



**NAVIGATOR**  
**3000, 4000, 5000 & 6000**

## NAVIGATOR

Available in 3000, 4000, 5000 & 6000L capacities with wide booms and DynamicFluid4 pressure-based rate control to improve productivity and optimised application efficiency.

NAVIGATOR is designed to cope with the toughest broadacre and row crop spraying conditions.

It has the lowest centre of gravity in its class, with the tank and chassis completely integrated.

The front platform provides easy access to the lid.

A 450L rinse tank is positioned over the axle for best weight distribution and stability.

A wide range of booms are available to suit a variety of broadacre spraying applications: EAGLE 18 to 30m, TR4 Aluminium 24 to 30m and B3 Major 36.5m and FORCE 30 to 36m.

Adjustable axle options - 1.8 to 2.25m and fixed 3m axle options offer excellent crop clearance of 73 to 82cm, depending on tyre equipment.



Tank capacity:	3000, 4000, 5000 & 6000L
Controller opts:	HC5500, HC6500, HC8600, HC9600 and ISOBUS
Chem Transfer:	TurboFiller, VACnMIX
Liquid system:	DynamicFluid4 pressure based rate control
Axles:	1.8 to 2.25m & 3m fixed
Boom choice:	EAGLE 18 - 30m FORCE 30 - 36m TR4 Alu 24 - 30m B3 Major 36.5m



### Power for the fluid system

The 364 or optional 464 diaphragm pumps are self-priming, able to run dry without damage, and have dry sump for easy maintenance.

Optional hydramotor drive is available.

## User friendly

The WorkZone has all the primary functions needed to operate the sprayer.

Everything is located within easy reach, in a simple and logical way.

Filling and cleaning is controlled by two colour coded SmartValves.

A high capacity EasyClean suction filter is monitored by an external gauge, and the CycloneFilter ensures only the cleanest fluid gets to the nozzles.

The fluid system is powered by a self-priming diaphragm pump that can run dry without risk of damage.

DynamicFluid4 pressure based rate control maintains the predetermined target rate, whether sections are active, while changing sprayer speed, or turning in and out of headlands.

Regulation valve lag is history!

Chemical transfer is fast and safe using the optional TurboFiller or VACnMIX chemical transfer hopper.

Optional Venturi FastFill and Filtered FastFill systems are available for tank filling.



- |                                      |                                       |
|--------------------------------------|---------------------------------------|
| 1. SmartValve - pressure             | 8. PressureEmpty                      |
| 2. Filling valve - suction           | 9. RinseTank coupling                 |
| 3. Suction valve Main Tank/RinseTank | 10. TurboFiller                       |
| 4. EasyClean filter                  | 11. TurboFiller operating unit        |
| 5. CleanWater tank valve             | 12. Level indicator Main Tank         |
| 6. Venturi FastFill coupling         | 13. DynamicFluid4 regulation valve    |
| 7. SafetyLocker                      | 14. Agitation valve/external cleaning |



### EasyClean filter

High capacity suction filter monitored by a SafeSpray vacuum gauge, ensures the element is cleaned only when needed.

Twisting the lid 90° closes the main tank valve in the bottom of the filter housing and opens the filter for inspection.

Over centre clips retain the element in the cap when the filter is extracted.



### CycloneFilter

A unique self-cleaning pressure filter uses a high-speed cyclone action to keep the filtering element clear of contamination.

In addition, a boost function allows the filter to be flushed when needed.

## TR4 Boom

The POMMIER TR4 is simply, not like any other boom.

One of the many benefits of POMMIER aluminium booms over steel is the fact they weigh less which significantly improves field performance.

The TR4 is a bi-fold boom available in 24, 28 and 30m widths. With the outer wings folded the boom width is reduced to 15m on the 24 and 28, and 16m on the 30m boom (no breakaway when folded).

The structural stiffness and strength of the POMMIER aluminium extrusions builds in design flexibility and performance.

Wing tilts are standard and equipped with nitrogen accumulation for smooth ride and performance.

The breakaways are tri-directional which means they can move back, forward and up.

Yaw forces are absorbed through the POMMIER patented yaw dampening system.

Aluminium's unique enduring properties guarantee long term performance and minimal maintenance. No need for paint.



### TR4 performance

Inertia forces created on headlands, during cornering and while spraying are dramatically less than with equivalent steel structures.

The PendEze boom centre has both pendulum and trapeze elements to deal with pitch and inertia forces while allowing free movement between the boom and chassis during spraying.



### TR4 Boom

Nozzles are protected within the boom structure and are spaced at 50cm.

Steel is used in hinge areas, for pins, locks, where there is potential for high wear and tear, and the need for adjustment.

Boom alignment is easily adjusted at the hinge points.

## 'B3 Major' Boom

The POMMIER B3 Major is a tri-fold boom available in 36.5m for the NAVIGATOR 5000 and 6000.

Specially designed for trailed sprayers, the B3 gives farmers an incredibly strong and robust alternative that is just half the weight of a steel boom!

The reduction in weight dramatically improves field performance, application precision and boom longevity.

POMMIER use their own aluminium extrusions for structural stiffness and strength while maintaining light weight and ease of fabrication.

Three RHS profiles running in parallel are separated by triangulated connecting elements form a very strong truss.

Inertia forces created on headlands, during cornering and while spraying, are significantly less than with equivalent steel structures.



### B3 performance

A PendEze boom centre incorporates both a pendulum and trapeze elements to effectively deal with the pitch, roll and inertia forces created on headlands, while cornering and when spraying.

Wing tilt with nitrogen dampening suspension is standard.

The ParaLift is 107 cm wide ensuring a very stable attachment point, and contributes to the high performance of the boom.



### Use of steel

Where there is a high duty cycle and where adjustment is required, such as on hinges, pins and locks, steel is used.

Boom alignment is easily adjusted at the hinge points.

## EAGLE Boom

EAGLE boom offers unequalled performance in rough conditions and is available in 18 to 30 metre widths.

The two-dimension boom construction with dynamically linked coil spring centre provides the smoothest boom ride in its category.

The EAGLE inertia based boom control and anti yaw dampening rubbers deliver excellent stability through cornering and on headlands.

A wide paralift enhances boom stability and allows fast effortless boom height control to 2.2m.

A mechanical transport hook locks during folding and secures the boom in transport.

A non-directional spring loaded break-away system protects the boom from damage.

Individual wing tilt option is available for lifting the boom wing on headlands and over obstacles.



### EAGLE wing fold

Eagle wing sections are a robust two dimensional construction. Hydraulic cylinders near the centre, fold the inner wings and simultaneously fold the outer wings by cable.



### Stability control

Trapeze boom centre with spring suspension provides excellent ride and stability during cornering and on headlands.

## FORCE Boom

FORCE booms available from 28m to 36m widths have inertia based boom suspension, yaw dampening control and are fully adjustable to suit any field condition.

A dynamically linked coil spring centre ensures smooth ride and excellent stability of the boom during spraying.

The tri-fold design uses a three-dimensional lattice construction for added strength.

Single snap fit nozzles are standard with TRIPLET nozzles holders optional.

Hydraulic wing tilt provides the flexibility to spray over mounds, rock piles and fences.

Complete nozzle protection is a standard feature of the FORCE boom.

A hydraulic damping cylinder for stability control can be adjusted to suit the operating condition.

The FORCE boom is available for the NAVIGATOR 5000/6000 trailer.



### FORCE wing tilt

Individual wing tilt is a standard feature used for lifting the boom wings on headlands and over large obstacles.



### Stable FORCE

A dynamically linked coil spring boom centre with trapeze suspension ensures smooth ride and excellent stability.

## AutoHeight

AutoHeight control option for NAVIGATOR with B3, TR4 or FORCE booms, provides stress-free boom height control as it delivers better application and reduces spray drift.

AutoHeight maintains a preselected boom height from the ground or crop. It features:

- 3 or optional 5 precision ultrasonic sensors
- Crop, Hybrid and Soil mode
- Proportional valve control
- 20 km/h operation speed

AutoHeight improves application by keeping the boom at the right height off the ground or crop saving the operator from adjusting the boom height, tilt and slant on-the-go.

AutoHeight takes the stress out of having to monitor the boom position in anticipation of frequent terrain changes.



### More efficient use of crop protection chemicals

AutoHeight control maintains the correct nozzle operating height, and ensures even spray distribution and reduces spray drift.

### Ultrasonic height control

AutoHeight uses ultrasonic sensors fitted to the boom centre and wings to control and maintain a preset height of the entire boom above the ground or crop.

The sensors, developed for field conditions, are robust and precise.

The proportional valve control of individual boom wing height corrections is smooth, even and automatic.



### AutoHeight control

The touch screen controller allows the operator to set the boom height above the ground or the crop canopy.

## Capacity chemical filling

Chemical mixing and transfer is fast and easy with optional high capacity TurboFiller or VACnMIX hopper.

The TurboDeflector in the TurboFiller creates a powerful liquid vortex to mix chemicals quickly and safely.

VACnMIX utilises a vortex mixing action, and is equipped with a vacuum attachment for closed chemical transfer systems.

Both systems have been developed to handle large quantities of powders and liquids.

Their high capacity is due to a combination of high vacuum suction and vortex action inside the hopper.

A spring loaded bracket enables the hopper to drop down into operating position easily, and locks it back into place for transport.



### Powerful liquid vortex

The TurboDeflector in the TurboFiller creates a vortex to mix crop protection products thoroughly, before transferring the solution quickly and safely.



### Vacuum VACnMIX option

The vortex mixing action permits safe, easy transfer of crop protection products. The VACnMIX is also equipped with vacuum attachment for closed chemical transfer.

## Application control

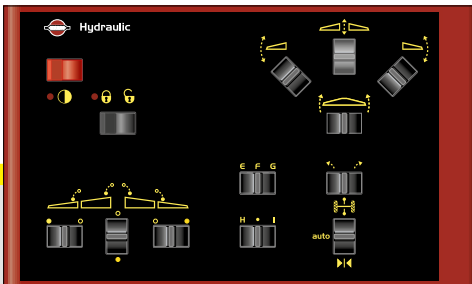
The in-cab HC 5500 or optional HC 6500, HC 8600 and HC 9600 controller platforms provides function management & rate control at your finger tip, with the highest level of performance and application precision.

The on-board Job Computer is connected to the HC 6500 display or an ISOBUS virtual terminal. Secondary control functions are managed from the HC 6400 console. The HC 5500 is connected to a smaller junction box.

Status and other vital sprayer information is assessed and implemented via finger-tip hand grip controls.

The HC 8600 and HC 9600 are all-in-one powerful, full-featured precision farming tools. No need to switch between screens.

HC 9600 with 12.1" touchscreen provides guidance mapping, auto steer, auto section, application rate, tank content, boom height, dual boom, spray records, field notes, variable rates application & more where fitted.



### Direct activated hydraulics *top left*

Remote control for hydraulic boom fold functions.

### ISOBUS *left*

Virtual Terminal for plug-and-play, compatible interface between tractor and sprayer. An on-board Job Computer propagates the tractor terminal to look and feel like the HC6500, with provision for AutoSection Control. It is compatible with other brand ISO terminals.



### HC 8600 8.2" touchscreen



### HC 9600 12.1" touchscreen



### HC 5500 DF4

HC 5500 provides function and rate control in an ergonomic user friendly design and works seamlessly with DynamicFluid4.

HARDI's DF4 offers incredibly fast and accurate rate control.

The SprayBox III switch box replaces the on-board JobCom and utilises a smaller junction box, located under the right access panel.

### HC 6500 *left*

With HC 6400 console for secondary functions.

## DynamicFluid4

High speed spraying with regular changes in forward speed, auto section and variable rate application control are challenges easily managed with the pressure based DynamicFluid4 regulation.

Combining 4 sensors in the fluid system, DynamicFluid4 sets new standards with precise immediate-response rate control.

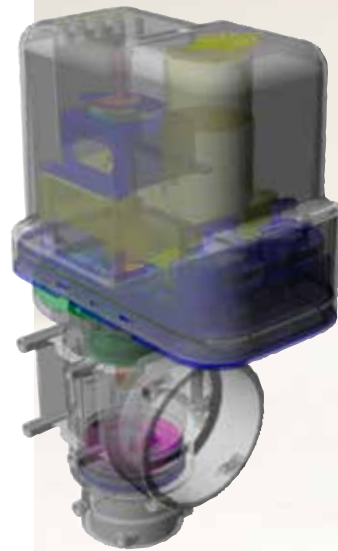
Flow, pressure, pump rpm and valve angle position parameters are monitored and with advanced algorithms deliver a pre-emptive rate control capability.

DynamicFluid4 holds the target rate whether sections are switched on or off, changing speed or turning in or out of headlands, eliminating regulation valve lag.

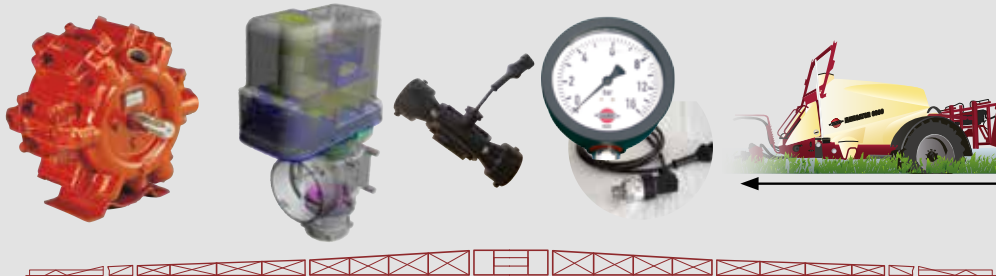
The DynamicFluid4 regulation valve comprises a stainless steel disc rotating through 90 degrees with zero leakage.

DynamicFluid4 can be used in manual mode ensuring spraying can continue.

DynamicFluid4 delivers the target rate as soon as the nozzles are switched on.



**DynamicFluid4** simultaneously monitors pump RPM + regulation valve position + flow to boom sections + pressure at EFC to nozzles + sprayer forward speed + active boom sections = Pre-emptive ability to hold the target rate



### EFC boom section valves

A modular system with positive drive section motor valves and a single pressure dump valve for when all sections are switched to OFF, resulting in instant shut-off at the nozzles. The EFC section valves do not need any form of adjustment.

Image shows optional 7-section boom distribution ( standard is 5 ).

## Chassis and suspension

The robust high-tensile steel chassis and axle combination is designed for spraying under the most testing field conditions.

The design ensures the lowest possible centre of gravity without compromising crop clearance.

The unique long drawbar connects the tractor directly to the NAVIGATOR axle, and produces a strong pull-from-the-axle design.

Vertical forces at speed are absorbed through the drawbar providing excellent towing stability.

HARDI ParaLift require a minimum of service lubrication.

The long lift arms allow for flexible and incremental height adjustment. The boom height is adjustable from 50cm to 227cm, depending on the sprayer wheel combination.

### Hydraulic axle suspension, *below*

Ideally suited to different load ratings, and more suitable for use with AutoHeight control



### SmoothRide suspension, *left*

A simple, reliable suspension system using two compound dampers to absorb movement and requiring little or no service.

The suspension ensures a higher work rate while providing better sprayer ride, boom performance and comfort.

### Unique long drawbar, *right*

A strong pull-from-the-axle drawbar design provides for good towing stability, absorbing vertical forces at speed.



## A WorkZone perfected

**Easy tank inspection.** The lid is located in close proximity to the platform, giving excellent visibility of the sides and bottom of the tank.

**A traversable footstep** is fixed at the drawbar to facilitate access to the platform.

**The platform** is placed as low as possible for easy access.

**The right front cover** provides access to major electronic components and connections.

**Fluid system service access** is gained through the floor plate of the platform.

**Gauges** for monitoring the condition of the suction filter and the pressure gauge are mounted over the platform. This provides excellent visibility from the tractor and good protection from the elements.

**Efficient agitation** is made by multiple Venturi nozzles, positioned to reach every part in the tank.

**CleanWater** tank provides 20 litres of water for personal hygiene.



### Rinse in the field

A 450 litre Rinse Tank combined with rotating rinsing nozzles in the Main Tank provide safe and efficient multi-step cleaning in the field.

The tank is positioned over the axle for better weight distribution and stability.

Filling is from the WorkZone through a 1" inlet.



### SafetyLocker

Located in the left front cover for storage of gloves and mask and is close to the WorkZone.

## Spray your way

NAVIGATOR can be customised to suit your needs and preferences.

- Use a Hydramotor drive for your pump and get rid of the PTO shaft.
- Add boom wheels if required.
- AutoHeight keeps the boom at a constant pre-determined height while the sprayer traverses over undulating ground.
- Use BoomPrime to prime the boom with chemical before the nozzles are switched on, eliminating the need to purge the boom.
- Reduce nozzle contamination by using boom line filters for additional filtrations.
- Steer clear of the fence on your first lap around the paddock with a boom end nozzle.
- Use Banjo FastFill, a hydraulically driven two inch high capacity centrifugal pump for self-filling at water points around the farm.
- Include BoomFlush taps which allows the boom lines to be flushed in-field.
- Add work lighting kits for night spraying.
- Add boom end guards on EAGLE and FORCE booms for protection from fence strikes.

Work lights



Boom wheel for EAGLE



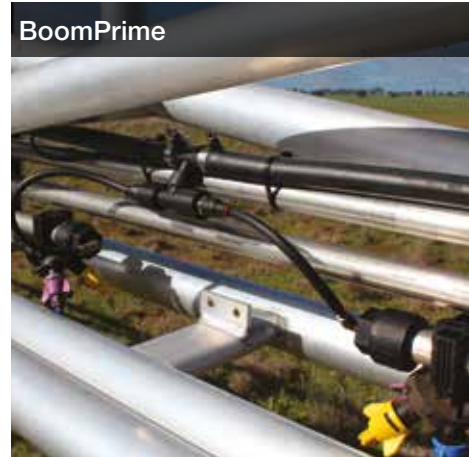
Boom wheel for FORCE



AutoHeight boom height control



BoomPrime



BoomPrime control



Boom line filters



Boom end guards, EAGLE & FORCE



Banjo FastFill



BoomFlush taps



Foam marker



Foam marker 100 litre tank



ChemLocker - in lieu of foam marker



Under boom lights



Hydra motor



464 pump



Brakes



TRIPLET nozzle holders



Road safety kit: Oversize sign & lights

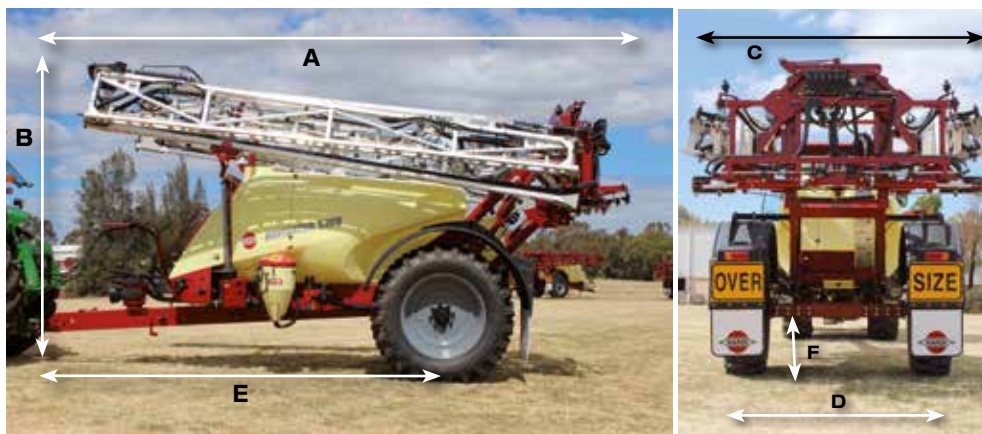


Mudguards and mudflaps



Electric tank gauge sensor





## Standard features:

3000 litre capacity with 18.4 x 30 tyres  
 4000 litre capacity with 18.4 x 30 tyres  
 5000 litre capacity with 18.4 x 38 tyres  
 6000 litre capacity with 20.8 x 42 tyres  
 1.8 to 2.25m track width adjustment (option on 3000/4000L models)  
 20L hand wash tank  
 364 diaphragm pump  
 450 litre Rinse Tank  
 Boom choice of:  
 TR4, EAGLE, FORCE, B3 Major  
 DynamicFluid4  
 EFC control  
 HC 5500 DF4 function and rate control  
 Minidrift nozzles  
 PTO drive  
 SmartValve fluid system  
 SmoothRide suspension (option on 3000L)  
 Under axle clearance 3000, 4000: 70 to 80cm  
 Under axle clearance 5000, 6000: 73 to 82cm

## Options available:

3m fixed track widths  
 464 diaphragm pump  
 Adjustable axles (standard on 5000/6000L)  
 AutoHeight control  
 Banjo filtered fill system  
 Boom end guards  
 Boom flush taps  
 Boom in-line filters  
 BoomPrime  
 Boom wing tilt  
 Brakes  
 Directional filtered FastFill  
 Electronic tank gauge  
 Foam Marker  
 HC 8600 or HC 9600 with ASC  
 Hydramotor drive  
 Mudguards & mud flaps  
 Road safety light kit  
 Solenoid end nozzles  
 TankRinse nozzles  
 Triplet nozzles  
 TurboFiller or VACnMIX  
 Work light kit

## Technical specifications:

Tank	3000, 4000	5000, 6000
Pumps, type – l/min	363 -194 / 464 - 334	363 -194 / 464 - 334
Boom EAGLE	18, 20, 21, 24, 28, 30m	18, 20, 21, 24, 28, 30m
Boom FORCE	n/a	30, 32, 33, 36m
Boom Aluminium TR4	24, 28, 30m	24, 28, 30m
Boom Aluminium B3 Major	n/a	36.5m
Suspension	SmoothRide, opt on 3000	SmoothRide, opt hydraulic axle suspension
Hydraulic outlets needed (Ymodels)	2 double-acting	2 double-acting
Hydraulic outlets needed (Z models)	1 double-acting	1 double-acting
Weight on drawbar (empty tank)* kg	280 (3000): 460 (4000)	467 (5000): 670(6000)
Weight axle (empty tank)*, kg	3,120 (3000): 3,020 (4000)	4,236 (5000): 4,490 (6000)
Weight total (empty tank)*, kg	3,400 (3000): 3,480 (4000)	4,703 (5000): 5,164 (6000)
Total length, m	A	7.21**
Total height, m	B	3.80**
Width, m	C	3.41**
Track width fixed axle, m	D	1.80 / 2.00
Track width adjustable axle, m	D	1.50 - 2.25
Length draw to axle, m	E	4.61
Clearance, m	F	0.70 (18.4 x 30 on 3000)
		0.73 (18.4 x 38 on 5000)
		0.82 (20.8 x 42 on 6000)
RinseTank, l		450
HandWash Tank, l		20
Tyres standard	18.4 x 30	18.4 x 38 (5000)
		20.8 x 42 (6000)
Tyres optional	18.4 x 38, 12.4 x 46	14.9 x 46
	14.9 x 46	20.8 x 42 (6000)

\* Weight with 24 m EAGLE boom on 3000, 28 m EAGLE boom on 4000

\* Weight with 30 m EAGLE boom on 5000, 30 m FORCE on 6000

\*\* Dimensions with 36m B3

*HARDI reserves the right to change the specifications without notice. Illustrations shown may include optional extras and accessories.*

## HARDI Australia Pty Ltd

ABN 74 076 150 617

ACN 076 150 617

534—538 Cross Keys Road  
 Cavan, 5094.  
 South Australia  
 P: (08) 8343 9999  
 E: info@hardi-aus.com  
 W: hardi.com.au

