

# **Mr Nozzle**

*Your Sprayer Component Specialist*



## ***Product Catalogue and Spraying Guide***

**Phone 1800 777 297**  
**[www.mrnozzle.com.au](http://www.mrnozzle.com.au)**



## Welcome to Mr Nozzle



Dear Customer,

Welcome to the latest catalogue of agricultural and industrial spraying accessories and components from Mr Nozzle.

Our comprehensive range has items that will suit almost every spraying application.

If you need to spray broad-acre or row crops, fruit trees, vines or vegetables, if you are a contractor including aerial or roadside, if you are a pest exterminator or you are looking for an economical solution to cooling industrial workshops, stock sheds, shearing sheds, chicken and pig barns, aviaries, patios or adding humidity to wine cellars and greenhouses, Mr

Nozzle is the spraying component and sprayer spare part specialist that you need. We have included for the first time our range of dust suppression systems to suit the mining and construction or demolition industries.

Mr Nozzle will provide independent advice and assistance in nozzle selection, and sprayer design if you want to build or modify your own equipment, and we stock, source and supply spare parts to suit most makes and models of sprayers. This is all backed by the manufacturer's warranties and guarantees and a prompt Australia wide delivery service.

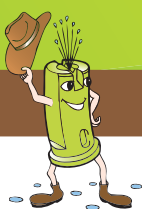




We have developed excellent relationships with the world leading manufacturers and suppliers to the spraying industry both Australian and overseas and offer a comprehensive range of the highest quality accessories and components. As a totally independent company we can make unbiased product suggestions about anything to do with spraying.

So freecall the friendly staff at Mr Nozzle on 1800 777 297 or call into our shop and trade counter at 515 Cross Keys Road, Cavan, SA; we are open from 8.30am through to 5pm Monday to Friday. Ordering on-line is easy at: [shop.mrnozzle.com.au](http://shop.mrnozzle.com.au)





## Table of Contents

### Welcome to Mr Nozzle

Welcome .....	1
Selecting the right nozzle .....	4
Technical Information .....	5
Classification.....	6
ISO Nozzle Application Rate Chart (l/ha) .....	7

### Nozzles

Air Induction .....	9
Low Drift .....	9
Off Centre .....	9
Extended Range.....	9
Twin Fan Air Induction.....	9
Boomless .....	10
Fertilizer.....	10
Hollow Cone .....	10
Misting Nozzles.....	10
Other .....	10
Nozzles - Other Brands .....	11
Nozzle Strainers .....	17

### Caps and Seals 13

### Calibration and Safety

Measuring Buckets and Jugs .....	14
Calibration Tools and Aids .....	14
Drum Pourers .....	14
Gloves and Coveralls .....	14

### Weather Meters 15

### Booms

Boom Components .....	16
Nozzle Bodies .....	17
Spray Guns .....	18
Switch Boxes .....	20

### Gauges 18

### Valves

Safety Valves .....	19
Electric Valves.....	19
Kits and Adaptors .....	20
Manual Valves .....	21
Solenoid Valves .....	21
Relief Valves .....	21
By Pass Valve .....	21
Gate and Ball Valves .....	22
2 Way.....	22
3 Way.....	22
Brass Valves .....	22
Drain Valves .....	22

### Flow Meters

Filling .....	23
Spraying.....	23
Chemical.....	23

### Filters

Suction Filters .....	24
Pressure Filters .....	25
Filling Filters .....	25
Line Filters .....	25

### Agitators and Venturis

Agitators .....	27
Venturi Chemical Injectors .....	27

### Sprayers

Boom .....	28
Spot Spraying.....	28

### Tanks and Accessories

Poly Tanks .....	29
Accessories .....	29
Rinse Aids .....	29
Tanks Lids and Baskets .....	29

## *Chemical Transfer*

Mixing and Transfer .....	30
Dosing and Injection .....	30

## *Poly Fittings*

Barbed .....	31
Fly Nut Elbow .....	31
Fly Nut Tail .....	31
Bulkhead Elbow .....	32
Caps .....	34
Couplers .....	34
Plugs .....	34
Sockets .....	34
Threaded Elbow .....	34
Threaded Tee .....	34
Drain Outlet .....	35
Nipples .....	35
Manifolds etc .....	36

## *Cam Lock Couplings*

Type A Male/Female BSP .....	36
Type B Female/Male BSP .....	36
Type C Female/Hosetail .....	36
Type D Female/Female .....	37
Type E Male/Hosetail .....	37
Type F Male/Male BSP .....	37
Type G Plug .....	37
Type H Cap .....	37

## *Nylon Fittings*

White Nylon .....	38
Quick Connector .....	40

## *Brass Fittings*

Brass .....	41
Check Valves .....	43

## *Hoses and Accessories*

Pressure Hose .....	44
Suction Hose .....	44
Hose Reel .....	44

## *Pumps*

Dosatron .....	30
Hand Pumps .....	30
High Pressure .....	45
Boomspray .....	45
Hatsuta .....	46
Piston .....	56
Diesel .....	57
Hypro Polypropylene Pumps .....	57
12 Volt .....	58

## *GPS and Foam Markers*

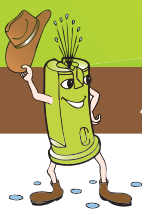
Precision Agriculture Glossary of Terms .....	49
GPS Guidance .....	50
Foam Markers .....	51

## *Control Systems*

Switchboxes .....	20
Spray Rate Controllers .....	52
Monitors .....	52

## *Dust Suppression and Misting Systems*

Outdoor Fog Cooling Systems .....	55
Wine Cellars .....	55
Livestock .....	55
Misting Fans .....	56
DIY Kits .....	56
Pumps .....	56
Industrial .....	57



## Selecting the right nozzle

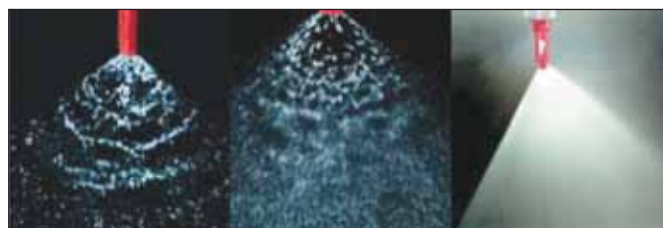
### NOZZLE SELECTION



Nozzle selection should be made by selecting the correct droplet spectrum or spray quality according to the chemical manufacturer's recommendations. This may mean adjustments to your speed and/or water rate per hectare to obtain the ideal pressure for the optimum spray quality for the product being used.

This is of the utmost importance to achieve the best efficacy of the applied chemical and reduce spray drift or loss. Be aware that using nozzles that do not produce droplets that meet the desired spray quality as per the chemical label, may be deemed as applying "off label". Penalties may apply if spray drift is caused.

Spray drift is defined as "the movement of chemicals outside the intended target by air mass transport or diffusion" (ASAE S27.1).



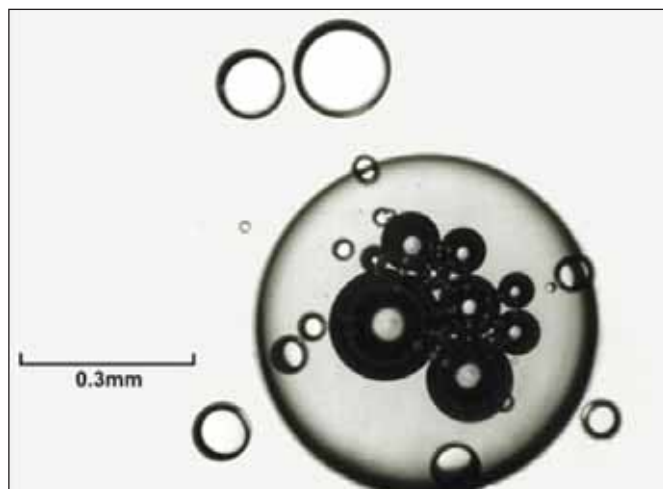
### DROPLET SIZE

Nozzle selection is based on droplet size according to the BCPC and the ASEA S-572 standard referring to the droplet size of extremely coarse, very coarse, coarse, medium, fine or very fine.

Most chemical manufacturers are using this method of droplet sizing on their label recommendations. It is important to know that a nozzle that produces a medium droplet at a given pressure may produce a fine droplet at a higher pressure. This may mean that you could be spraying off label and against the chemical manufacturer's recommendations.

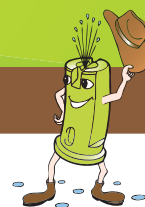
The most common nozzle used today in boom spraying produces a medium droplet, suitable for contact and systemic herbicides, insecticides and fungicides but with pre-emergent surface applied herbicides and 2, 4-D etc they require a coarse to very coarse droplet.

A fine droplet is ideal for contact fungicide sprays in tree and vine crops which require excellent coverage of the leaf surface but spray loss or drift is very high. This information is important to be aware of to get the best from your chemicals and comply with best spraying practices. Some nozzle manufacturers produce a nozzle chart or similar to show the droplet size classifications. See page 6. Please ask the Mr Nozzle staff for this information when purchasing nozzles.



It must be noted that we only tend to look at the droplets that are airborne and not when the droplet has hit its target. With air induction nozzles the droplets are hollow or air filled and shatter on impact when used with a surfactant, giving the coverage which is more uniform than just a larger solid droplet.

This principal applies to all forms of spraying including tree and vine crops, broad-acre etc. Spray drift reduction should be a part of your best spraying practices along with coverage and control regardless of the application.



## DRIFT CONTROL

Drift can be managed successfully with the right knowledge of the equipment and the factors influencing drift. Every application must be balanced between managing drift and maintaining effective crop protection. Below is a list of factors that must be considered to ensure a safe, accurate spray application.

- Spray pressure for the nozzle type
- Nozzle size and type
- Droplet size
- Application Rate
- Buffer zones (safe distances from sensitive areas)
- Label recommendations from chemical manufacturers
- Nozzle height or nozzle placement
- Checking of the nozzle outputs of the sprayer regularly
- Stability of the local atmospheric conditions
- Operating speed
- Wind speed & direction
- Air temperature and relative humidity
- Correct sprayer set-up

## CALIBRATION

Calibration: is simply the process of taking measurements and calculating the volume that a given machine is applying. Firstly you need to determine what your nozzle outputs should be at a given pressure or if you are happy with what you are applying, what the application rate is.

The most common and the easiest way to calibrate any type of sprayer is to use the following formulae:-

## BROADACRE

$$\frac{\text{Sprayed Width (M)} \times \text{Tractor Speed (KPH)} \times \text{Desired Application Rate (LPH)}}{600 \text{ (constant)}} = \frac{\text{Total Litres per Minute}}{\text{Number of Nozzles Used}} = \text{Litres per Minute per Nozzle}$$

Often the operator likes what amount is being applied but does not know what rate per hectare that is being applied. The formulae for this is:-

$$\frac{\text{Total Output from Nozzles} \times 600}{\text{Sprayed Width (M)} \times \text{Tractor Speed (KPH)}} = \text{Litres per Hectare}$$

## TREE & VINE CROPS

Tree and vine crops should ideally be calibrated using distance based calibration or volume of spray per metre of canopy height per 100 metres long. This method does not require formulas just simple reference tables instead. This can be discussed further by talking to the staff at Mr Nozzle. There are spray rate controllers available that will calculate this for you.

## SPEED

To calculate speed of the vehicle, use this formulae:

$$\frac{\text{Distance Travelled (M)} \times 3.6}{\text{Time Taken in Seconds}} = \text{KPH}$$

## SPEED CONVERSION TABLE – time taken to cover 100m

Time in seconds	90	72	60	51	45	40	36	33	30	28	26	24	23	21	20
Speed Kph	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Once you have all the required information from above, look up a desired nozzle chart to select the required nozzles at a suitable pressure. (NB. – This calibration procedure is only THEORETICAL and should always be checked physically using a measuring jug or tip tester).

**Checking the system:** Collect the spray in a calibrated jug from a few nozzles individually for 1 minute at random or use a tip tester and check the output against a nozzle chart. Adjust the pressure until the required output per minute is achieved. If the output is greater or less than 10% from a new nozzle, it should be cleaned or replaced. If 3 or 4 nozzles are worn excessively, replace all the nozzles regardless of how many nozzles are in use. It may seem unrealistic but it is a sign that all nozzles are worn and serious application problems may occur if only the worn nozzles are changed and not the whole set.

## SPRAY DENSITY – spraying solutions other than water

Since most tabulations are based on spraying water, which weighs 1 kilogram per litre, conversion factors must be used when spraying solutions heavier or lighter than water. To determine the proper size nozzles for the solution to be sprayed, first weigh 1 litre of mixed product and multiply the desired l/min or l/ha of solution by the water rate conversion factor. Then use the new converted l/min or l/ha rate to select the proper size nozzle.

**Example:-** Desired application rate is 100 l/ha of solution which has a density of 1.28 kg/litre. Determine the correct nozzle size as follows:

l/ha (solution) x conversion factor (from table) = l/ha

100 l/ha (1.28 kg/l solution) x 1.13 = 113 l/ha (water)

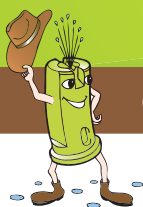
The applicator should choose a nozzle size that supplies 113 l/ha of water at the desired pressure.

Density - kg / litre	Conversion Factors
0.84	0.92
0.96	0.98
1.00 water	1.00
1.08	1.04
1.20	1.10
1.28 - 28% nitrogen	1.13
1.32	1.15
1.44	1.20
1.68	1.30

## PRESSURE & DROPLET VELOCITY

**Pressure** – To double the output of a nozzle, you must increase the pressure four fold. E.g. – spraying at 50l/hect @ 3bar and you want to spray at 100l/h the pressure must be set at 12bar without changing anything else.

**Droplet Velocity** – By increasing pressure at the nozzle, it does not always mean that you will increase the penetration or velocity of the droplet. Everything has terminal velocity where the droplet will decrease its velocity or penetration if the pressure is exceeded too far. When using air induction nozzles be aware of your pressure range, both maximum and minimum. If your pressure is too low your pattern or efficiency will decrease or too high it will also lose efficiency and possibly penetration.



## Classification

### BCPC / ASAE Droplet Spectra Charts

ID - High Pressure Air Induction

Pressure Bar Nozzle Size	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
ID 120-01													
ID 120-015													
ID 120-02													
ID 120-025													
ID 120-03													
ID 120-04													
ID 120-05													

IDK - Low Pressure Air Induction

Pressure Bar Nozzle Size	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
IDK 120-01		C	C	C	M	M	M	M	M	F	F
IDK 120-015		C	C	C	C	M	M	M	M	F	F
IDK 120-02		VC	C	C	C	C	M	M	M	M	M
IDK 120-025		VC	VC	C	C	C	C	M	M	M	M
IDK 120-03		VC	VC	VC	C	C	C	C	M	M	M
IDK 120-04	XC	VC	VC	VC	VC	C	C	C	C	C	M
IDK 120-05	XC	VC	VC	VC	VC	VC	C	C	C	C	M

IDKT - Twin Low Pressure Air Induction

Pressure Bar Nozzle Size	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
IDKT 120-01											
IDKT 120-015											
IDKT 120-02											
IDKT 120-025											
IDKT 120-03											
IDKT 120-04											
IDKT 120-05											

AD - Pre Orifice Low Drift

Pressure Bar Nozzle Size	1.5	2	2.5	3	3.5	4	4.5	5	6
AD 120-015	M	M	M	M	F	F	F	F	F
AD 120-02	C	M	M	M	M	M	F	F	F
AD 120-03	C	C	C	M	M	M	M	M	F
AD 120-04	C	C	C	C	C	M	M	M	M

LU - Extended Range Flat Fan

Pressure Bar Nozzle Size	1.5	2	2.5	3	3.5	4	4.5	5
LU 120-01	F	F	F	F	F	F	F	F
LU 120-015	F	F	F	F	F	F	F	F
LU 120-02								
LU 120-025								
LU 120-03								
LU 120-04								
LU 120-05	M	M	M	M	M	M	M	M
LU 120-06								
LU 120-07								
LU 120-08								

MICR

VF	<144
F	144
M	236
C	341
VC	404
XC	>502

IS - Off Centre Air Induction

Pressure Bar Nozzle Size	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
IS 80-02	VC	VC	VC	C	C	C	C	C	C	C	C
IS 80-025	VC	VC	VC	VC	C	C	C	C	C	C	C
IS 80-03	VC	VC	VC	VC	VC	VC	VC	C	C	C	C
IS 80-04	XC	XC	VC	VC	VC	VC	VC	VC	VC	VC	C
IS 80-05	XC	XC	XC	VC	VC	VC	VC	VC	VC	VC	VC
IS 80-06	XC	XC	XC	XC	VC	VC	VC	VC	VC	VC	VC

Spray quality sizes are based on the BCPC and ASAE S-572 classifications  
Classifications are subject to change without notice

The droplet spectrum or droplet size of nozzles have been classified under a standard. To simplify these sizes, they are VERY FINE, FINE, MEDIUM, COARSE, VERY COARSE or EXTREMELY COARSE under the BCPC and ASAE S-572 classification.

The spray quality sizes are very important for spray drift reduction, better chemical retention and for conforming to chemical manufacturers recommendations.

The above tables are used to select the right nozzle and pressure to get the optimum results. By manipulating your pressure, you will change the spray quality.


This can be used to your benefit.

For more in depth information regarding nozzle selection, contact the staff at Mr Nozzle.

<b>VERY FINE</b> VF	Lecher TR hollow cone	Some fungicides & insecticides - specialised applications Extremely high drift potential Mainly tree and vine crops
<b>FINE</b> F	Lecher LU	Some herbicides, fungicides & insecticides High drift potential
<b>MEDIUM</b> M	Lecher LU Lecher IDK Lecher IDKT-Twin	Systemic & contact herbicides fungicides & insecticides Low drift potential Also suits tree and vine crops
<b>COARSE</b> C	Lecher ID	Systemic herbicides and soil applied herbicides Low drift potential
<b>VERY COARSE</b> VC	Lecher ITR	Some soil applied herbicides, systemic herbicides Very low drift potential
<b>EXTREMELY COARSE</b> XC	Teejet TTI	Some soil applied herbicides, fertilizers, some systemic herbicides Extremely low drift potential

# ISO Nozzle Application Rate Chart (l/ha)



ISO Standard Colour & Size							50	ISO Nozzle Application Rate Chart (l/ha)																
	ID	IDK	IDKT	AD	LU	kpa	Spacing (cm)	Speed (km/hr)																
							l/min	6	8	10	12	14	16	18	20	22	25	30	35	40				
Orange .01					F	100	0.23	46	35	28	23	20	17	15	14	13	11	9	8	7				
	C	C			F	200	0.33	66	50	40	33	28	25	22	20	18	16	13	11	10				
	C	M			F	300	0.40	80	60	48	40	34	30	27	24	22	19	16	14	12				
	C	M			F	350	0.43	86	65	52	43	37	32	29	26	23	21	17	15	13				
	C	M			F	400	0.46	92	69	55	46	39	35	31	28	25	22	18	16	14				
	C	M			F	500	0.52	104	78	62	52	45	39	35	31	28	25	21	18	16				
	C	F			F	600	0.56	112	84	67	56	48	42	37	34	31	27	22	19	17				
	M	F				700	0.61	122	92	73	61	52	46	41	37	33	29	24	21	18				
	M					800	0.64	128	96	77	64	55	48	43	38	35	31	26	22	19				
	M					900	0.68	136	102	82	68	58	51	45	41	37	33	27	23	20				
	M					1000	0.72	144	108	86	72	62	54	48	43	39	35	29	25	22				
						1100	0.75	150	113	90	75	64	56	50	45	41	36	30	26	23				
					1200	0.78	156	117	94	78	67	59	52	47	43	37	31	27	23					
Green .015				M	F	100	0.30	60	45	36	30	26	23	20	18	16	14	12	10	9				
		C	C	M	F	200	0.49	98	74	59	49	42	37	33	29	27	24	20	17	15				
	VC	C	C	M	F	300	0.60	120	90	72	60	51	45	40	36	33	29	24	21	18				
	C	M	M	F	F	350	0.64	128	96	77	64	55	48	43	38	35	31	26	22	19				
	C	M	M	F	F	400	0.69	138	104	83	69	59	52	46	41	38	33	28	24	21				
	C	M	M	F	F	500	0.77	154	116	92	77	66	58	51	46	42	37	31	26	23				
	C	F	F	F	F	600	0.85	170	128	102	85	73	64	57	51	46	41	34	29	26				
	C	F	F			700	0.91	182	137	109	91	78	68	61	55	50	44	36	31	27				
	M					800	0.96	192	144	115	96	82	72	64	58	52	46	38	33	29				
	M					900	1.02	204	153	122	102	87	77	68	61	56	49	41	35	31				
	M					1000	1.07	214	161	128	107	92	80	71	64	58	51	43	37	32				
						1100	1.13	226	170	136	113	97	85	75	68	62	54	45	39	34				
					1200	1.18	236	177	142	118	101	89	79	71	64	57	47	40	35					
Yellow .02		VC	VC	C	F	100	0.46	92	69	55	46	39	35	31	28	25	22	18	16	14				
		C	C	M	F	200	0.66	132	99	79	66	57	50	44	40	36	32	26	23	20				
		C	C	M	F	250	0.73	146	110	88	73	63	55	49	44	40	35	29	25	22				
	VC	C	C	M	F	300	0.80	160	120	96	80	69	60	53	48	44	38	32	27	24				
	VC	C	C	M	F	350	0.86	172	129	103	86	74	65	57	52	47	41	34	29	26				
	C	M	M	M	F	400	0.91	182	137	109	91	78	68	61	55	50	44	36	31	27				
	C	M	M	F	F	500	1.02	204	153	122	102	87	77	68	61	56	49	41	35	31				
	C	M	M	F	F	600	1.13	226	170	136	113	97	85	75	68	62	54	45	39	34				
	C	M	M			700	1.22	244	183	146	122	105	92	81	73	67	59	49	42	37				
	C					800	1.27	254	191	152	127	109	95	85	76	69	61	51	44	38				
	M					900	1.35	270	203	162	135	116	101	90	81	74	65	54	46	41				
	M					1000	1.42	284	213	170	142	122	107	95	85	77	68	57	49	43				
					1100	1.49	298	224	179	149	128	112	99	89	81	72	60	51	45					
					1200	1.56	312	234	187	156	134	117	104	94	85	75	62	53	47					
Lilac .025					F	100	0.58	116	87	70	58	50	44	39	35	32	28	23	20	17				
		VC	VC		F	150	0.70	140	105	84	70	60	53	47	42	38	34	28	24	21				
		VC	VC		F	200	0.82	164	123	98	82	70	62	55	49	45	39	33	28	25				
		C	C		F	250	0.91	182	137	109	91	78	68	61	55	50	44	36	31	27				
	VC	C	C		F	300	1.00	200	150	120	100	86	75	67	60	55	48	40	34	30				
	VC	C	C		F	350	1.08	216	162	130	108	93	81	72	65	59	52	43	37	32				
	VC	C	C		F	400	1.16	232	174	139	116	99	87	77	70	63	56	46	40	35				
	C	M	M		F	500	1.30	260	195	156	130	111	98	87	78	71	62	52	45	39				
	C	M	M		F	600	1.42	284	213	170	142	122	107	95	85	77	68	57	49	43				
	C	M	M		F	700	1.53	306	230	184	153	131	115	102	92	83	73	61	52	46				
	C					800	1.62	324	243	194	162	139	122	108	97	88	78	65	56	49				
	C					900	1.71	342	257	205	171	147	128	114	103	93	82	68	59	51				
	M					1000	1.81	362	272	217	181	155	136	121	109	99	87	72	62	54				
						1100	1.90	380	285	228	190	163	143	127	114	104	91	76	65	57				
						1200	1.98	396	297	237.6	198	170	149	132	119	108	95	79	68	59				

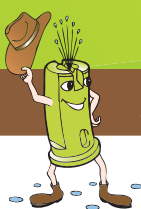


Air Induction Nozzles


WHICH ONE  
ARE YOU?

Standard Flat Fan Nozzles





# ISO Nozzle Application Rate Chart (l/ha)

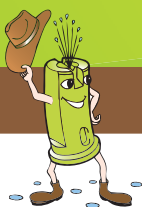
ISO Standard Colour & Size						kpa	50	ISO Nozzle Application Rate Chart (l/ha)												
							Spacing (cm)	Speed (km/hr)												
							l/min													
ID	IDK	IDKT	AD	LU				6	8	10	12	14	16	18	20	22	25	30	35	40
Blue .03		VC	C	C	M	100	0.68	136	102	82	68	58	51	45	41	37	33	27	23	20
		VC	C	C	F	150	0.85	170	128	102	85	73	64	57	51	46	41	34	29	26
		VC	C	C	F	200	0.98	196	147	118	98	84	74	65	59	53	47	39	34	29
		VC	C	C	F	250	1.10	220	165	132	110	94	83	73	66	60	53	44	38	33
	VC	C	C	M	F	300	1.20	240	180	144	120	103	90	80	72	65	58	48	41	36
	VC	C	C	M	F	350	1.30	260	195	156	130	111	98	87	78	71	62	52	45	39
	VC	C	M	M	F	400	1.39	278	209	167	139	119	104	93	83	76	67	56	48	42
	VC	M	M	M	F	500	1.55	310	233	186	155	133	116	103	93	85	74	62	53	47
	C	M	F	F	F	600	1.70	340	255	204	170	146	128	113	102	93	82	68	58	51
	C	M	F	F	F	700	1.84	368	276	221	184	158	138	123	110	100	88	74	63	55
	C					800	1.91	382	287	229	191	164	143	127	115	104	92	76	65	57
	C					900	2.03	406	305	244	203	174	152	135	122	111	97	81	70	61
Red .04		XC	VC	C	M	100	0.91	182	137	109	91	78	68	61	55	50	44	36	31	27
		VC	VC	C	M	150	1.13	226	170	136	113	97	85	75	68	62	54	45	39	34
	XC	VC	C	C	M	200	1.31	262	197	157	131	112	98	87	79	71	63	52	45	39
	XC	VC	C	C	M	250	1.46	292	219	175	146	125	110	97	88	80	70	58	50	44
	XC	VC	C	C	M	300	1.60	320	240	192	160	137	120	107	96	87	77	64	55	48
	VC	C	C	C	F	350	1.73	346	260	208	173	148	130	115	104	94	83	69	59	52
	VC	C	M	M	F	400	1.85	370	278	222	185	159	139	123	111	101	89	74	63	56
	VC	C	M	M	F	500	2.07	414	311	248	207	177	155	138	124	113	99	83	71	62
	VC	M	M	M	F	600	2.27	454	341	272	227	195	170	151	136	124	109	91	78	68
	C	M	M	M	F	700	2.45	490	368	294	245	210	184	163	147	134	118	98	84	74
	C					800	2.54	508	381	305	254	218	191	169	152	139	122	102	87	76
	C					900	2.68	536	402	322	268	230	201	179	161	146	129	107	92	80
Brown .05		XC	VC			100	1.14	228	171	137	114	98	86	76	68	62	55	46	39	34
		VC	VC		M	150	1.41	282	212	169	141	121	106	94	85	77	68	56	48	42
	XC	VC	VC		M	200	1.63	326	245	196	163	140	122	109	98	89	78	65	56	49
	XC	VC	C		M	250	1.82	364	273	218	182	156	137	121	109	99	87	73	62	55
	XC	VC	C		M	300	2.00	400	300	240	200	171	150	133	120	109	96	80	69	60
	XC	VC	C		M	350	2.16	432	324	259	216	185	162	144	130	118	104	86	74	65
	VC	C	C		M	400	2.30	460	345	276	230	197	173	153	138	125	110	92	79	69
	VC	C	M		M	500	2.58	516	387	310	258	221	194	172	155	141	124	103	88	77
	VC	M	M		M	600	2.83	566	425	340	283	243	212	189	170	154	136	113	97	85
	VC	M	M		M	700	3.05	610	458	366	305	261	229	203	183	166	146	122	105	92
	VC					800	3.17	634	476	380	317	272	238	211	190	173	152	127	109	95
	C					900	3.36	672	504	403	336	288	252	224	202	183	161	134	115	101
Grey .06	XC				C	200	1.94	388	291	233	194	166	146	129	116	106	93	78	67	58
	XC				M	300	2.37	474	356	284	237	203	178	158	142	129	114	95	81	71
	XC				M	400	2.74	548	411	329	274	235	206	183	164	149	132	110	94	82
	VC				M	500	3.06	612	459	367	306	262	230	204	184	167	147	122	105	92
	VC				M	600	3.35	670	503	402	335	287	251	223	201	183	161	134	115	101
	VC				M	700	3.62	724	543	434	362	310	272	241	217	197	174	145	124	109
	VC					800	3.87	774	581	464	387	332	290	258	232	211	186	155	133	116
	VC					900	4.02	804	603	482	402	345	302	268	241	219	193	161	138	121
	VC					1000	4.24	848	636	509	424	363	318	283	254	231	204	170	145	127
						1100	4.44	888	666	533	444	381	333	296	266	242	213	178	152	133
						1200	4.64	928	696	557	464	398	348	309	278	253	223	186	159	139
White .08	XC				C	200	2.58	516	387	310	258	221	194	172	155	141	124	103	88	77
	XC				C	300	3.16	632	474	379	316	271	237	211	190	172	152	126	108	95
	XC				C	400	3.65	730	548	438	365	313	274	243	219	199	175	146	125	110
	XC				M	500	4.08	816	612	490	408	350	306	272	245	223	196	163	140	122
	VC				M	600	4.47	894	671	536	447	383	335	298	268	244	215	179	153	134
	VC				M	700	4.83	966	725	580	483	414	362	322	290	263	232	193	166	145
	VC					800	5.16	1032	774	619	516	442	387	344	310	281	248	206	177	155
	VC					900		0	0	0	0	0	0	0	0	0	0	0	0	0
	VC					1000		0	0	0	0	0	0	0	0	0	0	0	0	0
						1100		0	0	0	0	0	0	0	0	0	0	0	0	0
						1200		0	0	0	0	0	0	0	0	0	0	0	0	0



Lechler is a 130 year old German company producing high quality and precise nozzles for all agricultural applications. They back their products with useful readily available information including droplet spectra.



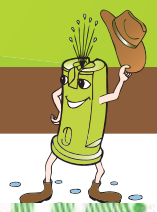
XX = NOZZLE SIZE	DESCRIPTION	PRODUCT CODE	SIZE	ANGLE	MATERIAL	EXAMPLE TIP NO.
	<b>LOW PRESSURE AIR INDUCTION NOZZLES</b>					
	<ul style="list-style-type: none"> <li>Low pressure air induction nozzle</li> <li>Ideal for most broadacre applications</li> <li>Very low drift potential</li> <li>1.5 to 6bar pressure range</li> <li>Fits into standard cap</li> <li><b><i>Our Biggest Selling Nozzle in Australia</i></b></li> </ul>	IDK-120-XX-P IDK-120-XX-C	01 to 05 01 to 05	120 120	Polymer Ceramic	IDK-120-02P IDK-120-02C
	<ul style="list-style-type: none"> <li>90° ideal for airblast sprayers</li> </ul>	IDK-90-XX-C	01 to 03	90	Ceramic	IDK-90-02C
	<b>HIGH PRESSURE AIR INDUCTION NOZZLES</b>					
	<ul style="list-style-type: none"> <li>High pressure air induction nozzle</li> <li>Ideal for most broadacre applications</li> <li>Very low drift potential</li> <li>3 to 10bar pressure range</li> </ul>	IDC-120-XX	01 to 08	120	Ceramic	IDC-120-02C
	<ul style="list-style-type: none"> <li>90° ideal for airblast sprayers</li> </ul>	IDK-90-XX-C	01 to 03	90	Ceramic	IDK-90-02C
	<b>OFF CENTRE NOZZLES</b>					
	<ul style="list-style-type: none"> <li>High pressure air induction nozzle</li> <li>Very low drift potential</li> <li>2 to 8bar pressure range</li> </ul>	IS-XX	02 to 06	80	Polymer	IS-03
	<ul style="list-style-type: none"> <li>Low pressure air induction nozzle</li> <li>Very low drift potential</li> <li>1.5 to 6bar pressure range</li> <li>Uses standard cap</li> </ul>	IDKS-XX	02 to 05	80	Polymer	IDKS-03
	<ul style="list-style-type: none"> <li>Commonly used in swivel nozzle bodies</li> </ul>	OC-XX	02-16	90	Brass	OC-03
	<b>LOW PRESSURE AIR INDUCTION TWIN NOZZLES</b>					
	<ul style="list-style-type: none"> <li>Two fans 30° forward &amp; 30° rearward</li> <li>Improved coverage</li> <li>Ceramic tip</li> <li>Low drift potential</li> <li>1 to 6bar pressure range</li> </ul>	IDKT-120-XX-C	03 to 05	120	Ceramic	IDKT-120-03C
	<b>PRE ORIFICE LOW DRIFT FLAT FAN NOZZLES</b>					
	<ul style="list-style-type: none"> <li>Pre Orifice low drift nozzle</li> <li>Low drift potential</li> <li>1.5 to 6bar pressure range</li> <li>Fits into standard cap</li> </ul>	AD-120-XX-P AD-120-XX-C AD-90-XX-C	015 to 04 015 to 04 02 to 04	120 120 90	Polymer Ceramic Ceramic	AD-120-02P AD-120-02C AD-90-02C
	<b>STANDARD FLAT FAN NOZZLES</b>					
	<ul style="list-style-type: none"> <li>Flat fan nozzle</li> <li>High drift potential</li> <li>1 to 5bar pressure range</li> <li>Fits into standard cap</li> </ul>	LU-120-XX-P LU-120-XX-C	01 to 08 01 to 08	120 120	Polymer Ceramic	LU-120-03P LU-120-03C



# Nozzles

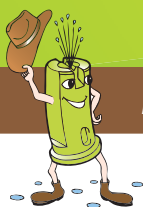


XX = NOZZLE SIZE	DESCRIPTION	PRODUCT CODE	SIZE	ANGLE	MATERIAL	EXAMPLE TIP NO.
<b>LIQUID FERTILIZER NOZZLES</b>						
	<ul style="list-style-type: none"> <li>• 5 hole stream nozzle</li> <li>• Interchangeable s/steel orifice plates</li> <li>• 1 to 5bar pressure range</li> <li>• Extremely coarse dribble application</li> <li>• Uniform distribution across width</li> <li>• Spray height of boom 50 - 100cm</li> <li>• Ideal for UAN &amp; other fertilizer applications</li> </ul>	FL-XX-COMP	0.8 to 1.8	160	Polymer	FL-0.8-COMP
		FL-XX	0.8 to 1.8		S/S Disc	FL-1.5
		FL-XXXBODY	Black-Grey	160	Polymer	FL-Grey
<b>LIQUID FERTILIZER NOZZLES</b>						
	<ul style="list-style-type: none"> <li>• Flat spray nozzle with horizontal coarse droplet formation</li> <li>• Nozzle sizes 03, 04, 05, 06, 08, 10, 15, 20</li> <li>• 1.5 to 4.0 bar operating pressure</li> <li>• Extremely coarse droplets minimize risk of crop scorch</li> <li>• 1 piece nozzle and cap design fits to standard nozzle holder</li> <li>• ISO colour coded flow rates</li> </ul>	FD-XX	0.3 to 0.8	160	Polymer	FD-05
		FD-XX	10, 15, 20		S/S Disc	FD-15
<b>FLOOD NOZZLES</b>						
	<ul style="list-style-type: none"> <li>• Flat fan flood pattern</li> <li>• Little chance of clogging</li> <li>• 1 to 3bar pressure range</li> <li>• Compact design</li> <li>• Ideal for fertilizer, herbicides etc</li> <li>• 0.5m - 1m spacings</li> </ul>	FT140-XX-P	0.75 to 10	140	Polymer	FT140-1.5-P
		FT140-XX-SS	0.75 to 10	140	S/Steel	FT140-1.5-SS
<b>MISTING NOZZLES</b>						
	<ul style="list-style-type: none"> <li>• 105° ultra fine mist</li> <li>• Ideal for humidification odour &amp; dust suppression</li> <li>• Disinfectant applications etc.</li> <li>• Fits into standard caps</li> </ul>	4229002	0.072lpm	105	Polymer	4229002
<b>HOLLOW CONE NOZZLES</b>						
	<ul style="list-style-type: none"> <li>• Hollow cone pattern</li> <li>• Ceramic orifice &amp; swirl insert</li> <li>• 3 to 20bar pressure range</li> <li>• High wear resistance</li> <li>• 2 piece with easy removable insert for cleaning</li> <li>• Fine droplet spectrum</li> </ul>	TR-XX	005 to 05	80	Ceramic	TR-03
	<ul style="list-style-type: none"> <li>• Air induction hollow cone</li> <li>• Pressure range 3-20bar</li> <li>• Coarse to very coarse droplet</li> <li>• Ideal for liquid fert, growth regulators etc</li> </ul>	ITR-XX	01 to 02	80	Ceramic	ITR-02
<b>FENCELINE AND BOOMLESS NOZZLES</b>						
	<ul style="list-style-type: none"> <li>• For applications where a conventional spray boom cannot be used</li> <li>• Ideal for use in forests or pasture lands and along fence lines</li> <li>• Available with threaded stainless steel body or with integral Fast Cap</li> </ul>	XT-XX FC-XT-XX	FC-XT010 to FC-043			XT024 FC-024



**TeeJet** **ALBUZ**

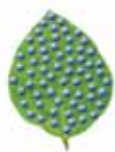
XX = NOZZLE SIZE	DESCRIPTION	PRODUCT CODE	SIZE	ANGLE	MATERIAL	EXAMPLE TIP NO.
<b>AIR INDUCTION NOZZLES</b>						
 	<ul style="list-style-type: none"> <li>• High pressure air induction nozzle</li> <li>• Ideal for most broadacre applications</li> <li>• Very low drift potential</li> <li>• 2 to 8bar pressure range</li> </ul>	TeeJet AI-110-XX	015 to 08	110	S/Steel	AI-110-02
	<ul style="list-style-type: none"> <li>• High pressure air induction nozzle</li> <li>• Ideal for most broadacre applications</li> <li>• Very low drift potential</li> <li>• 2 to 8bar pressure range</li> </ul>	AlbuZ AVI-110-XX	01 to 06	110	Ceramic	AVI-110-XX
 	<ul style="list-style-type: none"> <li>• Low pressure air induction nozzle</li> <li>• Ideal for most broadacre applications</li> <li>• Very low drift potential</li> <li>• 1.5 to 6bar pressure range</li> </ul>	TeeJet AIXR-110-XX	015 to 06	110	Polymer	AIXR-110-02
	<ul style="list-style-type: none"> <li>• Low pressure air induction nozzle</li> <li>• Ideal for most broadacre applications</li> <li>• Very low drift potential</li> <li>• 1.5 to 6bar pressure range</li> </ul>	Sprays International PJXL-XX	01 to 06	110	Polymer	PJXL-02
<b>LIQUID FERTILIZER NOZZLES</b>						
	<ul style="list-style-type: none"> <li>• 3 hole stream nozzle</li> <li>• 1 to 5bar pressure range</li> <li>• Extremely coarse dribble application</li> <li>• Removable measuring orifice</li> <li>• Spray height of boom - 50cm</li> <li>• Ideal for UAN applications</li> </ul>	TeeJet SJ-XX-VP	015 to 20	3 hole	Polymer	SJ-XX-VP
<b>HOLLOW &amp; FULL CONE NOZZLES</b>						
 	<ul style="list-style-type: none"> <li>• Very fine to fine droplet quality</li> <li>• Hollow cone pattern</li> <li>• Ceramic orifice &amp; swirl insert</li> <li>• 3 to 20bar pressure range</li> <li>• High wear resistance</li> <li>• 2 piece with easy removable insert for cleaning</li> </ul>	ATR-XX	Lilac to Blue	80	Ceramic	ATR-Blue
		TXVK-XX	Yellow to Light Blue	80	Ceramic	TXVK-Orange
 	<ul style="list-style-type: none"> <li>• Fine droplet quality</li> <li>• Hollow or Full cone pattern</li> <li>• Various materials for disc &amp; swirl</li> <li>• 3 to 20bar pressure range</li> <li>• Mix &amp; match disc &amp; swirls to suit outputs</li> </ul>	D-XX	1 to 14	17-110	Ceramic Polymer, S/S	D-8
		DC-XX	13 to 56	17-110	Ceramic Brass, Nylon	DC-13
<b>ANVIL TYPE NOZZLES</b>						
 	<ul style="list-style-type: none"> <li>• Anvil type</li> <li>• 1 - 6bar pressure range</li> </ul>	TT110-XX-VP	01 to 08	110	Polymer	TT110025
	<ul style="list-style-type: none"> <li>• Anvil type – Twin</li> <li>• 1 - 6bar pressure range</li> </ul>	TTJ60-110XX	02 to 06	110	Polymer	TTJ60-11004
	<ul style="list-style-type: none"> <li>• Anvil type – Air induction</li> <li>• 1 - 6bar pressure range</li> <li>• Very coarse droplet</li> </ul>	TT110XX-VP	015 to 061	110	Polymer	TT11005-VP



## Rate Charts Orchard & Vineyard

### Flow rate tables for Orchard and Vineyard sprayers Lechler ID 90, IDK 90 flat fan nozzles & TR 80 hollow cone nozzles

Size	Nozzle Filter	Flow Rate (litres per minute)																	
		Pressure (Bar)																	
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ID90 IDK90 TR80 ITR80-01	50 mesh	0.40	0.46	0.51	0.55	0.60	0.64	0.68	0.72	0.75	0.78	0.82	0.85	0.88	0.91	0.93	0.96	0.99	1.01
ID90 IDK90 TR80 ITR80-015	50 mesh	0.60	0.69	0.76	0.83	0.90	0.96	1.02	1.07	1.13	1.18	1.22	1.27	1.31	1.36	1.40	1.44	1.48	1.52
ID90 IDK90 TR80 ITR80-02	50 mesh	0.80	0.91	1.01	1.11	1.19	1.27	1.35	1.42	1.49	1.56	1.62	1.68	1.74	1.80	1.86	1.91	1.96	2.01
ID90 IDK90 TR80- 025	50 mesh	1.00	1.16	1.28	1.40	1.52	1.62	1.71	1.81	1.90	1.98	2.06	2.14	2.21	2.29	2.36	2.42	2.49	2.56
ID90 IDK90 TR80- 03	50 mesh	1.20	1.39	1.52	1.64	1.79	1.91	2.03	2.14	2.24	2.34	2.44	2.53	2.62	2.70	2.79	2.87	2.94	3.02
ID90 TR80-04	50 mesh	1.60	1.85	2.02	2.21	2.37	2.53	2.68	2.83	2.97	3.10	3.23	3.35	3.47	3.58	3.69	3.80	3.90	4.00
ID90 TR80-05	25 mesh	2.00	2.30	2.50	2.74	2.96	3.17	3.36	3.54	3.71	3.88	4.04	4.19	4.34	4.48	4.62	4.75	4.88	5.01
ID90-06	25 mesh	2.36	2.73	3.01	3.28	3.54	3.79	4.02	4.24	4.44	4.64	4.83	5.01	5.19	5.36	5.52	5.68	5.84	5.99



Air induction nozzles  
- Low spray drift  
potential



Conventional Hollow  
Cone nozzles  
- High spray drift  
potential



### Albuz ATR hollow cone nozzles

Size	Flow Rate (litres per minute)																	
	Pressure (Bar)																	
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LILAC	0.28	0.32	0.36	0.39	0.42	0.45	0.48	0.50	0.52	0.55	0.57	0.59	0.61	0.63	0.64	0.66	0.68	0.70
BROWN	0.38	0.43	0.48	0.52	0.56	0.60	0.64	0.67	0.70	0.73	0.76	0.79	0.81	0.84	0.86	0.89	0.91	0.93
YELLOW	0.57	0.65	0.73	0.80	0.86	0.92	0.97	1.03	1.07	1.12	1.17	1.21	1.25	1.29	1.33	1.37	1.40	1.44
ORANGE	0.77	0.89	0.99	1.08	1.17	1.24	1.32	1.39	1.45	1.51	1.57	1.63	1.69	1.74	1.79	1.84	1.89	1.94
RED	1.08	1.24	1.38	1.51	1.62	1.73	1.83	1.92	2.17	2.25	2.33	2.40	2.47	2.54	2.60	2.67	2.73	2.79
GREEN	1.40	1.60	1.78	1.94	2.09	2.22	2.35	2.47	2.58	2.69	2.79	2.89	2.99	3.08	3.17	3.25	3.34	3.42
BLUE	1.92	2.20	2.45	2.67	2.87	3.06	3.24	3.40	3.56	3.71	3.85	3.99	4.12	4.25	4.37	4.49	4.61	4.72

#### BOOMLESS NOZZLES

5880-3/4-2TOC

Ideal for where the use of a boom is not practical. Throws from 10-19 metres with flows from 7.2 - 61 lpm depending on pressure & nozzle size. Large nozzle outlet for less blockages, 3/4" inlet & good spray pattern distribution.

Boomless  
Nozzle

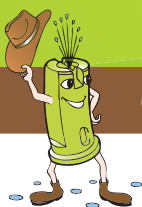




TYPE	PART NO.	DESCRIPTION	NOZZLE
	402900 XX	LU, XR, DG, TT, AD, IDK, IDKT, IDKS	  
	402902 XX	Lechler ID and FL	 
	402904 XX	Teejet TX hollow cone	  
	402905 XX	Lechler TR, ITR & Albuz ATR hollow cone	  
	40290901	Blanking cap	Used to blank off some nozzle bodies or change nozzle spacings
	40291001	1/4" thread cap	With a 1/4" female thread allows fitting of pressure gauge or to be used in liquid fertilizer applications
	402990 XX	Universal fit cap	Universal fit caps will accept most nozzles. One cap replaces the needs of many different types. Holds the nozzle firm with it's special wings.
	HARDIRETRO IDK	Hardi retro fit to suit IDK, ID, FL, LU, XR, AD – <b>Black Only</b>	    
	HARDIGASKET	Seals to suit Hardi caps	Replacement cap seals/gaskets to suit Hardi caps
	TC152607TC	30° forward & rearward plus mix & match nozzle types to get the best coverage. Just add your nozzles. Simple twin line. Better coverage of foliage	Suitable for Arag, Teejet & Hardi nozzle bodies. Please specify.
	TCAPHARDI		
	CP20230	Brass cap nuts to suit Teejet 11/16" threaded nozzle bodies	Suitable for most nozzle types as the cap hole is round
	MS64-70	Brass cap nuts to suit 3/8" BSP threaded nozzle bodies	Suitable for most nozzle types as the cap hole is round
	200010	Nylon cap nuts to suit 3/8" BSP threaded nozzle bodies	Suitable for most nozzle types as the cap hole is round
	CP3942	Blanking disc to blank of nozzle caps	Suits most caps
	402200-040	Cap seal	Suits Arag & Teejet quick caps, not Hardi
	TDHAS	Special gasket allowing standard caps to be used on Hardi boom fittings	Suits most caps

XX – CAP COLOUR

Red	Blue	Light Green	Yellow	Orange	Lilac
-03	-04	-05	-06	-08	-13



## Calibration and Safety

### MEASURING BUCKETS & JUGS

PART NO.	DESCRIPTION
B25TT	25 litre - Calibrated
ET6	6 litre - EZ-Pour rotamoulded jacket
J5	5 litre - Calibrated
J1	1 litre - Calibrated



### CALIBRATION TOOLS & AIDS

A range of tools and aids to help with keeping your sprayer in top condition and optimum performance.

DM3KIT	<b>Drum Pourers:</b> 2 pourers to suit the 20 litre plastic drums, 2 different thread sizes 58mm & 63mm, and one for steel oil drum.
429000	<b>Nozzle Tip Tester:</b> Checks the actual nozzle flow. Suits most nozzles. Very easy & quick to use. Very handy tool.
NOZZTESTKIT	<b>Nozzle Pressure Test Kit:</b> Check the actual pressure at various locations across the boom & compare it to the sprayer's pressure gauge.
429050	<b>Water Sensitive Paper:</b> Pack of 50 pieces to help in determining the efficiency of a sprayer.
SPRAYTEST	<b>Boom Sprayer Test Kit:</b> This kit has all that is required to keep your sprayer in top condition. It contains 3 drum pourers, Multimeter (for electrical fault finding), nozzle pressure test kit, tip tester, spare quick caps & seals, nitrile gloves & rate chart all supplied in a very handy tool box.
FLUKIT	<b>Fluorescent Dye Kit:</b> Check the real performance of your sprayer with dye and a pocket UV light. With the pocket UV light you can check the results quickly & easily. Simply add some to the sprayer tank & apply.



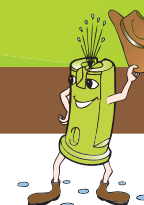
### GLOVES & COVERALLS

Protect yourself from hazardous chemicals with flexible nitrile gloves & Tyvek® barrier white coveralls.

SA-GNS-X	Reusable gloves, high quality nitrile 33cm long. Sizes 8,9,10 & 11
SA-GNL-X	Reusable gloves, high quality nitrile 46cm long. Sizes 8,9,10 & 11
SA-TNT-XL	Disposable gloves, nitrile single use only. In box of 100.
SA-OV-X	<b>Coveralls.</b> Disposable protective suit with hood. Single or limited repeat use. Not rain fast. Suitable for protection against chemical dust while mixing. Sizes Lge, XL, XXL.

X = Size





## WEATHER METERS

The Mr Nozzle weather meter range covers all aspects of weather recording to suit most needs. Models are available from just wind speed recording through to instant read out of Delta T. Meter quality gives piece of mind that you are getting one of the most accurate hand held weather meters on the market.

### Delta T

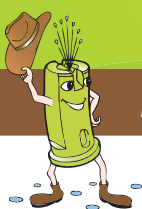
Delta T is the difference between wet bulb and the dry bulb temperature and is expressed as degrees C. The ideal range for spraying is a Delta T between 2 and 8. If the Delta T is higher than this, stop and reassess your spraying. E.g. use a higher water rate or use nozzles with larger droplets, etc. The higher the Delta T the greater the evaporation rate. Some herbicides react to changes in Delta T more than others. Glyphosate based mixes work best if used between a Delta T of 2 and 8\*.

## Which Weather Meter should I be using?



	Pocketwind IV	Kestrel 2000	Kestrel 2500	Kestrel 3000	Kestrel 3500	Kestrel 3500DT	Kestrel 4000	Kestrel 4100	Kestrel 4200	Kestrel 4500
Current Wind Speed	*	*	*	*	*	*	*	*	*	*
Max Wind Gust	*	*	*	*	*	*	*	*	*	*
Average Wind Speed	*	*	*	*	*	*	*	*	*	*
Air Flow								*	*	
Temperature	*	*	*	*	*	*	*	*	*	*
Wind Chill	*	*	*	*	*	*	*	*	*	*
Relative Humidity	*			*	*	*	*	*	*	*
Humidity Ratio	*								*	
Comfort Stress Index	*			*	*		*	*	*	*
Dew Point Temperature	*			*	*	*	*	*	*	*
Wet Bulb Temperature	*				*	*	*		*	*
Barometric Pressure			*		*	*	*		*	*
Altitude			*		*	*	*		*	*
Density Altitude							*		*	*
Digital Compass	*									*
Wind Direction	*									*
Crosswind										*
Headwind/Tailwind										*
Backlit Display			*	*	*	*	*	*	*	*
Pressure Trend			*		*	*	*		*	*
Data Storage & Charting							*	*	*	*
Data Upload							*	*	*	*
Clock			*		*	*	*	*	*	*
Delta T	*					*				

\*Spray diaries available for use with your meter



## Boom Components

### NOZZLE BODIES & BOOM COMPONENTS

PART NO.	SIZE	DESCRIPTION
----------	------	-------------

#### ADAPTERS

400270	1/4"	1/4" M x quick connector adaptor
400275N	1/4"	1/4" F x quick connector adaptor
400277	1/2"	Boom flush quick fit
400278	3/4"	Boom flush quick fit



#### WET BOOM

400530	1/2"	Hinged clamp 3/8" capnut - wet boom
400750	3/4"	Hinged clamp, quick cap - wet boom
402745	1/2"	Non-drip hinged clamp, quick cap - wet boom
402755	3/4"	Non-drip hinged clamp, quick cap - wet boom
402765	1"	Non-drip hinged clamp, quick cap - wet boom
402085	3/8" F	Threaded Uni-Jet
402275	1/4" M	Threaded Uni-Jet - quick clamp
402285	3/8" F	Threaded Uni-Jet - quick clamp
402295	11/16"	Threaded Uni-Jet - quick clamp
40642W7	1/2"	3 way swivel wet boom
40642Y7	3/4"	3 way swivel wet boom
40649Y7	3/4"	5 way swivel wet boom
4012757	3/4"	3 way swivel wet boom - American standard
004 215	1/2"	Brass clamp 1/4" female thread - wet boom
004 213	1/2"	Brass clamp 1/4" male thread - wet boom
V2B25F	8 x 15mm	Self tapping screws for body assembly



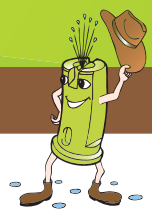
#### DRY BOOM

413 003	3/4"	Round mounting clamps
413 013	3/4"	Square mounting clamps
413 014	1"	Square mounting clamps
413 015	1 1/4"	Square mounting clamps
413 112	1/2"	Elbow 90°, 1/2" tail, quick cap - dry boom
413 122	1/2"	Tee 1/2" tails, quick cap - dry boom
413 212	1/2"	Elbow 90°, 1/2" tail, non drip quick cap - dry boom
413 213	3/4"	Elbow 90°, 3/4" tail, non drip quick cap - dry boom
413 222	1/2"	Tee 1/2" tails, non drip quick cap - dry boom
413 223	3/4"	Tee 3/4" tails, non drip quick cap - dry boom
413 412	1/2"	Elbow 90°, 1/2" tail, non drip quick cap - dry boom
413 413	3/4"	Elbow 90°, 3/4" tail, non drip quick cap - dry boom
413 422	1/2"	Tee 1/2" tails, non drip quick cap - dry boom
413 423	3/4"	Tee 3/4" tails, non drip quick cap - dry boom
413 511	3/8"	Elbow 90°, 3/8" tail, 3/8" cap nut - dry boom
413 512	1/2"	Elbow 90°, 1/2" tail, 3/8" cap nut - dry boom
413 522	1/2"	Tee 1/2" tails, 3/8" cap nut - dry boom
426 413	1/2"	Single hose fitting for dry boom
426 519	3/4"	Single hose fitting for dry boom
427 413	1/2"	Double hose fitting for dry boom
427 519	3/4"	Double hose fitting for dry boom
QJ8355-1/4	1/4"	Quick coupler 90° 1/4" female inlet - nylon 20bar
QJ39685-1L500-N	1/2"	Quick coupler dry boom, non drip, left
QJ39685-1R500-N	1/2"	Quick coupler dry boom, non drip, right
QJ39685-2-500-N	1/2"	Quick coupler dry boom, non drip, tee



#### HOSE DROPS

430201	1/4" NPT	380mm long hose drops with quick coupling
430202	1/4" NPT	610mm long hose drops with quick coupling



## NOZZLE BODIES & BOOM COMPONENTS



PRODUCT CODE	SIZE	DESCRIPTION
<b>SWIVEL NOZZLE BODIES</b>		
4204-2-1/4T	1/4" F	Double swivel brass nozzle holder
23831-1/4M	1/4" F	Single swivel brass nozzle holder
004 760	1/4" M	Double swivel nozzle holder
004 750	1/4" M	Single swivel nozzle holder
404 072	1/4" F	Nylon single swivel with quick connector
404 082	3/8" F	Nylon single swivel with quick connector
404 172	1/4" F	Nylon double swivel with quick connector
404 182	3/8" F	Nylon double swivel with quick connector
404 180	3/8" F	Nylon double swivel with 3/8" cap nuts



<b>ROLLOVER NOZZLE BODIES</b>		
B716.617.2	1/4"	Double rollover brass nozzle body - Non drip c/w cap nuts, suits airblast sprayers
23830-1/4M	1/4"	Double rollover brass nozzle body suits airblast sprayers
23831-1/4M	1/4"	Single rollover brass nozzle body suits airblast sprayers

<b>OTHER NOZZLE BODIES</b>		
CP1322	1/4" M	Male inlet with BSP inlet thread suits 11/16" cap nut
CP1321	1/4" F	Female inlet with BSP inlet thread suits 11/16" cap nut



<b>NOZZLE STRAINERS</b>				
MS64-69F	MS64-69-50	50 mesh	Brass	MS64-69-50
MS64-69C	MS64-69-25	25 mesh	Poly S/S	MS64-69-25
MS64-69P	MS64-69-P	50 mesh	Poly S/S	MS64-69-P
424303	424303	50 mesh	Poly S/S	424303
MS64-212	MS64-212	Nozzle O Rings	O Rings	MS64-212



<b>OTHER</b>	
424551	Non drip diaphragm assembly with stop cock. Able to shut off individual nozzle bodies economically. Suits all Arag non drip nozzle bodies.
402002-4S	High pressure springs to suit Arag & Teejet non drip nozzle bodies - 4 bar perfect for high pressure air induction nozzles.
BR-83-1007-8	High pressure non drip diaphragm assembly with stop cock on top of the diaphragm. 1/4" x 1/4" female BSP nickel plated brass. Ideal for fence lines, airblast etc.

<b>MODULAR REGULATORS</b>	
440 Series	Modular regulator for low volume sprayers. Graduated knob for precise working parameters. 2 flow rates from 0-3 lpm or 0-30 lpm. Simply add as many regulators as required to build up a manifold.



## Spray Guns etc.

### SPRAY GUNS

PRODUCT CODE	TYPE	MAX PRESS. BAR / PSI
5062400C	HYDRA PLUS spray gun - variable spray pattern	50 / 725
5062600COMP	Arag spray gun c/w telescopic 500 - 1000mm lance & nozzle	50 / 725
5062600	Arag spray gun only - add lance	25 / 360
OO1523	Telescopic lance 500 - 1000mm suits Arag spray gun	25 / 360
OO1502	Brass spray gun lance - 300mm	
OO1503	Brass spray gun lance - 500mm	
OO1710	Mini adjustable nozzle - suit Arag spray gun	
B.26901.165	Turbo 400 spray gun	50 / 725
BR.M30-250	M30 spray gun c/w 250mm lance	30 / 465
BR.M30-500	M30 spray gun c/w 500mm lance	30 / 465
BR-1-205-2	S/S 500mm lance for M30 spray gun	30 / 465
002 201	Top Gun - high pressure spray gun	60 / 870
001 950	Spray Bell for localised spraying	
001 800	Two nozzle cone sprayer - 1.5mm	



### PRESSURE GAUGES

PRODUCT CODE	DESCRIPTION
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#### 100MM GAUGES – REAR ENTRY

21100P1/4GC10B	10bar - 145psi rear mount
21100P14GC25B	25bar - 360psi rear mount
21100P1/4GC30B	30bar - 430psi rear mount
21100P14GC40B	40bar - 580psi rear mount
21100P1/4GC60B	60bar - 870psi rear mount

#### 100MM GAUGES – BOTTOM ENTRY

21100R14GC6B	6bar - 90psi bottom mount
21100R14GC8B	8bar - 116psi bottom mount
21100R14GC10B	10bar - 145psi bottom mount
21100R1/4GC16B	16bar - 230psi bottom mount
21100R14GC25B	25bar - 360psi bottom mount
21100R14GC40B	40bar - 580psi bottom mount
21100R14GC60B	60bar - 870psi bottom mount
21100R14GC80B	80bar - 1160psi bottom mount
21100PBS	100mm rear mount gauge mounting bracket

#### 63MM GAUGES – REAR ENTRY

909 004	4bar - 60psi rear mount
909 006	6bar - 90psi rear mount
909 010	10bar - 145psi rear mount
909 025	25bar - 360psi rear mount
909 040	40bar - 580psi rear mount

Glycerine filled bottom entry & rear entry stainless steel gauges. Sizes of 63mm & 100mm. 1/4" BSP male threads.



PRODUCT CODE	DESCRIPTION
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#### 63MM GAUGES – BOTTOM ENTRY

911 004	4bar - 60psi bottom mount
911 006	6bar - 90psi bottom mount
911 010	10bar - 145psi bottom mount
911 016	16bar - 230psi bottom mount
911 025	25bar - 360psi bottom mount
911 030	30bar - 430psi bottom mount
911 040	40bar - 580psi bottom mount
911 060	60bar - 870psi bottom mount
2163PI	63mm rear mount gauge mounting bracket



## PRESSURE REGULATORS & CONTROLLERS

**Pressure Regulators** – A range of pressure regulator to suit flows up to 265 lpm and pressure up to 40 bar max. Diaphragm type regulators give you a very smooth regulation of pressure and are very durable.

**Safety Valves** – Safety valves fitted to the pump relieves pressure if the regulator fails or filters block.

PRODUCT CODE	DESCRIPTION
465 521	10bar flanged - 200 lpm diaphragm
465 522	20bar flanged - 200 lpm diaphragm
465 514	40bar flanged - 200 lpm diaphragm
465 531	10bar 3/4" female BSP - 200 lpm diaphragm
465 532	20bar 3/4" female BSP - 200 lpm diaphragm
465 534	40bar 3/4" female BSP - 200 lpm diaphragm
B23120-1/2-PP	7bar (100psi)
B8460-3/4-20	20bar - 265lpm diaphragm - 3/4"
B8460-1/2-20	20bar - 212lpm diaphragm - 1/2"
459 220	Safety valve 1/2" BSP 20bar 200lpm - Protects pump
459 240	Safety valve 1/2" BSP 40bar 200lpm - Protects pump
471 502	Electric dump, manual P/relief - Flanged to suit Arag valves
471 202	Manual dump, manual P/relief - Flanged to suit Arag valves
9620090	Regulator to suit 12 volt pumps, 1/2" barb & fly nut inlet
463 070	Proportional regulating valve - manual - 60, 100, 150lpm



## ELECTRIC MOTOR DRIVE / SOLENOID VALVES

PRODUCT CODE	DESCRIPTION
<b>SOLENOID VALVES</b>	
ST2-42V/2043	Goyen solenoid valve - 1/2" barbed outlet - viton straight thru or 90° elbow
A198	Solenoid valve - Viton 3/4" M 40lpm
L-E4024	Solenoid valve - EPDM 3/4" M 40lpm (suit foam markers)



## ARAG SECTION MOTOR VALVES

463001S	Section / Dump valve - stainless steel 35lpm - two wire
463001ST	Section / Dump valve - solenoid replacement valve - three wire
463011S	Section valve 3 way balanced - stainless steel 35lpm - two wire
463011ST	Section valve 3 way balanced - solenoid replacement valve - three wire



## PROPORTIONAL / REGULATING VALVES

463 020	Elec proportional regulating valve S/S 60, 100 or 150 L/min - 14 second
463020-6S	Elec proportional regulating valve S/S 60, 100 or 150 L/min - 6 second

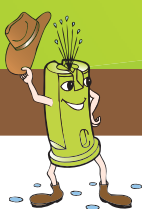


## ARAG HIGH FLOW SECTION MOTOR VALVES

473 001	<b>High flow</b> 3 way section valve 120lpm - stainless steel
473 011	<b>High flow</b> 3 way section valve - balanced, 120lpm - stainless steel
473 020	Elec proportional regulating valve 240 L/min - 14 second stainless steel
473 070	Manual proportional regulating valve 240 L/min - 14 second stainless steel



\*Assembly kits and adaptors may be needed for some valve sets.



## Valve Adapters and Kits

### VALVE ADAPTERS & KITS

PRODUCT CODE	DESCRIPTION
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Valve adapters to select the required inlet & outlets to achieve the correct configuration.

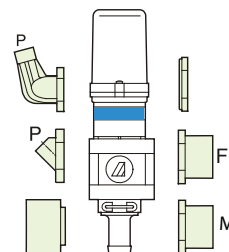
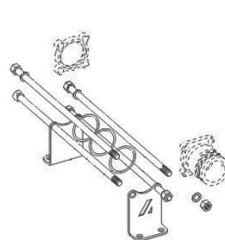
463000-130	3/4" male BSP nylon thread - F
463000-140	1" male BSP nylon thread - F
463000H-130	3/4" male BSP brass thread - F
463000H-140	1" male BSP brass thread - F
463000-132	3/4" female BSP nylon adapter - F
463000-142	1" female BSP nylon adapter - F
463011-120	End cap - nylon - F
463011-130	Pressure gauge adapter 1/4" F - nylon
463011H-130	Pressure gauge adapter 1/4" F - brass
463000-030	3/4" male BSP nylon thread - M
463000-040	1" male BSP nylon thread - M
463000H-030	3/4" male BSP brass thread - M
463000H-040	1" male BSP brass thread - M
463011-032	3/4" female BSP nylon thread - M
463011-042	1" female BSP nylon thread - M
463011-110	End cap - nylon - M

### ASSEMBLY KITS

PRODUCT CODE	DESCRIPTION
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Valve assembly kit comes with sealing O rings, mounts, bolts & nuts.

463000-910	Kit for 1 valves
463000-920	Kit for 2 valves
463000-930	Kit for 3 valves
463000-940	Kit for 4 valves
463000-950	Kit for 5 valves
463000-960	Kit for 6 valves
463000-970	Kit for 7 valves
463000-980	Kit for 8 valves
463000-990	Kit for 9 valves
463000-9100	Kit for 10 valves

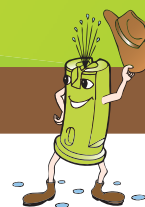


### SWITCHBOXES

46615200	2 section switchbox - suit motor valves
46615201	2 section switchbox - suit solenoid valves
46615230	2 section switchbox, dump/main, pressure - suit motor valves

46615330	3 section switchbox, dump/main, pressure - suit motor valves
4662552	5 section switchbox, loom to suit motor valves
4662550B024	5 section switchbox c/w gauge, loom to suit motor valves





## SPRAYER VALVE SETS

DESCRIPTION	ORDER CODE
-------------	------------

### MANUAL SECTION VALVE SET

2 section valve set	463 052
3 section valve set	463 053
4 section valve set	463 054



Manual boom control which can be used in conjunction with a main valve and pressure control kit.

## ELECTRIC MOTOR DRIVE VALVE SETS

2 section valve set	463002ST
3 section valve set	463003ST
4 section valve set	463004ST
5 section valve set	463005ST
7 section valve set	463007ST

### Simple Valve Sets

These valve sets can be of any amount of sections. Ideal for upgrading a manual or solenoid valve system. Add switch panel.



### Section Valve Sets with Balanced Manifold

This valve set has a balanced manifold so that when adjusted will give the same amount of flow to each section even when only one valve is operating. The rest of the flow goes to bypass. Eliminates pressure spikes. Add switch panel.



2 section valve set	463012ST
3 section valve set	463013ST
4 section valve set	463014ST
5 section valve set	463015ST
7 section valve set	463017ST

2 section valve set	4635214SRC
3 section valve set	4635314SRC
4 section valve set	4635414SRC
5 section valve set	4635514SRC
7 section valve set	4635714SRC

### Valve Sets c/w Flowmeter to suit Spray Rate Controllers

Includes motorised section valves, flow control valve, easily serviceable flowmeter, dump, pressure relief valve & mounting bracket.



2 section valve set	463002SPR
3 section valve set	463003SPR
4 section valve set	463004SPR
5 section valve set	463005SPR

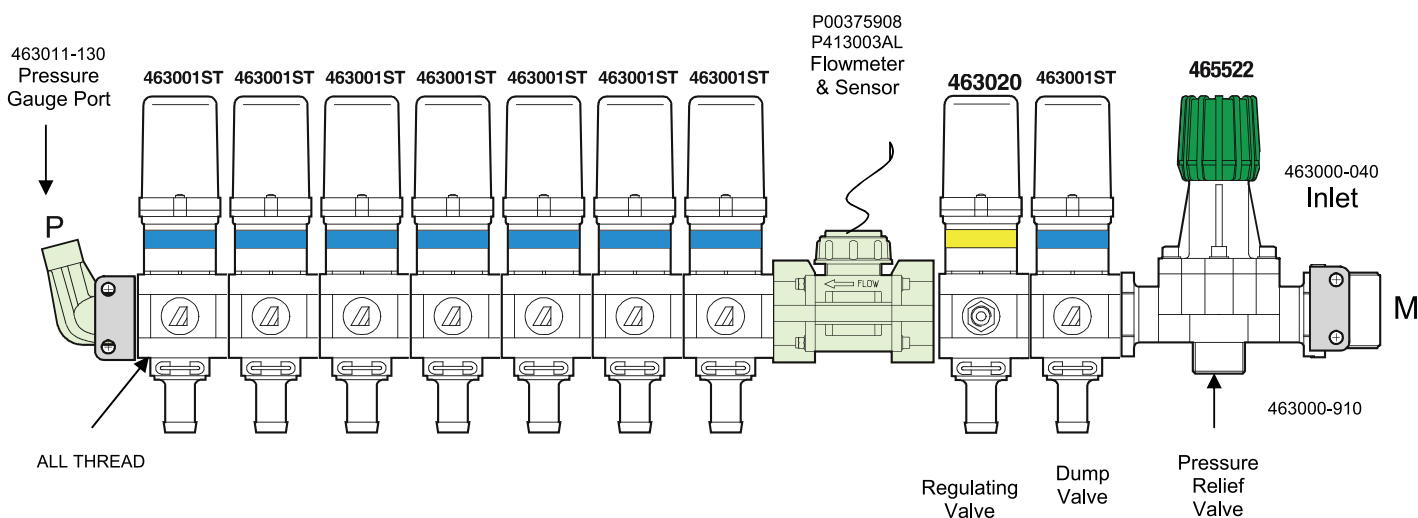


### Complete Valve Sets

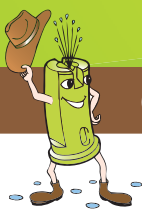
Motor valve set with electric pressure adjustment from the cab includes loom, switchbox & mounts.

*\*Pictures for illustration purposes only*

## 7 SECTION SPRAY RATE CONTROLLER VALVE SYSTEM



**OPTION:-** Replace Dump & Pressure Relief Valve for a 471502 Main Valve – see part # 4635714SRCM



## Gate and Ball Valves

### GATE & BALL VALVES

#### 2 & 3 Way Ball Valves - 4545 Series

Glass reinforced polypropylene housing to withstand most ag chemicals, teflon ball & seals and EPDM gaskets. Female BSP threads 1/2" - 3".

#### Drain Valve - 452107

2" BSP anti-pollution drain valve. Ideal for mounting in the bottom of the tank. Easy operation by the nylon cord mounted into the top of the tank.

#### 2 & 3 Way High Pressure Ball Valves

High pressure nickel plated brass, up to 400psi. Sizes from 3/8" to 1 1/2" BSP.

PRODUCT CODE	DESCRIPTION
<b>POLYPROPYLENE</b>	
4542132	2 way ball valve 1/2"
4542133	2 way ball valve 3/4"
4542134	2 way ball valve 1"
4542135	2 way ball valve 1 1/4"
4542136	2 way ball valve 1 1/2"
4542137	2 way ball valve 2"
4542232	3 way ball valve 1/2"
4542232H	3 way ball valve 1/2" continuous flow
4542233	3 way ball valve 3/4"
4542233H	3 way ball valve 3/4" continuous flow
4542234	3 way ball valve 1"
4542234H	3 way ball valve 1" continuous flow
4542235	3 way ball valve 1 1/4"
4542235H	3 way ball valve 1 1/4" continuous flow
4542236	3 way ball valve 1 1/2"
4542236H	3 way ball valve 1 1/2" continuous flow
4542237	3 way ball valve 2"
4542237H	3 way ball valve 2" continuous flow
453007A88	2 1/2" F 2 way bolted ball valve - 8bar
453007E88	2 1/2" M 2 way bolted ball valve - 8bar
453007E99	3" 2 way bolted ball valve
453017A99	3" 3 way bolted ball valve - F
453027E99	3" 3 way bolted ball valve - M
450017	2" Gate valve M / M
450026	1 1/2" Gate valve M / F
452107	2" Drain valve - cord operated

### BRASS / PVC

BV1/4MINI	1/4" mini ball valve M & F
BV3/8MINI	3/8" mini ball valve M & F
BV1/2MINI	1/2" mini ball valve Female
BV1/2MINIMF	1/2" mini ball valve M & F
OO6810	1/2 x 3/8" lever handle ball valve M & M
BV-1/2	1/2" lever handle M & F
BV-3/4	3/4" lever handle M & F
BV-1	1" lever handle M & F
BV-1 1/2	1 1/2" lever handle M & F
3WAYBV	1/2" 3 way F lever handle - "L" Pattern
3WAYBV34	3/4" 3 way F lever handle - "L" Pattern
BV-PVC12	1/2" PVC ball valve
BV-PVC34	3/4" PVC ball valve



453027E99



Gate Valve



2" Drain Valve



Bolted 2 Way Ball Valve



2 Way Poly Ball Valve



453017A99



Lever Ball Valve



3 Way Poly Ball Valve



3 Way Ball Valve



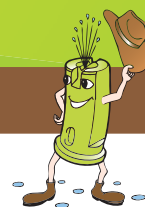
M & F Mini Ball Valve



PVC Ball Valve



F & F Mini Ball Valve



## FLOWMETERS

PRODUCT CODE	DESCRIPTION	SIZE
P37004-3745246	Filling flowmeter 1 1/2" 35 - 350lpm portable - 9 volt battery	1 1/2" BSP
P37004-376012	Filling flowmeter 2" 75 - 750lpm portable - 9 volt battery	2" BSP
P41316399	10 - 100lpm 1" Rapid check <b>insert only</b> - Sapphire bearings	
P41318499	5 - 50lpm 1" Rapid check <b>insert only</b> - Ruby/stainless steel shaft	
P41306199	2 - 20lpm 1" Rapid check <b>insert only</b> - Ruby with ceramic shaft	
P1413003AL	Square wave sensor to suit above flowmeter	
P00375908	Flowmeter 10 - 100lpm - add square wave sensor	1" BSP or Arag Flanged
P00375910	Flowmeter 5 - 50lpm - add square wave sensor	1" BSP or Arag Flanged
P00375902	Flowmeter 2 - 20lpm - add square wave sensor	1" BSP or Arag Flanged
P00370002	Pony Flow PLUS - remote display add sensor & flowmeter	Display only
4621AA10000	Orin electromagnetic flowmeter - 1 - 20lpm	Arag flanged
4621AA30000	Orin electromagnetic flowmeter - 5 - 100lpm	Arag flanged
4621AA40000	Orin electromagnetic flowmeter - 10 - 200lpm	Arag flanged
4628707	Digital flowmeter 2" 40 - 800lpm	2" BSP or Camlock
AFLOK24	Aflo K24 digital flowmeter	1" BSP M & F
AFLOK24UREA	Aflo K24 digital chemical flowmeter	1" BSP M & F



Threaded 1" Flowmeter



Orin Flowmeter



Flanged Flowmeter



Sensor



Pony Flow Plus



Pony Flow Display



RC Pony Flow



Rapid Check Insert



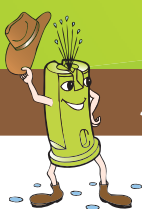
4628707



AFLOK24  
Digital Flowmeter



AFLOK24UREA  
Digital Chemical Flowmeter



## Suction Filters

### SUCTION FILTERS

A range of suction filters with or without in built check valve so the screen can be taken out even when the tank is full without the loss of contents. Sizes from 1 1/4" to 2".

PRODUCT CODE	SIZE	DESCRIPTION	MAX FLOW L / MIN
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#### 313 SERIES

313552	1 1/4"	Filter c/w shut off valve	120
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##### Replacement Screen Part Number

318002.03	32 mesh
318003.03	50 mesh
3180035.03	80 mesh

#### 314 SERIES

314053	1 1/4"	No shut off valve	160
314063	1 1/2"	No shut off valve	160
314453	1 1/4"	Filter c/w shut off valve	160
314463	1 1/2"	Filter c/w shut off valve	160

##### Replacement Screen Part Number

314002.03	32 mesh
314003.03	50 mesh
3140035.03	80 mesh

#### 316 SERIES

316063	1 1/4"	No shut off valve	220
316073	2"	No shut off valve	220
316463	1 1/2"	Filter c/w shut off valve	220
316473	2"	Filter c/w shut off valve	220

##### Replacement Screen Part Number

316002.03	32 mesh
316003.03	50 mesh
3160035.03	80 mesh

#### 317 SERIES

317073	2"	No shut off valve	260
317473	2"	Filter c/w shut off valve	260

##### Replacement Screen Part Number

317002.03	32 mesh
317003.03	50 mesh
3170035.03	80 mesh

#### 12 VOLT PUMP SERIES

309 953	1/2"	Mini suction - 50 mesh	20
309 9535	1/2"	Mini suction - 80 mesh	20
309 T953	1/2"	Mini suction - 50 mesh clear body	20





## PRESSURE FILTERS

A range of delivery / pressure filters to accommodate low to high flow rates & pressure. All are very simple to take apart and to clean, with some being self cleaning. Sizes from 1/2" to 3". The inclined filters are more suited for irrigation or sprayer fill up points. High volume.

PRODUCT CODE	SIZE	MESH AVAILABLE	STYLE	MAX FLOW L / MIN	MAX PRESS. BAR / PSI
AAB122-PP	1/2" Female	32/50	Line	45	10/145
AAB126ML-6	1/2" Female	32 - 100	Line	290	14/200
AAB126ML-F75-100	Teejet 75	32 - 100	Line	290	14/200
322 2023	1/2" Male	32 - 100	Line	100	14/203
324 2023	1/2" Female	32 - 100	Line	100	14/203
3222A023	1/2" Male	32 - 100	HP Line	100	30/435
322 2033	3/4" Male	32 - 100	Line	100	14/203
324 2033	3/4" Female	32 - 100	Line	100	14/203
322 4043	1" Male	32 - 100	Line	100	14/203
324 4043	1" Female	32 - 100	Line	100	14/203
322 9113	Arag Flanged	50/80	Self Clean	150	20/290
322 9013	Arag Flanged	50/80	NON S/Clean	150	20/290
322 4143	1" Male	32 - 100	Self Clean	160	14/203
324 4143	1" Female	32 - 100	Self Clean	160	14/203
326 2053	1 1/4" Male	32 - 100	NON S/Clean	280	15/218
326 2063	1 1/2" Male	32 - 100	NON S/Clean	280	15/218
326 2153	1 1/4" Male	32 - 100	Self Clean	280	15/218
326 2163	1 1/2" Male	32 - 100	Self Clean	280	15/218
326 9013	Arag Flanged	50/80	Self Clean	210	15/218
326 9113	Arag Flanged	50/80	NON S/Clean	210	15/218
328 2053	1 1/4" Female	32 - 100	NON S/Clean	280	15/218
328 2063	1 1/2" Female	32 - 100	NON S/Clean	280	15/218
328 2153	1 1/4" Female	32 - 100	Self Clean	280	15/218
328 2163	1 1/2" Female	32 - 100	Self Clean	280	15/218
345 033	3/4" Female	50/80	H/Pressure	150	50/725
3452 0030	Arag Flanged	50/80	H/Pressure	150	50/725
329 0635	1 1/2" Male	50/80	Inclined - Filling	160	10/145
333 0735	2" Male	32 - 100	Inclined - Filling	380	8/116
335 0935	3" Male	32 - 80	Inclined - Filling	800	8/116



AAB122-PP



AAB126ML-6



AAB126ML-F75-100



3222033



3242033



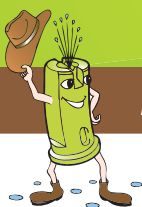
3224043



3350935



3330735



## Pressure Filters



3229113



34520030



3262053



345033



3262153

### NEW COLOR CODE FOR STRAINERS AND CHECK VALVES ACCORDING TO ISO 19732:2007

ISO 19732						
Old Color	New Colour	MESH	A (microns)	Ø (microns)	S (%)	M
BLACK	BROWN RED	16	980	490	44.4	Polypropylene
		16	1320	220	73.3	Inox
WHITE	RED	32	500	320	37.1	Polypropylene
		32	594	200	55.3	Inox
LIGHT BLUE	BLUE	50	365	140	50.8	Inox
GRAY	YELLOW	80	229	80	55.7	Inox
RED	GREEN	100	173	80	46.4	Inox
GREEN	GREY (non ISO)	120	134	70	43	Poliammide
		120	144	70	45.4	Inox
ORANGE	ORANGE	150	96	65	35	Poliammide
		150	114	60	42.4	Inox
YELLOW	PINK	200	80	50	37	Poliammide
		200	76	50	36.2	Inox

**MESH** = number of threads per inch (25.4mm)

**A** = passage useful opening

**Ø** = thread diameter

**S** = percentage ratio between the opening surface and the mesh overall surface

**M** = material



## AGITATORS

### SuperMix Venturi Agitator

This very efficient agitator will take both high and low pressure from the bypass, and can turn over a 2000 litre tank in two minutes. For large tanks use a Supermix and a SupaFlow Agitator.

### SupaFlow Venturi Agitator

Suits various tank shapes. Increases agitation efficiency. No moving parts. Threaded 1/2" BSP connector for simple installation to tank. Suitable for low pressure (nozzle 5-7-9mm) or high pressure (nozzle 2-3mm) polypropylene body.

### Venturi Injector

This simple venturi is ideal for chemical injection by using the filling water to draw the chemical into the tank from a mixing chamber.

PRODUCT CODE	DESCRIPTION
502 053	Supermix agitator up to max 2000 L/min of agitation - 3 mm nozzle
502 062	SupaFlow agitator - max 800 L/min high or low pressure 2-9mm nozzle
502 020	Straight hydraulic agitator - suit smaller tanks 1.2mm nozzle
502 2043	Straight hydraulic agitator - max 250 L/min 1.2 - 5mm nozzle



135505  
Venturi



5022043



SuperMix  
502053



SupaFlow  
502062



502020



500232  
Injector



500040  
Injector



Tank Rinsing  
Nozzle  
P63408399



Container Rinse  
Nozzle  
P63408499



Valve for Spray Head  
510100



Container Rotational  
Spray Head  
510110



Tank Rinsing  
Nozzle  
510120

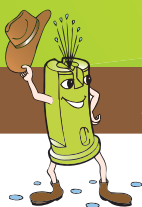
## CHEMICAL INJECTORS / VENTURIS

A very effective chemical injector that uses pump pressure to create a venturi which draws the pre-mixed chemical directly into the tank. It can also be used as an additional agitator if required.

PRODUCT CODE	DESCRIPTION
500 040	40mm chemical injector 10 - 30bar
500 232	32mm chemical injector 10 - 25bar
135 505	3 way venturi - nozzle size 5-12mm & flows of 20-250lpm

## TANK RINSING NOZZLES

PRODUCT CODE	DESCRIPTION
510 110	Container rotational spray head
510 100	Valve for spray head
510 120	Tank rinsing nozzle
P63408399	Tank rinsing nozzle
P63408499	Container rinse nozzle



## Spot & Small Area Spraying

### 12 VOLT AND HAND SPRAYERS

Ideal for small area and spot spraying. Three sizes 5, 8 and 16 litre with easy pressure pump or high quality 12 volt Delavan pump. Ideally suited for trailer or ATV mounting. Light weight versatile booms easily attach, many combinations to choose from - please ring for current details and pricing.



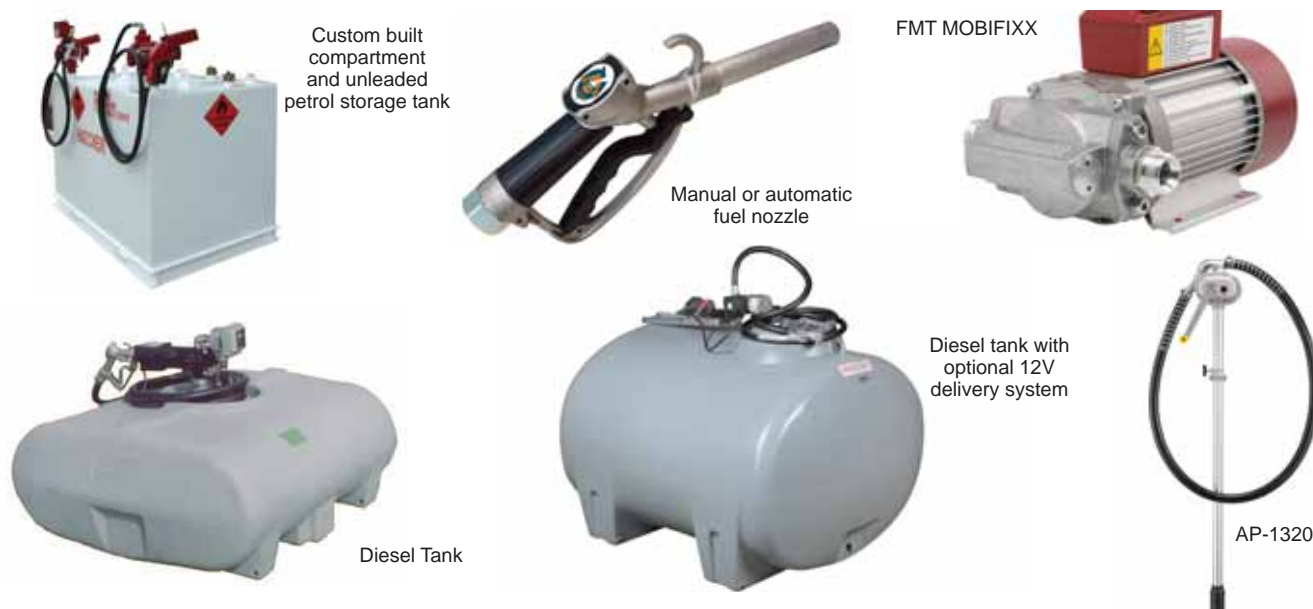
PRODUCT CODE	DESCRIPTION
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### SPOT AND SMALL AREA SPRAYERS

SMP0005L	5 litre spot sprayer
SMP0008L	8 litre spot sprayer
SVB0016L0024	16 litre 12 volt knapsack sprayer
SVS0095L0077	95 litre 12 volt ATV/mower mount spot sprayer 7.7 L/m pump
SVS0225L0077	225 litre 12 volt ATV/mower mount spot sprayer 7.7 L/m pump
ATK0016L	Trolley suitable for 16 litre 12 volt backpack spot sprayer
BOOM1.2M	Versatile boom sprays to 4m, vineyards, fire breaks, many combinations to choose from, please call for advice and current pricing

### DIESEL STORAGE TANKS AND DELIVERY SYSTEMS

CALL 1800 777 297 FOR SPECIFICATIONS AND PRICES





## CARTAGE AND SPRAY TANKS

**Spray Tanks** are fitted with a sump for free draining but do not have any baffles. Sizes range from 50 to 10,000 litres with or without galvanised steel skid frame.

**Water Cartage Tanks** have a baffle but not a sump. Pin mounting points for mounting to truck bodies, trailer, implements etc. Sizes from 35 to 13,000 litres – free standing or big foot.



600L Free Standing  
or Trailer Mounted



2000L Free Standing  
or Trailer Mounted



Water  
Cartage  
Tank

2000L  
Pin Mounted  
Spray Tank



**Big Foot** and free standing cartage and spray tanks.

**All tanks are available in water, chemical, molasses and fertigation grades from 35 litres to 13 000 litres. Please telephone for specifications, prices and sizes.**

PRODUCT CODE	DESCRIPTION
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### RINSE BINS

STRB50F	50 litre rinse bin with frame - no fittings (add container rinse etc.)
STRB120F	120 litre rinse bin with frame - no fittings (add container rinse etc.)

### TANK LIDS, BASKETS ETC.

356 040	367mm	Hinged medium lid, breather & ring
356 060	462mm	Hinged large lid, breather & ring
354 010	152mm	Screwed, vented tank lid
3510221	250mm	Threaded small lid, breather & ring
3522221	250mm	Threaded small lid & breather ONLY
3510040	355mm	Threaded medium lid, breather & ring
3522040	355mm	Threaded medium lid & breather ONLY
3510060	455mm	Threaded large lid, breather & ring
3522060	455mm	Threaded large lid & breather ONLY
3522261	455mm	Threaded large lid & breather ONLY
300 114	194x235mm	Basket filter
300 116	203x235mm	Basket filter
300 120	305x245mm	Basket filter
300 126	400x185mm	Basket filter
300 130	400x275mm	Basket filter
300 134	400x330mm	Basket filter
502 001		Dust basket filter
307 3040	40mm	Floating filter
006 010		Tank flanges enables a tunnel through the tank



Basket  
Mixer



120L  
Rinse  
Bin



Basket Filter



Tank  
Flanges



356060



3522221



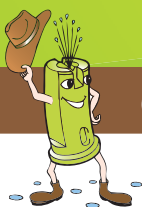
3522060



352261



Floating  
Filter



## Chemical Transfer

### CHEMICAL MIXING AND TRANSFER

**Chemtraveller** 12 volt transfer pump is specifically designed to handle neat agricultural chemicals. The largest flow in it's class with 28 lpm for glyphosate & 35 lpm of Trifluralin. Comes with Micromatic coupling, 2m suction and 4.5m pressure hose in a roll frame.

PRODUCT CODE	DESCRIPTION
R1435M-825	Chemtraveller c/w micromatic couplings
R1850	Flowmeter - air sensing to suit Chemtraveller
K744-094	3 pin Micromatic coupling - herbicide
K2DV1-002	Rinse coupling
R1HPNSP	1 Litre Chemical hand pump - no micromatics
R1HPNSPM	1 Litre Chemical hand pump - with micromatics
R135LH	1 Litre manual volumetric hand pump - no micromatics
R135LHM	1 Litre manual volumetric hand pump - with micromatics
CHEM TRANS	120 Litre 240 volt mixing/transfer unit
1542P-3SP	Hypro self priming 2" polypropylene centrifugal pump coupled to 5.5hp petrol motor - suitable with liquid fertilizers, acids etc.



Chemtraveller



Chemical Transfer Unit



Micromatic Coupling



Micromatic Rinse Coupling



Hypro Poly Transfer Pump



Volumetric Hand Pump 1 Litre

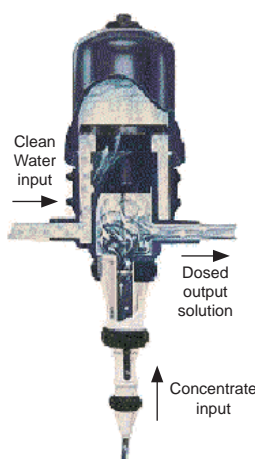


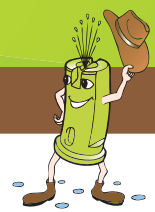
Chemical Hand Pump

### CHEMICAL DOSING / INJECTION

**Dosatron** chemical dosing or injection uses the system water flow to operate a pump that draws the chemical directly from a container and injects it into the boom line at an optimum ratio. The chemical dose is proportional to the system water flow and maintains a consistent ratio of chemical to the amount of water. The product mixes in the unit which ensures the chemical is mixed correctly before entering the boom lines. Ideal for pre-emergent chemicals, liquid fertilizers etc. Multiple units can be coupled together. Chemical resistant, UV stable and simple to install and operate.

PRODUCT CODE	DOSAGE RATE	DESCRIPTION
DI1500	0.07% - 0.2%	Input water flow of 0.16 to 42 lpm
DI05	0.2% - 0.5%	
DI16	0.2% - 1.6%	
DI2	0.5% - 2.0%	
DI150	1.0% - 5.0%	
DI210	2.0% - 10%	
DI520	5.0% - 20%	
D45RE15	0.2% - 1.5%	Input water flow of 1.2 to 75 lpm
D45RE3	0.5% - 3.0%	
D45RE8	3.0% - 8.0%	
D8R150	1.0% - 5.0%	Input water flow of 8.3 to 133 lpm





The range of polyethylene fittings used in most agricultural sprayers that are compatible with fertilizers and acids such as UAN and Phosphoric acid etc. Threaded as well as the popular user friendly Fly Nut O ring sealed range.

POLY FITTINGS	PRODUCT CODE	DESCRIPTION	SIZE
<b>FLY-NUT HOSE TAILS</b>			
	FT38-11	Fly nut – hose tail	3/8" x 11mm
	FT12-10	Fly nut – hose tail	1/2" x 10mm
	FT12-13	Fly nut – hose tail	1/2" x 13mm
	FT34-13	Fly nut – hose tail	3/4" x 13mm
	FT34-20	Fly nut – hose tail	3/4" x 20mm
	FT1-13	Fly nut – hose tail	1" x 13mm
	FT1-20	Fly nut – hose tail	1" x 20mm
	FT1-25	Fly nut – hose tail	1" x 25mm
	FT114-25	Fly nut – hose tail	1 1/4" x 25mm
	FT114-32	Fly nut – hose tail	1 1/4" x 32mm
	FT112-25	Fly nut – hose tail	1 1/2" x 25mm
	FT112-32	Fly nut – hose tail	1 1/2" x 32mm
	FT112-38	Fly nut – hose tail	1 1/2" x 38mm
	FT112-40	Fly nut – hose tail	1 1/2" x 40mm
	FT2-40	Fly nut – hose tail	2" x 40mm
	FT2-50	Fly nut – hose tail	2" x 50mm
	FT3-60	Fly nut – hose tail	3" x 60mm
<b>FLY-NUT ELBOW HOSE TAILS</b>			
	FE12-10	Fly nut – elbow hose tail	1/2" x 10mm
	FE34-13	Fly nut – elbow hose tail	3/4" x 13mm
	FE34-20	Fly nut – elbow hose tail	3/4" x 20mm
	FE1-20	Fly nut – elbow hose tail	1" x 20mm
	FE1-25	Fly nut – elbow hose tail	1" x 25mm
	FE114-25	Fly nut – elbow hose tail	1 1/4" x 25mm
	FE114-32	Fly nut – elbow hose tail	1 1/4" x 32mm
	FE112-25	Fly nut – elbow hose tail	1 1/2" x 25mm
	FE112-32	Fly nut – elbow hose tail	1 1/2" x 32mm
	FE112-38	Fly nut – elbow hose tail	1 1/2" x 38mm
	FE112-40	Fly nut – elbow hose tail	1 1/2" x 40mm
	FE2-40	Fly nut – elbow hose tail	2" x 40mm
	FE2-50	Fly nut – elbow hose tail	2" x 50mm
	FE2-52	Fly nut – elbow hose tail	2" x 52mm
	FE 45-112-40	Fly nut – 45° elbow hose tail	1 1/2" x 40mm
<b>BACKNUTS</b>			
	205010	Poly backnut	3/8"
	2052020	Poly backnut	1/2"
	2052030	Poly backnut	3/4"
	2052040	Poly backnut	1"
	2052050	Poly backnut	1 1/4"
	2052060	Poly backnut	1 1/2"
	2052070	Poly backnut	2"
	2052080	Poly backnut	2 1/2"
<b>FLAT SEAL STRAIGHT HOSE TAIL</b>			
	105010	Flat seal straight hose tail	3/8" x 10mm
	105210	Flat seal straight hose tail	1/2" x 10mm
	105213	Flat seal straight hose tail	1/2" x 13mm
	105313	Flat seal straight hose tail	3/4" x 13mm
	105320	Flat seal straight hose tail	3/4" x 20mm
	105420	Flat seal straight hose tail	1" x 20mm
	105425	Flat seal straight hose tail	1" x 25mm
	105640	Flat seal straight hose tail	1 1/2" x 40mm
<b>FLAT SEAL 90° HOSE TAIL</b>			
	115210	Flat seal 90° hose tail	1/2" x 10mm
	115313	Flat seal 90° hose tail	3/4" x 13mm
	115320	Flat seal 90° hose tail	3/4" x 20mm
	115425	Flat seal 90° hose tail	1" x 25mm



Fly Nut Hose Tail



Fly Nut



Fly Nut Elbow



Fly Nut Elbow 45°



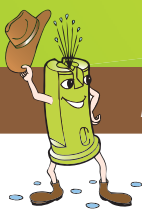
Poly Backnut



Flat Seal Straight Hose Tail



Flat Seal 90° Hose Tail



## Poly Fittings

POLY FITTINGS	PRODUCT CODE	DESCRIPTION	SIZE
<b>FLY NUTS</b>			
	200010	Poly fly nuts suit flat seal fittings	3/8"
	2002020	Poly fly nuts suit flat seal fittings	1/2"
	2002030	Poly fly nuts suit flat seal fittings	3/4"
	2002040	Poly fly nuts suit flat seal fittings	1"
	2002050	Poly fly nuts suit flat seal fittings	1 1/4"
	2002060	Poly fly nuts suit flat seal fittings	1 1/2"
	2002070	Poly fly nuts suit flat seal fittings	2"
	2002080	Poly fly nuts suit flat seal fittings	2 1/2"
<b>SYMETRICAL NIPPLES</b>			
	2502020	Symetric nipple	1/2"
	2502021	Symetric nipple - long	1/2"
	2502030	Symetric nipple	3/4"
	2502031	Symetric nipple - long	3/4"
	2502040	Symetric nipple	1"
	2502041	Symetric nipple - long	1"
	2502050	Symetric nipple	1 1/4"
	2502051	Symetric nipple - long	1 1/4"
	2502060	Symetric nipple	1 1/2"
	2502061	Symetric nipple - long	1 1/2"
	2502070	Symetric nipple	2"
	2502071	Symetric nipple - long	2"
<b>NYLON HEX NIPPLE</b>			
	SHN15	NYLON hex nipple	1/2"
	SHN20	NYLON hex nipple	3/4"
	SHN25	NYLON hex nipple	1"
	SHN32	NYLON hex nipple	1 1/4"
	SHN40	NYLON hex nipple	1 1/2"
	SHN50	NYLON hex nipple	2"
<b>POLY REDUCING HEX NIPPLE</b>			
	2402020	Poly red hex nipple	1/2" x 1/4"
	2402021	Poly red hex nipple	1/2" x 3/8"
	2402031	Poly red hex nipple	3/4" x 3/8"
	2402032	Poly red hex nipple	3/4" x 1/2"
	2402042	Poly red hex nipple	1" x 1/2"
	2402043	Poly red hex nipple	1" x 3/4"
	2402053	Poly red hex nipple	1.1/4" x 3/4"
	2402054	Poly red hex nipple	1.1/4" x 1"
	2402064	Poly red hex nipple	1.1/2" x 1"
	2402065	Poly red hex nipple	1.1/2" x 1 1/4"
	2402075	Poly red hex nipple	2" x 1 1/4"
	2402076	Poly red hex nipple	2" x 1 1/2"
<b>DRAIN OUTLETS</b>			
	DO - 12	Drain outlet	1/2"
	DO - 34	Drain outlet	3/4"
	DO - 1	Drain outlet	1"
	DO - 114	Drain outlet	1 1/4"
	DO - 112	Drain outlet	1 1/2"
	DO - 2	Drain outlet	2"
<b>BULKHEAD FITTING</b>			
	118 215	90° double barb	15mm 1/2"
	118 319	90° double barb	19mm 3/4"
	118 426	90° double barb	25mm 1"
	113 213L	90° single barb	1/2" tail x 1/2" BSP
	113 220L	90° single barb	3/4" tail x 1/2" BSP
<b>TANK FITTING - NYLON</b>			
	STF15B	Tank fitting - hose tail	1/2"
	STF20B	Tank fitting - hose tail	3/4"
	STF25B	Tank fitting - hose tail	1"
	STF32B	Tank fitting - hose tail	1 1/4"
	STF40B	Tank fitting - hose tail	1 1/2"
	STF50B	Tank fitting - hose tail	2"
<b>FEMALE TANK FITTING - NYLON</b>			
	SFTF20	Female tank fitting	20mm 1/2"
	SFTF25	Female tank fitting	25mm 1"
	SFTF40	Female tank fitting	40mm 1 1/2"
	SFTF50	Female tank fitting	50mm 2"



Fly Nut



Symetric Nipple



Bulkhead Nipple



Poly Red Hex Nipple



Drain Outlet

90° Double Barb



Tank Fitting  
Hose Tail



Tank Fitting



POLY FITTINGS	PRODUCT CODE	DESCRIPTION	SIZE
<b>NON RETURN VALVES</b>			
	504010	Non return valves	1 1/4"F x 1 1/4"F
	504014	Non return valves	1 1/2"F x 1 1/4"F
	504015	Non return valves	1 1/2"F x 1 1/2"F
	504029	Non return valves	2"M x 2"F
<b>HOSE TAIL WITH MALE THREAD</b>			
	1032010	Hose tail with male thread	10mm x 1/4"
	1032013	Hose tail with male thread	13mm x 1/4"
	1032110	Hose tail with male thread	10mm x 3/8"
	1032213	Hose tail with male thread	13mm x 1/2"
	1032220	Hose tail with male thread	20mm x 1/2"
	1032313	Hose tail with male thread	13mm x 3/4"
	1032320	Hose tail with male thread	20mm x 3/4"
	1032325	Hose tail with male thread	25mm x 3/4"
	1032420	Hose tail with male thread	20mm x 1"
	1032425	Hose tail with male thread	25mm x 1"
	1032432	Hose tail with male thread	32mm x 1"
	1032525	Hose tail with male thread	25mm x 1 1/4"
	1032532	Hose tail with male thread	32mm x 1 1/4"
	1032538	Hose tail with male thread	38mm x 1 1/4"
	1032540	Hose tail with male thread	40mm x 1 1/4"
	1032638	Hose tail with male thread	38mm x 1 1/2"
	1032640	Hose tail with male thread	40mm x 1 1/2"
	1032650	Hose tail with male thread	50mm x 1 1/2"
	1032750	Hose tail with male thread	50mm x 2"
	114640	45° elbow tail - M BSP	1 1/2" x 40mm
<b>90° HOSE FITTING WITH MALE THREAD</b>			
	1132113	90° hose fitting with male thread	13mm x 3/8"
	1132213	90° hose fitting with male thread	13mm x 1/2"
	1132220	90° hose fitting with male thread	20mm x 1/2"
	1132320	90° hose fitting with male thread	20mm x 3/4"
	1132325	90° hose fitting with male thread	25mm x 3/4"
	1132425	90° hose fitting with male thread	25mm x 1"
	1132432	90° hose fitting with male thread	32mm x 1"
	1132525	90° hose fitting with male thread	25mm x 1 1/4"
	1132532	90° hose fitting with male thread	32mm x 1 1/4"
	1132632	90° hose fitting with male thread	32mm x 1 1/2"
	1132638	90° hose fitting with male thread	38mm x 1 1/2"
	1132640	90° hose fitting with male thread	40mm x 1 1/2"
	1132750	90° hose fitting with male thread	50mm x 2"
	1132752	90° hose fitting with male thread	52mm x 2"
<b>STRAIGHT HOSE FITTING FEMALE THREAD</b>			
	100519	Straight hose fitting - female	19mm x 1 1/4"
	100525	Straight hose fitting - female	25mm x 1 1/4"
	100533	Straight hose fitting - female	32mm x 1 1/4"
	100540	Straight hose fitting - female	40mm x 1 1/4"
	100640	Straight hose fitting - female	40mm x 1 1/2"
	100650	Straight hose fitting - female	50mm x 1 1/2"
<b>POLY FEMALE ELBOW BSP</b>			
	1202022	Poly elbow BSP	1/2"
	1202033	Poly elbow BSP	3/4"
	1202044	Poly elbow BSP	1"
	1202055	Poly elbow BSP	1 1/4"
	1202066	Poly elbow BSP	1 1/2"
	1202077	Poly elbow BSP	2"
<b>POLY ELBOW M &amp; F BSP</b>			
	1262022	Poly elbow M&F BSP	1/2"
	1262033	Poly elbow M&F BSP	3/4"
	1262044	Poly elbow M&F BSP	1"
	1262055	Poly elbow M&F BSP	1 1/4"
	1262066	Poly elbow M&F BSP	1 1/2"
	1262077	Poly elbow M&F BSP	2"



Non Return Valves



Hose Fitting with Male Thread



90 Hose Fitting with Male Thread



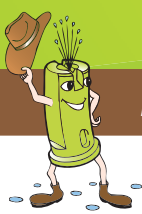
Straight Hose Fitting Female



Poly Elbow



Threaded Elbow Male



## Poly Fittings

POLY FITTINGS	PRODUCT CODE	DESCRIPTION	SIZE
<b>POLY ELBOW M &amp; M BSP</b>			
	123044	Poly elbow M&M BSP	1"
	123055	Poly elbow M&M BSP	1 1/4"
	123255	Poly elbow M&M BSP	1 1/4" long thread
	1232077	Poly elbow M&M BSP	2"
<b>POLY FEMALE TEE BSP</b>			
	1302020	Poly female tee BSP	1/2"
	1302032	Poly female tee BSP	1/2"x3/4"
	1302030	Poly female tee BSP	3/4"
	1302023	Poly female tee BSP	3/4"x1/2"
	1302040	Poly female tee BSP	1"
	1302050	Poly female tee BSP	1 1/4"
	1302060	Poly female tee BSP	1 1/2"
	1302070	Poly female tee BSP	2"
<b>POLY MALE TEE BSP</b>			
	1312050	Male threaded tee	1 1/4"
	1312060	Male threaded tee	1 1/2"
	1312070	Male threaded tee	2"
<b>POLY FEMALE / MALE TEE BSP</b>			
	132040	Poly tee female/male BSP	1"
	132050	Poly tee female/male BSP	1 1/4"
	1322070	Poly tee female/male BSP	2"
<b>POLY SOCKET BSP</b>			
	2302020	Poly socket BSP	15mm 1/2"
	2302030	Poly socket BSP	20mm 3/4"
	2302040	Poly socket BSP	25mm 1"
	230050	Poly socket BSP	32mm 1 1/4"
	230060	Poly socket BSP	40mm 1 1/2"
	2302070	Poly socket BSP	50mm 2"
<b>POLY PLUG BSP</b>			
	215001	Poly plug BSP	1/4"
	215010	Poly plug BSP	3/8"
	215020	Poly plug BSP	15mm 1/2"
	215030	Poly plug BSP	20mm 3/4"
	215040	Poly plug BSP	25mm 1"
	215050	Poly plug BSP	32mm 1 1/4"
	SP40	Poly plug BSP	40mm 1 1/2"
	SP50	Poly plug BSP	50mm 2"
<b>POLY CAP BSP</b>			
	210005	Poly cap BSP	1/4"
	210010	Poly cap BSP	3/8"
	2102020	Poly cap BSP	15mm 1/2"
	2102030	Poly cap BSP	20mm 3/4"
	2102040	Poly cap BSP	25mm 1"
	2102050	Poly cap BSP	32mm 1 1/4"
	2102060	Poly cap BSP	40mm 1 1/2"
	2102070	Poly cap BSP	50mm 2"
<b>NYLON REDUCING BUSH</b>			
	SRB2015	NYLON reducing bush	3/4" x 1/2"
	SRB2515	NYLON reducing bush	1" x 1/2"
	SRB2520	NYLON reducing bush	1" x 3/4"
	SRB3225	NYLON reducing bush	1 1/4" x 1"
	SRB4020	NYLON reducing bush	1 1/2" x 3/4"
	SRB4025	NYLON reducing bush	1 1/2" x 1"
	SRB4032	NYLON reducing bush	1 1/2" x 1 1/4"
	SRB5040	NYLON reducing bush	2" x 1 1/2"
<b>THREADED POLY BARREL NIPPLE</b>			
	230540	Threaded barrel nipple	1"
	230560	Threaded barrel nipple	1 1/2"
	230570	Threaded barrel nipple	2"



Poly Elbow



Poly Female Tee



Poly Male Tee



Poly Female/Male Tee



Poly Socket



Poly Plug



Poly Cap



Nylon Reducing Bush



Threaded Barrel Nipple



POLY FITTINGS	PRODUCT CODE	DESCRIPTION	SIZE
<b>POLY REDUCING SOCKET</b>			
	2352020	Poly reducing socket	1/2" x 1/4"
	2352021	Poly reducing socket	1/2" x 3/8"
	2352031	Poly reducing socket	3/4" x 3/8"
	2352032	Poly reducing socket	3/4" x 1/2"
	2352042	Poly reducing socket	1" x 1/2"
	2352043	Poly reducing socket	1" x 3/4"
	2352053	Poly reducing socket	1 1/4" x 3/4"
	2352054	Poly reducing socket	1 1/4" x 1"
	2352064	Poly reducing socket	1 1/2" x 1"
	2352065	Poly reducing socket	1 1/2" x 1 1/4"
	SRS5020	NYLON reducing socket	2" x 3/4"
	SRS5025	NYLON reducing socket	2" x 1"
	2352075	Poly reducing socket	2"x1 1/4"
	2352076	Poly reducing socket	2" x 1 1/2"
<b>POLY MALE / FEMALE REDUCER NIPPLE</b>			
	245010	M&F reducer	3/8" x 1/4"F
	2452032	M&F reducer	3/4" x 1/2"F
	2452042	M&F reducer	1" x 1/2"F
	2452043	M&F reducer	1" x 3/4"F
	2452053	M&F reducer	1 1/4" x 3/4"F
	2452054	M&F reducer	1 1/4" x 1"F
	2452064	M&F reducer	1 1/2" x 1"F
	2452065	M&F reducer	1 1/2" x 1 1/4"F
	2452075	M&F reducer	2" x 1 1/4"F
	2452076	M&F reducer	2"M x 1 1/2"F
<b>POLY MALE / FEMALE THREADED COUPLING</b>			
	2452022	Male - female coupling	1/2" x 1/2"M
	2452033	Male - female coupling	3/4" x 3/4"M
	2452044	Male - female coupling	1" x 1"M
	2452066	Male - female coupling	1 1/2" x 1 1/2"M
	2452077	Male - female coupling	2" x 2"M
<b>POLY MALE / FEMALE THREADED REDUCING COUPLING</b>			
	2452002	M&F reducer	1/2" x 1/4"M
	2452012	M&F reducer	1/2" x 3/8"M
	2452013	M&F reducer	3/4" x 3/8"M
	2452023	M&F reducer	3/4" x 1/2"M
	2452024	M&F reducer	1" x 1/2"M
	2452034	M&F reducer	1" x 3/4"M
	2452035	M&F reducer	1 1/4" x 3/4"M
	2452045	M&F reducer	1 1/4" x 1"M
	2452046	M&F reducer	1 1/2" x 1"M
	2452056	M&F reducer	1 1/2" x 1 1/4"M
	2452057	M&F reducer	2" x 1 1/4"M
	2452067	M&F reducer	2" x 1 1/2"M
<b>ANTI VORTEX OUTLETS</b>			
	504104	Anti vortex outlets	1"
	504105	Anti vortex outlets	1 1/4"
	5042106	Anti vortex outlets	1 1/2"
	5042107	Anti vortex outlets	2"
<b>ADD BACK NUTS TO ABOVE</b>			



Poly Reducing Socket



Male & Female Reducer



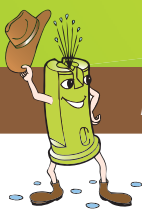
Male & Female Coupling



Male & Female Reducer



Anti Vortex Outlet



## Poly Fittings

POLY FITTINGS	PRODUCT CODE	DESCRIPTION	SIZE
<b>"Y" FITTING</b>			
140001	"Y" Fitting	1" BSP M x 25mm	
140002	"Y" Fitting	25mm x 25mm tails	
<b>45° FOUR WAY MALE FITTING</b>			
160020	45° four way male fitting	1/2"	
<b>3 &amp; 6 WAY THREADED MANIFOLD</b>			
152643	6 way threaded manifold	1" inlet x 3/4" outlet	
152343	3 way threaded manifold	1" inlet x 3/4" outlet	
<b>1000 LITRE SHUTTLE OUTLET</b>			
IBC50	2" BSP to course shuttle thread	2" BSP	



Shuttle Outlet



45 Four Way Male Fitting



Four Way Male Fitting



6 Way Threaded Manifold



"Y" Fitting

## CAM LOCK FITTINGS

CAM LOCKS	PRODUCT CODE	DESCRIPTION	SIZE
<b>A TYPE – CAM LOCK FITTINGS</b>			
18103A2	Camlock adaptor	15mm 3/4" x 1/2"	
18103A	Camlock adaptor	20mm 3/4"	
18104A	Camlock adaptor	25mm 1"	
18105A	Camlock adaptor	32mm 1 1/4"	
18106A5	Camlock adaptor	32mm 1 1/2" x 1 1/4"	
18106A	Camlock adaptor	40mm 1 1/2"	
18107A	Camlock adaptor	50mm 2"	
18109A8	Camlock adaptor	80mm 3" x 2 1/2"	
18109A	Camlock adaptor	80mm 3"	
<b>B TYPE – CAM LOCK FITTINGS</b>			
18103B2	Camlock adaptor	15mm 3/4" x 1/2"	
18103B	Camlock adaptor	20mm 3/4"	
18104B	Camlock adaptor	25mm 1"	
18105B	Camlock adaptor	32mm 1 1/4"	
18106B5	Camlock adaptor	32mm 1 1/2" x 1 1/4"	
18106B	Camlock adaptor	40mm 1 1/2"	
18107B	Camlock adaptor	50mm 2"	
18109B8	Camlock adaptor	80mm 3" x 2 1/2"	
18109B	Camlock adaptor	80mm 3"	
<b>C TYPE – CAM LOCK FITTINGS</b>			
18103C2	Camlock adaptor	13mm x 3/4"	
18103C	Camlock adaptor	19mm x 3/4"	
18104C	Camlock adaptor	25mm x 1"	
18104C5	Camlock adaptor	32mm x 1"	
18105C	Camlock adaptor	32mm x 1 1/4"	
18106C5	Camlock adaptor	32mm x 1 1/2"	
18106C	Camlock adaptor	38mm x 1 1/2"	
18107C	Camlock adaptor	50mm x 2"	
18109C60	Camlock adaptor	60mm x 3"	
18109C	Camlock coupling	75mm x 3"	



Camlock Adaptor Type A



Camlock Adaptor Type B



Camlock Adaptor Type C



CAM LOCKS	PRODUCT CODE	DESCRIPTION	SIZE
<b>D TYPE – CAM LOCK FITTINGS</b>			
	18103D2	Camlock adaptor	15mm 3/4" x 1/2"
	18103D	Camlock adaptor	20mm 3/4"
	18104D	Camlock adaptor	25mm 1"
	18105D	Camlock adaptor	32mm 1 1/4"
	18106D5	Camlock adaptor	32mm 1 1/2" x 1 1/4"
	18106D	Camlock adaptor	40mm 1 1/2"
	18107D	Camlock adaptor	50mm 2"
	18109D8	Camlock adaptor	80mm 3" x 2 1/2"
	18109D	Camlock adaptor	80mm 3"
<b>E TYPE – CAM LOCK FITTINGS</b>			
	18103E2	Camlock adaptor	13mm x 3/4"
	18103E	Camlock adaptor	19mm x 3/4"
	18104E	Camlock adaptor	25mm x 1"
	18105E	Camlock adaptor	32mm x 1 1/4"
	18106E	Camlock adaptor	32mm x 1 1/2"
	18106E40	Camlock adaptor	40mm x 1 1/2"
	18107E	Camlock adaptor	50mm x 2"
	18109E60	Camlock adaptor	60mm x 3"
	18109E	Camlock coupling	75mm x 3"
<b>F TYPE – CAM LOCK FITTINGS</b>			
	18103F2	Camlock adaptor	15mm 3/4" x 1/2"
	18103F	Camlock adaptor	20mm 3/4"
	18104F	Camlock adaptor	25mm 1"
	18105F	Camlock adaptor	32mm 1 1/4"
	18106F5	Camlock adaptor	32mm 1 1/2" x 1 1/4"
	18106F	Camlock adaptor	40mm 1 1/2"
	18107F	Camlock adaptor	50mm 2"
	18109F8	Camlock adaptor	80mm 3" x 2 1/2"
	18109F	Camlock adaptor	80mm 3"
<b>G TYPE – CAM LOCK FITTINGS</b>			
	18103G	Dust plug - male camlock	20mm 3/4"
	18104G	Dust plug - male camlock	25mm 1"
	18105G	Dust plug - male camlock	32mm 1 1/4"
	18106G	Dust plug - male camlock	40mm 1 1/2"
	18107G	Dust plug - male camlock	50mm 2"
	18109G	Dust plug - male camlock	80mm 3"
<b>H TYPE – CAM LOCK FITTINGS</b>			
	18103H	Dust cap - female camlock	20mm 3/4"
	18104H	Dust cap - female camlock	25mm 1"
	18105H	Dust cap - female camlock	32mm 1 1/4"
	18106H	Dust cap - female camlock	40mm 1 1/2"
	18107H	Dust cap - female camlock	50mm 2"
	18109H	Dust cap - female camlock	80mm 3"



Camlock Adaptor  
Type D



Camlock Adaptor  
Type E



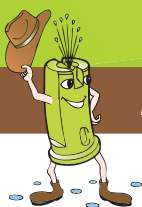
Camlock Adaptor  
Type F



Camlock  
Adaptor  
Type G



Camlock  
Adaptor  
Type H



# Nylon Fittings

## NYLON FITTINGS

NYLON FITTINGS	PRODUCT CODE	DESCRIPTION
<b>ELBOWS</b>		
	A-EL1238	1/2" BSP (M) x 3/8" hosebarb
	A-EL1412	1/4" BSP (M) x 1/2" hosebarb
	A-EL1414	1/4" BSP (M) x 1/4" hosebarb
	A-EL1438	1/4" BSP (M) x 3/8" hosebarb
	A-EL1438F	1/4" BSP (F) x 3/8" hosebarb
	A-EL1814	1/8" BSP (M) x 1/4" hosebarb
	A-EL1838	1/8" BSP (M) x 3/8" hosebarb
	A-EL200	2" BSP (M) x 2" hosebarb
	A-EL3410	3/4" BSP (M) x 1" hosebarb
	A-EL3412	3/4" BSP (M) x 1/2" hosebarb
	A-EL3412F	3/4" BSP (F) x 1/2" hosebarb
	A-EL3434	3/4" BSP (M) x 3/4" hosebarb
	A-EL3434F	3/4" BSP (F) x 3/4" hosebarb
	A-EL3438	3/4" BSP (M) x 3/8" hosebarb
	A-EL3812	3/4" BSP (M) x 1/2" hosebarb
	A-EL3812F	3/8" BSP (F) x 1/2" hosebarb
	A-EL3814	3/8" BSP (M) x 1/4" hosebarb
	A-EL3838	3/8" BSP (M) x 3/8" hosebarb
	A-EL1214	1/2" BSP (M) x 1/4" hosebarb
	A-EL1212	1/2" BSP (M) x 1/2" hosebarb
	A-EL1234	1/2" BSP (M) x 3/4" hosebarb
	A-EL1010	1" BSP (M) x 1" hosebarb
	A-EL1012	1" BSP (M) x 1/2" hosebarb
	A-EL1034	1" BSP (M) x 3/4" hosebarb
	A-EL112	1 1/2" BSP (M) x 1 1/2" hosebarb
	A-EL114	1 1/4" BSP (M) x 1 1/4" hosebarb
	A-EL1141	1 1/4" BSP (M) x 1" hosebarb
	A-EL114112	1 1/4" BSP (M) x 1 1/2" hosebarb



Female Threaded Elbow



Threaded Elbow



Nylon Plug

<b>PLUGS - THREADED</b>		
	A-F1800	1/8"
	A-F1400	1/4"
	A-F3800	3/8"
	A-F1200	1/2"
	A-F3400	3/4"
	A-F1000	1"
	A-F112	1 1/2"
	A-F114	1 1/4"

<b>NIPPLES</b>		
	A-M3814	3/8" - 1/4"
	A-M3800	3/8"
	A-M1400	1/4"
	A-M1200	1/2"
	A-M3400	3/4"
	A-M1000	1"
	A-M112	1 1/2"
	A-M114	1 1/4"
	A-M200	2"



Nylon Nipple



NYLON FITTINGS	PRODUCT CODE	DESCRIPTION
<b>REDUCING BUSHES</b>		
A-RB1034		1" x 3/4"
A-RB1121		1 1/2"M x 1"F
A-RB112114		1 1/2"M x 1 1/4"F
A-RB1141		1 1/4"M x 1"F
A-RB11434		1 1/4"M x 3/4"F
A-RB1214		1/2"M x 1/4"F
A-RB1238		1/2"M x 3/8"F
A-RB2001		2"M x 1"F
A-RB200112		2"M x 1 1/2"F
A-RB200114		2"M x 1 1/4"F
A-RB3412		3/4"M x 1/2"F
A-RB3414		3/4"M x 3/8"F
A-RB3438		3/4"M x 1/4"F
A-RB3814		3/4"M x 1/4"F
<b>SOCKETS</b>		
A-CS3800		Female thread 3/8"
A-CS1200		Female thread 1/2"
A-CS3400		Female thread 3/4"
A-CS1000		Female thread 1"
A-CS112		Female thread 1 1/2"
A-CS114		Female thread 1 1/4"
<b>TEES</b>		
A-T100		Barbed 1"
A-T112		Barbed 1 1/2"
A-T114		Barbed 1 1/4"
A-T12		Barbed 1/2"
A-T1234		Barbed 1/2" x 3/4" x 3/4"
A-T14		Barbed 1/4" x 1/4" x 1/4"
A-T34		Barbed 3/4"
A-T3412		Barbed 3/4" x 1/2" x 1/2"
A-T38		Barbed 3/8" x 3/8" x 3/8"
A-T3812		Barbed 3/8" x 3/8" x 1/2"
A-T3814		Barbed 3/8" x 3/8" x 1/4"
A-TT100		Female threaded 1"
A-TT112		Female threaded 1 1/2"
A-TT114		Female threaded 1 1/4"
A-TT12		Female threaded 1/2"
A-TT12G		1/2" (F) threaded 1/4" gauge port
A-TT200		Female threaded 2"
A-TT34		Female threaded 3/4"
A-TT34G		3/4" (F) threaded 1/4" gauge port



Nylon Reducing Bush



Nylon Socket



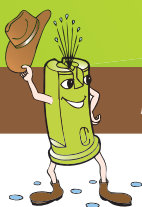
Red Barbed Tee



Threaded Tee



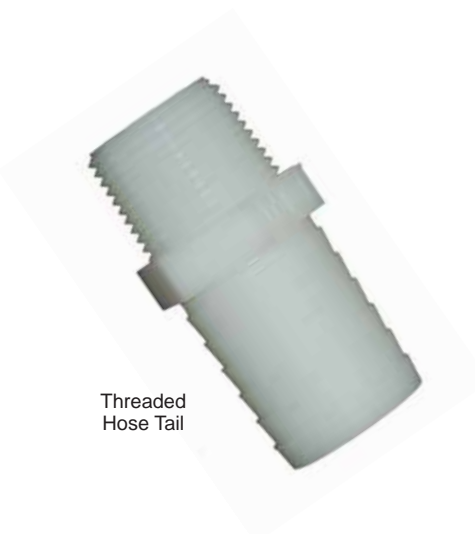
Gauge Tee



## Nylon Fittings

NYLON FITTINGS	PRODUCT CODE	DESCRIPTION	SIZE
<b>THREADED HOSEBARBS</b>			
	AA1034	1" thread (M) x 3/4" hose	
	A-A1010	1" thread (M) x 1" hose	
	A-A1114	1" thread (M) x 1 1/4" hose	
	A-A112	1 1/2" thread (M) x 1 1/2" hose	
	A-A112114	1 1/2" thread (M) x 1 1/4"	
	A-A114	1 1/4" thread (M) x 1 1/4" hose	
	AA1141	1 1/4" thread 1" hose	
	A-A114112	1 1/4" thread (M) x 1 1/2" hose	
	A-A1212	1/2" thread (M) x 1/2" hose	
	A-A1214	1/2" thread (M) x 1/4" hose	
	A-A1234	1/2" thread (M) x 3/4" hose	
	A-A1238	1/2" thread (M) x 3/8" hose	
	A-A1412	1/4" thread (M) x 1/2" hose	
	A-A1414	1/4" thread (M) x 1/4" hose	
	A-A1438	1/4" thread (M) x 3/8" hose	
	A-A1438F	1/4" thread (F) x 3/8" hose	
	A-A1814	1/8" thread (M) x 1/4" hose	
	A-A1838	1/8" thread (M) x 3/8" hose	
	A-A200	2" thread (M) x 2" hose	
	A-A3410	3/4" thread (M) x 1" hose	
	A-A3412	3/4" thread (M) x 1/2" hose	
	A-A3414	3/4" thread (M) x 1/4" hose	
	A-A3434	3/4" thread (M) x 3/4" hose	
	A-A3438	3/4" thread (M) x 3/8" hose	
	A-A3812	3/8" thread (M) x 1/2" hose	
	A-A3814	3/8" thread (M) x 1/4" hose	
	A-A3838	3/8" thread (M) x 3/8" hose	
	A-Q1212	1/2" thread (F) x 1/2" hose	
	A-Q3434	3/4" thread (F) x 3/4" hose	
<b>HOSE JOINERS</b>			
	A-SHM14	1/4"	
	A-SHM38	3/8"	
	A-SHM1200	1/2"	
	A-SHM1238	1/2" x 3/8"	
	A-SHM34	3/4"	
	A-SHM1000	1"	
	A-SHM114	1 1/4"	
	A-SHM112	1 1/2"	
	A-SHM200	2"	
<b>QUICK FLUID CONNECTORS</b>			
	81000	Quick fluid connectors - F BSP	1/4" BSP
	81610	Adaptor - tail	3/8" barb
	81612	Adaptor - tail	1/2" barb
	81500	Adaptor - female thread	1/4" female

*Ideal for spot sprayers, spray guns etc. Quick release stop valve.*



Threaded  
Hose Tail



Hose  
Joiner



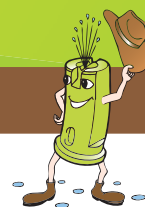
8100



81500



81612



## BRASS FITTINGS

BRASS FITTINGS	PRODUCT CODE	DESCRIPTION	SIZE
<b>ELBOW NUT &amp; TAIL</b>			
	OO6520	90° elbow nut & tail	1/2" x 10mm
	OO6530	90° elbow nut & tail	1 1/2" x 13mm
<b>NUT &amp; TAIL</b>			
	BF-P5-38x14	Straight nut & tail - gasket seat	1/4" x 3/8"
	BF-P5-38x14	Straight nut & tail - tapered seat	1/4" x 3/8"
	OO6310	Straight nut & tail - gasket seat	1/2" x 8mm
	BF-P5-38x38	Straight nut & tail - tapered seat	3/8" x 3/8"
	OO6320	Straight nut & tail - gasket seat	1/2" x 10'mm
	BF-P5-38x12	Straight nut & tail - tapered seat	1/2" x 3/8"
	OO6330	Straight nut & tail - gasket seat	1/2" x 13mm
	BF-P5-12x12	Straight nut & tail - gasket seat	1/2" x 1/2"
	BF-P5-34x34	Straight nut & tail - tapered seat	3/4" x 3/4"
	BF-P5-34x1	Straight nut & tail - gasket seat	1" x 3/4"
	BF-P5-1x1	Straight nut & tail - gasket seat	1" x 1"
	BF-P5-1 14x1 14	Straight nut & tail - gasket seat	1 1/4" x 1 1/4"
	BF-P5-1 12x1 12	Straight nut & tail - gasket seat	1 1/2" x 1 1/2"
<b>HOSE JOINERS</b>			
	BF-P7-14	Hose joiner	1/4"
	BF-P7-38	Hose joiner	3/8"
	BF-P7-12	Hose joiner	1/2"
<b>SWIVEL CONNECTORS</b>			
	BF-SP3-12x12	Swivel male hose tail	1/2" x 1/2" barb
	506 400.180	Swivel turning coupling M & M	1/2" x 1/2" BSP
<b>MALE HOSE TAIL</b>			
	BF-P3-14x14	Male hose tail	1/4" x 1/4" BSP
	BF-P3-14x38	Male hose tail	1/4" x 3/8" BSP
	BF-P3-14x12	Male hose tail	1/4" x 1/2" BSP
	BF-P3-516x14	Male hose tail	5/16" x 1/4" BSP
	BF-P3-516x38	Male hose tail	5/16" x 3/8" BSP
	BF-P3-516x12	Male hose tail	5/16" x 1/2" BSP
	BF-P3-38x14	Male hose tail	3/8" x 1/4" BSP
	BF-P3-38x38	Male hose tail	3/8" x 3/8" BSP
	BF-P3-38x12	Male hose tail	3/8" x 1/2" BSP
	BF-P3-12x14	Male hose tail	1/2" x 1/4" BSP
	BF-P3-12x38	Male hose tail	1/2" x 3/8" BSP
	BF-P3-12x12	Male hose tail	1/2" x 1/2" BSP
	BF-P3-12x34	Male hose tail	1/2" x 3/4" BSP
	BF-P3-12x1	Male hose tail	1/2" x 1" BSP
	BF-P3-34x12	Male hose tail	3/4" x 1/2" BSP
	BF-P3-34x34	Male hose tail	3/4" x 3/4" BSP
	BF-P3-1x34	Male hose tail	1" x 3/4" BSP
	BF-P3-1x1	Male hose tail	1" x 1" BSP
	BF-P3-1 12x1 12	Male hose tail	1 1/2" x 1 1/2" BSP
<b>THREADED PLUG</b>			
	BF-64-14	Tapered threaded plug	1/4"
	BF-64-38	Tapered threaded plug	3/8"
	BF-64-12	Tapered threaded plug	1/2"
<b>BARREL UNION</b>			
	BF87-34	Barrel union	3/4" BSP



90 Elbow Nut & Tail



Nut & Tail



Nut & Tail



Hose Joiner



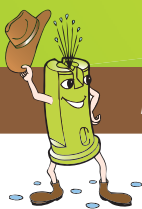
Male Hose Tail



Threaded Plug



Barrel Union



## Brass Fittings

BRASS FITTINGS	PRODUCT CODE	DESCRIPTION	SIZE
<b>FEMALE HOSE TAIL</b>			
	BF-P10-14x14	Female hosetail	1/4" x 1/4" BSP
	BF-P10-14x38	Female hosetail	1/4" x 3/8" BSP
	BF-P10-516x14	Female hosetail	5/16" x 1/4" BSP
	BF-P10-516x38	Female hosetail	5/16" x 3/8" BSP
	BF-P10-38x14	Female hosetail	3/8" x 1/4" BSP
	BF-P10-38x38	Female hosetail	3/8" x 3/8" BSP
	BF-P10-38x12	Female hosetail	3/8" x 1/2" BSP
	BF-P10-12x14	Female hosetail	1/2" x 1/4" BSP
	BF-P10-12x38	Female hosetail	1/2" x 3/8" BSP
	BF-P10-12x12	Female hosetail	1/2" x 1/2" BSP
<b>TAIL ELBOW</b>			
	BF-P6-14x14	M 90° tail elbow	1/4" x 1/4" BSP
	BF-P6-14x38	M 90° tail elbow	1/4" x 3/8" BSP
	BF-P6-38x38	M 90° tail elbow	3/8" x 3/8" BSP
	BF-P6-38x12	M 90° tail elbow	3/8" x 1/2" BSP
	BF-P6-12x38	M 90° tail elbow	1/2" x 3/8" BSP
	BF-P6-12x12	M 90° tail elbow	1/2" x 1/2" BSP
	BF-P6-34x12	M 90° tail elbow	3/4" x 1/2" BSP
	BF-P6-34x34	M 90° tail elbow	3/4" x 3/4" BSP
<b>2 WAY TEE (M BSP X 2 HOSE TAILS)</b>			
	BF-P12-38x14	2 way tee (M BSP x 2 hose tails)	3/8" x 1/4" BSP
	BF-P12-38x38	2 way tee (M BSP x 2 hose tails)	3/8" x 3/8" BSP
	BF-P12-12x38	2 way tee (M BSP x 2 hose tails)	1/2" x 3/8" BSP
	BF-P12-12x12	2 way tee (M BSP x 2 hose tails)	1/2" x 1/2" BSP
<b>HOSE TEE</b>			
	BF-P14-14	Hose tee	1/4"
	BF-P14-516	Hose tee	1/3"
	BF-P14-38	Hose tee	3/8"
	BF-P14-12	Hose tee	1/2"
<b>HOSE TAIL ELBOW</b>			
	BF-P11-38	90° hose tail elbow	3/8"
	BF-P11-12	90° hose tail elbow	1/2"
	BF-P11-34	90° hose tail elbow	3/4"
<b>REDUCING THREADED BUSH</b>			
	BF-24-14x18	Reducing threaded bush	1/4" x 1/8"
	BF-24-38x14	Reducing threaded bush	3/8" x 1/4"
	BF-24-12x14	Reducing threaded bush	1/2" x 1/4"
	BF-24-12x38	Reducing threaded bush	1/2" x 3/8"
	BF-24-34x12	Reducing threaded bush	3/4" x 1/2"
	BF-24-1x12	Reducing threaded bush	1" x 1/2"
	BF-24-1x34	Reducing threaded bush	1" x 3/4"
<b>CAP</b>			
	BF-33-38	BSP Cap	3/8"
	BF-33-12	BSP Cap	1/2"
	BF-33-34	BSP Cap	3/4"
<b>REDUCING SOCKET</b>			
	BF-29-38x14	Hex reducing socket	3/8" x 1/4" BSP
	BF-29-12x14	Hex reducing socket	1/2" x 1/4" BSP
	BF-29-12x38	Hex reducing socket	1/2" x 3/8" BSP
	BF-29-34x38	Hex reducing socket	3/4" x 3/8" BSP
	BF-29-34x12	Hex reducing socket	3/4" x 1/2" BSP



Female Hose Tail



90 Barb Elbow



Threaded Barb Tee



Barbed Tee



90° Hose Tail Elbow



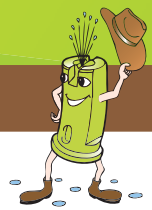
Reducing Threaded Bush



Brass Cap



Reducing Socket



PRODUCT CODE	DESCRIPTION	SIZE
<b>SOCKET</b>		
BF-26-14	Hex socket	1/4" BSP
BF-26-38	Hex socket	3/8" BSP
BF-26-12	Hex socket	1/2" BSP
BF-26-34	Hex socket	3/4" BSP
<b>M &amp; F ELBOW - EXTRUDED</b>		
BF-25E-14	M&F extruded threaded elbow	1/4" x 1/4" BSP
BF-25E-38	M&F extruded threaded elbow	3/8" x 3/8" BSP
BF-25E-12	M&F extruded threaded elbow	1/2" x 1/2" BSP
<b>45°, M &amp; F ELBOW - EXTRUDED</b>		
BF-25E45-38	45° M&F extruded threaded elbow	3/8"
BF-25E45-12	45° M&F extruded threaded elbow	1/2"
<b>M &amp; F ELBOW - CAST</b>		
BF-25C-14	90° cast M & F threaded elbow	1/4" x 1/4" BSP
BF-25C-38	90° cast M & F threaded elbow	3/8" x 3/8" BSP
BF-25C-12	90° cast M & F threaded elbow	1/2" x 1/2" BSP
BF-25C-34	90° cast M & F threaded elbow	3/4" x 3/4" BSP
<b>F &amp; F ELBOW - CAST</b>		
BF-34C-14	90° cast F & F threaded elbow	1/4" x 1/4" BSP
BF-34C-38	90° cast F & F threaded elbow	3/8" x 3/8" BSP
BF-34C-12	90° cast F & F threaded elbow	1/2" x 1/2" BSP
BF-34C-34	90° cast F & F threaded elbow	3/4" x 3/4" BSP
<b>F &amp; F ELBOW - EXTRUDED</b>		
BF-34E-14	90° cast F & F threaded elbow	1/4" x 1/4" BSP
BF-34E-38	90° cast F & F threaded elbow	3/8" x 3/8" BSP
BF-34E-12	90° cast F & F threaded elbow	1/2" x 1/2" BSP
<b>TEE - EXTRUDED</b>		
BF-35E-38	Female extruded tee	3/8" x 3/8" x 3/8" BSP
BF-35E-12	Female extruded tee	1/2" x 1/2" x 1/2" BSP
<b>TEE - CAST</b>		
BF-35C-14	Female cast tee	1/4" x 1/4" x 1/4" BSP
BF-35C-12	Female cast tee	1/2" x 1/2" x 1/2" BSP
BF-35C-34	Female cast tee	3/4" x 3/4" x 3/4" BSP
BF-35C-1	Female cast tee	1" x 1" x 1" BSP
<b>REDUCING NIPPLE</b>		
BF-73-38x14	Hex reducing nipple	3/8" x 1/4" BSP
BF-73-12x18	Hex reducing nipple	1/2" x 1/8" BSP
BF-73-12x14	Hex reducing nipple	1/2" x 1/4" BSP
BF-73-12x38	Hex reducing nipple	1/2" x 3/8" BSP
BF-73-34x12	Hex reducing nipple	3/4" x 1/2" BSP
BF-73-1x12	Hex reducing nipple	1" x 1/2" BSP
BF-73-1x34	Hex reducing nipple	1" x 3/4" BSP
<b>NIPPLE</b>		
BF-27-14	Hex threaded nipple	1/4" x 1/4" BSP
BF-27-38	Hex threaded nipple	3/8" x 3/8" BSP
BF-27-12	Hex threaded nipple	1/2" x 1/2" BSP
BF-27-34	Hex threaded nipple	3/4" x 3/4" BSP
BF-27-1	Hex threaded nipple	1" x 1" BSP
BF-27-1 12	Hex threaded nipple	1 1/2" x 1 1/2" BSP
<b>M &amp; F ADAPTOR</b>		
BF-72-14x18	M & F adaptor	1/4" x 1/8" BSP
BF-72-38x14	M & F adaptor	3/8" x 1/4" BSP
BF-72-12x38	M & F adaptor	1/2" x 3/8" BSP
BF-72-12x12	M & F adaptor	1/2" x 1/2" BSP
BF-72-1X34	M & F adaptor	1" x 3/4" BSP
<b>ADAPTOR</b>		
AH 430	Nut & M threaded tail adaptor	1" x 3/4" BSP



## LARGE BRASS FITTINGS

We carry a large range of 3" plus brass fittings, please call for prices and specifications





## Hose, Hose Clamps etc.

### PRESSURE HOSE

Reinforced PVC pressure and suction hose to withstand agricultural chemical use. Various pressure ratings to suit budget and application. All pressures quoted are working pressure. Burst pressure is 4 times working pressure approximately.

PRODUCT CODE	DESCRIPTION
HOSEP 620	20bar PVC 6mm spray hose
HOSEP 650	50bar PVC 6mm spray hose
HOSEP 820	20bar PVC 8mm spray hose
HOSEP 850	50bar PVC 8mm spray hose
HOSEP 1025	25 bar PVC 10mm spray hose
HOSEP 1050	50 bar PVC 10mm spray hose
HOSEP 1225	25 bar PVC 13mm spray hose
HOSEP 1250	50 bar PVC 13mm spray hose
HOSEP 2020	20 bar PVC 20mm spray hose
HOSEP 2040	40 bar PVC 20mm spray hose
HOSEP 2520	20 bar PVC 25mm spray hose
HOSEP 3220	20 bar PVC 32mm PVC spray hose
HOSEP 3820	20 bar PVC 38mm PVC spray hose

### SUCTION HOSE: suction & bypass hose

HOSES 20C	20mm PVC clear
HOSES 25	25mm PVC black
HOSES 32	32mm PVC black
HOSES 38	38mm PVC black
HOSES 50	50mm PVC black

### HOSE REELS

PRODUCT CODE	DESCRIPTION
AB101-111B	Steel - 50mm 1/2" hose basemount - bare
AB138-111B	Steel - 100mm 1/2" basemount - bare
AB102-111B	Steel - 150mm 1/2" basemount - bare
STAR030	30mm 10mm - poly with lock, galv frame - bare
STAR050	50mm 10mm - poly with lock, galv frame - bare

### STAINLESS STEEL HOSE CLAMPS

PRODUCT CODE	CLAMPING RANGE
CLAMP 6-16	6-16mm
CLAMP 8-22	8-16mm
CLAMP 14-27	14-27mm
CLAMP 14-32	14-32mm
CLAMP 17-38	17-38mm
CLAMP 27-51	27-51mm
CLAMP 33-57	33-57mm
CLAMP 40-64	40-64mm

PRODUCT CODE	DESCRIPTION
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### OTHER HOSE

HOSEPNYLON	6mm black nylon tube
HOSEPPOLY8	8mm poly tube
HOSEC10	Clear hose 10mm
HOSEC12	Clear hose 12mm
HOSEC20	Clear hose 20mm

### POLY PIPE - IDEAL FOR WET BOOM LINES

HOSEPPOLY 1/2	1/2" High density poly pipe - 6 metre lengths
HOSEPPOLY 3/4	3/4" High density poly pipe - 6 metre lengths



PVC  
Hose



Hose  
Reels

Quality stainless steel  
hose clamps for a  
secure trouble free  
hose fitment.





## HIGH & MEDIUM PRESSURE PUMPS



## LIQUID FERTILISER / ACID READY

### BERTOLINI PUMPS

The Bertolini pump range is one of the best chemical pumps ranges on the market. Built with high quality parts such as the large marine grade stainless steel valves, high quality castings and a choice of diaphragm materials. The POLY range of pumps are perfectly suited to use with liquid fertilizers, acids as well as agricultural chemicals. The PA range of high pressure pumps is perfectly suited to orchard/vineyard sprayers, spot sprayers, contractors etc. Backed by consumable spare parts held in stock.

PRODUCT CODE	MODEL	SHAFT TYPE	LPM	MAX PRESS BAR/PSI	KW/HP @ 550
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### HIGH PRESSURE DIAPHRAGM PUMPS – BERTOLINI

PA330	PA330VF	Flanged	34	40/580	2.1/2.8
PA530	PA530VC	6 spline	54	40/580	3.6/4.9
PA730	PA730VC	6 spline	70	40/580	4.8/6.4
PA154	PA154VD	6 spline thru shaft	150	50/725	14.2/19

### MEDIUM PRESSURE DIAPHRAGM PUMPS – POLY

POLY 2025	2025	6 spline	27	20/290	0.9/1.2
POLY 2073	2073VS	6 spline	75	15/217	2.1/2.8
POLY 2073VA	2073VA	1" shaft	75	15/217	2.1/2.8
POLY 2136	2136VS	6 spline	126	15/217	3.6/4.8
POLY 2136VD	2136VD	6 spline thru shaft	126	15/217	3.6/4.8
POLY 2210	2210VS	6 spline	210	15/217	6/8
POLY 2260	2260VS	6 spline	260	15/217	7.4/9.8

### ACCESSORIES

31-8897-97OMP 31-8748-97SAI	Hydraulic coupling	25mm to flange	Suit PA330VF, 530VC & 730VC	
31-8896-97OMP	Hydraulic coupling	25mm to 6 spline	Suit Poly 2073VS - 2136VS	
31-8895.97OMP	Hydraulic coupling	25mm to 6 spline	Suit Poly 2180 to 2260	
31-8697-97 31-8874-97	Gearbox Gearbox		Suit 3/4" shaft to PA330 Suit 3/4" shaft to POLY 2073VA	
31-0049-97 31-0088-97	Male 1 3/8" 6 spine adaptor Female coupling		Suit PA330 Suit PA330	
KARIN-2	Karin controller - regulator, on/off valves & pressure gauge		50lpm & 40 bar max	Suit PA330 & 530
STING-2	Sting controller - regulator, on/off valves & pressure gauge		90lpm & 40 bar max	Suit PA730
31-8911-97	Remote mount kit for Karin & Sting controllers			



PA154



PA330



POLY2073



POLY2210



PA730



POLY2260

### SHAFT LEGEND

"VA" - 1" Shaft  
 "VC" - front 1 3/8" shaft rear 6 hole flange  
 "VD" - 1 3/8" 6 spline thru shaft  
 "VS" - 1 3/8" 6 spline shaft



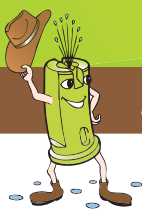
POLY2025



KARIN Controller



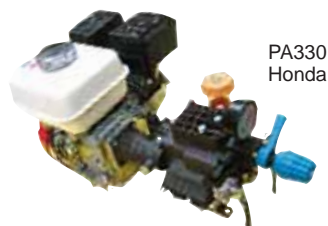
6 Spline Shaft



## Pressure Pumps

### MOTORISED PUMPS

PRODUCT CODE	DESCRIPTION	LPM	MAX PRESS BAR/PSI	KW/HP @ 550
POLY 2025GC	Bertolini POLY 2025 - Honda	27	20/290	5HP
PA330GX	Bertolini PA 330 - Honda	34	40/580	5.5HP
POLY 2073GX	Bertolini POLY 2073 - Honda	75	15/217	5.5HP
POLY2136GX	Bertolini POLY 2136 - Honda	70	15/217	5.5HP
*Also available as hydraulic driven				



PA330  
Honda



POLY2073  
Honda



POLY2025  
Honda

### IMOVILLI PUMPS

The Imovilli range of pumps is built with quality components to give you excellent service and long life. The oil backed positive displacement diaphragm pumps are perfectly suited for most agricultural spraying jobs. Backed and supported with most consumable parts in stock.



M35



D123



D80



D60

PRODUCT CODE	MODEL	SHAFT TYPE	LPM	MAX PRESS BAR/PSI	KW/HP @ 550
HIGH PRESSURE DIAPHRAGM PUMPS					
I3037.002	M25	Tapered shaft	26	30/435	1.5/2
I3039.002	M35	Tapered shaft	39	40/580	2.2/3
I3040.002	M60	Tapered shaft	58	40/580	4.5/6.2
I3033.001	M73	6 spline	70	50/725	7.4/10
I3032.001	M135S	6 spline	115	50/725	11.8/16
I3036.001	M155S	6 spline	142	50/725	14.7/20



M155



D406

### PISTON PUMPS

I3017.001	P123	6 spline	118	50/725	11.4/15.5
I3019.001	P246	6 spline	232	50/725	23.5/32

### MEDIUM PRESSURE DIAPHRAGM PUMPS

I3048.001	D82	6 spline	79	20/290	2.8/3.8
I3050.001	D123	6 spline	120	20/290	4.2/5.7
I3045.001	D203	6 spline	209	20/290	8.5/11.4
I3047.001	D406	6 spline	403	20/290	16.5/22.4



D203

### GEARBOX TO PETROL MOTORS

Z0301	Gearbox	to suit M25, M35
Z0737	Gearbox	to suit M60



P123



P246



M135



## HYPRO CENTRIFUGAL PUMPS

Hypno centrifugal pumps are widely adaptable for a range of spraying and industrial requirements. The hydraulic versions are suitable for use with open and closed hydraulic systems.

The stainless steel versions are made with 316 grade stainless steel casings for improved durability and tremendous resistance to aggressive solutions. The Hypo stainless steel pumps are fitted standard with LIFEGUARD seals which possess 21 times the dry run survivability and 8 times the life in abrasive solutions compared to standard seals.



Stainless Steel Body



Cast Iron Body

PRODUCT CODE	DESCRIPTION	MAX PRESS BAR/PSI	MAX FLOW
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## HYPRO CAST PUMPS

9203C	Pedestal mount - centrifugal	11/160	530lpm
9203C-R	Pedestal mount centrifugal - reverse rotation (suit most Spray Coupes)	11/160	530lpm
9303C-HM1C	Hydraulic driven centrifugal (oil flow 41 - 49lpm) cast iron body	8.2/120	465lpm
9303S-HM1C	Hydraulic driven centrifugal (oil flow 41 - 49lpm) stainless steel body	8.2/120	465lpm
9303C-HM4C	Hydraulic driven centrifugal (oil flow 19 - 26lpm) cast iron body	6.2/90	416lpm
9303S-HM4C	Hydraulic driven centrifugal (oil flow 19 - 26lpm) stainless steel body	6.2/90	416lpm
**other sizes available on request			



Hydraulic Driven Poly Transfer Pump

## HYPRO POLY TRANSFER PUMPS

Perfect for transferring liquid fertilizer, UAN, FlexiN, phosphoric acid, or general water transfer. Petrol motor or hydraulic driven versions available.

1542P-3SP	Hypno self priming 2" polypropylene centrifugal pump coupled to 5.5hp petrol motor - suitable with liquid fertilizers etc.	4 bar	567lpm
9342P-HM5C-SP	Hypno self priming 2" polypropylene centrifugal pump coupled to HM5 hydraulic motor - suitable with liquid fertilizers etc.	4 bar	660lpm

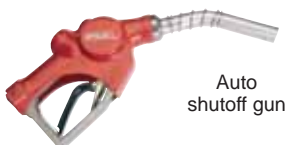


Hypno Poly Transfer Pump

## DIESEL PUMPS

### 12 VOLT BATTERY KIT

- 12 volt diesel pumps draws 22 amps
- Rotary vane pump with cast iron housing
- 38lpm output
- Extremely reliable
- 10m max head
- 3/4" outlets
- 2m suction hose
- 4m anti static 3/4" discharge hose
- 2m cables with battery clips
- Auto shutoff trigger gun



Auto shutoff gun

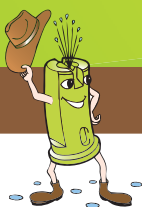


### DRUM PUMP

- 12 volt drum pump
- 2" drum connection
- Telescopic inlet tube
- 40lpm output
- Manual shutoff nozzle



Other models & sizes of pumps available on request including 240 volt models.



## 12 Volt Pumps

### 12 VOLT DIAPHRAGM

Ideal spray pumps for ute or tray packs, ATV's etc where spot spraying is required or to operate a small boom with a pressure regulator fitted. Other applications include diesel transfer, chemical & liquid fertilizer dispensing, field equipment wash down, foam markers etc depending on pump model.

### DEHAVAN

All Delavan pumps are fitted with viton valves, santoprene diaphragm, pressure switch, surge protection to keep amp draw down, quick attach ports.

PRODUCT CODE	MAX PRESS PSI/KPA	MAX FLOW
DP2200	40/270	3.8 lpm
DP7801	60/400	3.8 lpm
DP7802	60/400	7.7 lpm
DP7802HS	100/680	7.7 lpm
DP5930	60/400	11.4 lpm
DP5940	60/400	15.2 lpm
DP5950	45/275	19 lpm
DDP5950	180/12bar	19 lpm



DP7801, 7802 & 7812

DP5930, 5940 & 5950

### FLOJET

The Flojet range of pumps use various materials for the diaphragms and valves. Viton, santoprene, Buma or EPDM. Ask for materials used in various pump models. With or without pressure switches.

PRODUCT CODE	MAX PRESS PSI/KPA	MAX FLOW
FL2100-132	50/350	8 lpm
FL2130-132	90/620	8 lpm
FL4100-505	40/280	13 lpm
FL4300-142	40/280	13 lpm



FL4100-505



FL4300-142

Other models & sizes of pumps available on request including 240 volt models.

### HYPRO

High pressure, constant flow diaphragm pump. For serious 12 volt pumping applications. 20 amp current draw. Continuous flow rated.



PRODUCT CODE	MAX PRESS PSI/KPA	MAX FLOW
Versa Pump	116/800	24 lpm

### 12 VOLT PUMP ACCESSORIES

PRODUCT CODE	DESCRIPTION
8-034-01	1/2 x 1/2 90° nut & tail
8-060-01	1/2 x 3/8 90° nut & tail
8-070-01	1/2 x 1/2 straight nut & tail
8-071-01	1/2 x 3/8 straight nut & tail
181-201	Accumulator tank

PRODUCT CODE	DESCRIPTION	MAX FLOW
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### FILTERS

309 953	1/2" female swivel 1/2" barb	50 mesh 20lpm
309 9535	1/2" female swivel 1/2" barb	80 mesh 20lpm
309 T953	1/2" female swivel 1/2" barb	50 mesh CLEAR body 20lpm

### PRESSURE REGULATORS

9620090	Bayonet fitting inlet to suit
9620050	1/2" female swivel inlet by 1/2"
12VREG	Pressure Regulator for 12V Pumps



9620090



12VREG



Female Swivel Filter



## A GLOSSARY OF THE MORE IMPORTANT TERMS USED IN PRECISION AGRICULTURE

**Antenna:** A device for transmitting and receiving radio frequency (RF) signals. In terms of guidance devices, a GPS/GNSS antenna merely accepts signals from satellites or base stations. No internal calculations are performed within the antenna. Year-to-year repeatability is the measure of repeatable accuracy that allows one to return to the same point and follow the same guidance path a day, week, month or year after being initially established.

**Base Station:** A stationary GPS/GNSS receiver that serves as a reference point, Droidina correction data to a "rover" GPS/GNSS unit. Correction data can be broadcast via RF, cellular signal or the Internet.

**Commercial Satellite Provider:** Another common source for DGPS signals. Error correction information obtained from their base stations is sent to a communications satellite separate from the GPS Satellites and broadcast to the user. These satellite-based corrections tend to have more widespread coverage than tower-based broadcasts (FM links) and system accuracy is not greatly affected by the user's distance from the base station receivers. Most of these service providers require a subscription fee for use. A commonly known provider is OmniSTAR@.

**CORS** (Continuously Operating Reference Station)/Network RTK: A series of base stations spread across a given geographic region (such as an entire property or state) that are networked via a centralised computer and which broadcast RTK correction data over the Internet. CORS networks may be publicly or privately owned and operated and may offer a free signal or require an annual subscription fee. By accessing a CORS network via a mobile phone connection, the end-user eliminates the need to own a base station.

**Differential GPS** (DGPS): The most common way to correct for normally occurring GPS errors. Examples of DGPS include WAAS, EGNOS, OmniSTAR@ and RTK.

**Dual Frequency** or L1/L2: This term refers to a navigational receiver capable of using L1 and L2C satellite frequencies to derive a position.

**EGNOS** (European Geostationary Navigation Overlay Service): A satellite based augmentation system (SBAS) developed jointly by the European Space Agency (ESA), European Community and EUROCONTROL. The system is free to use and provides differential correction coverage primarily across the European continent. EGNOS delivers pass-to-pass accuracies of 15-25 cm/6-10 in and year-to-year accuracies of +/- 1 m/3 ft.

**GLONASS** (Global Navigation Satellite System): A global satellite navigation system developed and operated by the Russian government. It is composed of approximately 24 satellites which continuously orbit the earth. While early GNSS receivers typically utilized only GPS signals, many of today's GNSS receivers can utilize signals from both GPS and GLONASS, effectively increasing the total number of satellites available for use.

**GPS** (Global Positioning System): The name of the satellite-navigation network maintained by the U.S. Department of Defence. It is composed of approximately 30 satellites which continuously orbit the earth. The term is also used to refer to any device that depends on navigation satellites for functionality.

**GPS Drift:** Positional shift that can be caused by changes in satellite constellation, operating near trees or other obstacles and satellite clock errors. RTK correction is recommended for field applications where the effects of GPS drift need to be minimised.

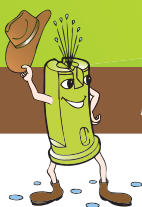
**GPS Receiver:** Converts the satellites' signals received via antenna into position, velocity and time. This information is used for navigation, positioning, time dissemination and research.

**GNSS** (Global Navigation Satellite System): A general term that refers to a multiple satellite navigation system used by a receiver to compute its position. Examples of these systems include: GPS developed by the United States and GLONASS by Russia. Additional systems in development include Galileo by the European Union and Compass by China. New generation GNSS receivers are being designed to utilise multiple GNSS signals (such as GPS and GLONASS). Depending on constellation and desired accuracy levels, system performance may be improved by having access to a greater number of satellites.

**RTK** (Real Time Kinematic): Currently the most accurate GPS correction system available which uses a land-based reference station located in relatively close proximity to the GPS receiver. RTK can provide one-inch, also known as centimeter, pass-to-pass accuracy and also provides year-to-year position stability. RTK users can have their own base stations, subscribe to RTK Networks or use CORS.

**SBAS** (Satellite Based Augmentation System): A general term that refers to any satellite-based differential correction system. Examples of SBAS include: WAAS in the United States, EGNOS in Europe and MSAS in Japan. Additional SBAS covering other regions of the world will likely be coming online in the future.

**WAAS** (Wide-Area Augmentation System): A satellite correction service developed by the Federal Aviation Administration (FAA). It is free to use and provides coverage across the U.S. along with parts of Canada and Mexico. WAAS delivers pass-to-pass accuracies of 6-10 in/15-25 cm; however, year-to-year accuracy will be in the range of +/- 1 metre.



## Precision Agriculture

### TEEJET MATRIX PRO GUIDANCE SYSTEM

**Guidance Over Video** - Now you can have all the guidance information you need, watch what's ahead and monitor various implement operations on a single console simultaneously for improved accuracy, easy validation of implement performance and reduced stress.

**Advanced Swath and Rate Control Capabilities** - Experience enhanced accuracy and more efficient product application with newly added functionality that enables automatic boom section control (ABSC) for dry spreaders and non-linear spray booms. Matrix Pro GS is compatible with third-party rate controls for prescription application and as-applied record keeping.

**Complete User Control** - You choose what you want to see – guidance over video, video only or guidance only. Choose the number of cameras based on your requirements – up to 8 cameras can be used.

**Upgrade at Your Own Pace** - Matrix Pro GS is auto steer and automatic boom section control (ABSC) ready. Enabling these features in the future is fast, easy and economical.

**Droplet Size** Selecting the correct droplet size when spraying can have a huge impact on both the efficacy of your spraying and the potential for drift. Real time sensing and displaying of droplet size is now an available option with Matrix Pro GS. This feature gives you added confidence that you're doing your best job while spraying.

#### Matrix Pro GS Feature Overview

Create, save and recall boundaries and AB lines

Two-way data transfer

Internal WAAS/EGNOS receiver

Upgrade compatibility to external receivers like RTK or OmniSTAR

Create permanent no spray zones

Advanced boom configurations setup allows for 2-dimensional automatic swath control; ideal for dry spreaders or

for sprayers with non-linear spray boom arrangement

Third-party rate control capabilities allow for prescription application and as-applied mapping on Matrix Pro GS when used with a compatible rate control. Activation required



#### Multiple Guidance Modes

- Straight A-B
- Curved A-B
- Circle Pivot
- Last Pass
- NextRow

#### Coverage Information

- 1X covered area shown in blue
- 2X+ coverage in red
- Coverage data from SmartCable/SDM and
- single (full swath) status-detect input (included)
- Section status is detected in active ABSC or
- manual section control

#### Data and Mapping

- View coverage data in several ways
- On-screen field review allows operator to review field for skips prior to departing
- Zoom feature to see more detail
- Pan feature to view more area

### TEEJET UNIPILOT ASSISTED STEERING

UniPilot offers the features you need to increase the efficiency, productivity and flexibility of your operation. Through easy installation that fits a wide range of vehicles, UniPilot gives you the portability that other assisted steering systems do not provide. UniPilot uses the Matrix® Pro system for GPS guidance: Matrix Pro is the only guidance system with RealView guidance over video, allowing simultaneous guidance and live video from up to eight cameras. Additionally, the smooth, accurate performance and range of guidance modes will impress you. UniPilot is truly the best value in assisted steering today - Easy to use and even easier to install.



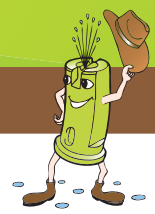
The UniPilot motor mounts with a single, universal bracket onto the steering column. Installation does not require access to the hydraulic system or removal of the steering wheel. With improved portability for year-round use, UniPilot can be moved between vehicles with minimal effort; the universal mounting kit fits a wide range of vehicles.

UniPilot adapts to your field conditions and your location. UniPilot provides aggressive line acquisition and stable on-line performance. Compatible with new or existing Matrix and Matrix Pro consoles, setup and calibration are easily programmed through the Matrix touchscreen. Add a high performance GPSL1 and GLONASS compatible TeeJet GPS antenna for greater sensitivity and gain.

#### RealView® Guidance Over Video Increases Productivity and Accuracy

RealView lets you monitor implement operations while UniPilot handles the steering; at row's end, the live video display of what's ahead helps you complete your headland turns with ease.

**Part No. 91-02400 UniPilot kit**



## ARAG BRAVO SERIES

**Bravo 140** is a small yet powerful computer designed for row spraying. The device is very accurate and is equipped with many functions and is extremely user-friendly. When connected to special ultrasound sensors, which detect either tree trunk or foliage, it will spray the correct amount of pesticide where needed, reducing chemical usage.

- User-friendly and cost-effective
  - Timed valve closing/opening depending on detected speed
  - Significantly lower amounts of chemicals needed
- The basic computer does not include the ultrasound sensors

**Bravo 180** is the smallest computer in the ARAG Precision Farming range but still offers high performance. The Bravo 180 is a compact and cost-effective tool with extraordinary efficiency and precision, meeting all the requirements of small-medium farming machine operators; Bravo 180 can be expanded with a crop spraying computer equipped with hydraulic boom commands. Bravo 180 with optional hydraulic functions

*The Bravo 180 computer range has:*

- Excellent price/performance ratio
- Easy to use and programme
- Optional hydraulic boom commands
- Messages displayed in 10 languages

*Bravo 180 for Orchard Sprayers is the ideal tool for machines featuring small cabins:*

- Special software for multi-row orchard sprayers
- Special software for airblast orchard sprayers
- Special keys for row width and spray rate
- Operating pressure display



BRAVO 400

**BRAVO 400** is the fruit of a long-term field experience and steady improvement of electronic satellite products. BRAVO 400 is a market leading computer for crop sprayers featuring special functions for big farming machines, large fields and demanding users. Its wide and bright colour display, integrated navigator and its ability to control outer cameras are only some of the outstanding BRAVO 400 features, which will interest those already familiar with the electronic aspects of modern farming machines.

## ARAG ASSISTED STEERING SYSTEM

**Arag Assisted Steering System** automates steering on both straight and curved paths, when connected to Delta 80 computer. Reduces skipped and overlapping areas.

Saves time, fuel and chemical. Easy to install. Requires less effort from the operator and allows the operator to focus on the spraying.

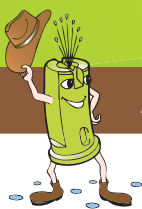
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## FOAM MARKERS

PRODUCT CODE	DESCRIPTION	SIZE
TFL-ECONO	Single sided NO in cab controls	24 Litre
TFLSSKIT	Single sided with cab controls	24 Litre
TFL24	Double sided with cab controls	24 Litre
TFL60	Double sided with cab controls	60 Litre





## Spray Rate Controllers

### SPRAY RATE CONTROLLERS & MONITORS

A range of spray rate controllers and rate monitors to suit your situation. From a basic monitor that will show you litres per minute and litres used to a fully optional controller that can handle twin lines, fence line sprayers, foam markers and can interface with GPS.

#### ARAG

**Bravo 300 Spray Rate Controller** with up to 7 boom sections to suit motor drive or solenoid valves. The Bravo is capable of operating foam markers, master switch for easy valve control, very simple to use and setup. Suitable for most crop applications including broadacre, orchards and vineyards.



Bravo 300

Eagle Controller



#### TOPCON

**Eagle Rate Controller** with up to 7 boom sections to suit motor drive or solenoid valves. Twin line capable with boom switching via pressure, flow or speed. Available also as an economical broadacre console with less features with 3, 5 or 7 sections and as a horticultural console with 4 sections which is specifically designed for tree and vine crop applications.

#### FARMSCAN



**Jackal Surveillance Monitor** is a truly multifunctional monitor that adapts onto any machinery and keeps a check on up to 3 machine functions (without junction box) and provides full ground speed, distance and area monitoring readouts with the appropriate sensors in place.

The instrument is easy to use and is ideal for Airseeders, Drills and Spraying operations; extra sensors can be added to track metering shafts, bin levels, fanspeed, air pressure and liquid flow rates.

The trip function allows recording and display for up to 10 field areas with a separate load area meter that can be reset to check bin calibrations on every load.

The Farmscan AG Jackal monitor, with the 2202 junction box has 13 multiple connection points (Ports) which can be set according to sensor type. Typically on an airseeder you could choose 2 ports for Seed and Fertiliser Bin Level sensors, then two other ports for Metering Shaft Sensors and finally a port for a fan sensor.

#### Order Code: Jackal-Surveillance

Jackal Monitor Kit only

A-JACKAL	Jackal Monitor
AH-407	Suction Mount
AH-JACKAL	Jackal Hardware Pack (ferrules, screw driver & phoenix plug 1P.3211)

Order code: 2202	Jackal Junction Box (Maximum of 13 Inputs) Provides 5m extension cable to weatherproof connection point for 5+ sensor options
Order code: 2010P	Proximity Sensor Kit (3 Wire) Allows pickup off any moving metal part (eg bolt head)



Order code: 1007P	Wheel Sensor Kit
Order Code: 2009	Tailshaft sensor kit
Order Code: 2060	Bin/Level sensor kit
Order Code: 2034	Pulley sensor kit (1000 -9999 rpm) [only one fast input available on the Jackal]
Order Code: 2076	Shaft Sensor kit (1-1500 rpm)
Order Code: 2077	Shaft Sensor kit (100-9999 rpm) ) [only one fast input available on the Jackal]
Order Code: 2080	Pressure Sensor kit (0 – 0.25 bar)

## FARMSCAN



**Farmscan AG's Jackal Speed/ Area Meter Kit** gives you cost-effective ground speed and area information to let you work out optimum application rates and minimise errors caused by incorrect ground speed.

Quickly calibrated to fit any farm machine or implement, the Jackal Speed Area Meter displays km/h or Mph and individual trip and total readouts allowing you to record both total and paddock areas and separate trip areas for each load.

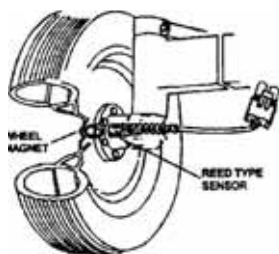
A permanent memory of calibration factors and totals make it simple and convenient to use, and with the ability to connect an optional external 'Run Hold' it won't count ground covered during refilling trips.

Easily read in direct sunlight, and illuminated for night use, the Farmscan AG Jackal Speed Area meter is suitable for use on any tractor, 4x4, or four wheeled ag-bike.

Protected against the elements, the magnetic wheel sensor can be mounted on any non-driven tractor or implement wheel, however for greater accuracy where wheel slip is an issue, an optional GPS speed sensor can be purchased.

Sensor magnets suitable for tailshaft or seeder drive installations are also available.

Simple to install, the Farmscan AG Jackal Speed Area Meter comes complete with a five-meter sensor cable, suction mounting bracket and weather-proof connection.

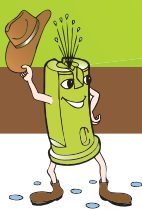


Wheel Magnet Installation

**Order Code: Jackal-Area**  
Jackal Speed / Area Meter:

- A-JACKAL Jackal Monitor
- AA-110 Compact Reed Sensor (Black or Red)
- AA-133 Mini Wheel Magnet & Nut
- AH-JACKAL Jackal Hardware Pack (Ferrules [P-275/101, Screw Driver, Phoenix Plug [P-321]])
- AH-407 Suction Mount Bracket
- AC-105 Jackal Power Cable
- AC-205 Sensor Extension Cable 5m

- Order Code AA-423 - Tailshaft Magnet (100 mm)
- Order Code AA-117- Tailshaft Magnet (17-32mm)
- Order Code AC-205- Sensor Extension Cable 5m
- Order Code T-135- Magnetic Button Style GPS (1hz)



## Spray Rate Controllers

### FARMSCAN



#### **JACKAL FLOW MONITOR**

The Jackal flowmeter is designed to be used to measure small to medium quantities of liquids such as chemicals, diesel fuel etc. when matched with the appropriate flow sensor.  
The unit clearly displays flow rate in litres or gallons.

#### **JACKAL RATE MONITOR**

When coupled with a wheel sensor the Jackal can be used as simple to use spray rate monitor. The Jackal clearly displays ground speed and total area sprayed or l/ha.

#### **JACKAL BATCH MONITOR**

The Jackal can be used to monitor medium to large quantities of water when filling tanks to ensure dose rate mixes are correct. Especially useful for part fills or when filling the tank on uneven ground.

A flow sensor is plumbed into the fill line and connected by cable for remote readout in a convenient location.

Add the optional Shutdown kit to obtain preset desired fill amounts.

#### **Order Code: Jackal-Flow**

Jackal Flow Kit

A-JACKAL Jackal Monitor

AH-407 Suction Mount

AH-JACKAL Jackal Hardware Pack

(ferrules, screw driver & phoenix plug 1P.3211)

#### **Flow Meter Options**

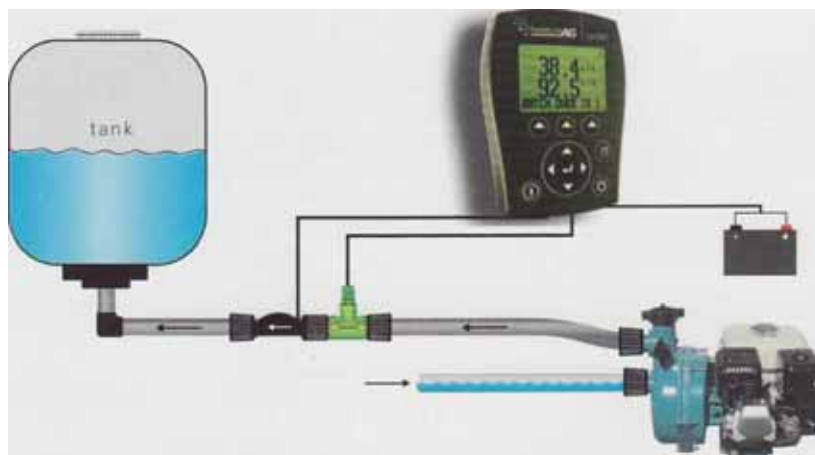
Order Code: AA-123P - 2-90l/min 1" BSP Metal Body Flow Sensor

Please refer to the Polmac or Digiwolf flow sensors on page 23.

#### **Automatic Shutdown**

Order Code: 1501

When filling the tank, the operator can watch the display and shutdown the water manually or may preset a required batch volume and use the optional solenoid shutdown kit to automatically stop the flow.





## OUTDOOR FOG COOLING SYSTEMS



Fog Systems have been used for decades as an economical and efficient means of environmental control throughout the world. Fog system applications include outdoor cooling, humidification, dust and odour control, special effects and livestock cooling. In some cases, the fog will surround the area and in other cases, it will be a single line that runs down the centre of the area.



## WHAT IS A FOG SYSTEM?

A fog system is defined as high pressure water that runs through a specialised fog nozzle which produces fine droplets that floats in air and evaporates. This also aids as filtering of the air when designed as a dust and odour control system and reduces temperature when designed as an outdoor cooling system. By definition, a fog system will require pressures of at least 70 bar (1000 psi) to be used to provide the micron sized droplets required to provide the desired results.

## COOLING

Perfect for cooling feed lot livestock, poultry, piggeries, horse stables etc. Workshops, shearing sheds, beer gardens and pergolas, hydroponic green houses also benefit from the cooling that the Eurocooling system provides where conventional evaporative air conditioning will not work.

## HUMIDIFICATION

Humidity control of wine cellars reduces the evaporation of wine from the barrels, saving not only the time to top up the barrels with wine but also the fine wine itself. Fruit and vegetable refrigerated display cabinets tend to dry out the produce, causing the goods not to keep at all well and adding losses of the produce and also financially. By adding nozzles to the cabinet and using humidity sensors will control the amount of fog required. Hydroponics and greenhouses benefit by controlling the temperature and humidity simply and easily with Eurocool systems.

The uses are only restricted by only your imagination. By using a fan it will help to distribute the fog throughout an area and adds to the cooling process or simply just use the linear system being nozzle fitted along the tubing and let the outside environment and natural breezes do the rest.



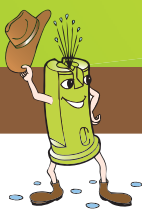
• Livestock cooling.



• Entertaining areas.



• Fruit & Vegetable displays.



## Misting Systems

### EUROJET



The Eurojet is a very quiet horizontal spinning fan which can be pedestal or ceiling mounted that adds a distinctive touch of difference. Ideal for cafe's, pergolas, beer gardens etc. The distribution of fog is subtle but very effective. Each unit will cover an area of 7m x 7m.



### COOLING KITS

All kits are supplied with fittings, filters, tubing and nozzles. Everything that is required to setup your system. Just add a pump to complete the system. Choose from either a TIME or a PREMIUM pump. The TIME pump is professional quality and has a digital timer to regulate the cut-on and cut-off time of the water outlet to the nozzles. This regulates the amount of fog which is particularly useful for humidity control. The PREMIUM pump is of the same quality but without the timer feature.

### FITTINGS

All the fittings are reusable push fit for simple and easy do it yourself installation. They will withstand 70 bar (1000 psi) working pressure. If you choose to add or make a change to your system, the push fittings simply slip off the tube so you can make the adjustment and reassemble.

PRODUCT CODE	DESCRIPTION	WATER CONSUMPTION
--------------	-------------	-------------------

#### LINEAR DIY KITS

EC500010	10 nozzle kit	47.2 l/hr
EC500020	20 nozzle kit	94.4 l/hr
EC500030	30 nozzle kit	141.6 l/hr

#### FAN KITS

EC500202	2 fan kit	47.2 l/hr
EC500204	4 fan kit	94.4 l/hr
EC500206	6 fan kit	141.6 l/hr

### EUROJET

EC600061P	Pedestal	37.76 l/hr
EC600061	Ceiling mount	37.76 l/hr

#### FAN KITS

EC307056	TIME 1.5lpm	90 l/hr
EC307050	TIME 2.5lpm	150 l/hr
EC307051	TIME 4lpm	240 l/hr
EC307021	PREMIUM 2lpm	120 l/hr
EC307022	PREMIUM 3lpm	180 l/hr

Water consumption is based on using a 0.2mm nozzle at 70bar. Many other pumps, kits & combinations are available on request.

**TIME** pumps are high quality high pressure pumps and have a timer to regulate the mist to conserve water and power.

**PREMIUM** pumps are of high quality without the timer function.



Hand pressure is enough to join the pipe to the connection, without any other tool.

### EASY PUSHFIT FITTINGS





## HIGH VOLUME DUST SUPPRESSION



### Mini Spray Head Valve-Mega Type

SV15MEMAG Mini Spray Head Valve-Mega Type The SV15MEMAG is a fully serviceable spray head valve cast from Marine grade alloy with an output capacity of up to 450 litres per minute and provides a dense even spray discharge of up to 12 metres (40 feet) and a spray width of up to 11 metres. A fully adjustable cast aluminium spray ring allows infinite flow and spray pattern variation. User supplied air pressure holds the valve closed while water pressure opens the valve [approximate valve opening pressure 0.55 bar / 8 psi]. An internal spring closes the valve when the water pump is shut down or an absence of air pressure exists and eliminates the need for additional shut off valves. Approximate weight 2.5 kg



SV15MEMAG

### Other features of the SV15MEMAG include:

- \* Valve base with 38mm (1.5") camlock fitting.
- \* Polymer diaphragm sandwich plates.
- \* Stainless steel internal spring and hardware.
- \* 360 degree rotation.
- \* Valve inlet port OD 25 mm (1"). 3" size available.

### Dust Suppression Fan nozzle

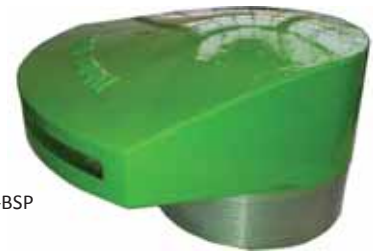
SH2FR 2 Spray Head Nozzle - "Frog" Nozzle Dust Suppression/Surface Flushing/Washing The SH2FR-2 nozzle is cast from marine grade aluminium providing a fine even spray discharge ideal for dust suppression/surface washing/flushing. Bolted bottom plate with rubber seal allowing nozzle discharge slit to be adjusted (standard output size 155 mm x 2 mm). 2" Male BSP threaded connection.



SH2FR-2

### Flusher Fan Dust Suppression Nozzle

The SHFL 4069-BSP is cast from Marine grade aluminium and provides a dense even spray discharge which is ideal for road flushing/track dust suppression, rear or side/ batter spraying. An independent electric or air actuator valve can open or close the flow to the nozzle. 3" camlock or BSP connection



SHFL 4069-BSP

## LIQUID FERTILIZER APPLICATION SYSTEMS

We design and build liquid fertilizer application systems to meet your specific requirements, eg. on Airseeders we can get the liquid fertilizer to the tines.



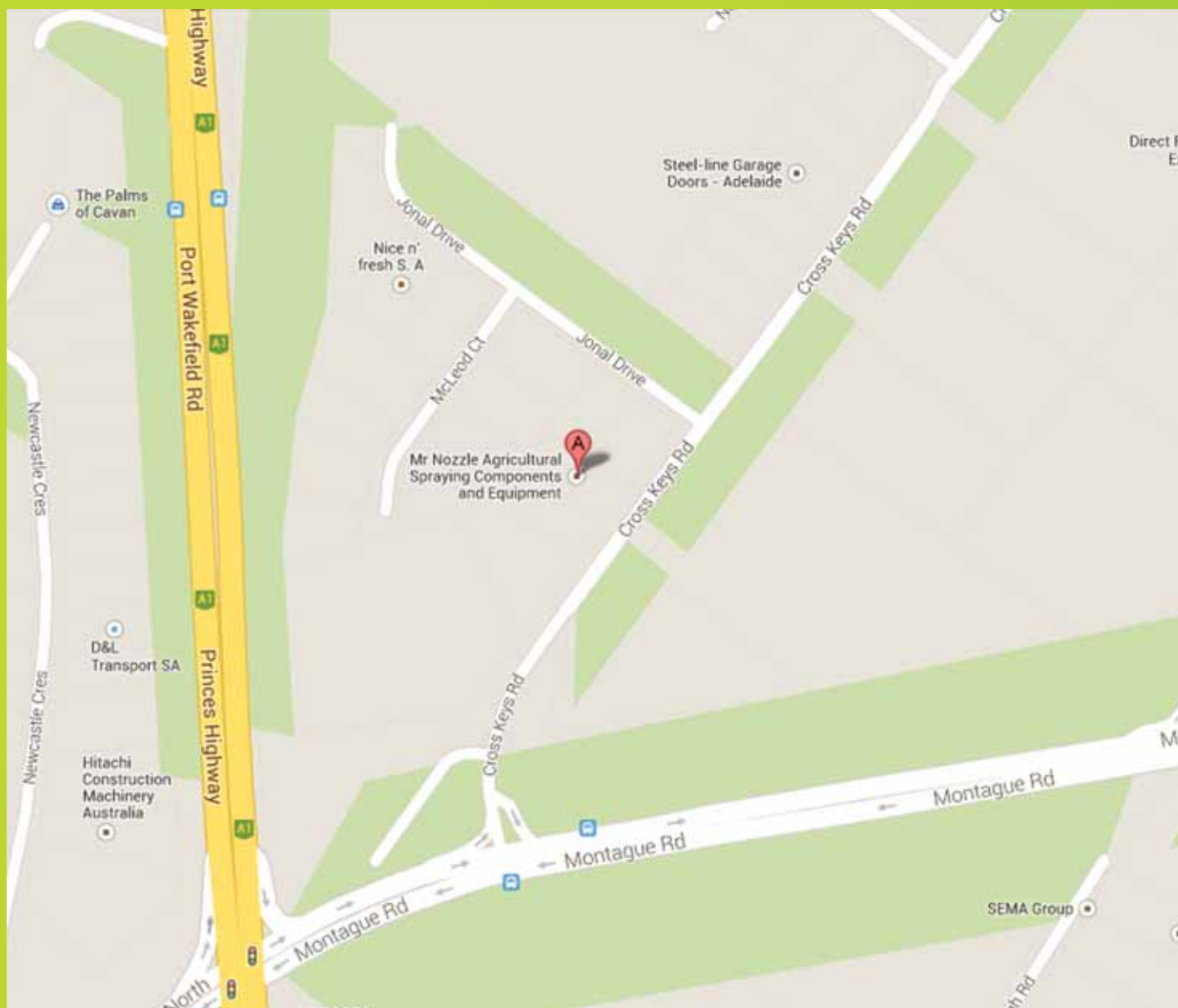
Delivery to tines system



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