

# TRIDENT

**PRACTICAL** – Easily fitted to most boom sprayers. Spray operators can simply change application rates from the cab without ever changing nozzle sizes.

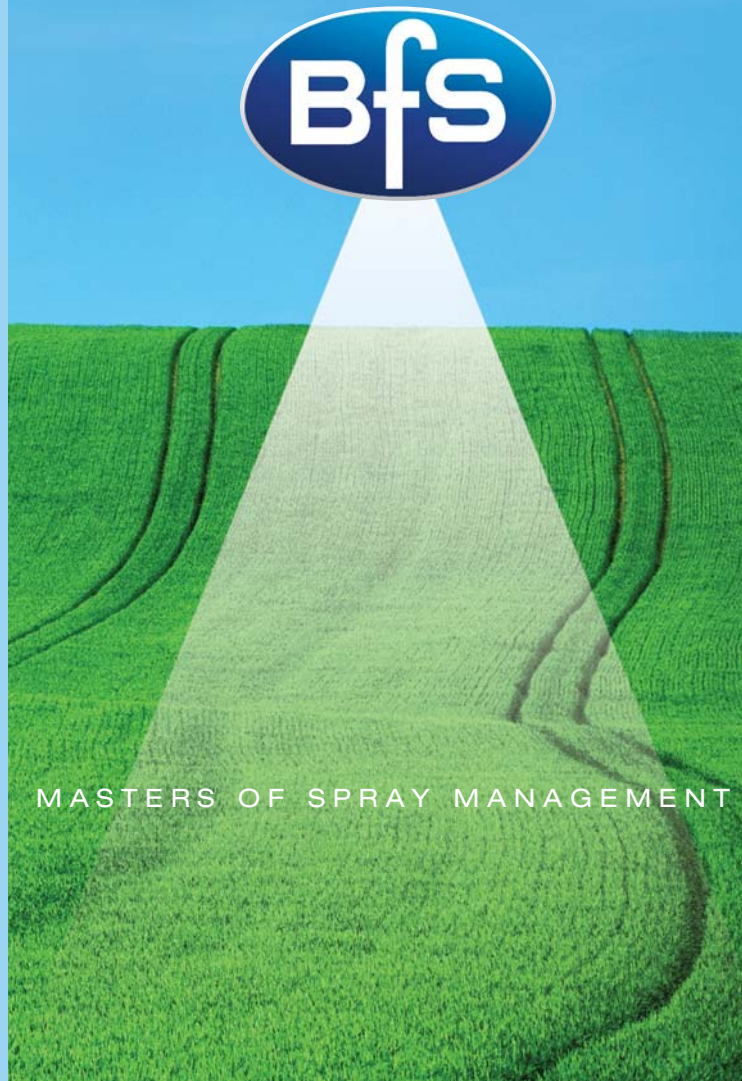
**ACCURATE** - Each of the three outlets on the Trident ensure consistent delivery of liquid fertiliser over the range of operating pressures.

**EFFICIENT** – Consistent, unbroken streams of fertiliser ensure precision targeting with less risk of scorch.

**ECONOMIC** – Reduces waste, offers increased speed and flexibility and provides a more cost-efficient utilization of labour and machinery.

**CONSISTENT** – Provides a uniform delivery of liquid fertilisers despite windy conditions or uneven ground.

**SAFE** – Reduces waste and cost, removes risk from spray drift contamination and eliminates field run-off to ditches, water courses and hedgerows. Can be applied right up to the field boundaries.



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# TRIDENT

Variable Rate  
Liquid Fertiliser Nozzle



A BFS innovation  
in the accurate  
application of  
liquid fertiliser

As easy as 1,2,3...

- 1 nozzle with multiple functions
- 2 less likely to form droplets
- 3 streams reduce risk of crop scorch

# TRIDENT

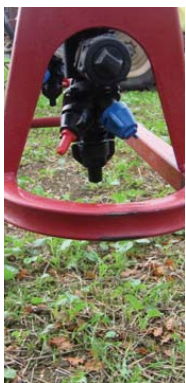
Three consistent streams of liquid fertiliser apply a wide variation of fertiliser volumes at low pressures

## Why Trident?

When applying liquid fertiliser with a conventional nozzle, a spray operator can only vary the application rate from the cab by a small amount by altering the speed and/or the pressure. If larger output changes are required, the outlets need to be reset individually. This is not only very expensive in terms of nozzle purchases but a cost in terms of the 'down-time' spent by the operator when making changes to what could be 48 or more outlets across a boom.

Currently, the application of liquid fertiliser may require two or even three sets of the conventional multi-hole nozzles to apply the correct rate of nutrients required for a particular field or crop.

By fitting Trident nozzles with its unique auto-adjusting valve, frequent nozzle changes are eliminated and operators may need only fit one set of nozzles, which will apply a wide variation of fertiliser volume rates, especially at the low pressures required to reduce crop scorch.



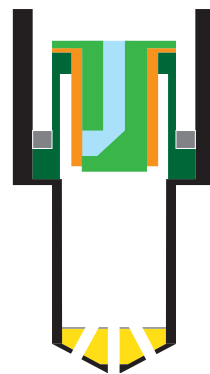
### The Benefits

- ☞ Less likely to atomise and form droplets that cause scorch  
*Less damage, more yield.*
  - ☞ Less of the crop being hit  
*More fertilizer applied directly to the soil.*
  - ☞ Less likely to damage the crop that is hit (streams run off the plant)  
*Less damage more growth.*
- Less is more.**

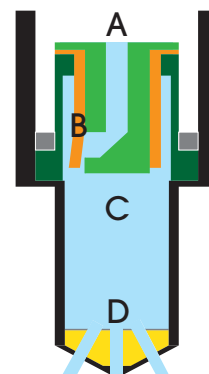
## How it works

Trident consists of a three-hole nozzle housing with a bayonet fitting. The nozzle has an internal auto-valve that comprises a chamber and metering orifice surrounded by a resilient, but flexible, sheath. The sheath is manufactured using a specially developed material, which is expandable and reacts consistently and proportionately to increases/decreases in pressure.

When there is no flow/pressure the flexible sheath closes the exit aperture in the support plug. As pressure is increased the sheath expands in



**Auto valve closed**  
When the pressure is reduced the sheath closes and the flow of liquid stops.



**Auto valve open**  
Fertiliser enters the nozzle at A and, at a given pressure, the flexible sheath expands at B and liquid flows into the outlet chamber C and exits at D as three consistent and unbroken liquid streams.



*Trident nozzles fit almost all spray booms!*

response to the increase and liquid flows out of the aperture and into a chamber at a rate directly proportional to the increase in pressure, and then exits as three consistent streams through the three orifices.

*Trident incorporates unique components that ensure uniform and consistent results*

