tackle all possible cityscapes and roads alike.
- With the ability to climb hills of up to 50% incline, the CV is the ideal choice for sanitation duties on the world's steepest roads.
- The rear of the machine has been designed to incorporate a cut-away in the rear bumper for climbing purposes.
- The all wheel drive system means that the CV can perform easily uphill.



CV350

Hydraulics

- Load Sensing Hydraulics as standard
- Proportional flow control
- Flat Face BSP Quick Release Couplings

100 L/min &
280 bar to front

2 x d/a functions
to front

60 L/min &
280 bar to rear

1 x d/a function
to rear





Multihog®

CV FEATURES



CV WITH PRESSURE WASHING LANCE

High pressure wash-down pump and lance with retractable hose reel.

Hose length 10m (33ft). Maximum pressure 170 bar (2465 psi).

Maximum flow 22 l/m (6 US gal).



CV WITH WANDER HOSE

5 metre (16.5 ft)
wander hose
(optional)



EMPTYING THE HOPPER

1600 mm (63 in)
high tipping hopper.
Ideal for tipping
directly into skips

Easily removeable
and washable
stainless steel mesh
panels

High grade
aluminium hopper

Rotating LED
beacon as
standard to
reduce the risk
of accidents

180 mm (7 in)
suction hose



CV WITH NO BRUSHES OR HOPPER

High headlight
position ideal
for night
operation

LED work lights
(1000 lumens)



High proportion of
glass for unobstructed
visibility and excellent
safety.

A frame for using
other attachments

CV WITH SNOW PLOUGH

Alternative attachments can be used on the front, e.g. snow plough, mower, pressure washer.



Attachments such as thermal weed control, water tank or salt spreader can be mounted on the rear body or connected to the rear rails.

CV: A-FRAME





CV: A-FRAME

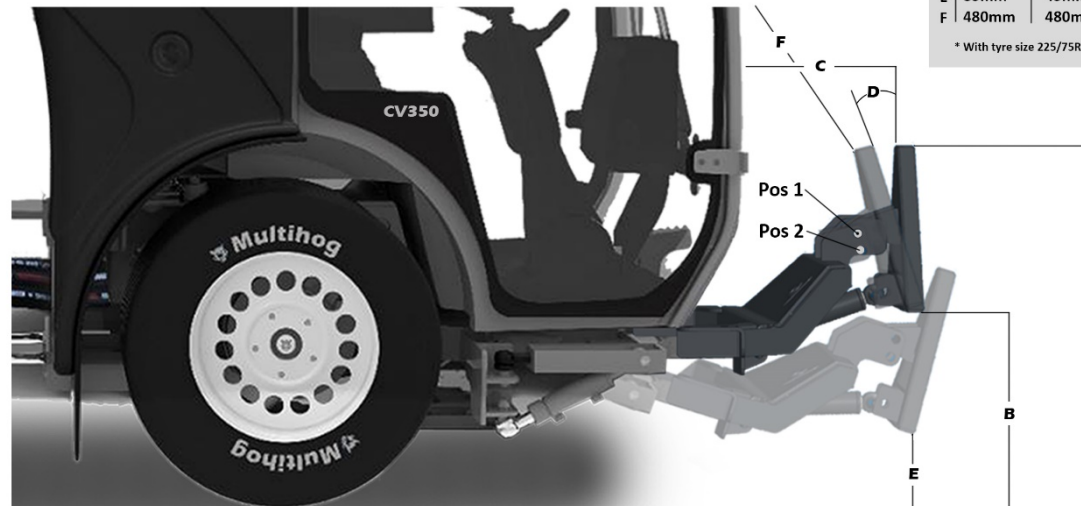


	Pos 1	Pos 2
A	785mm	745mm
B	430mm	390mm
C	265mm	315mm
D	23.5 deg	23.5 deg
E	85mm	45mm
F	480mm	480mm

* With tyre size 225/75R *

FEATURES

- Lifting capacity - 750KG
- Maximum lift height - 785mm
- Standard adjustable top link
- Optional hydraulic lift arm
- Suspension height adjustment
- Tools required - Spanners
- Cat.municipal DINcat.0 ready
 - Snow Blower
 - Snow Plough
 - Grass Mower
 - Surface Cleaner



CV 350: FEATURES



LED flashers

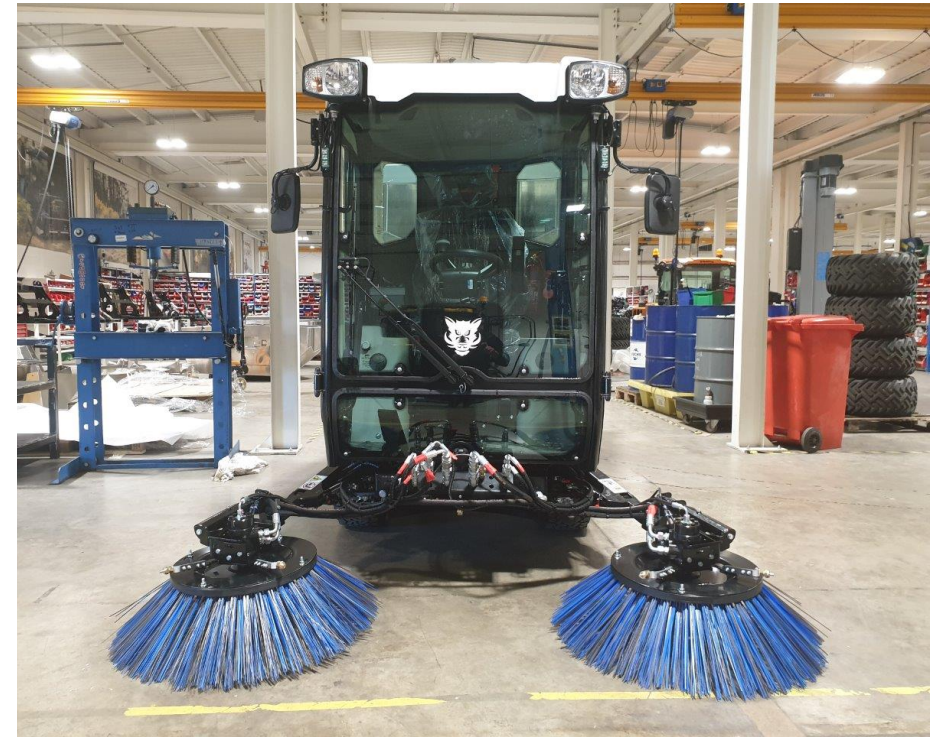
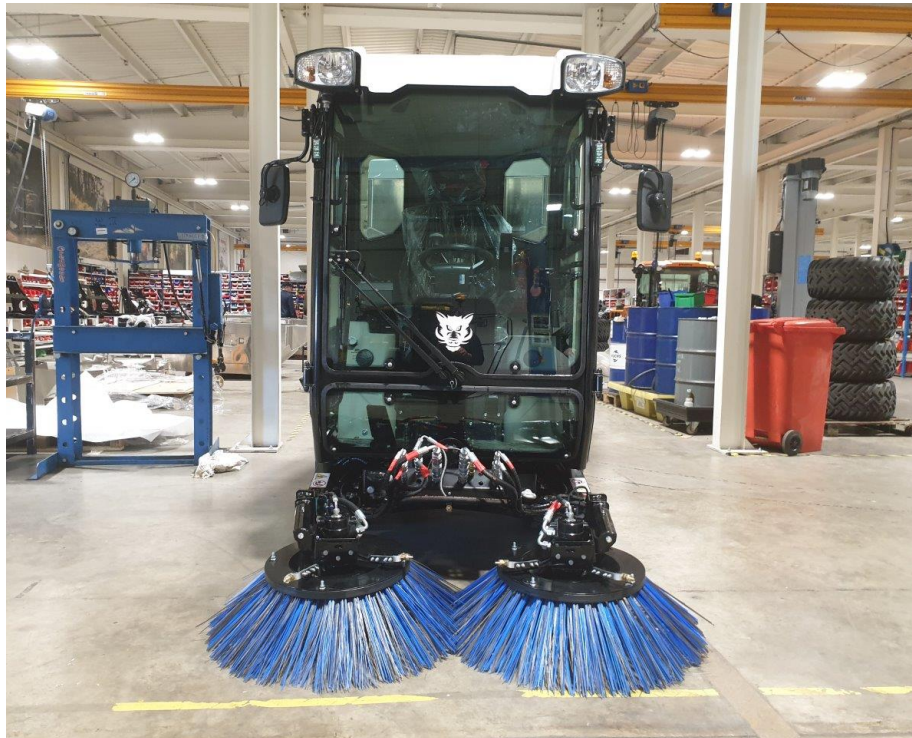
Large heated mirrors
for safer operation

Heavy duty suction
hood, 650 mm

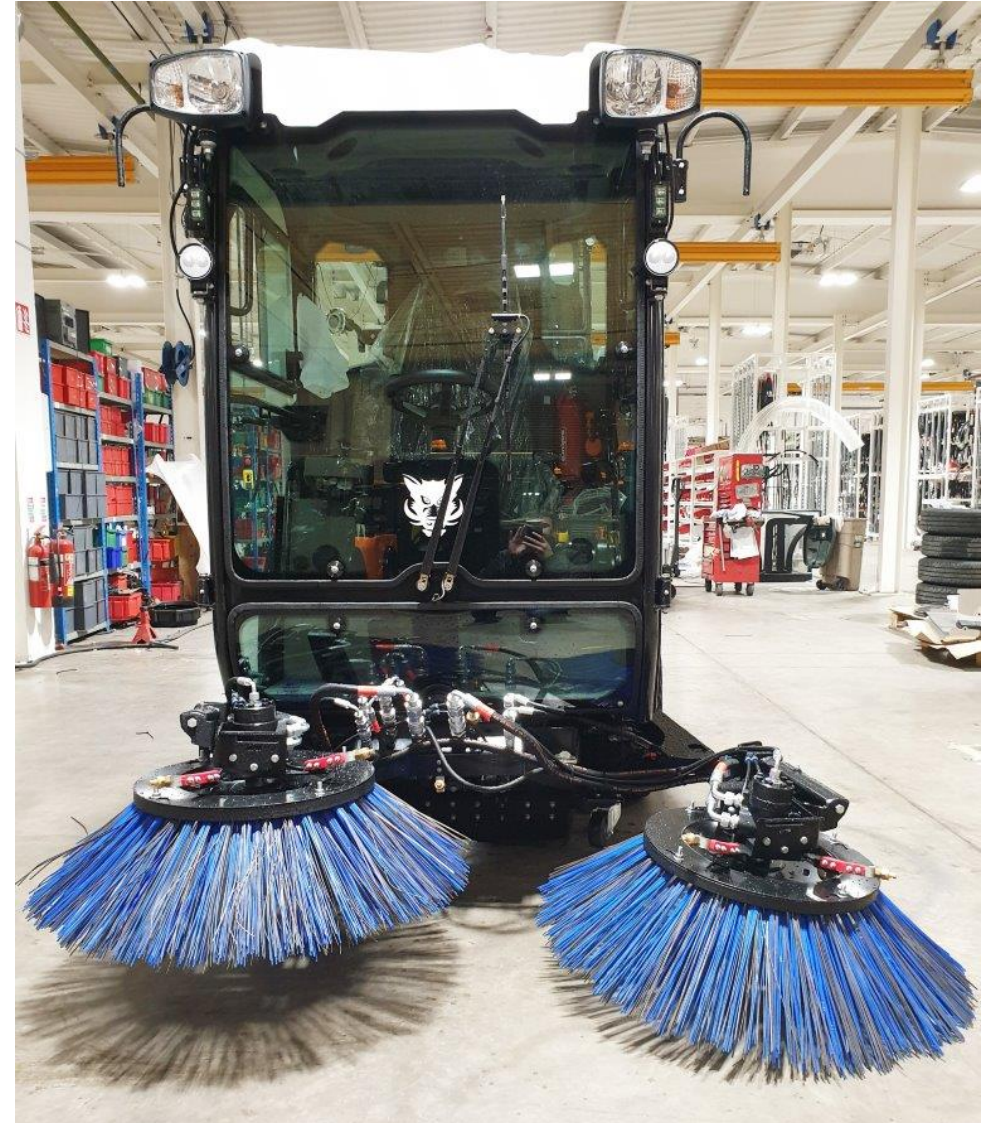
Quick release
hydraulic couplings for
fast changeover

SWEEPING WIDTH

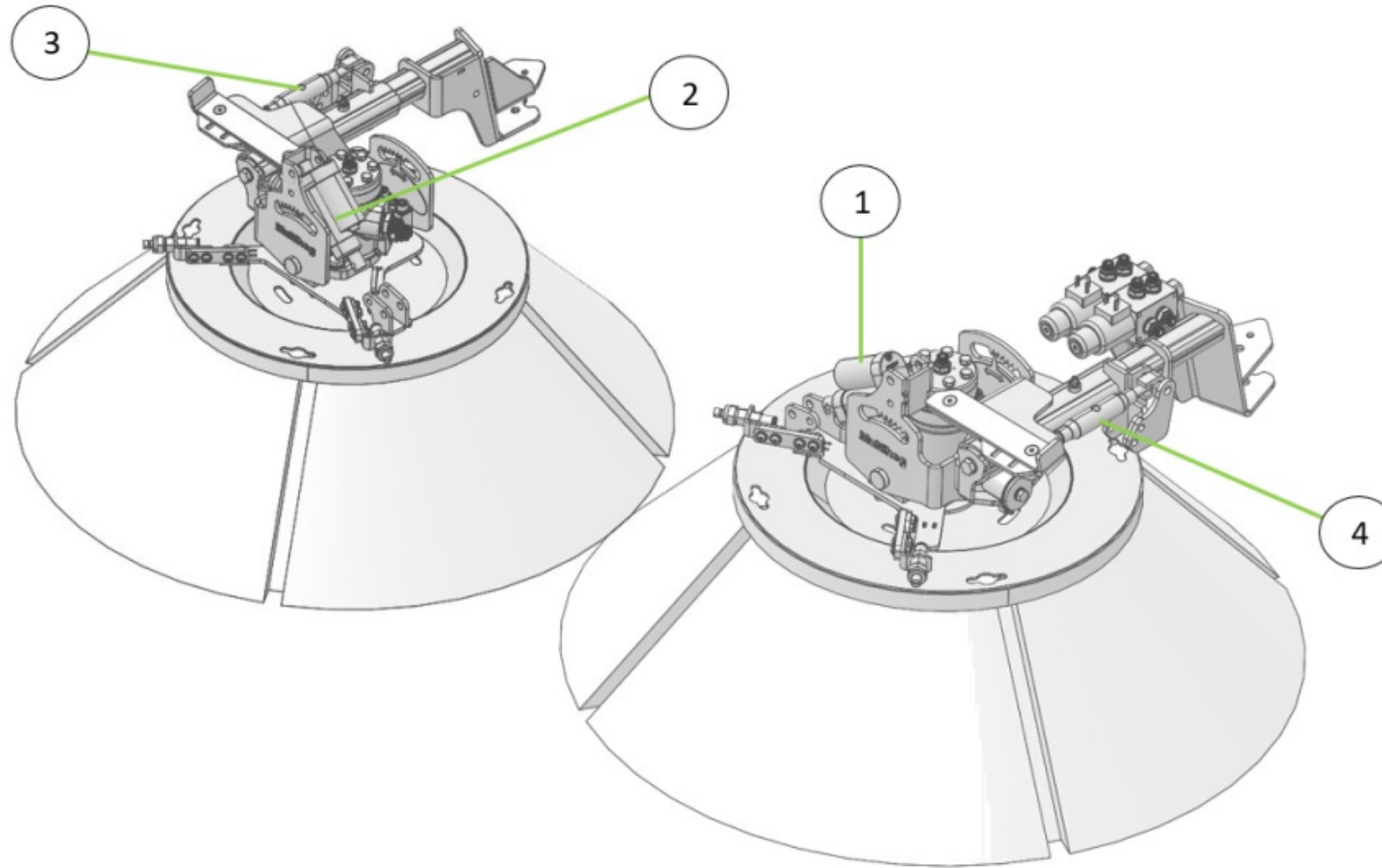
- Sweeping width can be varied from 1200 mm (47 in) to 2350 mm (92 in) using the 2 mini-joystick controls.
- Brush speed adjustment up to 150 RPM
- Precise adjustment of brush-to-ground pressure, which extends brush life by adjusting the effective weight of the brush on the ground.
- Optional 3rd brush – can be added at any time to increase sweeping width. No need to buy full brush kit for 3rd brush (unlike competition).



INDEPENDENT ARM CONTROL



Electric Tilting Brush

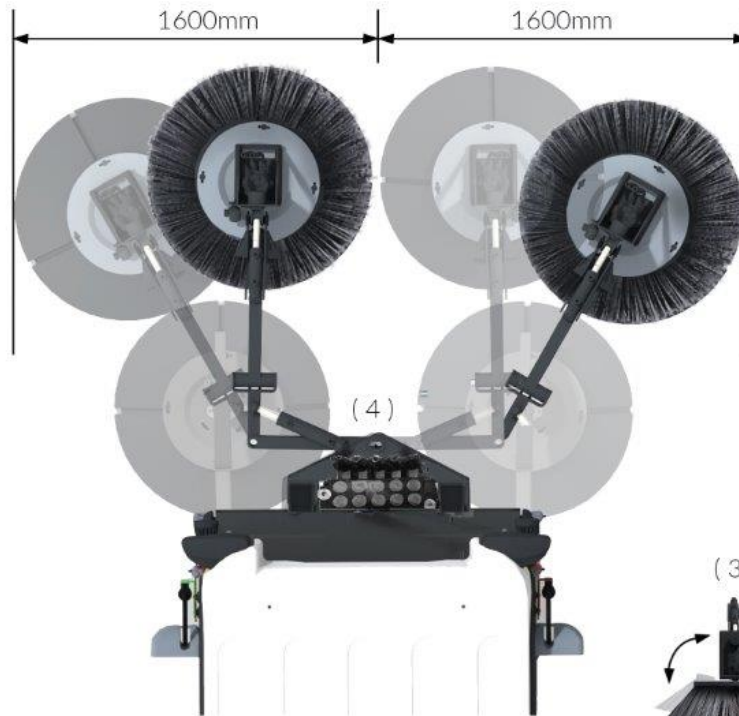


THIRD BRUSH



- Max. sweeping width 3200mm
- Hydraulic lift with load assist - (1)
- Hydraulic tilt front to back - (2)
- Hydraulic tilt from side to side - (3)
- Manually adjustable to left or right curb - (4)
- Easily attachable to sweeper with no disassembly
- Mechanical break-away

Foldable for Transport



(1)



(2)



Differences in Third Brush Options

CV 3RD BRUSH TECHNICAL SPEC			
MODEL	Standard	Standard with hydraulic tilt	Heavy duty 3rd brush
MAX WORKING WIDTH (FROM CENTRE OF MACHINE)	1600MM	1600MM	1600MM
LHS OR RHS SETUP (MANUAL CHANGOVER)	●	●	●
DUST SUPPRESSION WATER NOZZLES	●	●	●
ARM COLLISION FLEX (MECHANICAL)	●	●	●
ARM COLLISION HYDRAULIC RELIEF			●
MANUAL BRUSH HEAD ANGLE ADJUSTMENT	●		
HYDRAULIC BRUSH HEAD ANGLE ADJUSTMENT		●	●
MECHANICAL BRUSH LIFT ASSIST (MANUALLY ADJUSTED)	●	●	
HYDRAULIC BRUSH LIFT ASSIST			●
INDEPENDENT BRUSH SPEED CONTROL			●
3RD BRUSH REVERSE DIRECTION (FROM THE CAB)			●
3RD BRUSH REVERSE DIRECTION (MANUALLY OPERATED)	●	●	

CV: SIDE VIEW



Hopper-tip control pendant with safety 2-hand operation (can be used inside or outside the cabin, 4m/13ft length).

2 brushes, each 900 mm (35 in) diameter with maximum brush speed of 150 RPM



200 litre (53 US gal) fresh water tank, 100 litre (26 US gal) recirculation water tank (capacity for additional 100 litres (26 US gal) of recirculation water in the hopper).

HOPPER TROLLEY



CV SERVICE POINTS

Hinged and lockable side panels for ease of service

Easily accessible and changeable clean water filter

Effortlessly replaceable brushes



All main serviceable items are on one side i.e. fuel filter, oil filter, oil fill, and dipstick. Service interval every 500 hours.

Easily accessible battery

Easily accessible and changeable air filter



CV SERVICE TABLE

The CV should be serviced every 500 hours

5 Routine Maintenance And Adjustments

5.1 Maintenance Schedules

Daily Procedures And Checks	
Category	Description
Fluids	Check the engine oil level and top up as necessary.
	Visually check the engine and engine area for leaks or damage.
	Check the fuel (diesel) level and top up as necessary.
	Visually check the fuel lines and fuel tank for leaks or damage.
	Check the coolant level and top up as necessary.
	Visually inspect all hoses and the cooler radiators for damage or leaks.
	Check the hydraulic oil level and top up as necessary.
	Check the brake fluid level and top up as necessary.
Filters	Check the fuel filter for leaks or damage.
	Clean the air intake grill.
	Clean the cooler radiator grills.
	Clean the air intake filters if working in dusty conditions.
General	Check tyre pressures and condition. Inflate as necessary.
	Check wheel conditions and that wheel nuts are tight to 200 Nm (147 lb ft)
	Check that all lights and signals are functioning correctly.
	Check all electrical wiring/cabling for damage.
	Check the air intake pipes for damage.
	Check the exhaust system for damage or leaks.
	Apply grease to all grease points.
	Rinse the machine after it is exposed to corrosive substance e.g. sea water or road salt/grit.
	Follow all applicable storage conditions and procedures.
	Check battery and cable connections for damage or wear.
	Check windscreen wash level and refill as required.
	Check safety signs/decals for damage.
	Check the condition of all safety guards.

5 Routine Maintenance And Adjustments

Additional Procedures And Checks After First 100 Hours	
Category	Description
Fluids	Drain and refill the engine oil after replacing the engine oil filter.
Filters	Replace the engine oil filter.
	Replace the fuel filters.
	Replace the hydraulic oil tank top filter.

Additional Procedures And Checks Every 500 Hours	
Category	Description
Fluids	Drain and refill the engine oil after replacing the engine oil filter.
	Check coolant level and top up if necessary.
	Check all hoses and clips for damage, replace as necessary.
Filters	Replace the engine oil filter.
	Replace the fuel filters.
	Replace all hydraulic oil and tank filters.
	Replace both engine air intake filters.
	Replace the cab pollen filter.
General	Check all engine belts for wear and tension, replace or adjust as necessary.
	Inspect the brakes and brake lines for damage or leaks.
	Check that all bolts are present and tight.
	Check that all hydraulic fitting connections are tight.

Additional Procedures And Checks Every 1000 Hours	
Category	Description
Fluids	Drain and refill the hydraulic oil tank.

Additional Procedures	
Period	Description
Yearly	Spray vehicle with anti-corrosion wax before winter operation or conditions where the machine is subjected to corrosive elements e.g. sea water.
Every 4000 hours	Replace the EGR filter.

SPACIOUS CAB WITH PANORAMIC VIEWS

- Cabin boasts panoramic views and every control you need at your fingertips.
- Steering column has a single foot-operated release, and can be adjusted 3 ways: height, rake and steering wheel angle.
- The high back seat with air suspensions and integrated base & back support, provides a very comfortable work environment, reducing fatigue.



Glass window for driver to view suction hood at all times

IN CABIN CONTROLS

Seat mounted armrest control module with adjustment for different operator body widths, heights and arm lengths.

Feet heating (& cooling)



3-point seatbelt

Integrated document holder

Optional high back air suspension driver seat with 3-point seatbelt, heated base and lumbar support

Optional rear suction hood camera



Large 7 in high resolution colour display with anti-glare technology.

IN CABIN CONTROLS

One button to start sweeping means:

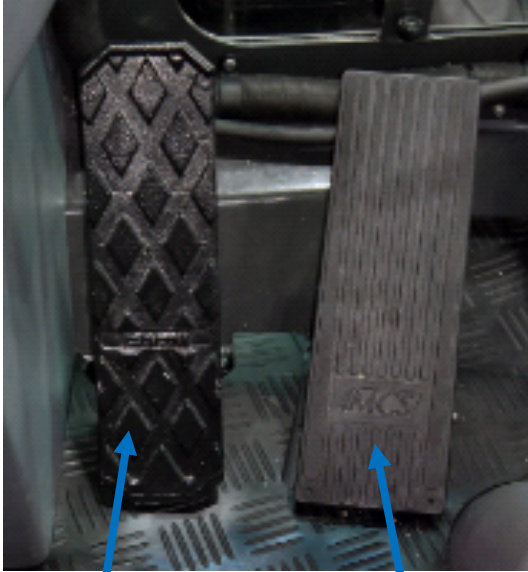
- Easy operation, simple control
- Easy to train operators
- Less room for operator error

What happens when you press the Auto Start (green) button:

1. Engine rises to the required RPM
2. Brushes turn on to pre-set speed
3. Suction fan turns on to pre-set speed
4. Brushes drop to ground in float mode
5. Brush ground pressure reduces to pre-set weight to maximise brush life and performance
6. Suction hood drops to ground level
7. Clean water spray turns on
8. Recirculation water turns on.



DRIVE MODES



Brake pedal

Accelerator pedal

I – DRIVE MODE (ROAD)

Drive direction switch on armrest.
Accelerator/gas pedal on right to control engine speed.
3 speed drive with manual gear change.
Hand throttle lever & hand speed control are not functional.



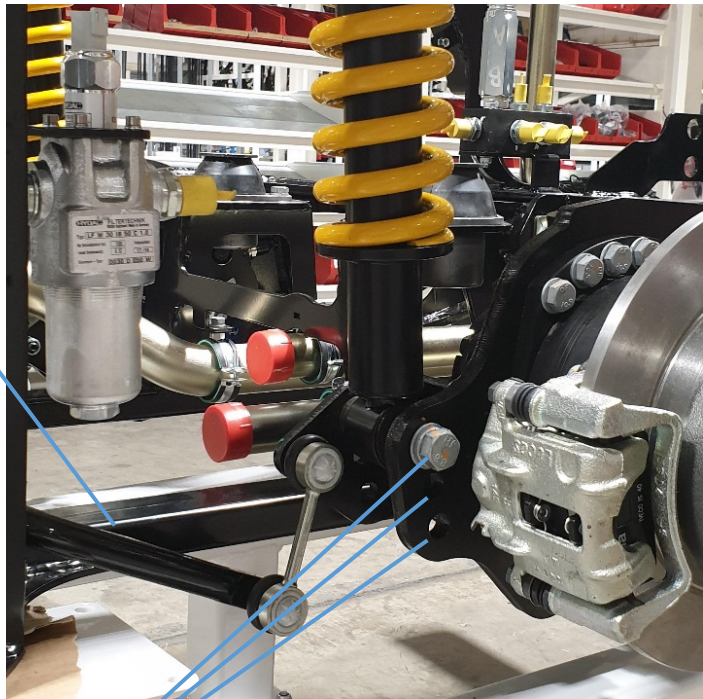
Accelerator pedal

II – WORK MODE

Drive direction switch on armrest.
Push to go – accelerator pedal changes to work speed control.
1st & 2nd speed available.
Diff lock operates in 1st speed.
Hand throttle lever controls engine speed.

CV SUSPENSION

The design of the CV means that the operator is guaranteed a comfortable working environment thanks to the 4 wheel independent spring and damper suspension.

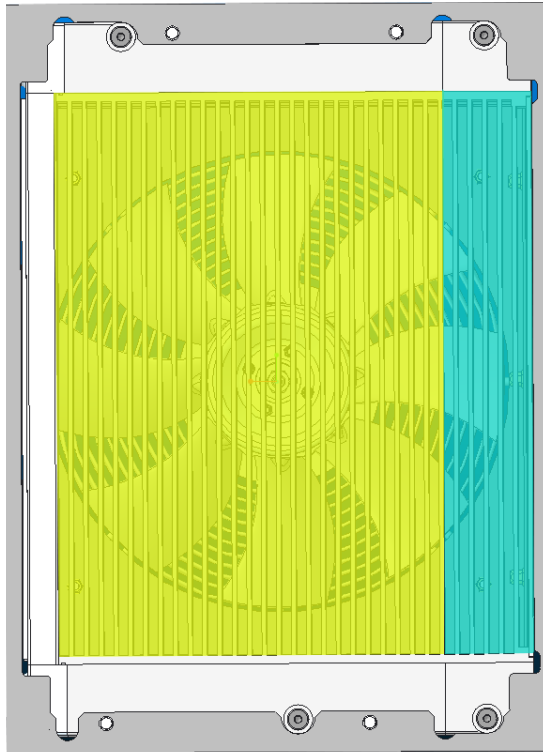


Adjustable ride height

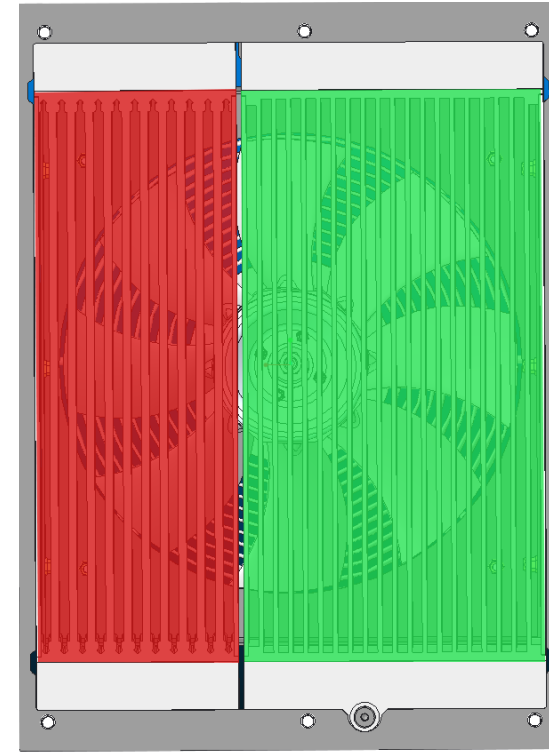
4 wheel independent spring
and damper suspension

HEAVY DUTY COOLING

- Ensures longer life for the machine and less downtime for service.
- High powered cooling system with twin radiators, hydraulically driven optional reversible fans with variable speed control for efficient cooling and less noise.
- Automatic boost function for hotter climates.



Yellow = Hydraulic Oil
Blue = Fuel



Red = Air
Green = Water

*Machine approved
for ambient
temperature of
50°C (122°F)!*

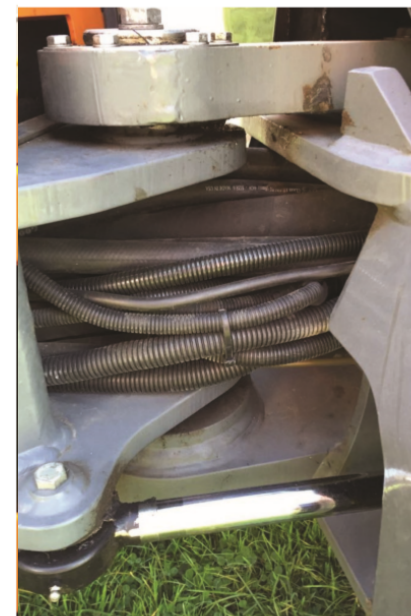
CENTRE ARTICULATION

- With the latest CAN bus technology fitted on the CV, there are just **16 wires** running through the articulation point.
- As you can see below, other manufacturers' machines have a large number of wires running through their articulation points.

Multihog CV350



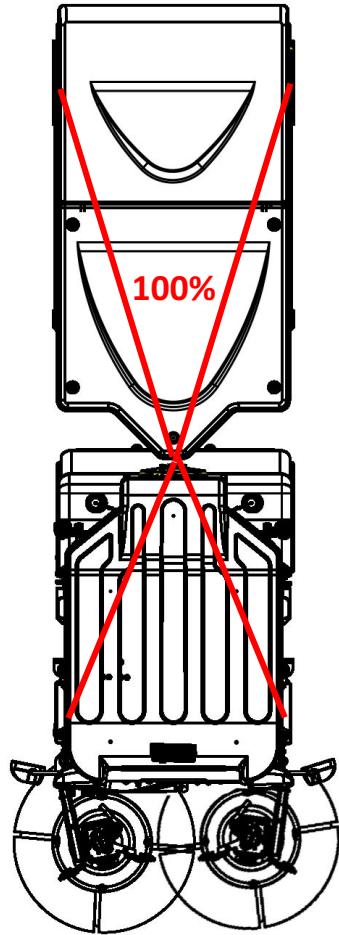
Articulation joints on machines of a similar size/design



DIFF LOCK

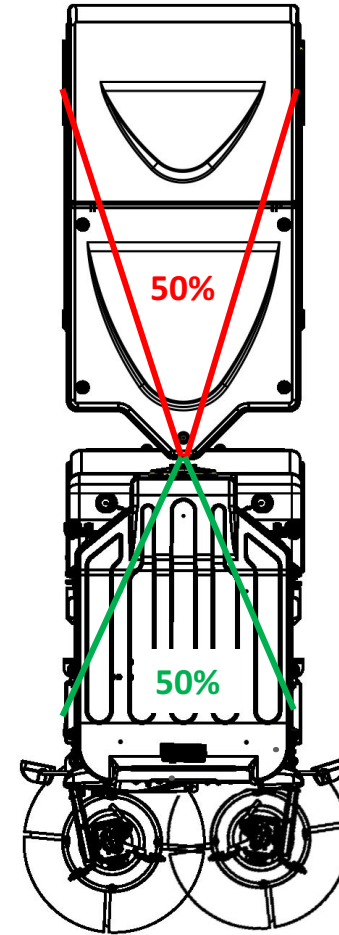
NORMAL DRIVE

Oil goes to wherever it's needed



DIFF LOCK

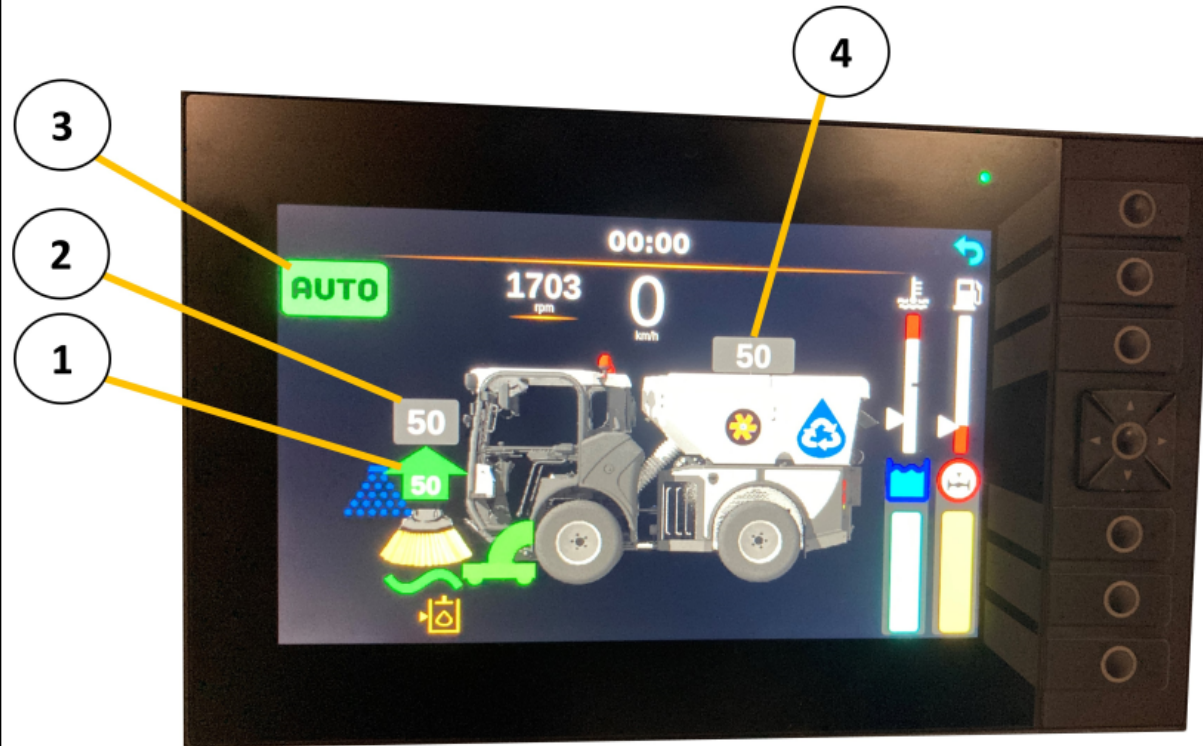
Lock of front & back axles 50/50 – used in work mode, etc.







Water Level Sensor and Load Indicator



New Sweeping Screen



Balloon Number	Description	Symbol(s) If Applicable
1	Brush Weight (Ground Pressure/ Load Assist) Potentiometer Percentage	
2	Brush Speed (Front Hydraulic Pump) Potentiometer Percentage	
3	Green Auto Symbol (Auto Start Active)	
4	Suction Fan Speed (Rear Hydraulic Pump) Potentiometer Percentage	

PM 10/PM 2.5 CERTIFIED

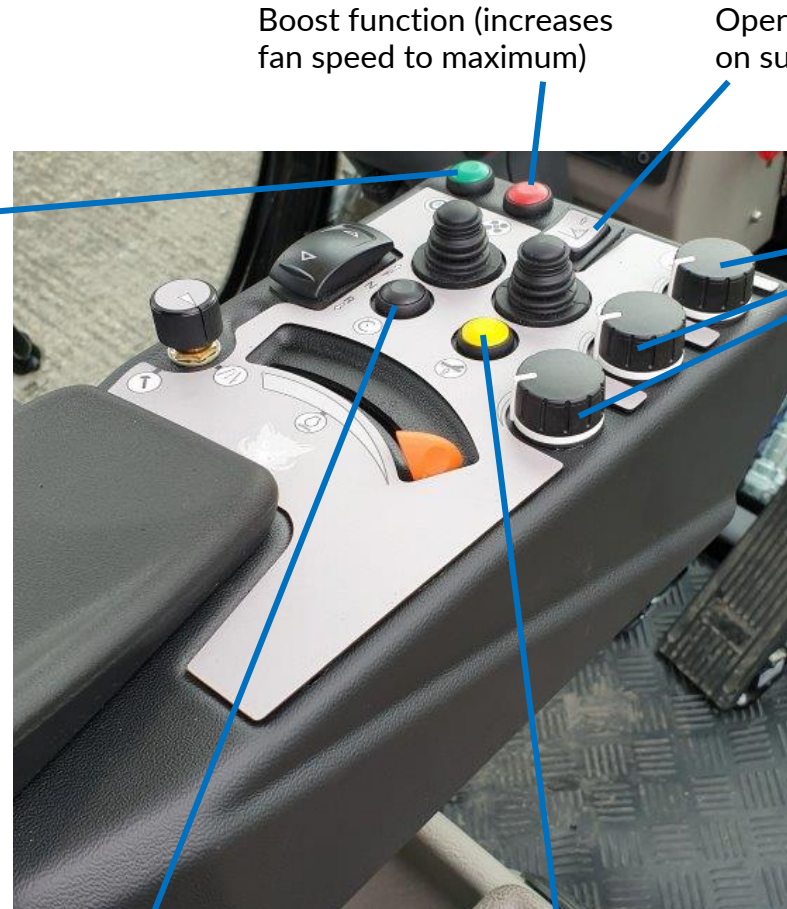
- The Multihog CV is now EUnited PM 10 and PM 2.5 certified.
- The PM Test measures the particulate matter (fine dust) which rises up during sweeping, and the standard is widely accepted across Europe.
- Local authorities need a reliable standard in order to be able to compare different sweepers on the market in terms of absorption of fine particles. With the publication of DIN EN 15429-3: 2015-05: Sweepers - Part 3: inCapacity of dust - testing and assessment in in May 2015, the EUnited PM Assessment became a recognized standard in Europe.
- During the test, in a controlled environment, sweepers sweep a fixed test track, simulating a typical urban street.
- Before, during and after the test runs, the fine dust concentration is measured and analysed in the enclosed test facility. The quantity of dust stirred up by the sweeping units can thus be determined, as well as that, which ended up in the container or in the filter of the sweeper.
- **The Multihog CV sweeper is rated 4 stars on both PM tests, the highest rating available on the test. In order to achieve a 4 star rating in the test, a machine must collect at least 60% of the particulate matter. The Multihog CV collected 97% of the particulate matter during its test.**



IN CABIN CONTROLS FOR SWEEPING

Dedicated Auto Start button to simplify sweeper control:

- Engine rises to the required RPM
- Brushes turn on to pre-set speed
- Suction fan turns on to pre-set speed
- Brushes drop to ground in float mode
- Brush ground pressure reduces to pre-set weight to maximise brush life and performance
- Suction hood drops to ground level
- Clean water spray turns on
- Dirty water spray turns on.



Boost function (increases fan speed to maximum)

Open/Close flap on suction hood

Brush speed, fan speed & ground pressure controls

Cruise control (optional)

Lift/drop suction hood

CV IN ACTION



CV VIDEO: CYCLE PATH, COBBLESTONES & PAPER MILL

