

**Inatreq™ active
application
advice, including
parts guidance.**



Inatreq™ active





Before purchasing or using products containing Inatreq active, growers are asked to note the following application advice, based on best practice and user experience.



The maximum concentration must not exceed **2.0L of product in 285L** of water per hectare (**0.7% concentration**).



Do **NOT** leave Inatreq active spray solution in the tank overnight (follow label recommendations).



Rinse the sprayer tank, pump and lines through at the end of each day's spraying.



Pump diaphragms

- Replace with new during winter maintenance, ideally with Blueflex or NBR.

- Abide by pump manufacturer service recommendations.

Ramsay box

- Replace diaphragm seal with new during winter maintenance.

Anti-drip diaphragms

- For anti-drip diaphragms, EPDM parts are recommended, or operators can modify air shut off anti-drip valves to use Teflon replacements.
- If you cannot replace with EPDM or Teflon, replace all existing pneumatic/automated anti-drip diaphragms/pistons with new before spraying products containing Inatreq active and check after use.

Do NOT use through pulse width modulation equipped sprayers.

Video: Best practice sprayer hygiene and maintenance

InatreqTM
active



For farmers and sprayer operators who want to utilise the unique benefits of products containing Inatreq active, please visit

www.corteva.co.uk/inatreqadvice for our best practice application advice and resources.

Our expert advice video series with Tom Robinson and Andrew Myatt is designed to highlight the importance of good sprayer hygiene and winter maintenance. This information will be of use to all operators who want to keep their machines clean and well maintained, but is of particular interest to those applying fungicides containing Inatreq active. There is a main video, together with a series of shorts, depending on the time operators have available.



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Parts guidance



Inatreq™ active



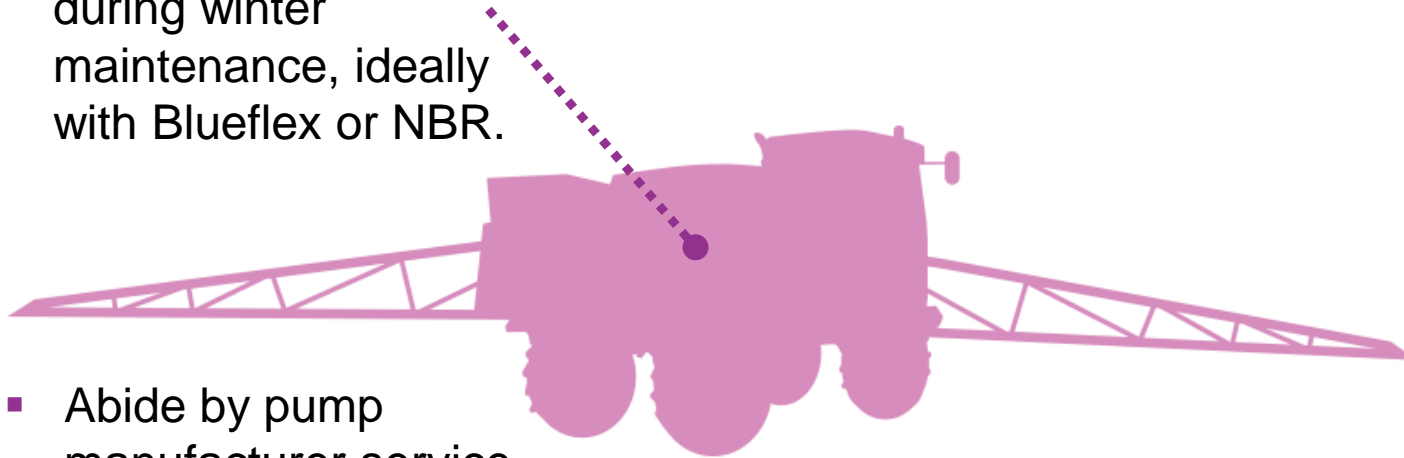
Caveat

- The following **parts guidance** is offered in good faith as correct information. It is offered as a helpful guide as to what parts might be expected to be found on different types of sprayers and what the Corteva Inatreq best practice advice means based on these observations.
(All the latest resources for the best practice advice can be accessed online at:
www.corteva.co.uk/inatreqadvice).
- The results reflect original manufacturer equipment and takes no account of parts changed as a result of subsequent maintenance / modification.
- Please check it is correct for each sprayer before taking action.
- Brand names within this document are trademarks of other manufacturers for which proprietary rights may exist. All manufacturers tradenames and trademarks are duly acknowledged.

Pumps

Pump diaphragms

- Replace with new during winter maintenance, ideally with Blueflex or NBR.
- Abide by pump manufacturer service recommendations.



Watch now.



For more information about pumps and our best practice advice, watch the expert advice video at:
www.corteva.co.uk/inatreqadvice

Pump diaphragms



Desmopan



NBR



Duramax



HPDS




Blue Flex

Diaphragm materials by pump source

	PUR	Desmopan	Duramax	NBR	Blue Flex	HPDS
Altek		X	X	X		
AR		X			X	
Bertolini		X	X	X		
Comet		X		X		X
Hardi	X			X		
Imovilli		X		X		

X = material available

 = Most durable alternative in testing (to date)

Pump source x sprayer manufacturer

Manufacturer	Year	Altek Diaphragm	AR Diaphragm	Imovilli Diaphragm	Bertolini Diaphragm	Comet Diaphragm	Centrifugal pump	Piston Dosing	Hardi Diaphragm
Agrifac	Pre 2010					x			
Agrifac	Post 2010	x							
Amazone			x						
Bateman	Post 2007		x						
Bateman	Pre 2007			x					
Hardi									x
Househam	Pre 2001		x						
Househam	Post 2001	x							
John Deere	budget		x						
John Deere							x		
Knight	Pre 2001		x						
Knight	Post 2001			x					
Lite-trac							x		
Rau		x							
Sands				x					

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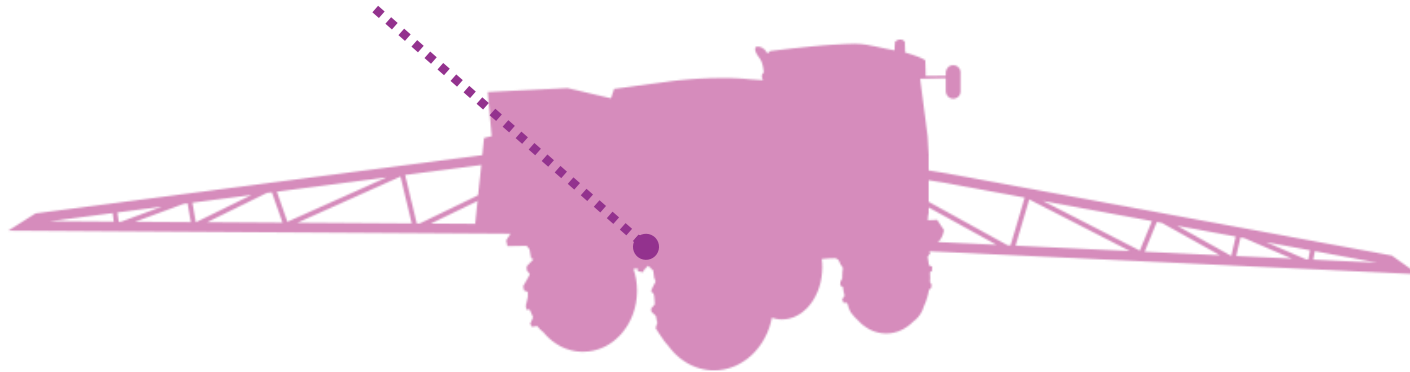
Pump source x sprayer manufacturer

(continued from previous slide)

Manufacturer	Year	Altek Diaphragm	AR Diaphragm	Imovilli Diaphragm	Bertolini Diaphragm	Comet Diaphragm	Centrifugal pump	Piston Dosing	Hardi
Agribuggy				x					
Bargam						x			
Berthoud							x	x	
Chafer							x		
Fendt							x		
Horsch							x		
Landquip				x	x		x		
Rogator							x		
Spraycare					x				
Vicon		x							

Ramsay boxes

- Replace diaphragm seal with new during winter maintenance.



Watch now.



For more information about Ramsay boxes and our best practice advice, watch the expert advice video at: www.corteva.co.uk/inatreqadvice

Ramsay seal



Manufacturers using Ramsay boxes

- Agribuggy
- Bateman
- Househam
- Knight
- Landquip (older machines)

Nozzle diaphragm check valves (DCV)

Anti-drip diaphragms

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Simple diaphragm check valve (DCV)

- EPDM option commonly available and should be the preferred choice.



Arag pneumatic nozzle bodies

- For the common Arag pneumatic anti-drip (Flow Stop), Viton is the only choice currently available and therefore it is necessary to change diaphragms prior to applying Inatreq products.
- In order to use Teflon (a more durable material in testing), side entry nozzle bodies would need to be fitted (Arag Selejet). Once fitted, Teflon diaphragms can be changed as per manufacturers recommendations. See next slide for pictures.



Arag Selejet pneumatic nozzle body

(typically on Horsch)



Teflon diaphragm

Teejet pneumatic Chemsaver nozzle body

- Viton and polyurethane are the only materials available.
- Tan colour (CP-63381-PUR) has proved to be the least durable in testing and is not recommended.
- Black (CP-4620-Vi) Viton (do not use CP-4620-FA made from Fairprene).
- Brown (CP-63005) in Corteva testing has proved the most durable for this Chemsaver in testing.
- These diaphragms will need to be changed prior to applying Inatreq products.



CP-63005



CP-4620-VI



CP-63381-PUR

Pentair Hypro Duo React

- Factory items have Viton O-rings and as such will need replacement before spraying Inatreq products.
- EPDM has proved more durable in testing and replacement EPDM O-rings can be purchased and fitted. Size BS004.
- One source is 'Simply bearings'
https://simplybearings.co.uk/shop/p84004/BS004-1.78mm-Section-1.78mm-Bore-EPDM-Rubber-O-Rings/product_info.html.
- Warming the O-rings in warm water assists in the replacement.



Pentair Hypro pro-stop

- Factory items have Viton O-rings.
- The O-rings cannot be replaced and therefore replacement pistons will be required before spraying Inatreq products.



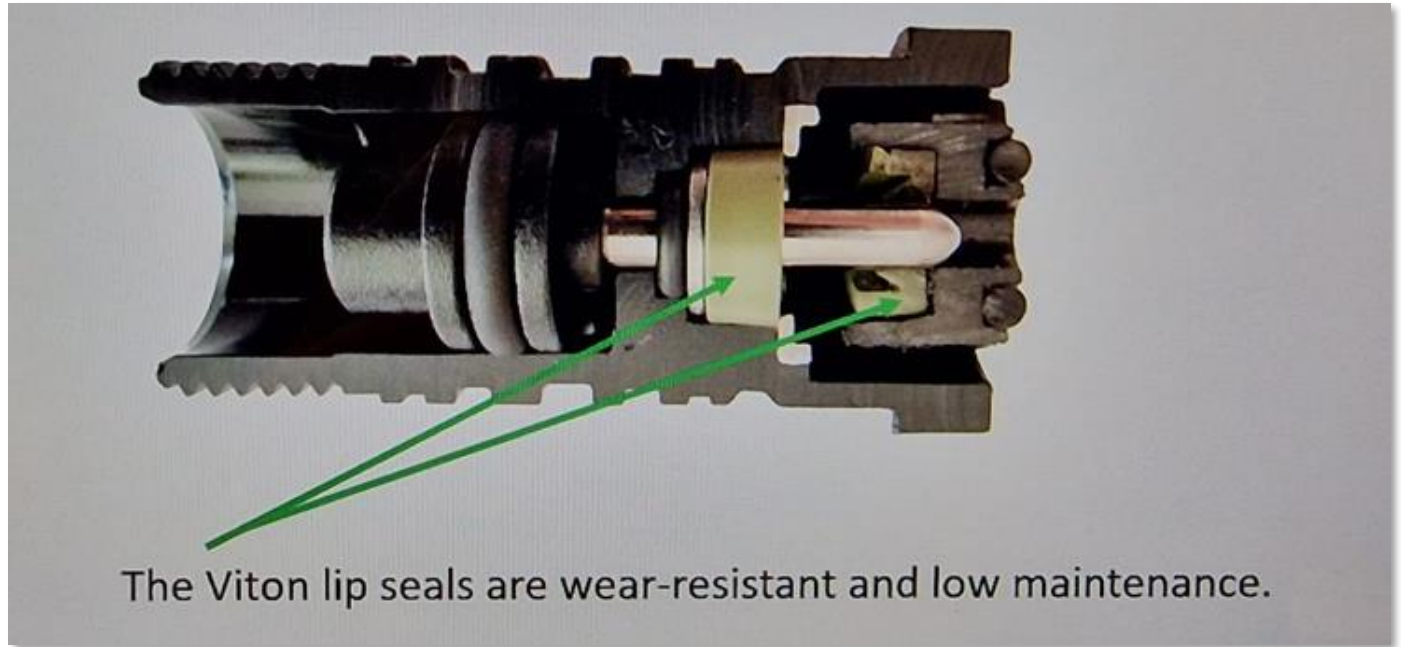
Lechler PSV pneumatic shut-off valve (piston type)

- In the UK, only fitted to some John Deere sprayers.
- Viton O-rings which cannot be replaced.
- Replacement pistons therefore required before spraying Inatreq products.



Altek spraystop/airstop

- Stainless steel piston with Viton 'lip seals'.
- Replacement 'lip seals' are available.



Pulse width modulation

- Until further work is undertaken, Corteva does not recommend the use of Inatreq through sprayers equipped with pulse width modulation.