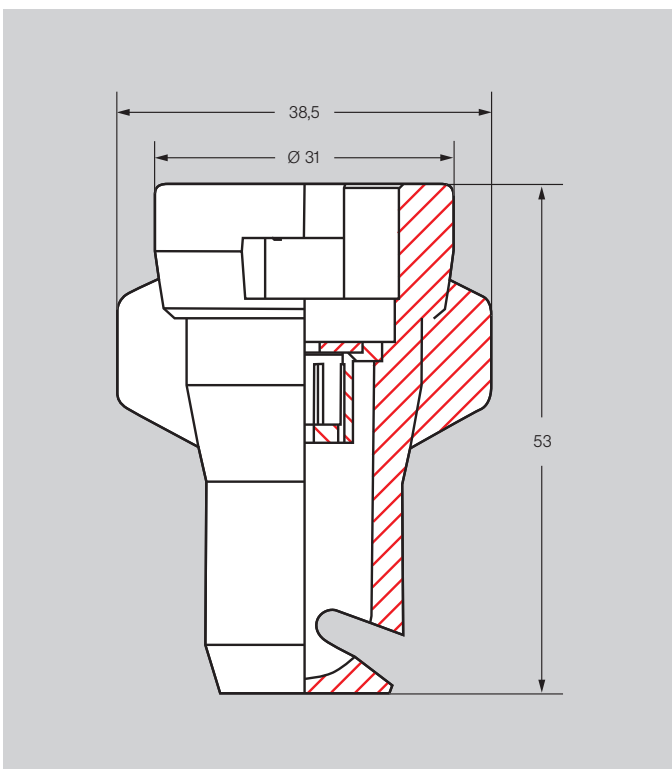




**NEW!**



## FD-nozzles for liquid fertilizer application

### Features

- Flatspray nozzle with horizontal jet formation
- Nozzle and cap one piece, fits to standard nozzle holder system MULTJET
- Intermediate adapter for nozzle holder system Lechler Twistloc, e.g. Holder, Amazone, Schmotzer; Rau and Hardi on request
- Nozzle sizes available 04, 05, 06, 08, 10, 15, 20
- Pressure range: 1.5 to 4.0 bar
- Material: POM
- Hard wearing and corrosion resistant
- ISO colour coded for easy identification
- Height of spray boom:  
50 to 70 cm at 50 cm lateral nozzle spacing

### Range of application

- Liquid fertilizer
- Irrigation
- Watering car
- Turfgrass spraying

### Advantages of FD-nozzles

- Extremely gentle application of fertilizer by horizontal jet formation
- Danger of crop scorch reduced to a minimum by extreme coarse droplets
- Optimised cross distribution across the spray boom according to JKI (former BBA) requirements for flat fan nozzles
- No streaking anymore in the crop
- Considerable less clogging than multi orifice nozzles
- Fits to all current boom types as the nozzle tip is placed distinct lower
- Removal of dosing orifice for cleaning purpose without tools

# Spray tables for FD-nozzles




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**NEW**

**NEW**

Nozzle (  )	[bar]	l/min		l UAN/ha										
		Water	UAN	5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	9.0 km/h	10.0 km/h	11.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
<b>FD 04</b> (60 M)	1.5	1.13	1.00	240	200	171	150	133	120	109	100	86	75	67
	2.0	1.31	1.15	276	230	197	173	153	138	125	115	99	86	77
	2.5	1.46	1.29	310	258	221	194	172	155	141	129	111	97	86
	3.0	1.60	1.41	338	282	241	211	188	169	154	141	121	106	94
	4.0	1.85	1.63	391	326	279	245	217	196	178	163	140	122	109
<b>FD 05</b> (25 M)	1.5	1.41	1.24	298	248	213	186	165	149	135	124	106	93	83
	2.0	1.63	1.44	346	288	247	216	192	173	157	144	123	108	96
	2.5	1.83	1.61	386	322	276	242	215	193	176	161	138	121	107
	3.0	2.00	1.76	422	352	302	264	235	211	192	176	151	132	117
	4.0	2.31	2.03	487	406	348	305	271	244	221	203	174	152	135
<b>FD 06</b> (25 M)	1.5	1.70	1.49	358	298	255	224	199	179	163	149	128	112	99
	2.0	1.96	1.72	413	344	295	258	229	206	188	172	147	129	115
	2.5	2.19	1.93	463	386	331	290	257	232	211	193	165	145	129
	3.0	2.40	2.11	507	422	362	317	282	253	230	211	181	158	141
	4.0	2.77	2.44	586	488	418	366	325	293	266	244	209	183	163
<b>FD 08</b> (25 M)	1.5	2.26	1.99	478	398	341	299	265	239	217	199	171	149	133
	2.0	2.61	2.30	552	460	394	345	307	276	251	230	197	173	153
	2.5	2.92	2.57	617	514	441	386	343	308	280	257	220	193	171
	3.0	3.20	2.82	676	563	483	422	375	338	307	282	241	211	188
	4.0	3.70	3.25	780	650	557	488	433	390	355	325	279	244	217
<b>FD 10</b> (25 M)	1.5	2.83	2.49	598	498	427	374	332	299	272	249	214	187	166
	2.0	3.27	2.88	689	576	492	432	383	345	313	287	246	215	192
	2.5	3.65	3.21	770	642	550	482	428	385	350	321	275	241	214
	3.0	4.00	3.52	845	704	603	528	469	422	384	352	302	264	235
	4.0	4.62	4.07	974	813	696	610	541	488	443	406	348	305	271
<b>FD 15</b> (25 M)	1.5	4.24	3.73	895	746	639	560	497	448	407	373	319	280	249
	2.0	4.90	4.31	1034	862	739	647	575	517	470	431	370	323	288
	2.5	5.48	4.82	1157	964	826	723	643	579	526	482	414	362	321
	3.0	6.00	5.28	1267	1056	905	792	704	634	576	528	452	396	352
	4.0	6.93	6.10	1464	1220	1046	915	813	732	665	610	523	458	407
<b>FD 20</b> (25 M)	1.5	5.66	4.98	1195	996	854	747	664	598	543	498	427	374	332
	2.0	6.53	5.75	1380	1149	986	862	767	690	627	575	493	431	383
	2.5	7.30	6.42	1543	1285	1102	964	857	771	701	643	551	482	429
	3.0	8.00	7.04	1690	1408	1207	1056	939	845	768	704	604	528	469
	4.0	9.24	8.13	1951	1626	1394	1220	1084	976	887	813	697	610	542

## Conversion factors for different densities

Density of sprayed liquid	0.84	0.96	1.00 Water	1.11 Urea	1.24 ASL	1.28 UAN (28)	1.32 UAN (30)	1.38 NP-solution	1.44	1.50
Conversion factor	1.09	1.02	1.00	0.95	0.90	0.88	0.87	0.85	0.83	0.81

ASL: Ammonium sulfate UAN: Urea ammoniumnitrate

Convert as follows:

$$\begin{array}{|c|} \hline \text{Flow rate of water} \\ \text{(see table)} \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{Conversion factor} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{actual flow rate} \\ \text{of medium} \\ \hline \end{array}$$

Data to density from fertilizer manufacturer have to be considered.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve).
- The stated liter-per-hectare rates apply to UAN (UAN 28/1.28 kg/l) respectively water.
- Prior to each spraying season, verify the table data by gauging the flow rates.
- Make sure that all nozzles have the same settings.