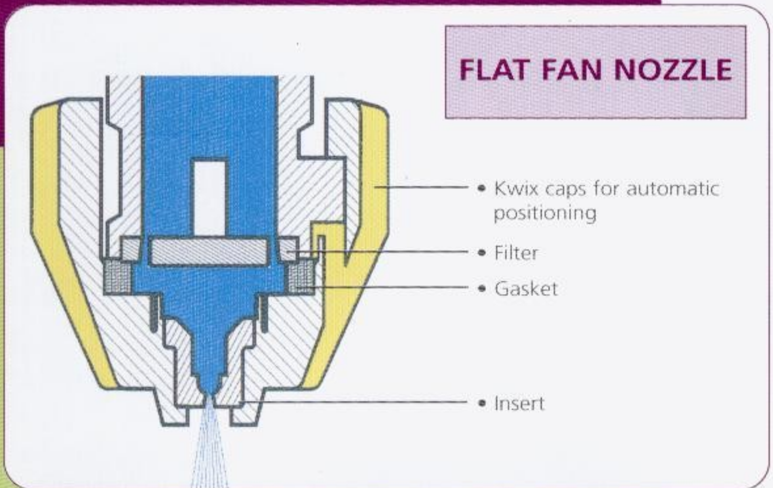
NOZAL

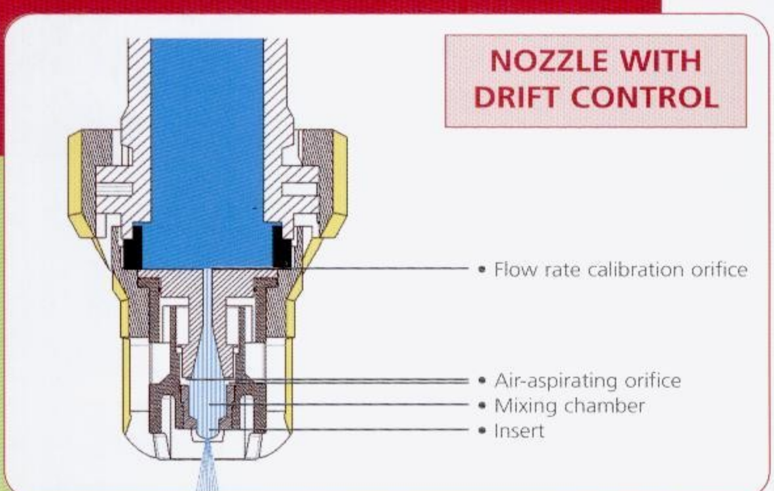
> A broad field of applications

• NOZAL RFX/AFX



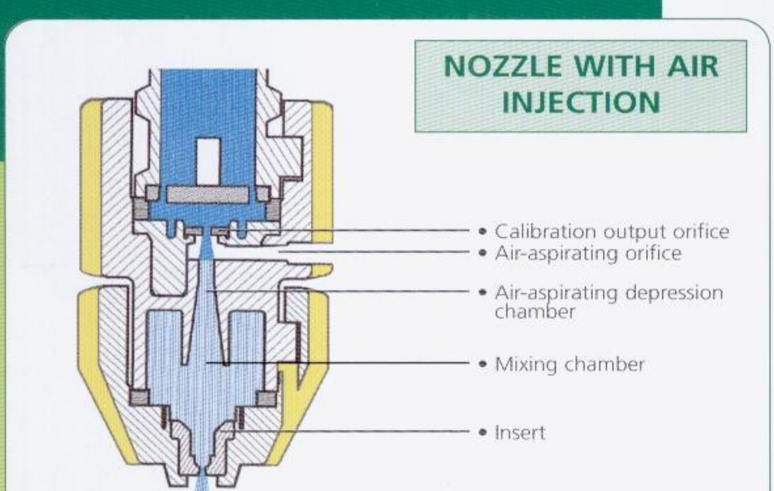
- Conventional flat fan nozzle.
- 80° (low volume/ha, green and yellow nozzles) or 110° spray angle.
- Suited for all applications (herbicide, fungicide, insecticide…) with a wide volume/ha range.
- Available as Tip or Kwix.
- Flow rate in accordance with ISO colour coding.
- Operating pressure between 1,5 and 3 bar for optimum droplet size (200 to 350 μ).
- Available in green, yellow, lilac, blue, red, brown, grey and white.

• NOZAL ADX



- Flat fan nozzle with air injection.
- 120° spray angle.
- Suited for all applications (herbicide, fungicide, insecticide…).
- Environment-friendly (drift control).
- Only available as Kwix.
- Flow rate in accordance with ISO colour coding.
- Operating pressure between 1,5 and 6 bar for medium-sized droplets between 300 and 500 μ.
- Available in green, yellow, lilac, blue, red and brown.

• NOZAL RRX/ARX



- Flat fan nozzle with air-injection.
- 110° spray angle.
- For application under adverse weather conditions and requiring the best possible drift management.
- Environment-friendly (drift control).
- Only available as Kwix.
- Flow rate in accordance with ISO colour coding.
- Operating pressure between 3 and 6 bar for large-sized air-filled droplets allowing the drop to split when it touches the target (350 to 710 μ).
- Available in green, yellow, lilac and blue.

CHARACTERISTICS

NOZZLES	Pressure in bar	Flow rate per nozzle in l/min	Application rate in l/ha according to speed and nozzle spacing 50 cm											
			5 km/h	6 km/h	7 km/h	8 km/h	9 km/h	10 km/h	11 km/h	12 km/h	14 km/h	16 km/h	18 km/h	20 km/h
RFX/AFX RRX/ARX ADX 015 GREEN	1,75	0,44	106	88	75	66	59	53	48	44	38	33	29	26
	2	0,48	115	96	82	72	64	58	52	48	41	36	32	29
	2,5	0,54	130	108	93	81	72	65	59	54	46	41	36	32
	3	0,59	142	118	101	89	79	71	64	59	51	44	39	35
	3,5	0,62	149	124	106	93	83	74	68	62	53	47	41	37
	4	0,68	163	136	117	102	91	82	74	68	58	51	45	41
	5	0,75	180	150	129	113	100	90	82	75	64	56	50	45
	6	0,84	202	168	144	126	112	101	92	84	72	63	56	50
RFX/AFX RRX/ARX ADX 02 YELLOW	1,75	0,60	144	120	103	90	80	72	65	60	51	45	40	36
	2	0,65	156	130	111	98	87	78	71	65	56	49	43	39
	2,5	0,72	173	144	123	108	96	86	79	72	62	54	48	43
	3	0,79	190	158	135	119	105	95	86	79	68	59	53	47
	3,5	0,85	204	170	146	128	113	102	93	85	73	64	57	51
	4	0,91	218	182	156	137	121	109	99	91	78	68	61	55
	5	1,01	242	202	173	152	135	121	110	101	87	76	67	61
	6	1,11	266	222	190	167	148	133	121	111	95	83	74	67
AFX ARX ADX 025 LILAC	1,75	0,77	185	154	132	116	103	92	84	77	66	58	51	46
	2	0,82	197	164	141	123	109	98	89	82	70	62	55	49
	2,5	0,92	221	184	158	138	123	110	100	92	79	69	61	55
	3	1	240	200	171	150	133	120	109	100	86	75	67	60
	3,5	1,08	259	216	185	162	144	130	118	108	93	81	72	65
	4	1,15	276	230	197	173	153	138	125	115	99	86	77	69
	5	1,28	307	256	219	192	171	154	140	128	110	96	85	77
	6	1,4	336	280	240	210	187	168	153	140	120	105	93	84
RFX/AFX RRX/ARX ADX 03 BLUE	1,75	0,90	216	180	154	135	120	108	98	90	77	68	60	54
	2	0,97	233	194	166	146	129	116	106	97	83	73	65	58
	2,5	1,08	259	216	185	162	144	130	118	108	93	81	72	65
	3	1,18	283	236	202	177	157	142	129	118	101	89	79	71
	3,5	1,28	307	256	219	192	171	154	140	128	110	96	85	77
	4	1,37	329	274	235	206	183	164	149	137	117	103	91	82
	5	1,53	367	306	262	230	204	184	167	153	131	115	102	92
	6	1,64	394	328	281	246	219	197	179	164	141	123	109	98
RFX/AFX ADX 04 RED	1,75	1,19	286	238	204	179	159	143	130	119	102	89	79	71
	2	1,29	310	258	221	194	172	155	141	129	111	97	86	77
	2,5	1,44	346	288	247	216	192	173	157	144	123	108	96	86
	3	1,58	379	316	271	237	211	190	172	158	135	119	105	95
	3,5	1,70	408	340	291	255	227	204	185	170	146	128	113	102
	4	1,82	437	364	312	273	243	218	199	182	156	137	121	109
	5	2,03	487	406	348	305	271	244	221	203	174	152	135	122
	6	2,23	535	446	382	335	297	268	243	223	191	167	149	134
RFX/AFX ADX 05 BROWN	1,75	1,50	360	300	257	225	200	180	164	150	129	113	100	90
	2	1,61	386	322	276	242	215	193	176	161	138	121	107	97
	2,5	1,80	432	360	309	270	240	216	196	180	154	135	120	108
	3	1,97	473	394	338	296	263	236	215	197	169	148	131	118
	3,5	2,12	509	424	363	318	283	254	231	212	182	159	141	127
	4	2,28	547	456	391	342	304	274	249	228	195	171	152	137
	5	2,54	610	508	435	381	339	305	277	254	218	191	169	152
	6	2,79	670	558	478	419	372	335	304	279	239	209	186	167
RFX/AFX 06 GREY	1,75	1,80	432	360	309	270	240	216	196	180	154	135	120	108
	2	1,93	463	386	331	290	257	232	211	193	165	145	129	116
	2,5	2,16	518	432	370	324	288	259	236	216	185	162	144	130
	3	2,37	569	474	406	356	316	284	259	237	203	178	158	142
	3,5	2,55	612	510	437	383	340	306	278	255	219	191	170	153
	4	2,74	658	548	470	411	365	329	299	274	235	206	183	164
	5	3,05	732	610	523	458	407	366	333	305	261	229	203	183
	6	3,35	804	670	574	503	447	402	365	335	287	251	223	201
RFX/AFX 08 WHITE	1,75	2,41	578	482	413	362	321	289	263	241	207	181	161	145
	2	2,58	619	516	442	387	344	310	281	258	221	194	172	155
	2,5	2,88	691	576	494	432	384	346	314	288	247	216	192	173
	3	3,16	758	632	542	474	421	379	345	316	271	237	211	190
	3,5	3,41	818	682	585	512	455	409	372	341	292	256	227	205
	4	3,65	876	730	626	548	487	438	398	365	313	274	243	219
	5	4,08	979	816	699	612	544	490	445	408	350	306	272	245
	6	4,48	1075	896	768	672	597	538	489	448	384	336	299	269

AND SPRAY TABLE

NOZZLES	Pressure in bar	Flow rate per in l/min	Application rate in l/ha according to speed and nozzle spacing 50 cm											
			5 km/h	6 km/h	7 km/h	8 km/h	9 km/h	10 km/h	11 km/h	12 km/h	14 km/h	16 km/h	18 km/h	20 km/h
TRIFILET 015 GREEN	1,75	0,39	94	78	67	59	52	47	43	39	33	29	26	23
	2	0,42	101	84	72	63	56	50	46	42	36	32	28	25
	2,5	0,48	115	96	28	72	64	58	52	48	41	36	32	29
	3	0,52	125	104	89	78	69	62	57	52	45	39	35	31
	3,5	0,55	132	110	94	83	73	66	60	55	47	41	37	33
	4	0,60	144	120	103	90	80	72	65	60	51	45	40	36
	5	0,66	158	132	113	99	88	79	72	66	57	50	44	40
TRIFILET 02 YELLOW	1,75	0,53	127	106	91	80	71	64	58	53	45	40	35	32
	2	0,57	137	114	98	86	76	68	62	57	49	43	38	34
	2,5	0,63	151	126	108	95	84	76	69	63	54	47	42	38
	3	0,70	168	140	120	105	93	84	76	70	60	53	47	42
	3,5	0,75	180	150	129	113	100	90	82	75	64	56	50	45
	4	0,80	192	160	137	120	107	96	87	80	69	60	53	48
	5	0,89	214	178	153	134	119	107	97	89	76	67	59	53
TRIFILET 025 LILAC	1,75	0,67	161	134	115	101	89	80	73	67	57	50	45	40
	2	0,71	170	142	122	107	95	85	77	71	61	53	47	43
	2,5	0,8	192	160	137	120	107	96	87	80	69	60	53	48
	3	0,88	211	176	151	132	117	106	96	88	75	66	59	53
	3,5	0,95	228	190	163	143	127	114	104	95	81	71	63	57
	4	1	240	200	171	150	133	120	109	100	86	75	67	60
	5	1,12	269	224	192	168	149	134	122	112	96	84	75	88
TRIFILET 03 BLUE	1,75	0,79	190	158	135	119	105	95	86	79	68	59	53	47
	2	0,85	204	170	146	128	113	102	93	85	73	64	57	51
	2,5	0,95	228	190	163	144	127	114	104	95	81	71	63	57
	3	1,04	250	208	178	156	139	125	113	104	89	78	69	62
	3,5	1,13	271	226	194	170	151	136	123	113	97	85	75	68
	4	1,20	288	240	206	180	160	144	131	120	103	90	80	72
	5	1,35	324	270	231	203	180	162	147	135	116	101	90	81
TRIFILET 04 RED	1,75	1,05	252	210	180	158	140	126	115	105	90	79	70	63
	2	1,14	274	228	195	171	152	137	124	114	98	86	76	68
	2,5	1,27	305	254	218	191	169	152	139	127	109	95	85	76
	3	1,39	334	278	238	209	185	167	152	139	119	104	93	83
	3,5	1,50	360	300	257	225	200	180	164	150	129	113	100	90
	4	1,60	384	320	274	240	213	192	175	160	137	120	107	96
	5	1,79	440	358	307	269	239	215	195	179	153	134	119	107
TRIFILET 05 BROWN	1,75	1,32	317	264	226	198	176	158	144	132	113	99	88	79
	2	1,42	341	284	243	213	189	170	155	142	122	107	95	85
	2,5	1,58	379	316	271	237	211	190	172	158	135	119	105	95
	3	1,73	415	346	297	260	231	208	189	173	148	130	115	104
	3,5	1,87	449	374	321	281	249	224	204	187	160	140	125	112
	4	2,00	480	400	343	300	267	240	218	200	171	150	133	120
	5	2,23	535	446	382	335	297	268	243	223	191	167	149	134
TRIFILET 06 GREY	1,75	1,58	379	316	271	237	211	190	172	158	135	119	105	95
	2	1,70	408	340	291	255	227	204	185	170	146	128	113	102
	2,5	1,90	456	380	326	285	253	228	207	190	163	143	127	114
	3	2,09	502	418	358	314	279	251	228	209	179	157	139	125
	3,5	2,24	538	448	384	336	299	269	244	224	192	168	149	134
	4	2,41	587	482	413	362	321	289	263	241	207	181	161	145
	5	2,68	643	536	459	402	357	322	292	268	230	201	179	161
TRIFILET 08 WHITE	1,75	2,11	506	422	362	317	281	253	230	211	181	158	141	127
	2	2,26	542	452	387	339	301	271	247	226	194	170	151	136
	2,5	2,53	607	506	434	380	337	304	276	253	217	190	169	152
	3	2,77	665	554	475	416	369	332	302	277	237	208	185	166
	3,5	2,99	718	598	513	449	399	359	326	299	256	224	199	179
	4	3,2	768	640	549	480	427	384	349	320	274	240	213	192
	5	3,58	859	716	614	537	477	430	391	358	307	269	239	215

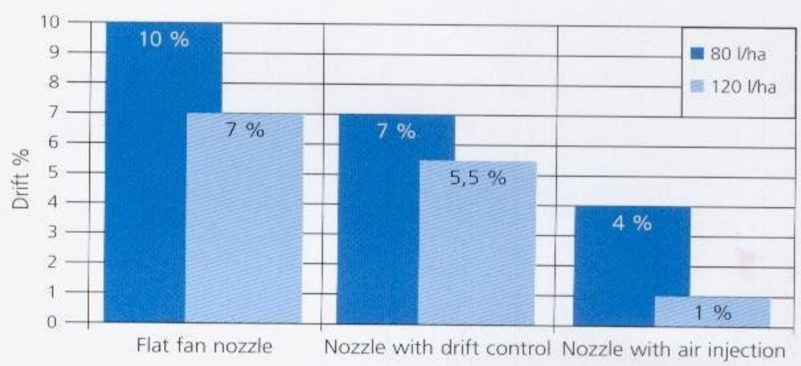
The volume/ha is given for flow rate with liquid fertiliser with a clear liquid with 1.3 density

DIFFERENT WAYS TO FIGHT against drift

Used principle	Means used	Type concerned
Reduce the percentage of small droplets	Increase the volume/ha with nozzles with larger exit orifice	NOZAL AFX or RFX 110° (flat fan nozzle)
	Increased operating speed and nozzles with larger exit orifice	NOZAL AFX or RFX 110° (flat fan nozzle)
	Support the droplets with air	NOZAL ADX (nozzle with drift control)
	Support the droplets with air	NOZAL RRX/ARX (nozzle with air injection)

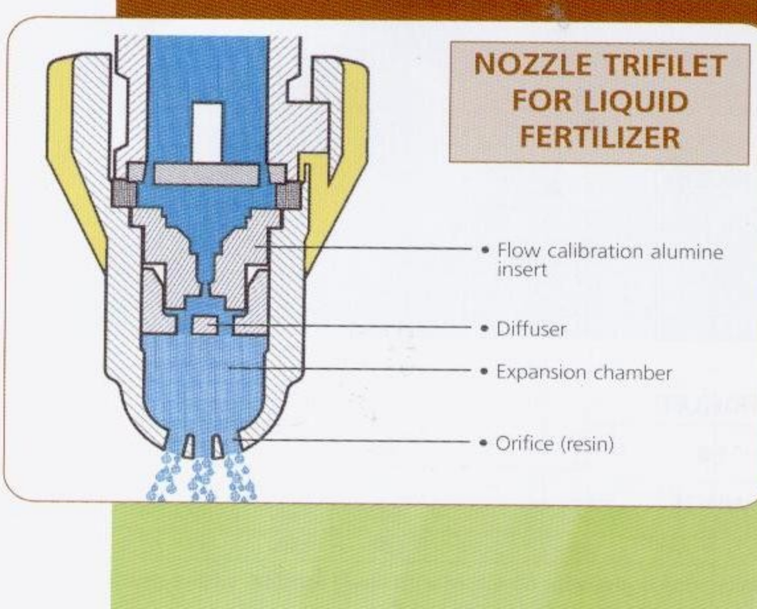
IMPACT OF NOZZLE TYPE and volume/ha on drift

Wind velocity 3,5m/sec. ITCF base.



• NOZAL TRIFILET

- 3 orifice nozzle for application of liquid fertiliser without risk of damage to leaf surface.
- Only available as Kwix.
- Flow rate in accordance with ISO colour coding.
- Available in green, yellow, lilac, blue, red, brown, grey and white.



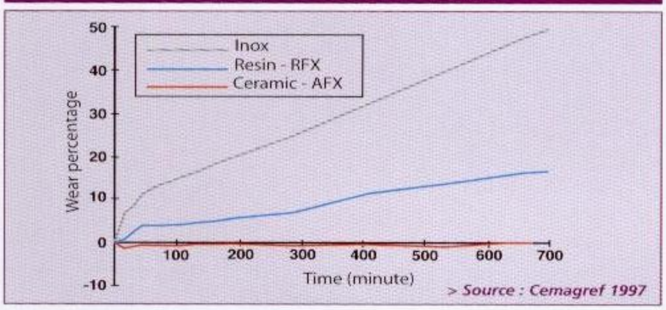
• MATERIAL :

Our nozzles are available either in sintered alumina or in synthetic resin.

- **Resin :** nozzles RFX or RRX, injected synthetic resin, which wears well for a reasonable investment.
- **Ceramic :** nozzles AFX, ADX or ARX in white sintered alumine, very hard-wearing material (nearly as hard as diamond) for long lasting stability of the nozzles characteristics and performances : flow rate, coverage and droplet size.

Tests done by CEMAGREPH according to standard ISO 5682/1, showed excellent wear resistance of the NOZAL nozzles.

COMPARATIVE WEAR TEST FOR
DIFFERENT NOZZLES MATERIALS



> Source : Cemagref 1997

• SAFE AND QUICK SELECTION :

The nozzle bodies and caps are of coloured resin for easy and immediate identification of the flow rate of the nozzles fitted to the boom. The colour coding system complies with ISO 10625 standards.

• FLOW RATE CONTROL :

Whatever nozzle types you use, it is important to check them regularly : clogging, damage, etc.
Check the flow rate of each nozzle twice or three times a year. When their flow exceeds the flow of a new nozzle by 10 %, they should be replaced.

• NOZZLE BODIES :

Nozal nozzles are available in two different forms :

- **Tips :** conventional nozzles with standardised dimensions to fit most nozzle holders and caps. Tips can be provided with lugs to ease their positioning.
- **Kwix :** monobloc set combining a nozzle insert with a bayonet cap easy and quick to install on ISO nozzle holders.

NOZZLE TYPE	PRESENTATION	
	Tips 	Kwix 
RFX/AFX	▲	▲
RRX/ARX		▲
ADX		▲
TRIFILET		▲

• BOOM HEIGHT ADJUSTMENT :

The distance between the target and the boom influences the distribution's uniformity.

This height is based on :

- Spray angle : 80° or 110/120°,
- Nozzle spacing : 50 or 33 cm
- Meteorological factors (i.e. wind).

Generally, good spray coverage is achieved by double or triple overlapping.

	80°	110/120°
• Double overlap.	70/80 cm	45/55 cm
• Triple overlap.	110/120 cm	70/75 cm

• QUALITY :

Each nozzle is automatically tested to insure that variation from nominal flow rate is within +5/-5 % tolerance (+ or – 5 % regarding French standard AFNOR NF U26.110)

YOUR DEALER

AGROMIX ROJĘCZYN

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NOZAL
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