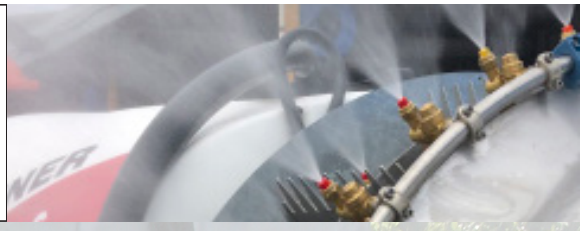
Nozzle selection Guide

Horticultural Spraying Specialists™
helping growers make better decisions



This document has been put together by Horticultural Spraying Specialists to consolidate most of the common nozzle charts for nozzles used in horticulture in Australia and New Zealand.

We acknowledge the information belongs to the original authors/companies who provided it on their websites. Notes have been added in some cases but the base information has not been altered. All this information was obtained from the public domain (internet).

The most commonly used nozzles in horticulture for canopy spraying are:

- Albuz®
- TeeJet®
- Arag®
- Braglia®

All are very reputable companies with a long history of producing quality products for the horticultural industry.

Disclaimer: Horticultural Spraying Specialists cannot be held liable for errors in any of the information enclosed as it has been sourced directly from publicly available manufacturer's catalogues and information from their websites.

Nozzle selection Guide

Nozzle choices

In horticulture, nozzle selection will typically be based around canopy spraying for crop protection products such as fungicides, or under-tree/vine spraying for herbicides or soil conditioning products. In this guide we have put together some options for the most common nozzles used in Australia, New Zealand and the US.

Each section will have some notes to help you decide what nozzles might be appropriate to your application. This is based on experience we have gained over many years of calibrating sprayers and setting them up for specific applications - both in canopy spraying and ground or under-tree application.

All products used in horticulture are designed to be used for a specific outcome - crop protection, disease control, nutrient application or deficiency correction, sun-burn protection, improved spray coverage or spray penetration, weed control - and others. To get the best outcome, often it is the nozzle selection that makes all the difference. This could mean nozzle type, size, angle or output. Of course application rate of the product is also critical, but this is often influenced by nozzle choice. The delivery system is also vital, such as axial fan or air-shear systems - which can also influence nozzle selection.

We come across poor application all the time, and generally it is a result of either worn nozzles, incorrect nozzle selection, or nozzles too small or too large. Often the product will have a notation on the label specifying application rate, but more often than not, a nozzle is not described for best results.

Here we hope we can help you with tips and choices.

Acknowledgements:
All material in this document was sourced from the internet as publicly available documents. We acknowledge the information belongs to the original producer/ company as copyright material.
We also thank those companies for the use of their information, and for producing quality products for use by our growers.

If you find this information a bit confusing, are not sure what nozzle or nozzles will be best for your application, just pick up the phone or email us - we can help.

Call:
Mobile: + 61 (0)448 511 771
Email: don@hortspray.com

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Albuz® Nozzles - canopy spraying

CLASSIFICATION OF DROPLET SIZES

The nozzle «spray quality» is divided into 6 categories, of which 4 main ones:

- **Fine**: (e.g. AXI) nozzles which produce fine droplets are more often recommended for post-emergence treatments where excellent coverage is necessary.
- **Medium**: (e.g. ADI) nozzles which produce medium droplets are less prone to produce drift, depending on the pressure used.
- **Coarse**: (e.g. AVI/CVI) nozzles which produce big droplets provide a low risk of drift.
- **Very Coarse**: (e.g. AVI) specific nozzles which produce very big droplets.

DROPLET SIZE SPRAYED BY NOZZLES ACCORDING TO THE SPRAYING PRESSURE

bar	ATR 80°									
	WHITE	LILAC	BROWN	YELLOW	ORANGE	RED	GREY	GREEN	BLACK	BLUE
5	VF	VF	VF	VF	VF	F	F	F	F	F
7	VF	VF	VF	VF	VF	F	F	F	F	F
10	VF	VF	VF	VF	VF	F	F	F	F	F
15	VF	VF	VF	VF	VF	VF	F	F	F	F
20	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF

bar	ATR 60°								
	LILAC	BROWN	YELLOW	ORANGE	RED	GREY	GREEN	BLACK	BLUE
5	VF	VF	VF	F	F	F	F	F	F
7	VF	VF	VF	VF	F	F	F	F	F
10	VF	VF	VF	VF	F	F	F	F	F
15	VF	VF	VF	VF	VF	VF	VF	VF	VF
20	VF	VF	VF	VF	VF	VF	VF	VF	VF

bar	ATI 80°									
	PURPLE 80-0050	PINK 80-0075	ORANGE 80-01	GREEN 80-015	YELLOW 80-02	LILAC 80-025	BLUE 80-03	BROWN RED 80-035	RED 80-04	BROWN 80-05
5	VF	VF	VF	VF	VF	F	F	F	F	F
7	VF	VF	VF	VF	VF	F	F	F	F	F
10	VF	VF	VF	VF	VF	VF	F	F	F	F
15	VF	VF	VF	VF	VF	VF	F	F	F	F
20	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF

bar	ATI 60°							
	PINK 60-0075	ORANGE 60-01	GREEN 60-015	YELLOW 60-02	LILAC 60-025	BLUE 60-03	RED 60-04	BROWN 60-05
5	VF	VF	VF	VF	F	F	F	F
7	VF	VF	VF	VF	F	F	F	F
10	VF	VF	VF	VF	VF	F	F	F
15	VF	VF	VF	VF	VF	F	F	F
20	VF	VF	VF	VF	VF	VF	VF	VF

bar	TVI 80°							
	PURPLE 80-0050	PINK 80-0075	ORANGE 80-01	GREEN 80-015	YELLOW 80-02	LILAC 80-025	BLUE 80-03	RED 80-04
5			UC	UC	UC	UC	UC	UC
7	UC	VC	UC	UC	UC	UC	UC	UC
10	XC	VC	XC	XC	XC	XC	UC	UC
15	VC	C	VC	VC	VC	XC	UC	UC

bar	ATF 80°				
	GREEN 80-015	YELLOW 80-02	LILAC 80-025	BLUE 80-03	RED 80-04
3	F	F	F	F	F
5	F	F	F	F	F
10	VF	VF	F	F	F
15	VF	VF	VF	VF	VF

bar	MVI			
	RED 04	GREY 06	WHITE 08	LIGHT BLUE 10
1,5	UC	UC	UC	UC
2	UC	UC	UC	UC
3	UC	UC	UC	UC

bar	DISC & CORE						
	AD1/AC13	AD2/AC25	AD2/AC46	AD3/AC13	AD3/AC25	AD4/AC45	AD5/AC45
1,5	VF	VF	VF	VF	VF	F	F
2	VF	VF	VF	VF	VF	VF	VF
3	VF	VF	VF	VF	VF	VF	VF

VF Very fine (< 159 µm) - F Fine (> 159 / < 231 µm) - M Medium (> 231 / < 326 µm) - C Coarse (> 326 /< 386 µm)
VC Very coarse (> 386 µm / < 484 µm) - XC Extremely coarse (> 484 /< 553 µm) - UC Ultra coarse (> 553 µm)

Values measured on the VMD or D50 on IRSTEA Dantec pda.

Albuz® Nozzles - canopy spraying

SPECIFIC CHARACTERISTICS

- Easy dismantling for cleaning.
- The angle of 60 degrees :
  - Is mostly recommended during the use of the Shielded Sprayer or Tunnel sprayer.
  - The drift is reduced on the top part of the target during the process
- Can be used on a sprayer boom from 3 bar pressure.
- Precision polished ceramic surfaces of internal components ensure perfect sealing of the swirl chamber to give precise flowrate.
- **Recommended pressure: 10 bar.**
- Information about droplets size (see page 5)

MAIN CHARACTERISTICS

- Angle of 60° at 5 bar.
- Hollow cone nozzle producing fine droplets.
- The **green cap** is used to specify that the nozzles has an angle of 60 degrees.
- ALBUZ® durable pink ceramic allows high pressure spraying while maintaining nozzle performance and precision.

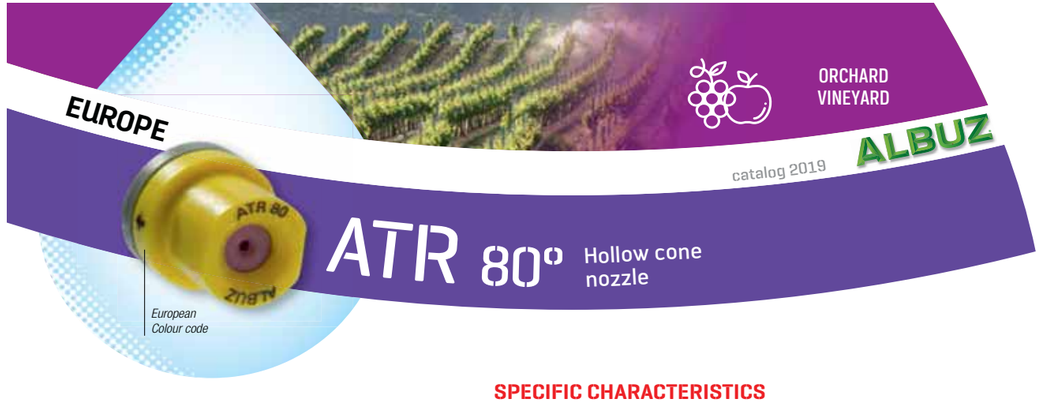
FLOW RATE CHART (l/min)

Pressure (bar)	LILAC	BROWN	YELLOW	ORANGE	RED	GREY	GREEN	BLACK	BLUE
5	0,36	0,48	0,73	0,99	1,38	1,50	1,78	2,00	2,45
6	0,39	0,52	0,80	1,08	1,51	1,63	1,94	2,18	2,67
7	0,42	0,56	0,86	1,17	1,62	1,76	2,09	2,35	2,87
8	0,45	0,60	0,92	1,24	1,73	1,87	2,22	2,50	3,06
9	0,48	0,64	0,97	1,32	1,83	1,98	2,35	2,64	3,24
10	0,50	0,67	1,03	1,39	1,92	2,08	2,47	2,78	3,40
11	0,52	0,70	1,07	1,45	2,01	2,17	2,58	2,90	3,56
12	0,55	0,73	1,12	1,51	2,09	2,26	2,69	3,03	3,71
13	0,57	0,76	1,17	1,57	2,17	2,35	2,79	3,14	3,85
14	0,59	0,79	1,21	1,63	2,25	2,43	2,89	3,26	3,99
15	0,61	0,81	1,25	1,69	2,33	2,51	2,99	3,36	4,12
16	0,63	0,84	1,29	1,74	2,40	2,59	3,08	3,47	4,25
17	0,64	0,86	1,33	1,79	2,47	2,67	3,17	3,57	4,37
18	0,66	0,89	1,37	1,84	2,54	2,74	3,25	3,67	4,49
19	0,68	0,91	1,40	1,89	2,60	2,81	3,34	3,76	4,61
20	0,70	0,93	1,44	1,94	2,67	2,88	3,42	3,85	4,72
21	0,71	0,95	1,48	1,99	2,73	2,95	3,50	3,94	4,84
22	0,73	0,98	1,51	2,03	2,79	3,01	3,57	4,03	4,94
23	0,74	1,00	1,54	2,07	2,85	3,07	3,65	4,12	5,05
24	0,76	1,02	1,58	2,12	2,91	3,14	3,72	4,20	5,15
25	0,77	1,04	1,61	2,16	2,97	3,20	3,80	4,28	5,25

APPLICATIONS

For fungicides and insecticides. Recommended for orchard and vineyards.

Albuz® Nozzles - canopy spraying



MAIN CHARACTERISTICS

- Angle of 80° at 5 bar.
- Hollow cone nozzle producing fine droplets.
- ALBUZ® durable pink ceramic allows high pressure spraying while maintaining nozzle performance and precision.

SPECIFIC CHARACTERISTICS

- Easy dismantling for cleaning.
- JKI certified.
- Can be used on a sprayer boom from 3 bar pressure.
- Precision polished ceramic surfaces of internal components ensure perfect sealing of the swirl chamber to give precise flowrate.
- **Recommended pressure: 10 bar.**
- Information about droplets size (see page 5)

FLOW RATE CHART (l/min)

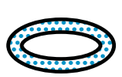
Pressure (bar)	WHITE	LILAC	BROWN	YELLOW	ORANGE	RED	GREY	GREEN	BLACK	BLUE	PURPLE
		JKI G 1348	JKI G 1349	JKI G 1350	JKI G 1351	JKI G 1352		JKI G 1353		JKI G 1354	
5	0,27	0,36	0,48	0,73	0,99	1,38	1,50	1,78	2,00	2,45	3,05
6	0,29	0,39	0,52	0,80	1,08	1,51	1,63	1,94	2,18	2,67	3,32
7	0,32	0,42	0,56	0,86	1,17	1,62	1,76	2,09	2,35	2,87	3,57
8	0,34	0,45	0,60	0,92	1,24	1,73	1,87	2,22	2,50	3,06	3,81
9	0,36	0,48	0,64	0,97	1,32	1,83	1,98	2,35	2,64	3,24	4,03
10	0,38	0,50	0,67	1,03	1,39	1,92	2,08	2,47	2,78	3,40	4,23
11	0,39	0,52	0,70	1,07	1,45	2,01	2,17	2,58	2,90	3,56	4,43
12	0,41	0,55	0,73	1,12	1,51	2,09	2,26	2,69	3,03	3,71	4,61
13	0,43	0,57	0,76	1,17	1,57	2,17	2,35	2,79	3,14	3,85	4,79
14	0,44	0,59	0,79	1,21	1,63	2,25	2,43	2,89	3,26	3,99	4,96
15	0,46	0,61	0,81	1,25	1,69	2,33	2,51	2,99	3,36	4,12	5,12
16	0,47	0,63	0,84	1,29	1,74	2,40	2,59	3,08	3,47	4,25	5,28
17	0,48	0,64	0,86	1,33	1,79	2,47	2,67	3,17	3,57	4,37	5,43
18	0,50	0,66	0,89	1,37	1,84	2,54	2,74	3,25	3,67	4,49	5,58
19	0,51	0,68	0,91	1,40	1,89	2,60	2,81	3,34	3,76	4,61	5,73
20	0,52	0,70	0,93	1,44	1,94	2,67	2,88	3,42	3,85	4,72	5,87
21	0,54	0,71	0,95	1,48	1,99	2,73	2,95	3,50	3,94	4,84	6,00
22	0,55	0,73	0,98	1,51	2,03	2,79	3,01	3,57	4,03	4,94	6,14
23	0,56	0,74	1,00	1,54	2,07	2,85	3,07	3,65	4,12	5,05	6,27
24	0,57	0,76	1,02	1,58	2,12	2,91	3,14	3,72	4,20	5,15	6,4
25	0,58	0,77	1,04	1,61	2,16	2,97	3,20	3,80	4,28	5,25	6,52

APPLICATIONS

For fungicides and insecticides. Recommended for orchard and vineyards.

5-20 bar

80°



Albuz® Nozzles - canopy spraying

SPECIFIC CHARACTERISTICS

- **Flow rate characteristics, colour code meet international ISO standards.**
- Easy dismantling for cleaning.
- The angle of 60 degrees :
  - Is mostly recommended during the use of the Shielded Sprayer or Tunnel sprayer.
  - The drift is reduced on the top part of the target during the process
- Can be used on a sprayer boom from 3 bar pressure.
- Precision polished ceramic surfaces of internal components ensure perfect sealing of the swirl chamber to give precise flowrate.
- **Recommended pressure: 10 bar.**
- Information about droplets size (see page 5)

MAIN CHARACTERISTICS

- Angle of 60° at 5 bar
- Hollow cone nozzle producing fine droplets
- The green cap is used to specify that the nozzles has an angle of 60 degrees
- ALBUZ® durable pink ceramic allows high pressure spraying while maintaining nozzle performance and precision

FLOW RATE CHART (l/min)

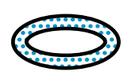
Pressure (bar)	PINK 60-0075	ORANGE 60-01	GREEN 60-015	YELLOW 60-02	LILAC 60-025	BLUE 60-03	RED 60-04	BROWN 60-05
5	0,39	0,52	0,77	1,03	1,29	1,55	2,07	2,58
6	0,42	0,57	0,85	1,13	1,41	1,70	2,26	2,83
7	0,46	0,61	0,92	1,22	1,53	1,83	2,44	3,06
8	0,49	0,65	0,98	1,31	1,63	1,96	2,61	3,27
9	0,52	0,69	1,04	1,39	1,73	2,08	2,77	3,46
10	0,55	0,73	1,10	1,46	1,83	2,19	2,92	3,65
11	0,57	0,77	1,15	1,53	1,91	2,30	3,06	3,83
12	0,60	0,80	1,2	1,6	2,00	2,40	3,20	4,00
13	0,62	0,83	1,25	1,67	2,08	2,50	3,33	4,16
14	0,65	0,86	1,30	1,73	2,16	2,59	3,46	4,32
15	0,67	0,89	1,34	1,79	2,24	2,68	3,58	4,47
16	0,69	0,92	1,39	1,85	2,31	2,77	3,70	4,62
17	0,71	0,95	1,43	1,90	2,38	2,86	3,81	4,76
18	0,73	0,98	1,47	1,96	2,45	2,94	3,92	4,90
19	0,75	1,01	1,51	2,01	2,52	3,02	4,03	5,03
20	0,77	1,03	1,55	2,07	2,58	3,10	4,13	5,16
21	0,79	1,06	1,59	2,12	2,65	3,17	4,23	5,29
22	0,81	1,08	1,62	2,17	2,71	3,25	4,33	5,42
23	0,83	1,11	1,66	2,22	2,77	3,32	4,43	5,54
24	0,85	1,13	1,70	2,26	2,83	3,39	4,53	5,66
25	0,87	1,15	1,73	2,31	2,89	3,46	4,62	5,77

APPLICATIONS

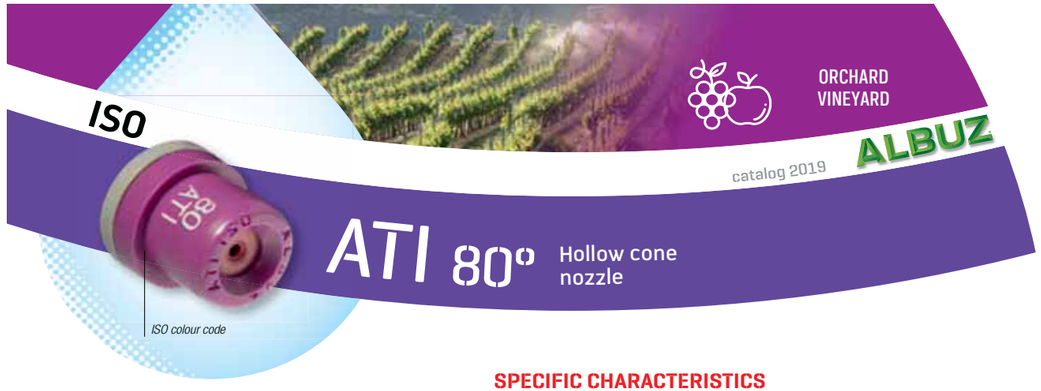
For fungicides and insecticides. Recommended for orchard and vineyards.

5-20 bar

60°



Albuz® Nozzles - canopy spraying



MAIN CHARACTERISTICS

- Angle of 80° at 5 bar.
- Hollow cone nozzle producing fine droplets.
- The **green cap** is used to specify that the nozzles has an angle of 80 degrees.
- ALBUZ® durable pink ceramic allows high pressure spraying while maintaining nozzle performance and precision.

SPECIFIC CHARACTERISTICS

- **Flow rate characteristics, colour code meet international ISO standards.**
- Easy dismantling for cleaning.
- The angle of 80 degrees may be matched with TVI 80° nozzles in order to optimize applications.
- Can be used on a sprayer boom from 3 bar pressure.
- Precision polished ceramic surfaces of internal components ensure perfect sealing of the swirl chamber to give precise flowrate.
- **Recommended pressure: 10 bar.**
- Information about droplets size (see page 5)

FLOW RATE CHART (l/min)

Pressure (bar)	PURPLE 80-0050	PINK 80-0075	ORANGE 80-01	GREEN 80-015	YELLOW 80-02	LILAC 80-025	BLUE 80-03	BROWN RED 80-035	RED 80-04	BROWN 80-05
3	0,20	-	-	-	-	-	-	-	-	-
4	0,23	-	-	-	-	-	-	-	-	-
5	0,26	0,39	0,52	0,77	1,03	1,29	1,55	1,81	2,07	2,58
6	0,28	0,42	0,57	0,85	1,13	1,41	1,70	1,98	2,26	2,83
7	0,31	0,46	0,61	0,92	1,22	1,53	1,83	2,14	2,44	3,06
8	0,33	0,49	0,65	0,98	1,31	1,63	1,96	2,29	2,61	3,27
9	0,35	0,52	0,69	1,04	1,39	1,73	2,08	2,42	2,77	3,46
10	0,37	0,55	0,73	1,10	1,46	1,83	2,19	2,56	2,92	3,65
11	0,38	0,57	0,77	1,15	1,53	1,91	2,30	2,68	3,06	3,83
12	0,40	0,60	0,80	1,2	1,6	2,00	2,40	2,80	3,20	4,00
13	0,42	0,62	0,83	1,25	1,67	2,08	2,50	2,91	3,33	4,16
14	0,43	0,65	0,86	1,30	1,73	2,16	2,59	3,02	3,46	4,32
15	0,45	0,67	0,89	1,34	1,79	2,24	2,68	3,13	3,58	4,47
16	0,46	0,69	0,92	1,39	1,85	2,31	2,77	3,23	3,70	4,62
17	0,48	0,71	0,95	1,43	1,90	2,38	2,86	3,33	3,81	4,76
18	0,49	0,73	0,98	1,47	1,96	2,45	2,94	3,43	3,92	4,90
19	0,50	0,75	1,01	1,51	2,01	2,52	3,02	3,52	4,03	5,03
20	0,52	0,77	1,03	1,55	2,07	2,58	3,10	3,61	4,13	5,16
21	0,53	0,79	1,06	1,59	2,12	2,65	3,17	3,7	4,23	5,29
22	0,54	0,81	1,08	1,62	2,17	2,71	3,25	3,75	4,33	5,42
23	0,55	0,83	1,11	1,66	2,22	2,77	3,32	3,88	4,43	5,54
24	0,57	0,85	1,13	1,70	2,26	2,83	3,39	3,96	4,53	5,66
25	0,58	0,87	1,15	1,73	2,31	2,89	3,46	4,04	4,62	5,77

APPLICATIONS

For fungicides and insecticides. Recommended for orchard and vineyards.

5-20 bar

80°

Albuz® Nozzles - canopy spraying

MAIN CHARACTERISTICS

- Angle of 80° at 5 bar.
- Full cone nozzle producing fine droplets..
- Albuz durable pink ceramic allows high pressure spraying while maintaining nozzle performance and precision.

NEW
Angle of 60°
Yellow (60 02)
Blue (60 03)
Red (60 04)
Brown (60 05)

SPECIFIC CHARACTERISTICS

- Flow rate characteristics, colour code meet international ISO standards.
- Use 100 mesh nozzle filters for models 80 015 and 80 02.
- Can be used on a sprayer boom (spacing nozzle between 35cm and 50 cm)
- **Recommended pressure on sprayer boom : 3 bar**
- **Recommended pressure for Orchard or Vineyard : 10 bar**
- Information about droplets size (see page 5)

FLOW RATE CHART

Colour	ISO code	#	(bar)	l / mn	Liters / hectare - Nozzle spacing: 50 cm										
					4 km / h	5 km / h	6 km / h	8 km / h	9km / h	10 km / h	12 km / h	14 km / h	16 km / h	18km / h	20km / h
GREEN	ATF 80 015	100 Mesh	3	0,60	180	144	120	90	80	72	60	51	45	40	36
			4	0,69	207	166	138	104	92	83	69	59	52	46	41
			5	0,77	231	185	154	116	103	92	77	66	58	51	46
YELLOW	ATF 80 02 60 02	100 Mesh	3	0,80	240	192	160	120	107	96	80	69	60	53	48
			4	0,91	276	221	184	137	121	109	91	78	68	61	55
			5	1,03	309	247	206	155	137	124	103	88	77	69	62
LILAC	ATF 80 025	50 Mesh	3	1,00	300	240	200	150	133	120	100	86	75	67	60
			4	1,15	345	276	230	173	153	138	115	99	86	77	69
			5	1,29	387	310	258	194	172	155	129	111	97	86	77
BLUE	ATF 80 03 60 03	50 Mesh	3	1,20	360	288	240	180	160	144	120	103	90	80	72
			4	1,39	417	334	278	209	185	167	139	119	104	93	83
			5	1,55	465	372	310	233	207	186	155	133	116	103	93
RED	ATF 80 04 60 04	50 Mesh	3	1,60	480	384	320	240	213	192	160	137	120	107	96
			4	1,85	555	444	370	278	247	222	185	159	139	123	111
			5	2,07	621	497	414	311	276	248	207	177	155	138	124
BROWN	ATF 80 05 60 05	50 Mesh	3	2	600	480	400	300	267	240	200	171	150	133	120
			4	2,31	693	554	462	347	308	277	231	198	173	154	139
			5	2,58	774	619	516	387	344	310	258	221	194	172	155

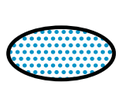
Pressure (bar)	litres / mn					
	GREEN 80-015	YELLOW 80-02	LILAC 80-025	BLUE 80-03	RED 80-04	BROWN 80-05
3	0,60	0,80	1,00	1,20	1,60	2,00
4	0,69	0,91	1,15	1,39	1,85	2,31
5	0,77	1,03	1,29	1,55	2,07	2,58
6	0,85	1,13	1,41	1,70	2,26	2,83
7	0,92	1,22	1,53	1,83	2,44	3,06
8	0,98	1,31	1,63	1,96	2,61	3,27
9	1,04	1,39	1,73	2,08	2,77	3,46
10	1,10	1,46	1,83	2,19	2,92	3,65
11	1,15	1,53	1,91	2,30	3,06	3,83
12	1,2	1,6	2,00	2,40	3,20	4,00
13	1,25	1,67	2,08	2,50	3,33	4,16
14	1,30	1,73	2,16	2,59	3,46	4,32
15	1,34	1,79	2,24	2,68	3,58	4,47
16	1,39	1,85	2,31	2,77	3,70	4,62
17	1,43	1,90	2,38	2,86	3,81	4,76
18	1,47	1,96	2,45	2,94	3,92	4,90
19	1,51	2,01	2,52	3,02	4,03	5,03
20	1,55	2,07	2,58	3,10	4,13	5,16
21	1,59	2,12	2,65	3,17	4,23	5,29
22	1,62	2,17	2,71	3,25	4,33	5,42
23	1,66	2,22	2,77	3,32	4,43	5,54
24	1,70	2,26	2,83	3,39	4,53	5,66
25	1,73	2,31	2,89	3,46	4,62	5,77

APPLICATIONS

For fungicides and insecticides. Recommended for orchard and vineyards. Recommended to work on a dense vegetation.

3-20 bar

60°/80°



Albuz® Nozzles - canopy spraying

SPECIFIC CHARACTERISTICS

- ALBUZ® durable pink ceramic construction allows high spraying pressures to be used while maintaining performance and precision.
- Hollow cone nozzle spraying fine droplets.
- The combinations of Discs (AD) and Cores (AC) allow a wide choice of uses.
- **Recommended pressure: 10 bar.**
- Information about droplets size (see page 5)

APPLICATIONS

All types of treatments (herbicides, fungicides,insecticides ...)

HOLLOW CONE TABLE

		Orifice diameters	l / mn							Angles	
			3 bar	4 bar	5 bar	6 bar	10 bar	15 bar	20 bar	10 bar	20 bar
AD 1	AC 13	0,8	0,24	0,27	0,3	0,33	0,41	0,49	0,56	70°	79°
AD 2	AC 13	1,02	0,31	0,35	0,39	0,42	0,53	0,64	0,73	87°	97°
AD 3	AC 13	1,2	0,36	0,41	0,45	0,49	0,61	0,74	0,84	89°	98°
AD 4	AC 13	1,56	0,45	0,52	0,57	0,62	0,78	0,93	1,06	99°	103°
AD 5	AC 13	2	0,55	0,62	0,69	0,75	0,94	1,13	1,29	102°	105°
AD 1	AC 23	0,8	0,28	0,32	0,35	0,38	0,48	0,57	0,65	66°	74°
AD 2	AC 23	1,02	0,37	0,43	0,47	0,51	0,64	0,77	0,88	83°	93°
AD 3	AC 23	1,2	0,44	0,51	0,56	0,61	0,76	0,92	1,04	84°	92°
AD 4	AC 23	1,56	0,56	0,64	0,71	0,77	0,97	1,16	1,32	92°	98°
AD 5	AC 23	2	0,72	0,82	0,91	0,99	1,24	1,49	1,7	96°	99°
AD 6	AC 23	2,4	0,85	0,97	1,07	1,16	1,46	1,75	2	99°	101°
AD 1	AC 25	0,8	0,41	0,46	0,51	0,55	0,7	0,84	0,95	50°	60°
AD 2	AC 25	1,02	0,59	0,67	0,74	0,8	1,01	1,21	1,38	57°	66°
AD 3	AC 25	1,2	0,72	0,81	0,9	0,98	1,23	1,48	1,68	63°	69°
AD 4	AC 25	1,56	1,02	1,16	1,28	1,39	1,75	2,1	2,39	75°	80°
AD 5	AC 25	2	1,41	1,6	1,77	1,92	2,42	2,9	3,3	77°	80°
AD 6	AC 25	2,4	1,73	1,97	2,18	2,37	2,98	3,57	4,07	82°	85°
AD 7	AC 25	2,8	2,07	2,36	2,61	2,83	3,57	4,28	4,87	88°	91°
AD 1	AC 45	0,8	0,48	0,55	0,61	0,66	0,83	1	1,14	32°	39°
AD 2	AC 45	1,02	0,73	0,83	0,92	1	1,26	1,51	1,72	46°	53°
AD 3	AC 45	1,2	0,92	1,05	1,16	1,26	1,58	1,9	2,16	48°	52°
AD 4	AC 45	1,56	1,35	1,54	1,7	1,85	2,32	2,79	3,17	59°	60°
AD 5	AC 45	2	1,92	2,19	2,42	2,63	3,31	3,97	4,52	68°	70°
AD 6	AC 45	2,4	2,46	2,79	3,09	3,35	4,22	5,07	5,77	72°	75°
AD 7	AC 45	2,8	3,01	3,43	3,79	4,11	5,18	6,21	7,07	79°	80°
AD 1	AC 46	0,8	0,55	0,62	0,69	0,75	0,94	1,13	1,29	23°	27°
AD 2	AC 46	1,02	0,92	1,05	1,16	1,26	1,58	1,9	2,16	26°	30°
AD 3	AC 46	1,2	1,2	1,37	1,51	1,64	2,06	2,48	2,82	30°	30°
AD 4	AC 46	1,56	2,03	2,32	2,56	2,78	3,5	4,2	4,78	35	35
AD 5	AC 46	2	3,11	3,54	3,91	4,24	5,34	6,41	7,3	40°	42°
AD 6	AC 46	2,4	4,12	4,69	5,18	5,62	7,08	8,49	9,67	45	46
AD 7	AC 46	3,230	5,49	6,40	7,10	7,84	10,16	12,43	14,33	55°	53°

3-20 bar

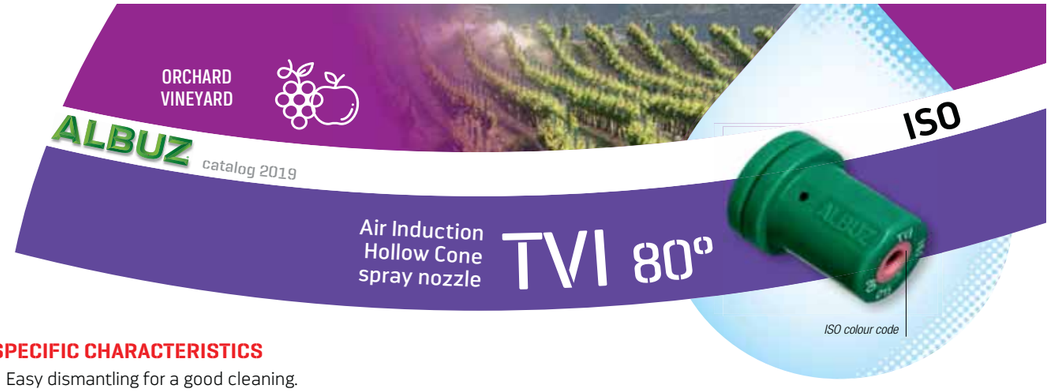
80°

Full cone

FULL CONE TABLE

		Orifice diameters	l / mn							Angles	
			3 bar	4 bar	5 bar	6 bar	10 bar	15 bar	20 bar	10 bar	20 bar
AD 1	AC 31	0,8	0,53	0,61	0,67	0,73	0,92	1,1	1,25	39°	39°
AD 2	AC 31	1,02	0,82	0,93	1,03	1,12	1,41	1,69	1,92	87°	95°
AD 3	AC 31	1,2	0,87	0,99	1,1	1,19	1,5	1,8	2,05	65°	62°
AD 1	AC 35	0,8	0,53	0,61	0,67	0,73	0,92	1,1	1,25	34°	40°
AD 2	AC 35	1,02	0,92	1,05	1,16	1,26	1,58	1,9	2,16	39°	39°
AD 3	AC 35	1,2	1,28	1,46	1,61	1,75	2,2	2,64	3	44°	42°
AD 4	AC 35	1,56	2,08	2,37	2,62	2,84	3,58	4,3	4,89	77°	72°
AD 5	AC 35	2	2,62	2,98	3,3	3,58	4,51	5,41	6,16	37°	34°
AD 2	AC 56	1,02	0,88	1	1,11	1,2	1,52	1,82	20,7	21°	20°
AD 3	AC 56	1,2	1,19	1,36	1,5	1,63	2,05	2,46	2,8	28°	32°
AD 4	AC 56	1,56	2,05	2,33	2,58	2,8	3,52	4,23	4,81	35°	38°
AD 5	AC 56	2	3,46	3,94	4,36	4,73	5,96	7,15	8,14	43°	40°
AD 6	AC 56	2,1	5,11	5,82	6,43	6,98	8,78	10,54	12	56°	49°
AD 7	AC 56	2,3	6,87	7,81	8,64	9,38	11,8	14,17	16,12	68°	64°

Albuz® Nozzles - canopy spraying



SPECIFIC CHARACTERISTICS

- Easy dismantling for a good cleaning.
- 3 ceramic components for more wear resistance.
- Can be used on a boom from a pressure of 5 bar using a special bayonette cap.
- Compact size: length 19 mm.
- Model 80 0050: recommended pressure from 7 bar.
- **Recommended pressure: 10 bar.**
- Information about droplets size (see page 5)

MAIN CHARACTERISTICS

- 80° angle at 5 bar.
- Air-induction hollow cone nozzle (Venturi system) spraying large drops filled with air bubbles which do not drift and explode into fine droplets in contact with the plant.
- ALBUZ® durable pink ceramic allows high spraying pressures to be used while maintaining performance and precision.

NEW
3 low pressure nozzles
Purple, pink and orange

TVI LP

IMPORTANT ! Use 200 mesh nozzle filters for models 80 0050 - 80 0075 and 100 mesh filters for the other sizes.

FLOW RATE CHART (L/MIN)

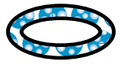
bar	PURPLE 80-0050	PINK 80-0075	ORANGE 80-01	GREEN 80-015	YELLOW 80-02	LILAC 80-025	BLUE 80-03	RED 80-04
	G 1752			G 1751			G 1897	
3	0,20	0,30	0,40	-	-	-	-	-
4	0,23	0,35	0,46	-	-	-	-	-
5	0,26	0,39	0,52	0,77	1,03	1,29	1,55	2,07
6	0,28	0,42	0,57	0,85	1,13	1,41	1,70	2,26
7	0,31	0,46	0,61	0,92	1,22	1,53	1,83	2,44
8	0,33	0,49	0,65	0,98	1,31	1,63	1,96	2,61
9	0,35	0,52	0,69	1,04	1,39	1,73	2,08	2,77
10	0,37	0,55	0,73	1,10	1,46	1,83	2,19	2,92
11	0,38	0,57	0,77	1,15	1,53	1,91	2,30	3,06
12	0,40	0,60	0,80	1,2	1,6	2,00	2,40	3,20
13	0,42	0,62	0,83	1,25	1,67	2,08	2,50	3,33
14	0,43	0,65	0,86	1,30	1,73	2,16	2,59	3,46
15	0,45	0,67	0,89	1,34	1,79	2,24	2,68	3,58
16	0,46	0,69	0,92	1,39	1,85	2,31	2,77	3,70
17	0,48	0,71	0,95	1,43	1,90	2,38	2,86	3,81
18	0,49	0,73	0,98	1,47	1,96	2,45	2,94	3,92
19	0,50	0,75	1,01	1,51	2,01	2,52	3,02	4,03
20	0,52	0,77	1,03	1,55	2,07	2,58	3,10	4,13
21	0,53	0,79	1,06	1,59	2,12	2,65	3,17	4,23
22	0,54	0,81	1,08	1,62	2,17	2,71	3,25	4,33
23	0,55	0,83	1,11	1,66	2,22	2,77	3,32	4,43
24	0,57	0,85	1,13	1,70	2,26	2,83	3,39	4,53
25	0,58	0,87	1,15	1,73	2,31	2,89	3,46	4,62

APPLICATIONS

For fungicide and insecticide treatments. Recommended for orchard and vineyards.

3-20 bar

80°



ConeJet® VisiFlo® Hollow Cone Spray Tips

Typical Applications:
Use for directed applications in air blast spraying for orchards and vineyards and other specialty crops. Also well-suited for applications of insecticides, fungicides, defoilants and foliar fertilizers at pressures of 40 PSI (3 bar) and above.

Features:
- VisiFlo color-coded version consists of stainless steel or ceramic orifice in polypropylene body. Maximum operating pressure 300 PSI (20 bar). Spray angle is 80° at 100 PSI (7 bar).
- Finely atomized spray pattern provides thorough coverage.
- TX-VS1 and TX-VS2 available in VisiFlo color-coded stainless steel only.

How to order:
Specify tip number.
Examples:
- TX-VS4 – Stainless Steel with VisiFlo color-coding
- TX-4 – Brass
- TX-SS4 – Stainless Steel
- TX-VK4 – Ceramic with VisiFlo color-coding

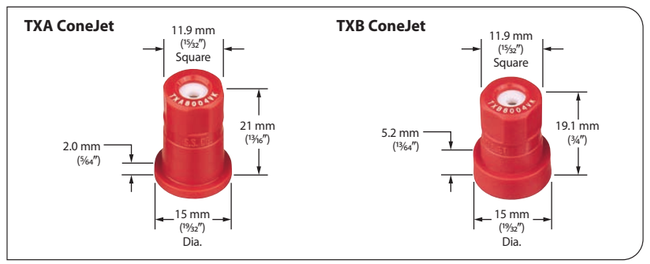
		l/min																			
		2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar	11 bar	12 bar	13 bar	14 bar	15 bar	16 bar	17 bar	18 bar	19 bar	20 bar
TX-VS1	100	0.055	0.065	0.074	0.081	0.087	0.093	0.098	0.103	0.108	0.112	0.116	0.120	0.124	0.127	0.131	0.134	0.137	0.140	0.143
		VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TX-VS2	100	0.110	0.131	0.148	0.164	0.177	0.189	0.201	0.211	0.221	0.231	0.240	0.248	0.256	0.264	0.272	0.279	0.286	0.293	0.299
		VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TX-VK3	100	0.164	0.196	0.223	0.245	0.266	0.284	0.301	0.317	0.332	0.346	0.359	0.372	0.384	0.396	0.407	0.418	0.429	0.439	0.449
		F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TX-VK4	50	0.218	0.262	0.299	0.331	0.360	0.386	0.410	0.433	0.454	0.474	0.493	0.512	0.529	0.546	0.562	0.578	0.594	0.608	0.623
		F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TX-VK6	50	0.327	0.393	0.448	0.496	0.539	0.579	0.615	0.649	0.681	0.711	0.740	0.767	0.794	0.819	0.844	0.867	0.890	0.912	0.934
		F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TX-VK8	50	0.433	0.525	0.603	0.671	0.732	0.788	0.840	0.888	0.934	0.978	1.02	1.06	1.10	1.13	1.17	1.20	1.24	1.27	1.30
		F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TX-VK10	50	0.541	0.657	0.753	0.838	0.915	0.985	1.05	1.11	1.17	1.22	1.27	1.32	1.37	1.42	1.46	1.50	1.55	1.59	1.63
		F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TX-VK12	50	0.649	0.788	0.904	1.01	1.10	1.18	1.26	1.33	1.40	1.47	1.53	1.59	1.65	1.70	1.75	1.81	1.86	1.90	1.95
		F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TX-VK18	50	0.968	1.18	1.37	1.53	1.67	1.80	1.93	2.04	2.15	2.25	2.35	2.45	2.54	2.63	2.72	2.80	2.88	2.96	3.03
		F	F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TX-VK26	50	1.40	1.71	1.97	2.20	2.41	2.60	2.78	2.95	3.11	3.26	3.40	3.54	3.67	3.80	3.92	4.04	4.16	4.27	4.38
		F	F	F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF

Note: Always double check your application rates. Tabulations are based on spraying water at 70°F (21°C).
See pages 136–157 for useful formulas and other information.

ConeJet® VisiFlo® Hollow Cone Spray Tips

Typical Applications:
Use for directed applications in air blast spraying for orchards and vineyards and other specialty crops. Also well-suited for applications of insecticides, fungicides, defoilants and foliar fertilizers at pressures of 40 PSI (3 bar) and above.

Features:
- Maximum operating pressure 300 PSI (20 bar). Spray angle is 80° at 100 PSI (7 bar).
- Finely atomized spray pattern provides thorough coverage.
- Longer wear life.
- Resists corrosion.
- Accepts more abrasive pesticide formulation.
- Polypropylene body for use with corrosive materials and ceramic insert.
- Popular nozzle sizes fit most sprayers.
- Incorporates ISO color-coding scheme.



How to order:
Specify tip number.
Example:
TXA8004VK – Ceramic with VisiFlo color-coding

		l/min																			
		2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar	11 bar	12 bar	13 bar	14 bar	15 bar	16 bar	17 bar	18 bar	19 bar	20 bar
TXA800050VK TXB800050VK (100)	100	0.164	0.196	0.223	0.245	0.266	0.284	0.301	0.317	0.332	0.346	0.359	0.372	0.384	0.396	0.407	0.418	0.429	0.439	0.449
		F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXA800067VK TXB800067VK (50)	50	0.218	0.262	0.299	0.331	0.360	0.386	0.410	0.433	0.454	0.474	0.493	0.512	0.529	0.546	0.562	0.578	0.594	0.608	0.623
		F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXA8001VK TXB8001VK (50)	50	0.327	0.393	0.448	0.496	0.539	0.579	0.615	0.649	0.681	0.711	0.740	0.767	0.794	0.819	0.844	0.867	0.890	0.912	0.934
		F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXA80015VK TXB80015VK (50)	50	0.487	0.591	0.678	0.754	0.823	0.886	0.944	0.999	1.05	1.10	1.15	1.19	1.23	1.28	1.32	1.35	1.39	1.43	1.46
		F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXA8002VK TXB8002VK (50)	50	0.649	0.788	0.904	1.01	1.10	1.18	1.26	1.33	1.40	1.47	1.53	1.59	1.65	1.70	1.75	1.81	1.86	1.90	1.95
		F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXA8003VK TXB8003VK (50)	50	0.968	1.18	1.37	1.53	1.67	1.80	1.93	2.04	2.15	2.25	2.35	2.45	2.54	2.63	2.72	2.80	2.88	2.96	3.03
		F	F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXA8004VK TXB8004VK (50)	50	1.29	1.58	1.82	2.03	2.23	2.40	2.57	2.72	2.87	3.01	3.14	3.27	3.39	3.51	3.62	3.73	3.84	3.94	4.04
		F	F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF

Note: Always double check your application rates. Tabulations are based on spraying water at 70°F (21°C).
See pages 136–157 for useful formulas and other information.

TXR ConeJet® Hollow Cone Spray Tips

Typical Applications:

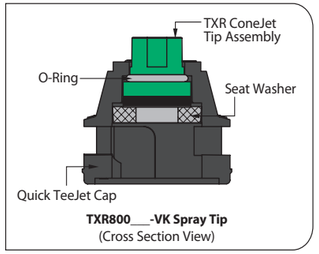
Use for directed applications in air blast spraying for orchards and vineyards and other specialty crops. Also well-suited for applications of insecticides, fungicides, defoliants and foliar fertilizers at pressures of 40 PSI (3 bar) and above.

Features:

- Produces uniform, 80° hollow cone spray pattern ideal for airblast, directed and specialty applications.
- Flow rates are matched to serve as a direct replacement for commonly used non-TeeJet hollow cone spray tips.
- High-quality ceramic orifice provides superior wear life, including high-pressure operation.
- Low profile acetal tip body provides minimal impact with foliage and excellent chemical resistance.
- Color-coded holder based on tip flow rate allows for easy capacity identification.
- Snap-fit backup plate provides positive retention when handled in field, but allows for tool-free removal for easy cleaning.
- Best suited for use with TeeJet 98450 series brass rollover fittings.
- Compatible with TeeJet cap CP20230 for use on rollovers and threaded nozzle bodies, tighten to a maximum torque of: 100 in-lbs (11 N-m).
- Suggested spray pressure range of 30–360 PSI (2–25 bar).
- Uses 114396-1-NYR Quick TeeJet® cap, gasket and O-ring. Reference page 64 for more information.

How to order:

Specify tip number.
Examples:
TXR8003VK – Ceramic with color-coding
TXR8003VK-100X – Ceramic with color-coding, 100 Tip Pack



TXR800___-VK Spray Tip
(Cross Section View)

		l/min																				
		2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar	11 bar	12 bar	13 bar	14 bar	15 bar	16 bar	17 bar	18 bar	19 bar	20 bar	21 bar	22 bar
TXR800053VK	100	0.173	0.209	0.239	0.265	0.289	0.310	0.330	0.349	0.367	0.383	0.399	0.414	0.429	0.443	0.457	0.470	0.483	0.495	0.507	0.519	0.530
		VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR800071VK	50	0.230	0.280	0.321	0.357	0.390	0.419	0.447	0.473	0.497	0.521	0.543	0.564	0.584	0.604	0.623	0.641	0.659	0.676	0.693	0.709	0.725
		F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR8001VK	50	0.325	0.394	0.452	0.503	0.549	0.591	0.630	0.666	0.701	0.733	0.764	0.794	0.823	0.850	0.877	0.903	0.928	0.952	0.976	0.999	1.02
		F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR80013VK	50	0.433	0.525	0.603	0.671	0.732	0.788	0.840	0.888	0.934	0.978	1.02	1.06	1.10	1.13	1.17	1.20	1.24	1.27	1.30	1.33	1.36
		F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR80015VK	50	0.487	0.591	0.678	0.754	0.823	0.886	0.944	0.999	1.05	1.10	1.15	1.19	1.23	1.28	1.32	1.35	1.39	1.43	1.46	1.50	1.53
		F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR80017VK	50	0.541	0.657	0.753	0.838	0.915	0.985	1.05	1.11	1.17	1.22	1.27	1.32	1.37	1.42	1.46	1.51	1.55	1.59	1.63	1.67	1.70
		F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR8002VK	50	0.649	0.788	0.904	1.01	1.10	1.18	1.26	1.33	1.40	1.47	1.53	1.59	1.65	1.70	1.75	1.81	1.86	1.90	1.95	2.00	2.04
		F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR80028VK	50	0.893	1.08	1.24	1.38	1.51	1.62	1.73	1.83	1.93	2.02	2.10	2.18	2.26	2.34	2.41	2.48	2.55	2.62	2.68	2.75	2.81
		F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR8003VK	50	0.968	1.18	1.37	1.53	1.67	1.80	1.93	2.04	2.15	2.26	2.35	2.45	2.54	2.63	2.72	2.80	2.88	2.96	3.03	3.11	3.18
		F	F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR80036VK	50	1.15	1.41	1.62	1.81	1.98	2.14	2.29	2.42	2.55	2.68	2.79	2.91	3.02	3.12	3.22	3.32	3.42	3.51	3.60	3.69	3.77
		F	F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR8004VK	50	1.29	1.58	1.82	2.03	2.23	2.40	2.57	2.72	2.87	3.01	3.14	3.27	3.39	3.51	3.62	3.73	3.84	3.94	4.04	4.14	4.24
		F	F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF
TXR80049VK	50	1.58	1.93	2.22	2.48	2.72	2.93	3.13	3.32	3.50	3.67	3.83	3.99	4.14	4.28	4.42	4.55	4.69	4.81	4.94	5.06	5.18
		F	F	F	F	F	F	F	F	F	F	F	VF	VF	VF	VF	VF	VF	VF	VF	VF	VF

Note: Always double check your application rates. Tabulations are based on spraying water at 70°F (21°C).
See pages 136–157 for drop size classification, useful formulas and other information.

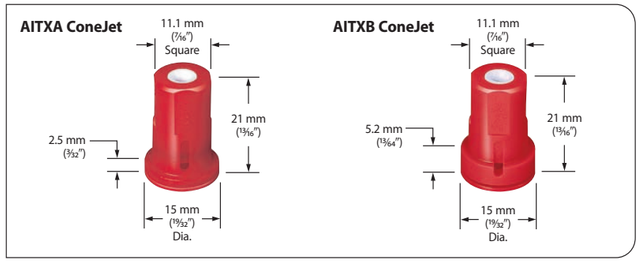
AITX ConeJet® Air Induction Hollow Cone Spray Tips

Typical Applications:

Hollow cone spray pattern is ideal for air blast and directed spray applications.

Features:

- Constructed of polypropylene, ceramic and Viton® for excellent chemical and wear resistance.
- Removable pre-orifice for fast and easy cleaning.
- Available in VisiFlo® ceramic (VK).
- Larger droplets are produced, as compared to standard TX ConeJet, through the use of a venturi air aspirator resulting in reduced drift and improved canopy penetration.
- Ideal for sprayers equipped with automatic control systems.
- AITXA to be used with CP25607-*-NY Quick TeeJet cap.
- AITXB to be used with Albuz® caps or equivalent.
- Suggested spray pressure of 60–300 PSI (4–20 bar).



How to order:

Specify tip number.
Example:
AITXA8001VK – Ceramic with VisiFlo color-coding

		l/min																				
		4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar	11 bar	12 bar	13 bar	14 bar	15 bar	16 bar	17 bar	18 bar	19 bar	20 bar				
AITX†8001VK	50	0.449	0.499	0.545	0.586	0.625	0.661	0.695	0.727	0.758	0.787	0.816	0.843	0.869	0.895	0.920	0.944	0.967				
		XC	XC	VC	VC	C	C	C	C	C	C	C	C	M	M	M	M	M				
AITX†80015VK	50	0.674	0.753	0.824	0.889	0.950	1.01	1.06	1.11	1.16	1.21	1.25	1.30	1.34	1.38	1.42	1.46	1.49				
		XC	XC	VC	VC	VC	C	C	C	C	C	C	C	C	C	M	M	M				
AITX†8002VK	50	0.920	1.03	1.13	1.22	1.30	1.38	1.46	1.53	1.60	1.67	1.73	1.79	1.85	1.91	1.96	2.02	2.07				
		XC	XC	XC	XC	XC	VC	VC	VC	VC	VC	C	C	C	C	C	C	C				
AITX†80025VK	50	1.12	1.25	1.37	1.48	1.58	1.67	1.77	1.85	1.93	2.01	2.09	2.16	2.23	2.30	2.37	2.43	2.49				
		UC	UC	XC	XC	XC	XC	XC	XC	XC	XC	VC	VC	VC	VC	VC	VC	C				
ATIX†8003VK	50	1.34	1.50	1.65	1.78	1.91	2.02	2.14	2.24	2.34	2.44	2.54	2.63	2.72	2.80	2.88	2.96	3.04				
		UC	UC	XC	XC	XC	XC	XC	XC	VC	VC	VC	VC	VC	VC	C	C	C				
AITX†8004VK	50	1.79	2.00	2.20	2.38	2.54	2.70	2.85	2.99	3.13	3.26	3.38	3.50	3.62	3.74	3.85	3.95	4.06				
		UC	UC	UC	XC	XC	XC	XC	XC	XC	XC	VC	VC	VC	VC	VC	VC	VC				

†Specify "A" or "B." **Note:** Always double check your application rates. Tabulations are based on spraying water at 70°F (21°C).
See pages 136–157 for drop size classification, useful formulas and other information.

TeeJet® Disc-Core Type Hollow Cone Spray Tips

Typical Assembly with Ceramic Disc and Core

TeeJet Nozzle Body | 4514-NY Slotted Strainer* | Core | Disc | CP20230 TeeJet Cap

*Use CP20229-NY gasket when 4514-NY Nylon slotted strainer is not used.

Hollow Cone Spray Pattern
Produced by Cores #13, 23, 25, 45 & 46

Hollow Cone Type Spray Tips

		mm	l/min										◺		
			0.7 bar	1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	10 bar	15 bar	20 bar	1 bar	10 bar	20 bar
D1	DC13	0.79	—	—	0.22	0.26	0.29	0.32	0.34	0.43	0.50	0.57	—	66°	68°
D1.5	DC13	0.91	—	—	0.25	0.29	0.33	0.36	0.39	0.48	0.56	0.63	—	70°	72°
D2	DC13	1.0	—	0.22	0.29	0.33	0.37	0.41	0.44	0.53	0.63	0.70	41°	74°	75°
D3	DC13	1.2	—	0.24	0.30	0.35	0.41	0.44	0.48	0.59	0.68	0.77	45°	77°	78°
D4	DC13	1.6	0.27	0.31	0.40	0.47	0.53	0.59	0.63	0.76	0.89	1.0	64°	84°	85°
D1	DC23	0.79	—	—	0.24	0.28	0.32	0.34	0.38	0.46	0.54	0.61	—	63°	65°
D1.5	DC23	0.91	—	—	0.28	0.34	0.39	0.42	0.46	0.58	0.69	0.78	—	66°	67°
D2	DC23	1.0	—	0.28	0.37	0.43	0.49	0.53	0.57	0.70	0.83	0.93	43°	72°	72°
D3	DC23	1.2	0.25	0.29	0.39	0.46	0.52	0.58	0.62	0.78	0.93	1.1	56°	77°	77°
D4	DC23	1.6	0.32	0.37	0.51	0.61	0.70	0.77	0.83	1.1	1.3	1.4	62°	88°	88°
D5	DC23	2.0	0.37	0.44	0.59	0.72	0.82	0.91	0.98	1.3	1.5	1.7	73°	96°	95°
D6	DC23	2.4	0.42	0.50	0.69	0.83	0.95	1.1	1.2	1.5	1.8	2.0	79°	100°	99°
D1	DC25	0.79	—	—	0.33	0.40	0.45	0.50	0.54	0.69	0.83	0.95	—	49°	51°
D1.5	DC25	0.91	—	—	0.45	0.53	0.61	0.67	0.73	0.91	1.1	1.2	—	54°	55°
D2	DC25	1.0	—	0.37	0.51	0.62	0.71	0.79	0.86	1.1	1.3	1.5	32°	61°	61°
D3	DC25	1.2	0.39	0.45	0.63	0.75	0.86	0.95	1.0	1.3	1.6	1.8	47°	69°	69°
D4	DC25	1.6	0.57	0.68	0.94	1.1	1.3	1.4	1.6	2.0	2.4	2.8	63°	82°	82°
D5	DC25	2.0	0.64	0.81	1.1	1.4	1.6	1.7	1.9	2.4	2.9	3.3	70°	85°	84°
D6	DC25	2.4	0.87	1.0	1.5	1.8	2.0	2.3	2.5	3.2	3.8	4.4	77°	89°	88°
D7	DC25	2.8	1.0	1.2	1.7	2.0	2.3	2.6	2.9	3.7	4.5	5.1	83°	92°	91°
D8	DC25	3.2	1.2	1.4	2.0	2.4	2.8	3.1	3.4	4.4	5.3	6.2	89°	96°	95°
D10	DC25	4.0	1.5	1.7	2.4	3.0	3.5	3.9	4.2	5.5	6.7	7.7	94°	102°	101°
D12	DC25	4.8	1.8	2.2	3.0	3.7	4.3	4.8	5.2	6.7	8.2	9.5	101°	111°	110°
D14	DC25	5.6	1.9	2.3	3.3	4.1	4.7	5.2	5.8	7.5	9.1	10.2	105°	113°	112°
D1	DC45	0.79	—	—	—	0.48	0.56	0.61	0.67	0.84	1.0	1.2	—	39°	40°
D1.5	DC45	0.91	—	—	0.53	0.64	0.74	0.81	0.90	1.1	1.4	1.7	—	48°	50°
D2	DC45	1.0	—	0.43	0.66	0.80	0.91	1.0	1.1	1.4	1.7	2.0	26°	58°	58°
D3	DC45	1.2	—	0.53	0.74	0.91	1.0	1.2	1.3	1.6	2.0	2.3	34°	62°	62°
D4	DC45	1.6	0.67	0.80	1.1	1.4	1.6	1.8	2.0	2.5	3.1	3.6	59°	73°	72°
D5	DC45	2.0	0.87	1.0	1.5	1.8	2.0	2.3	2.5	3.2	3.9	4.5	63°	76°	75°
D6	DC45	2.4	1.1	1.3	1.9	2.3	2.7	3.0	3.3	4.3	5.3	6.1	70°	80°	79°
D7	DC45	2.8	1.3	1.5	2.2	2.7	3.1	3.5	3.9	5.0	6.2	7.2	78°	86°	85°
D8	DC45	3.2	1.6	1.9	2.7	3.3	3.9	4.3	4.8	6.2	7.6	8.9	84°	89°	88°
D10	DC45	4.0	2.0	2.5	3.5	4.4	5.0	5.6	6.2	8.0	9.8	11.5	88°	92°	91°
D12	DC45	4.8	2.5	3.1	4.4	5.3	6.2	6.9	7.6	9.8	12.1	14.0	95°	101°	100°
D14	DC45	5.6	2.8	3.4	4.9	6.0	7.0	7.8	8.6	11.2	13.6	15.9	99°	104°	103°
D16	DC45	6.4	3.3	4.0	5.7	7.1	8.2	9.3	10.2	13.2	16.3	19.1	106°	111°	110°
D1	DC46	0.79	—	—	—	0.58	0.66	0.74	0.81	1.0	1.3	1.5	—	17°	17°
D1.5	DC46	0.91	—	—	—	0.84	0.97	1.1	1.2	1.5	1.8	2.1	—	18°	18°
D2	DC46	1.0	—	—	0.89	1.1	1.2	1.3	1.5	1.9	2.2	2.5	—	20°	18°
D3	DC46	1.2	—	—	1.0	1.3	1.5	1.6	1.8	2.3	2.8	3.2	—	23°	21°
D4	DC46	1.6	1.1	1.3	1.8	2.2	2.5	2.8	3.2	4.0	4.9	5.7	20°	32°	31°
D5	DC46	2.0	1.4	1.7	2.5	3.0	3.5	3.9	4.3	5.6	6.8	7.9	28°	41°	40°
D6	DC46	2.4	2.1	2.5	3.6	4.4	5.0	5.7	6.2	8.0	9.8	11.4	38°	49°	47°
D7	DC46	2.8	—	—	4.5	5.5	6.3	7.1	7.8	10.0	12.3	13.8	—	55°	53°
D8	DC46	3.2	—	—	5.9	7.2	8.3	9.3	10.2	13.2	16.3	18.8	—	61°	59°
D10	DC46	4.0	—	—	7.9	9.7	11.3	12.6	13.8	17.9	22	25	—	66°	64°

Note: Always double check your application rates. Tabulations are based on spraying water at 70°F (21°C).
See pages 136–157 for useful formulas and other information.

CP26277-1-NY
Quick TeeJet® Cap
For ceramic disc and core.
See page 64 for ordering information.

How to order:

To order orifice disc only, specify disc number and material.
Note: For proper assembly and performance, disc and core must both be of like materials.

Examples:

DCER-2	–	Ceramic
D2	–	Hardened Stainless Steel
DE-2	–	Stainless Steel
DVP-2	–	Polymer

To order core only, specify core number and material.

Examples:

DC13-CER	–	Ceramic
DC13-HSS	–	Hardened Stainless Steel
DC13	–	Brass
DC13-NY	–	Nylon

STRAINER NOTE: For nozzles using orifice disc numbers 1, 1.5 and 2, or core numbers 31 and 33, slotted strainer number 4514-20 equivalent to 25 mesh screen size is required. For all other larger capacity discs and cores, slotted strainer number 4514-32 equivalent to 16 mesh screen size is required.

TeeJet® Disc-Core Type Full Cone Spray Tips

Typical Applications:

For spraying pesticides at higher pressures and flow rates. Especially suitable for wettable powders and other abrasive chemicals. Larger capacity nozzles are also used in air blast sprayers.

Features:

- Produce smaller droplets for thorough coverage with contact pesticides and foliar applications.
- Maximum spray pressure to 300 PSI (20 bar).

Full Cone Spray Pattern
Produced by Cores #31, 33, 35 & 56

Orifice Discs

Available in a variety of sizes and materials. Ceramic for increased wear life, hardened stainless steel, stainless steel and polymer.

Ceramic Sizes Available:
DCER-2 through DCER-8, DCER-10.

Ceramic | Hardened Stainless Steel | Stainless Steel | Polymer

Cores

Standard cores are made of brass. Also available in ceramic, hardened stainless steel and Nylon. All cores with the exception of ceramic are made with rear "nibs." Make sure core is always placed with the nib facing the nozzle body.

Ceramic Sizes Available:
DC13-CER, DC23-CER, DC25-CER, DC31-CER, DC33-CER, DC35-CER, DC45-CER, DC46-CER, DC56-CER.

Ceramic | Hardened Stainless Steel | Brass | Nylon | CP18999 | Seal

Full Cone Type Spray Tips

		mm	l/min										◺		
			0.7 bar	1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	10 bar	15 bar	20 bar	1 bar	10 bar	20 bar
D1	DC31	0.79	0.31	0.36	0.49	0.59	0.67	0.74	0.80	1.0	1.2	1.4	42°	40°	38°
D1.5	DC31	0.91	0.39	0.45	0.63	0.76	0.86	0.95	1.0	1.3	1.6	1.8	54°	46°	40°
D2	DC31	1.0	0.45	0.53	0.72	0.86	0.98	1.1	1.2	1.5	1.8	2.0	56°	54°	49°
D3	DC31	1.2	0.49	0.58	0.80	0.95	1.1	1.2	1.3	1.6	1.9	2.2	58°	67°	58°
D1	DC33	0.79	0.32	0.36	0.46	0.56	0.64	0.71	0.78	0.98	1.2	1.4	24°	37°	37°
D1.5	DC33	0.91	0.42	0.47	0.63	0.75	0.85	0.95	1.0	1.3	1.6	1.9	34°	46°	45°
D2	DC33	1.0	0.47	0.56	0.78	0.95	1.1	1.2	1.3	1.7	2.0	2.3	42°	55°	52°
D3	DC33	1.2	0.57	0.68	0.95	1.1	1.3	1.5	1.6	2.0	2.5	2.8	46°	57°	56°
D4	DC33	1.6	0.78	0.91	1.3	1.5	1.7	1.9	2.1	2.7	3.3	3.7	49°	63°	63°
D1	DC35	0.79	0.30	0.36	0.48	0.58	0.65	0.71	0.78	0.97	1.2	1.3	16°	27°	27°
D1.5	DC35	0.91	0.41	0.47	0.63	0.76	0.85	0.94	1.0	1.3	1.5	1.7	19°	30°	30°
D2	DC35	1.0	0.53	0.62	0.83	0.99	1.1	1.2	1.3	1.7	2.0	2.2	38°	45°	40°
D3	DC35	1.2	0.58	0.72	0.98	1.2	1.3	1.5	1.6	2.0	2.4	2.8	42°	48°	42°
D4	DC35	1.6	1.0	1.2	1.6	2.0	2.3	2.5	2.8	3.5	4.2	4.8	65°	68°	60°
D5	DC35	2.0	1.3	1.6	2.2	2.6	3.0	3.3	3.6	4.5	5.5	6.3	65°	69°	62°
D2	DC56	1.0	—	—	0.80	0.98	1.1	1.2	1.4	1.8	2.2	2.5	—	18°	16°
D3	DC56	1.2	—	—	1.1	1.3	1.6	1.7	1.9	2.4	3.0	3.4	—	24°	22°
D4	DC56	1.6	—	1.3	1.8	2.2	2.5	2.8	3.1	4.0	4.8	5.6	18°	30°	28°
D5	DC56	2.0	1.4	1.8	2.5	3.0	3.5	3.9	4.3	5.5	6.7	7.8	24°	35°	33°
D6	DC56	2.4	2.2	2.7	3.7	4.5	5.3	5.9	6.5	8.5	10.2	11.9	31°	40°	38°
D7	DC56	2.8	2.9	3.4	4.9	6.0	6.9	7.7	8.5	11.0	13.5	15.6	42°	53°	51°
D8	DC56	3.2	3.7	4.4	6.2	7.6	8.8	9.8	10.8	13.9	17.0	19.6	48°	58°	56°
D10	DC56	4.0	5.1	6.1	8.6	10.6	12.2	13.6	15.0	19.3	24	27	57°	66°	64°

Note: Always double check your application rates. Tabulations are based on spraying water at 70°F (21°C).
See pages 136–157 for useful formulas and other information.

How to order:

To order orifice disc only, specify disc number and material. Note: For proper assembly and performance, disc and core must both be of like materials.

Examples:

DCER-2	–	Ceramic
D2	–	Hardened Stainless Steel
DE-2	–	Stainless Steel
DVP-2	–	Polymer

To order core only, specify core number and material.

Examples:

DC13-CER	–	Ceramic
DC13-HSS	–	Hardened Stainless Steel
DC13	–	Brass
DC13-NY	–	Nylon

CP18999-EPR Seal Gasket

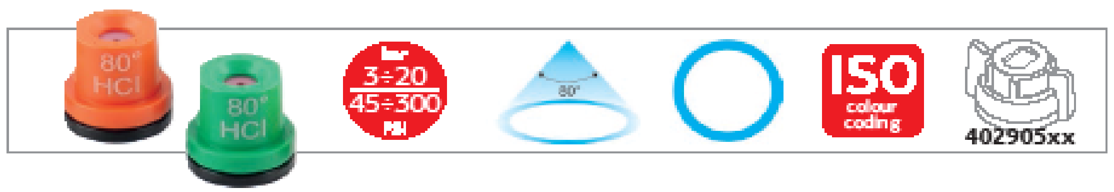
STRAINER NOTE: For nozzles using orifice disc numbers 1, 1.5 and 2; or core numbers 31 and 33, slotted strainer number 4514-20 equivalent to 25 mesh screen size is required. For all other larger capacity discs and cores, slotted strainer number 4514-32 equivalent to 16 mesh screen size is required.

C113

UGELLI ASJ®
ASJ® NOZZLE
BOQUILLAS ASJ®

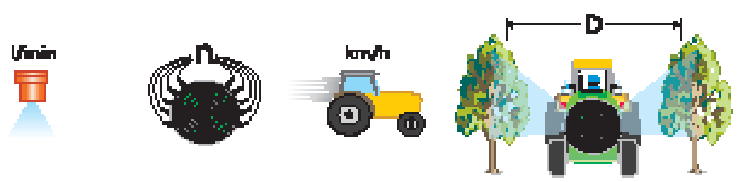
HOLLOWCONE CERAMIC 80°

Editors note:
HCI nozzles are ideal for orchard & vineyard use. Ceramic inserts in the body ensure a long wear life. They are ISO colour coded for easy calibration.
Pressure range is wide, allowing a range of application rates.
Available in 40, 60 and 80 degree which is very helpful for managing the required angles for best canopy penetration of droplets.



COD. CODE COD.	(l/min)																	
	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar	11 bar	12 bar	13 bar	14 bar	15 bar	16 bar	17 bar	18 bar	19 bar	20 bar
422HCI80005	0.19	0.22	0.25	0.27	0.29	0.31	0.33	0.35	0.36	0.38	0.40	0.41	0.42	0.44	0.45	0.47	0.48	0.49
422HCI800075	0.30	0.35	0.39	0.42	0.46	0.49	0.52	0.55	0.57	0.60	0.62	0.65	0.67	0.69	0.71	0.73	0.75	0.77
422HCI8001	0.40	0.46	0.52	0.57	0.61	0.65	0.69	0.73	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.03
422HCI80015	0.60	0.69	0.77	0.85	0.92	0.98	1.04	1.10	1.15	1.20	1.25	1.30	1.34	1.39	1.43	1.47	1.51	1.55
422HCI8002	0.80	0.92	1.03	1.13	1.22	1.31	1.39	1.46	1.53	1.60	1.67	1.73	1.79	1.85	1.90	1.96	2.01	2.07
422HCI80025	1.00	1.15	1.29	1.41	1.53	1.63	1.73	1.83	1.91	2.00	2.08	2.16	2.24	2.31	2.38	2.45	2.52	2.58
422HCI8003	1.20	1.39	1.55	1.70	1.83	1.96	2.08	2.19	2.30	2.40	2.50	2.59	2.68	2.77	2.86	2.94	3.02	3.10
422HCI80035	1.40	1.62	1.81	1.98	2.14	2.29	2.42	2.56	2.68	2.80	2.91	3.02	3.13	3.23	3.33	3.43	3.52	3.61
422HCI8004	1.60	1.85	2.07	2.26	2.44	2.61	2.77	2.92	3.06	3.20	3.33	3.46	3.58	3.70	3.81	3.92	4.03	4.13
422HCI8005	2.00	2.31	2.58	2.83	3.06	3.27	3.46	3.65	3.83	4.00	4.16	4.32	4.47	4.62	4.76	4.90	5.03	5.16

$$\text{Vol (l/ha)} = \frac{\text{l/min} \times n \times 600}{\text{km/h} \times D\ (m)}$$



COD. CODE COD.	bar							
	3	4	5	6	8	10	15	20
422HCI80005	VF	VF	VF	VF	VF	VF	VF	VF
422HCI800075	VF	VF	VF	VF	VF	VF	VF	VF
422HCI8001	VF	VF	VF	VF	VF	VF	VF	VF
422HCI80015	VF	VF	VF	VF	VF	VF	VF	VF
422HCI8002	F	F	VF	VF	VF	VF	VF	VF
422HCI80025	F	VF	VF	VF	VF	VF	VF	VF
422HCI8003	F	VF	VF	VF	VF	VF	VF	VF
422HCI80035	F	VF	VF	VF	VF	VF	VF	VF
422HCI8004	F	F	F	VF	VF	VF	VF	VF
422HCI8005	F	F	F	F	VF	VF	VF	VF

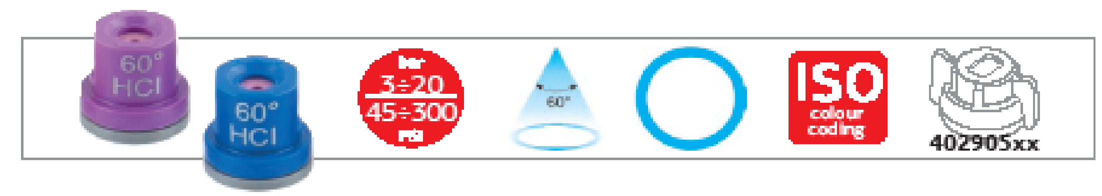
VF · F · M · C · VC · XC · UC

HOLLOWCONE CERAMIC 60°

UGELLI ASJ®
ASJ® NOZZLE
BOQUILLAS ASJ®

C113

Editors note:
HCI nozzles are ideal for orchard & vineyard use. Ceramic inserts in the body ensure a long wear life. They are ISO colour coded for easy calibration.
Pressure range is wide, allowing a range of application rates.
Available in 40, 60 and 80 degree which is very helpful for managing the required angles for best canopy penetration of droplets.



COD. CODE COD.	(l/min)																	
	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar	11 bar	12 bar	13 bar	14 bar	15 bar	16 bar	17 bar	18 bar	19 bar	20 bar
422HCI60005	0.19	0.22	0.25	0.27	0.29	0.31	0.33	0.35	0.36	0.38	0.40	0.41	0.42	0.44	0.45	0.47	0.48	0.49
422HCI600075	0.30	0.35	0.39	0.42	0.46	0.49	0.52	0.55	0.57	0.60	0.62	0.65	0.67	0.69	0.71	0.73	0.75	0.77
422HCI6001	0.40	0.46	0.52	0.57	0.61	0.65	0.69	0.73	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.03
422HCI60015	0.60	0.69	0.77	0.85	0.92	0.98	1.04	1.10	1.15	1.20	1.25	1.30	1.34	1.39	1.43	1.47	1.51	1.55
422HCI6002	0.80	0.92	1.03	1.13	1.22	1.31	1.39	1.46	1.53	1.60	1.67	1.73	1.79	1.85	1.90	1.96	2.01	2.07
422HCI60025	1.00	1.15	1.29	1.41	1.53	1.63	1.73	1.83	1.91	2.00	2.08	2.16	2.24	2.31	2.38	2.45	2.52	2.58
422HCI6003	1.20	1.39	1.55	1.70	1.83	1.96	2.08	2.19	2.30	2.40	2.50	2.59	2.68	2.77	2.86	2.94	3.02	3.10
422HCI60035	1.40	1.62	1.81	1.98	2.14	2.29	2.42	2.56	2.68	2.80	2.91	3.02	3.13	3.23	3.33	3.43	3.52	3.61
422HCI6004	1.60	1.85	2.07	2.26	2.44	2.61	2.77	2.92	3.06	3.20	3.33	3.46	3.58	3.70	3.81	3.92	4.03	4.13
422HCI6005	2.00	2.31	2.58	2.83	3.06	3.27	3.46	3.65	3.83	4.00	4.16	4.32	4.47	4.62	4.76	4.90	5.03	5.16

$$\text{Vol (l/ha)} = \frac{\text{l/min} \times n \times 600}{\text{km/h} \times D\ (m)}$$

COD. CODE COD.	bar							
	3	4	5	6	8	10	15	20
422HCI60005	VF	VF	VF	VF	VF	VF	VF	VF
422HCI600075	VF	VF	VF	VF	VF	VF	VF	VF
422HCI6001	VF	VF	VF	VF	VF	VF	VF	VF
422HCI60015	F	VF	VF	VF	VF	VF	VF	VF
422HCI6002	F	VF	VF	VF	VF	VF	VF	VF
422HCI60025	F	F	VF	VF	VF	VF	VF	VF
422HCI6003	F	F	VF	VF	VF	VF	VF	VF
422HCI60035	F	F	F	F	F	VF	VF	VF
422HCI6004	M	M	F	F	F	VF	VF	VF
422HCI6005	M	M	F	F	F	F	VF	VF

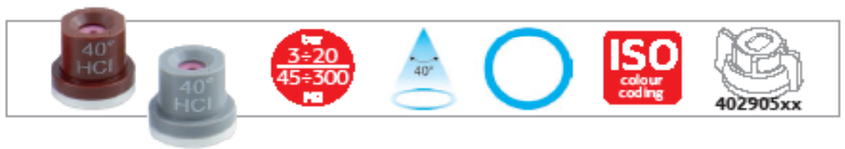
VF · F · M · C · VC · XC · UC

C113

UGELLI ASJ®
ASJ® NOZZLE
BOQUILLAS ASJ®

HOLLOWCONE CERAMIC 40°

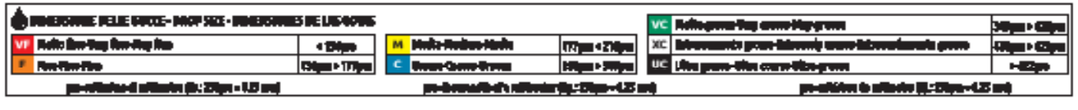
Editors note:
HCI nozzles are ideal for orchard & vineyard use. Ceramic inserts in the body ensure a long wear life. They are ISO colour coded for easy calibration.
Pressure range is wide, allowing a range of application rates.
Available in 40, 60 and 80 degree which is very helpful for managing the required angles for best canopy penetration of droplets.



COD. CODE COD.	(l/min)																	
	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar	11 bar	12 bar	13 bar	14 bar	15 bar	16 bar	17 bar	18 bar	19 bar	20 bar
422HCI4001	0.40	0.46	0.52	0.57	0.61	0.65	0.69	0.73	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.03
422HCI40015	0.60	0.69	0.77	0.85	0.92	0.98	1.04	1.10	1.15	1.20	1.25	1.30	1.34	1.39	1.43	1.47	1.51	1.55
422HCI4002	0.80	0.92	1.03	1.13	1.22	1.31	1.39	1.46	1.53	1.60	1.67	1.73	1.79	1.85	1.90	1.96	2.01	2.07
422HCI40025	1.00	1.15	1.29	1.41	1.53	1.63	1.73	1.83	1.91	2.00	2.08	2.16	2.24	2.31	2.38	2.45	2.52	2.58
422HCI4003	1.20	1.39	1.55	1.70	1.83	1.96	2.08	2.19	2.30	2.40	2.50	2.59	2.68	2.77	2.86	2.94	3.02	3.10
422HCI40035	1.40	1.62	1.81	1.98	2.14	2.29	2.42	2.56	2.68	2.80	2.91	3.02	3.13	3.23	3.33	3.43	3.52	3.61
422HCI4004	1.60	1.85	2.07	2.26	2.44	2.61	2.77	2.92	3.06	3.20	3.33	3.46	3.58	3.70	3.81	3.92	4.03	4.13
422HCI4005	2.00	2.31	2.58	2.83	3.06	3.27	3.46	3.65	3.83	4.00	4.16	4.32	4.47	4.62	4.76	4.90	5.03	5.16
422HCI4006	2.40	2.77	3.10	3.39	3.67	3.92	4.16	4.38	4.60	4.80	5.00	5.18	5.37	5.54	5.71	5.88	6.04	6.20

$$\text{Vol. (l/ha)} = \frac{\text{l/min x n x 600}}{\text{km/h x D (m)}}$$

COD. CODE COD.	bar							
	3	4	5	6	8	10	15	20
422HCI4001	F	F	VF	VF	VF	VF	VF	VF
422HCI40015	F	F	VF	VF	VF	VF	VF	VF
422HCI4002	F	F	VF	VF	VF	VF	VF	VF
422HCI40025	M	F	F	F	VF	VF	VF	VF
422HCI4003	M	F	F	F	VF	VF	VF	VF
422HCI40035	M	M	F	F	F	VF	VF	VF
422HCI4004	M	M	F	F	F	VF	VF	VF
422HCI4005	C	C	M	M	M	F	VF	VF
422HCI4006	C	C	C	C	M	F	F	F



C113

UGELLI ASJ®
ASJ® NOZZLE
BOQUILLAS ASJ®

HOLLOWCONE AIR 60°

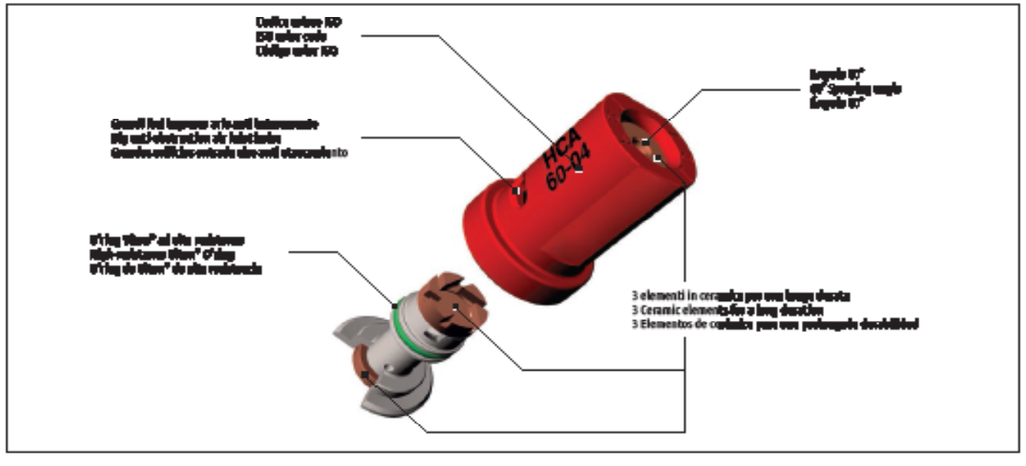
- Ugello a cono vuoto con inserto in ceramica e corpo in Delrin®.
- Il getto creato da HCA60 garantisce una copertura ottimale per ridurre solo il rischio di deriva del prodotto.
- Adatto per l'utilizzo su atomizzatore.
- Il cappuccio esterno stampato in Delrin®, unito a l'inserto in ceramica conferisce eccezionali caratteristiche di durata.
- Adatto per trattamenti con erbicidi, fungicidi ed insetticidi.

- Hollowcone nozzle with ceramic insert and Delrin® body.
- HCA60 spray ensures excellent spraying range, yet reducing the product drift.
- Suitable for mounted sprayers.
- Their Delrin®-molded outer body, together with their ceramic insert, ensures an exceptionally long useful life.
- Suitable for herbicides, fungicides and pesticides.

- Boquilla de cono vacío con inserto de cerámica y cuerpo en Delrin®.
- El chorro creado por HCA60 garantiza una adecuada cobertura para reducir solo el riesgo de deriva del producto.
- Adecuado para el uso en atomizador.
- El cuerpo exterior moldeado en Delrin®, junto al inserto de cerámica, le otorga excepcionales características de durabilidad.
- Adecuado para tratamientos con herbicidas, fungicidas e insecticidas.

COD. CODE COD.	(l/min)																	
	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar	11 bar	12 bar	13 bar	14 bar	15 bar	16 bar	17 bar	18 bar	19 bar	20 bar
422HCA0600075	0.30	0.35	0.39	0.42	0.46	0.49	0.52	0.55	0.57	0.60	0.62	0.65	0.67	0.69	0.71	0.73	0.75	0.77
422HCA06001	0.40	0.46	0.52	0.57	0.61	0.65	0.69	0.73	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.03
422HCA060015	0.60	0.69	0.77	0.85	0.92	0.98	1.04	1.10	1.15	1.20	1.25	1.30	1.34	1.39	1.43	1.47	1.51	1.55
422HCA06002	0.80	0.92	1.03	1.13	1.22	1.31	1.39	1.46	1.53	1.60	1.67	1.73	1.79	1.85	1.90	1.96	2.01	2.07
422HCA060025	1.00	1.15	1.29	1.41	1.53	1.63	1.73	1.83	1.91	2.00	2.08	2.16	2.24	2.31	2.38	2.45	2.52	2.58
422HCA06003	1.20	1.39	1.55	1.70	1.83	1.96	2.08	2.19	2.30	2.40	2.50	2.59	2.68	2.77	2.86	2.94	3.02	3.10
422HCA060035	1.40	1.62	1.81	1.98	2.14	2.29	2.42	2.56	2.68	2.80	2.91	3.02	3.13	3.23	3.33	3.43	3.52	3.61
422HCA06004	1.60	1.85	2.07	2.26	2.44	2.61	2.77	2.92	3.06	3.20	3.33	3.46	3.58	3.70	3.81	3.92	4.03	4.13
422HCA06005	2.00	2.31	2.58	2.83	3.06	3.27	3.46	3.65	3.83	4.00	4.16	4.32	4.47	4.62	4.76	4.90	5.03	5.16
422HCA06006	2.40	2.77	3.10	3.39	3.67	3.92	4.16	4.38	4.60	4.80	5.00	5.18	5.37	5.54	5.71	5.88	6.04	6.20

$$\text{Vol. (l/ha)} = \frac{\text{l/min x n x 600}}{\text{km/h x D (m)}}$$



ARAG® Nozzles - canopy spraying

HOLLOWCONE AIR 80°

UGELLI ASJ®
ASJ® NOZZLE
BOQUILLAS ASJ®

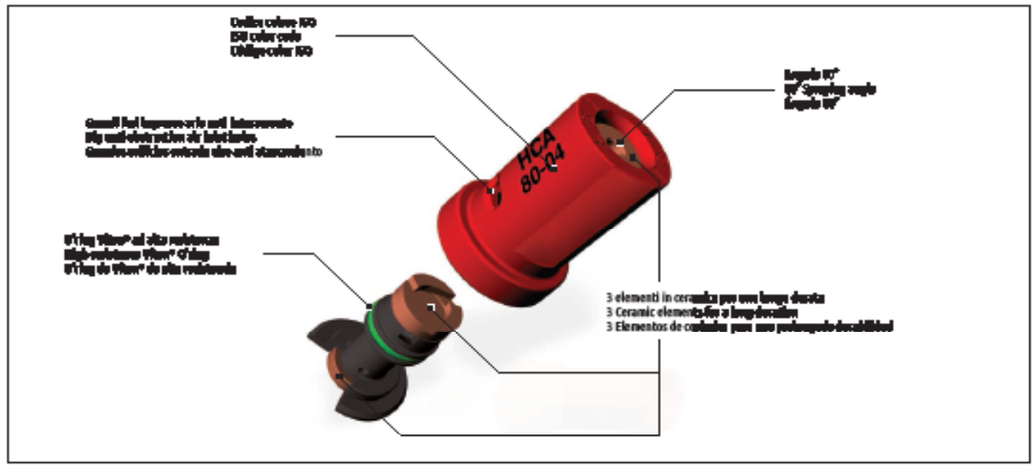
C113

- Ugello a cono vuoto con inserto in ceramica e corpo in Delrin®.
- Il getto creato da HCAIR garantisce una copertura ottimale per ridurre solo il rischio di deriva del prodotto.
- Adatto per l'utilizzo su atomizzatore.
- Il corpo esterno stampato in Delrin®, unito a l'inserto in ceramica conferisce eccezionali caratteristiche di durata.
- Adatto per trattamenti con erbicidi, fungicidi ed insetticidi.

- Hollowcone nozzle with ceramic insert and Delrin® body.
- HCAIR spray ensures excellent spanning range, yet reducing the product drift.
- Suitable for orchard sprayers.
- Their Delrin® moulded outer body, together with their ceramic insert, ensures an exceptionally long useful life.
- Suitable for herbicides, fungicides and pesticides.

- Boquilla de cono vacío con inserto de cerámica y cuerpo en Delrin®.
- El chorro creado por HCAIR garantiza una cobertura óptima reduciendo el riesgo de deriva del producto.
- Adecuado para el uso en atomizador.
- El cuerpo exterior moldeado en Delrin®, junto al inserto de cerámica, le otorga excepcionales características de durabilidad.
- Adecuado para tratamientos con herbicidas, fungicidas e insecticidas.

COD. CODE CÓD.	(l/min)																	
	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar	11 bar	12 bar	13 bar	14 bar	15 bar	16 bar	17 bar	18 bar	19 bar	20 bar
422HCA08001	0.40	0.46	0.52	0.57	0.61	0.65	0.69	0.73	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.03
422HCA080015	0.60	0.69	0.77	0.85	0.92	0.98	1.04	1.10	1.15	1.20	1.25	1.30	1.34	1.39	1.43	1.47	1.51	1.55
422HCA08002	0.80	0.92	1.03	1.13	1.22	1.31	1.39	1.46	1.53	1.60	1.67	1.73	1.79	1.85	1.90	1.96	2.01	2.07
422HCA080025	1.00	1.15	1.29	1.41	1.53	1.63	1.73	1.83	1.91	2.00	2.08	2.16	2.24	2.31	2.38	2.45	2.52	2.58
422HCA08003	1.20	1.39	1.55	1.70	1.83	1.96	2.08	2.19	2.30	2.40	2.50	2.59	2.68	2.77	2.86	2.94	3.02	3.10
422HCA080035	1.40	1.62	1.81	1.98	2.14	2.29	2.42	2.56	2.68	2.80	2.91	3.02	3.13	3.23	3.33	3.43	3.52	3.61
422HCA08004	1.60	1.85	2.07	2.26	2.44	2.61	2.77	2.92	3.06	3.20	3.33	3.46	3.58	3.70	3.81	3.92	4.03	4.13
422HCA08005	2.00	2.31	2.58	2.83	3.06	3.27	3.46	3.65	3.83	4.00	4.16	4.32	4.47	4.62	4.73	4.90	5.03	5.16



Braglia® Nozzles - canopy spraying

Braglia has been making nozzles for many years. An Itralian company, they have specialised in producing brass nozzle components using ceramic tips in their own range of nozzles.

For horticulture, two of the nozzles most commonly used are the M51 cone nozzle and the larger gun nozzle for higher application rates (gun nozzle information on next page).

The M61 is a very useful small nozzle for use in higher pressure systems. Commonly used without any air assistance, it is often used in small vineyards and berry-fruit gardens. It is adjustable for direction and the spray pattern is also adjustable for angle.

Nozzle tips can be changed as required.

Nozzle size	Performance	Pressure					
		15 bar		30 bar		50 bar	
		Cone	Straight	Cone	Straight	Cone	Straight
1.0mm	Flow in L/min Spray Angle Max. throw (m)	1.8 30 deg 2.1	2.3 - 5.0	2.6 35 deg 2.4	3.2 - 5.6	3.4 40 deg 2.8	4.1 - 6.3
1.2mm	Flow in L/min Spray Angle Max. throw (m)	2.4 35 deg 2.3	3.0 - 5.8	3.4 40 deg 2.7	4.2 - 6.1	4.4 45 deg 3.1	5.4 - 6.8
1.5mm	Flow in L/min Spray Angle Max. throw (m)	3.4 40 deg 2.6	4.5 - 6.6	4.8 45 deg 3.0	6.4 - 7.0	6.2 50 deg 3.5	8.3 - 7.7
1.8mm	Flow in L/min Spray Angle Max. throw (m)	3.9 50 deg 2.9	6.9 - 7.0	5.5 55 deg 3.3	9.8 - 7.5	7.1 60 deg 4.0	12.7 - 8.3
2.0mm	Flow in L/min Spray Angle Max. throw (m)	4.5 55 deg 3.1	8.3 - 7.5	6.3 60 deg 3.5	11.7 - 8.0	8.1 65 deg 4.5	15.1 - 8.9
2.3mm	Flow in L/min Spray Angle Max. throw (m)	5.3 60 deg 3.4	11.4 - 8.0	7.5 65 deg 4.0	16.1 - 8.5	9.7 75 deg 4.8	20.8 - 9.3

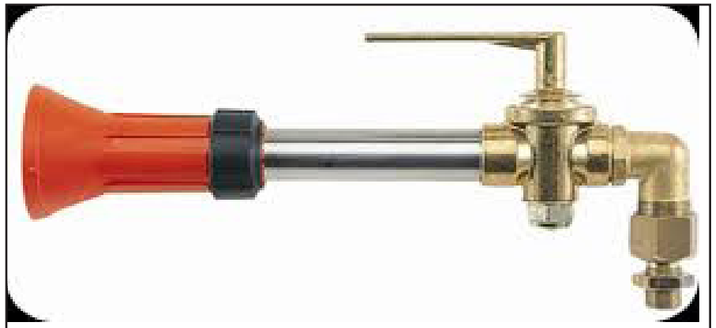
Braglia® Nozzles - canopy spraying

Braglia has been making nozzles for many years. An Itralian company, they have specialised in producing brass nozzle components using ceramic tips in their own range of nozzles.

For horticulture, two of the nozzles most commonly used are the M51 cone nozzle and the larger gun nozzle for higher application rates.

The Turbo Gun jet is often used in a manifold of more than one gun to acheive the desired application. These nozzles have an adjustable pattern using a lever as seen in the image below.

The mounting point allows for the gun to adjusted for angle using a ball-type connction. The most common use on the Turbo Gun jet is to mount them above an axial fan to reach higher up into taller tree crops, with the air assitance helping to drive the droplets produced by the gun into the canopy.



For any further advice on nozzle selection in this guide, be sure to give us as call at Horticultural Spraying Specialists:

Web: www.hortspray.com
E: don@hortspray.com
Ph: 0448 511 771

Under-tree or vine spraying

Under-tree or under-vine spraying is usually broken into two seperate applications:

1. Herbicide application for weed control
2. Nutrients such as liquid fertiliser, soil improvement products and liquid formulations of lime or other similar treatments.

There are many different options. In teh last 10 or so years most horticultural growers have recognised the need to use nozzles that reduce drift of fine droplets, especially when using herbicides.

The nozzle charts are too many and too varied to publish in this document. To make it simple, below is a chart that descibes the most common nozzles suitable for applying herbicides, and some suggestions for nozzles suitable for nutrient

Nozzle type	Image	Use	Spray quality	Most common size used in Horticulture
AirMix® low-drift air induction nozzle		Under tree or vine application of herbicides weeds	Medium to Very Coarse in the 2-4 bar pressure range	#02, #025 and #3 ISO sizes
TeeJet® AIXR low-drift air induction nozzle		Under tree or vine application of herbicides weeds	Coarse to Very Coarse in 3-4 bar presure range	#02, #025 and #3 ISO sizes
ARAG® low-drift air twin nozzle (NEW)		Under tree or vine application with improved coverage of weeds	Coarse to Very Coarse at 3-4 bar spraying pressure	#02, #025 and #3 ISO sizes
Off-centre air induction nozzles (Various manufacturers)		Usually used on the end of a boom to throw further under the tree/vine	Medium to Coarse in 2-3 bar pressure range	#02, #025 and #3 ISO sizes
ARAG® anvil-type deflector 140 nozzle (NEW)		For application of higher rates of soil conditioning products & liquid fertilisers	Medium to Coarse from 1-2 bar pressure (larger sizes)	#03 to #075 (medium sizes)
ALBUZ MSI anvil-type nozzle - ceramic for high wear resistance		For application of higher rates of soil conditioning products & liquid fertilisers	Medium to Very Coarse depending on pressure	#10-#15 for higher application rates