

Vitec Spray Accessories & Handy Hints Guide



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vitec's Refractometer (Brix Meter)

A refractometer is possibly the simplest farming tool available, you simply crush the leaves of your crop, and place sap on the refractometer.

Vitec now stocks an easy to use professional refractometer (full instructions included) that requires no battery and has automatic temperature compensation. No more waiting and consulting temperature correction charts before a reading is taken.

The laminated Brix Chart is ideal for use outside in all weathers.

A Refractometer Can Help: -

- Save time & money
- Determine optimum time to harvest
- Indicate the most economical & best fertilisers to increase brix levels
- Help select the most beneficial paddock to move stock to
- Improve plant resistance to insect attack by increasing brix levels



**No batteries required
Compact, easy to use**



What's in the Box

- **Refractometer with measurement range 0 to 32 brix with -Automatic Temperature Compensation**
- **Pipette to apply drops of juice/sap**
- A laminated chart of fruit, vegetable, crop & grain with poor to optimum levels, ideal for use outside. Stores in box lid.
- **Protective case**

Vegetables		Refractive Index of Crop Juices		Fruits	
Asparagus	1.020 - 1.025	Apple Juice	1.040 - 1.045	Apple	1.040 - 1.045
Broccoli	1.020 - 1.025	Banana Juice	1.045 - 1.050	Banana	1.045 - 1.050
Cauliflower	1.020 - 1.025	Carrot Juice	1.040 - 1.045	Carrot	1.040 - 1.045
Green Beans	1.020 - 1.025	Cherry Juice	1.045 - 1.050	Cherry	1.045 - 1.050
Leeks	1.020 - 1.025	Citrus Juice	1.040 - 1.045	Citrus	1.040 - 1.045
Peas	1.020 - 1.025	Grape Juice	1.045 - 1.050	Grape	1.045 - 1.050
Spinach	1.020 - 1.025	Orange Juice	1.040 - 1.045	Orange	1.040 - 1.045
Tomatoes	1.020 - 1.025	Peach Juice	1.045 - 1.050	Peach	1.045 - 1.050
Winter Squash	1.020 - 1.025	Pineapple Juice	1.045 - 1.050	Pineapple	1.045 - 1.050
Legumes	1.020 - 1.025	Raspberry Juice	1.045 - 1.050	Raspberry	1.045 - 1.050
Peas	1.020 - 1.025	Strawberry Juice	1.045 - 1.050	Strawberry	1.045 - 1.050
Beans	1.020 - 1.025	Watermelon Juice	1.040 - 1.045	Watermelon	1.040 - 1.045
Lentils	1.020 - 1.025	Other Fruits	1.040 - 1.045		
Other Legumes	1.020 - 1.025				
Pasture	1.020 - 1.025				
CODE					
Crops, Grains & Grasses					
Wheat	1.040 - 1.045				
Barley	1.040 - 1.045				
Oats	1.040 - 1.045				
Rye	1.040 - 1.045				
Grasses	1.040 - 1.045				

Laminated chart of refractive index of fruit, vegetable, crops

Microbe 'friendly'
for compost teas

SPRAY 5 METRE WIDE WITH A SINGLE NOZZLE

- Perfect for crop, pasture or ground application in orchards
- **Less vehicle passes in paddock, less compaction**
- Apply sprayable lime, dolomite & gypsum easily
- **Perfect nozzle for natural, organic fertilisers**
- Strainers and filters not necessary
- **Easy to clean and maintain**
- A flat, fan shaped pattern
- **Simple and effective**
- Low impact spray
- **No drift**



Brass nozzle ACTUAL size

This nozzle has simply replaced the 5 nozzles on our boom & providing a better coverage of the soil without spray drift. Only one pass is now needed down between the rows of olive trees spaced at 4 meters. We spray out Vitec fish, seaweed & compost teas & no longer have clogged nozzles as before. Importantly for **compost teas, the nozzle is microbe 'friendly'**. This simple solution is efficient & has saved us valuable time.



Alison Pitt & Jane Unwin
French Island Organic Olive Oils
French Island, VIC.

Brass Nozzle Technical Bits

Rates of Application

Approximate Capacity Travelling at 10Kph					
Bar	1	1.5	2	3	4
Psi	14.5	22	29	44	58
Lt/ Min.	13.7	16.7	19.3	23.7	27.3
Lt/ Ha	82.2	100	115.8	142	163.8

Dimensions

PIPE SIZE (BSPT)	ORIFICE Diameter (mm)	DIMENSIONS (mm)	
		Area	Length
3/8	4.78	17	33.4

Basic equipment required for these results.

A fire fighter pump, single impeller, capable of 30 – 60psi

vitec's Venturi

Mixes liquid & dry fertilisers with NO settling.

How a Venturi Works



- Enables smaller pumps to circulate LARGE volumes
- Keeps matter in suspension, especially minerals, sprayable lime, gypsum & dolomite
- Saves Time Saves Money
- Easy to adapt to new or existing spray units
- Spray out liquid & dry fertilisers together (if compatible)



Venturi Technical Bits

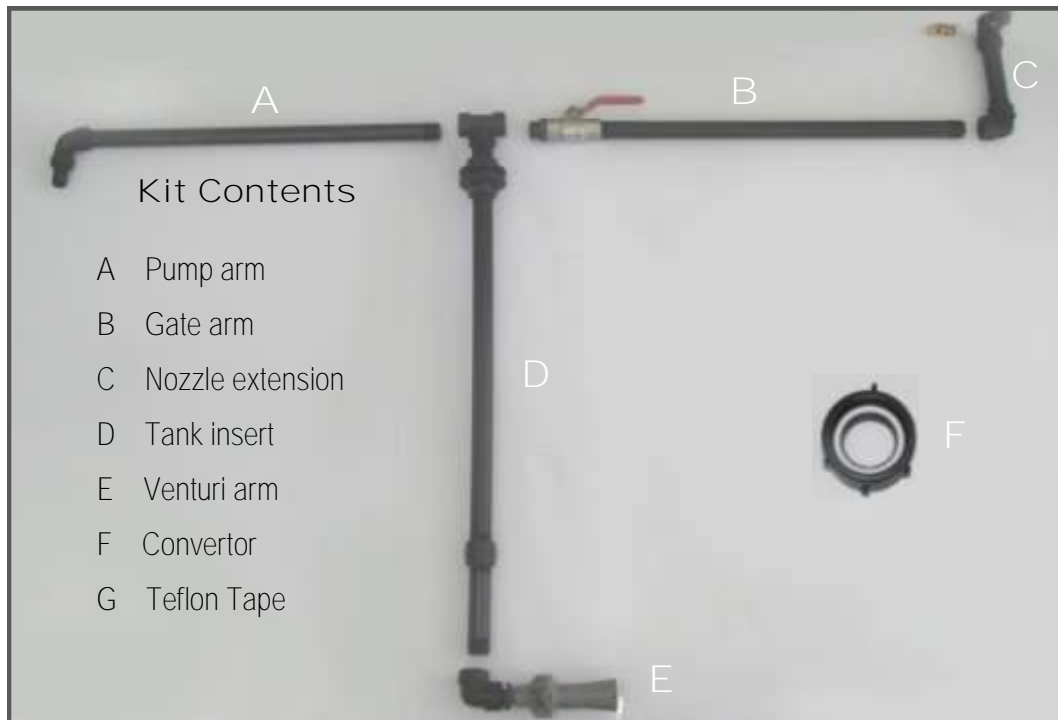
Venturi Nozzle Flow (Lt/Min)					
Bar	1	1.5	2	3	4
Psi	14.5	22	29	44	58
Lt/Min	62	75	87	107	123
Venturi TOTAL Circulation (Lt/Min)					
	310	375	435	535	615

Dimensions

Pipe size	Length (cm)	Diameter (cm)
3/4 BSPT Male	16.2	7.6

vitec's Spray Tank Conversion Kit

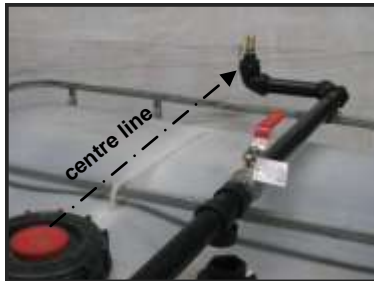
Converts a 1000Lt cube to a Spray Tank



- **Quick, easy, simple, economical**
- Have a spray unit (minus the pump & cube) up & running for less than \$300
- **Will spray 5 hectares with minimal passes**
- **Complete with nozzle & venturi (see details pgs 2 & 3) all pipes, tap (no pump)**
- Instructions with photos included
- **Spray Vitec Fish & Kelp fertilisers with sprayable lime, dolomite or gypsum at the SAME time**

vitec's Spray Tank Conversion Kit

Cont.



Top view showing nozzle on centre line

- Converted 1000 Lt tanks available READY to go, (no pump)
- Ring for current cost & delivery date



Part D & E position inside tank.

Ensure Venturi is facing AWAY from inlet.

Converted 1000lt cube



Part F on cube outlet

vitec's Drum Spanner 10Lt & 20Lt

- Dual purpose
- Easy opening of caps
- No strain
- Tighten or remove bungs
- No fiddling, no slipping
- Suits 10, 20 & 25lt drums



Easy to open and close all 10 and 20 litre drums.



The tail end of spanner opens and tightens the bung.



Screw a tap into bung for convenient and easier decanting.

HANDY HINT
Loosen the cap to allow air into drum to prevent a vacuum.

HANDY HINT
When opening the bung lay the drum on its side with bung facing up!
Saves lots of cleaning up.

vitec's Drum Spanner 200Lt

The various style bungs on the 200lt drums are a nightmare to open without this wonderful, versatile, heavy duty drum spanner. The concave lug will fit **ANY TYPE BUNG** on the market.

Manufactured in an Australian foundry from malleable grey iron, it can even double as a HAMMER. Great for knocking in that odd nail protruding from a pallet.

Year in and year out at Vitec the same spanner has seen extensive service, with no damage whatsoever.

This is one valuable tool you must have in your shed or ute if battling with 200lt drums.



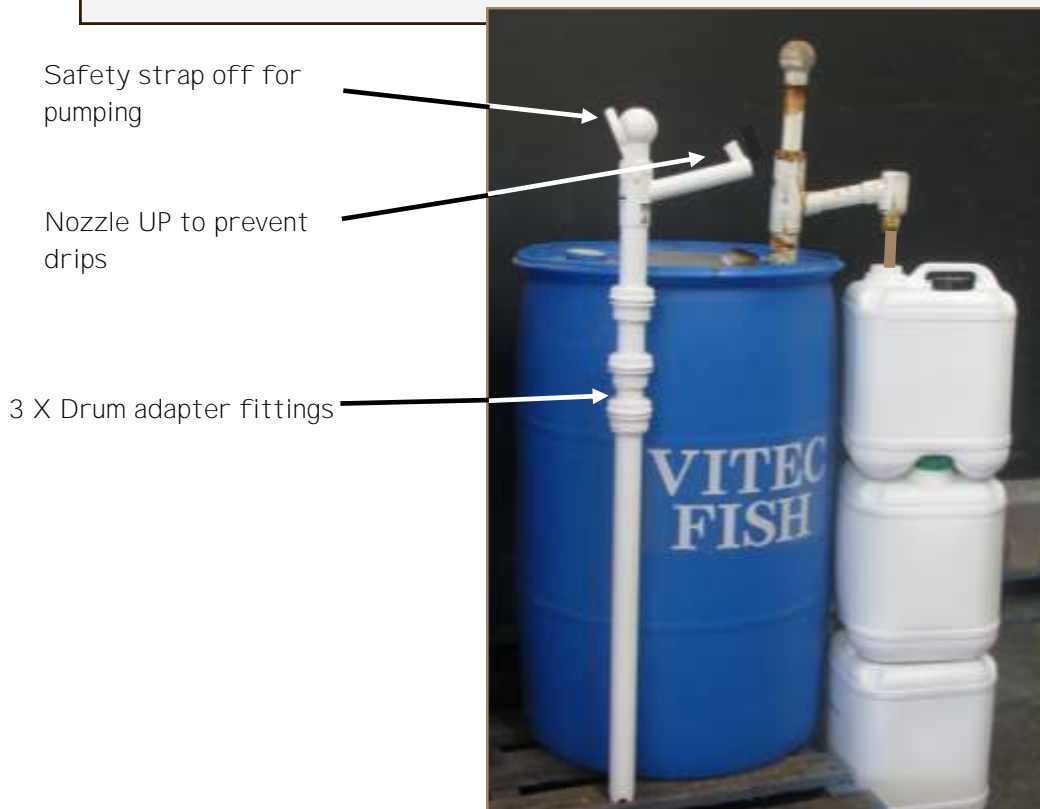
- Fits most metal & plastic 200lt drum bungs
- **Easy action**
- Will not break, bend or chip
- **Strong malleable grey iron, zinc coated**
- A 'must have' handy tool
- **AUSTRALIAN MADE**



vitec's Drum Pump 200lt

Easily decant fish & kelp fertilisers

- **Fast, continuous flow**
- Easy action hand pump
- **400ml per stroke**
- Double action— delivers on UP & DOWN stroke
- **No parts to wear or jam**
- Anti pumping safety strap prevents accidental discharge
- **All styles of drum and container openings are catered for with various adapters included**
- The spout swivels upwards to prevent drips
- **All plastic construction**
- Empties the drum as it pumps from the base of drum
- **Easily disassembled for cleaning**
- **2 year manufacturer's warranty**



Vitec Drum Pump in Action

Handy Hints for using Vitec Fertilisers

TIME OF APPLICATION

- Spray in early morning or late evening.
- Fish may be sprayed onto dry soil that receives heavy dews.
- Avoid spraying in hot sunny conditions.

PREPARATION OF FERTISLERS

- **STIRRING** Stir 200Lt drums well using thick wooden dowell, a long spade handle or a drum blade stirrer. For 20Lt drums use a blade stirrer.
- **MIXING** Pre-mix the required amount of fertiliser in a separate container with equal amount of water taken from the spray tank. This will make the fertiliser easier to mix with water in spray tank. If it is not pre-mixed, the fertiliser will sink to bottom of spray tank like globules in a “lava lamp”.
- **ADDING TO TANK** Have pump running to get water agitating when adding pre-mixed fertiliser to spray tank. This will help further mix fertiliser to make a homogenous liquid.
- **FILTERS** Remove filters or by-pass filters.

SPRAYABLE LIME, GYPSUM & DOLOMITE

- **IF NO VENTURI IS INSTALLED IN TANK**, the 25kg bag needs to be divided into three buckets and mixed to a slurry/suspension before adding to spray tank.
- Sprayable lime, dolomite & gypsum and other dense dry minerals require constant agitation during application to prevent settling out.
- A simply installed VENTURI will keep minerals & liquid fertilisers in suspension allowing a SINGLE pass with spray unit

EQUIPMENT

- **NOZZLE** Use a coarse spray SINGLE nozzle, that will not clog up easily. They have an aperture of 4.78 mm. and a spray width pattern of up to 10 metres.
- **PUMP** Preferably use a fire fighter pump (Impeller type) which can handle the viscous nature of Vitec fertilisers.
- **WETTING AGENT** * Some customers use a surfactant/wetting agent in the fertiliser solution which helps with keeping equipment clean. Only use the minimum surfactant needed to produce a smooth coverage with solution without it separating into separate drops. This will vary depending on the hardness of the water.

* **Check if this is permissible with your organic certification.**

CLEANING EQUIPMENT

- **RINSE** Immediately after use rinse out spray tank, hoses and nozzles, with solution of household detergent and water. This is to prevent a sticky build up from the oil in the fish fertilisers.
- **FISH OIL BUILD UP** Try using eucalyptus oil or eucalyptus wool wash to remove previous stubborn build up.
- **LIME BUILD UP** Thoroughly rinse all equipment after using sprayable lime, gypsum or dolomite to prevent calcification build up.

STORAGE

- **COOL** Store fertilisers in a cool place with bungs firmly closed.
- **LONG TERM - DECANT** For long term storage of part drums, it is best to transfer to smaller drums to give very little air space. A large air space can cause condensation which may reduce storage life.
- **NEVER STORE IN DILUTED FORM.**
- Store 1000lt cubes converted to a spray unit AWAY from sunlight as the plastic is NOT UV stabilised.

DRUM DISPOSAL

- **TRIPLE RINSE** drums upon emptying to extract the last of your Vitac fertiliser then add BACK to spray tank before disposal of drum.
- **FISH & RUMINANTS** Fish fertiliser drums should not be re-used as ruminant animal feed containers to be in accordance with DPI regulations. (DPI do not want a 'Mad Fish Disease' outbreak.)

RECORDS

- After each application, record all relevant data i.e.
 - * weather conditions
 - * product & Organic Certification
 - * volume used
 - * area treatedto comply with organic/ primary producers certification.

VITEC'S Spray Unit Hire

Have a small area to spray?
Here is the answer.

- **Perfect solution for small areas**
- Unit ready to go for all Vitec liquid fertilisers
- **Suitable for sprayable lime, dolomite & gypsum**
- Tow behind a tractor, ute or 4WD. Registered for on road use
- **400 litre tank & easy start motor**
- Allow 2—3 weeks advance booking for critical timing of application



VITEC'S Soil Testing Kit

The Kit

1. Stainless steel soil sampler
2. Stainless steel trowel
3. SWEP soil test kit
4. Handy Hints Guide to prevent contamination of soil samples



- **On loan to Vitec customers for the cost of postage**
- Soil Testing Made Easier
- **Provides uncontaminated samples**
- Just a phone call away

vitec's Handy Kits



1 x 10 & 20 Litre Spanner
3 x Drum Taps

Vitec Trio
Drum Kit



1 x 200 Litre Pump
1 x 200 Litre Spanner

Vitec 200 litre
Drum Kit



1 X Venturi
1 X Brass nozzle, nut
& tail

Vitec Mix & Spray
Starter Kit

Notes

VITEC AUSTRALIA Pty Ltd
Visit: 5 Speedwell Street
Postal: PO BOX 564
Somerville
VICTORIA 3912

Phone: 03 59 777 600
Free Call: 1800-622-345
Fax: 03 5978 0269
E-mail: info@vitec.com.au
Website: www.vitec.com.au
Secure on line store

Call the team at Vitec for current prices

