

# RX Series Spray dry nozzles

In addition to spray dry nozzles with a core, nozzles with a whirlchamber are also available. These nozzles can be mounted and dismantled without tools. For the QRX a quick coupling even allows mounting and dismantling the complete nozzle. Major advantage is that the nozzle can be pre-assembled for instance in the workshop or control room and only has to be clicked on the lance.

Our orifice disks and whirlchambers cores are made from a special micron grade tungsten carbide to provide excellent corrosion and abrasion resistance. All of our products are manufactured to the latest standards and exacting tolerances. Every part is separately tested before delivery.

## Spray Performance

The RX series provides a uniform hollow cone spray distribution with flow rates from 65 liters per hour @ 50 bar up to 6777 liters per hour @ 450 bar and associated spray angles from 50° to 90°.

Because of the reduced resistance, the RX Series generally operates at pressures up to 20% lower than for instance model BX.

## Design

As standard, the body and nozzle cap are made of SS 303 and SS 316. The body can be mounted using thread, but versions are also available that can be welded onto the lance. The latest version features a quick coupling, suitable for pressures up to 350 bar. You only have to push a button to dismount the complete nozzle. See page A4 for ordering information. Providing the nozzle cap with a tapered outlet usually prevents bearding.

The whirlchamber and orifice disc are pressed down by a spring that also serves as anti-drip valve. This construction makes the free passage of this design much wider than in conventional models, reducing the risk of pressure buildup caused by clogging. Because there are few internal components, less turbulence develops in the inlet to the swirl chamber.

The design only has 8 parts, including the anti-drip valve. That is the same number of parts as used in conventional models without check valve.

All parts are made of FDA-approved materials.

## Whirlchamber

The section of the whirlchamber that is subject to wear, is made of tungsten carbide and it has an SS tail on which the anti-drip valve spring is placed.

The tail is also used to mount and dismount the whirlchamber.

The whirlchamber is also available in the conventional version without tail.

The bottom of the whirlchamber has been polished completely smooth to close up tightly with the orifice disc.

## Orifice disc

Production of the tungsten carbide orifice discs requires a high degree of accuracy to be able to guarantee optimum metering. The orifice disc has a tapering outlet to ensure that the liquid is sent to the orifice in a smooth manner. For easy identification the orifice discs bear a laser-engraved code.

## Anti-drip valve

The RX nozzles can be supplied with or without a built-in anti-drip valve. The standard opening and closing pressure of the valve is 10 bar.

The anti-drip valve can be mounted and dismantled without tools. The shut-off part is available in tungsten carbide or special synthetic material.

With this design there is no need for washers to seal the valve. The anti-drip valve prevent fouling of the tower.

RX



RX-H



RX-71



RX-H



orifice disc	orifice in mm	Whirl-chamber	Capacity (ltr/hr) @ various pressures (bar)										Approx. spray angle
			50	75	100	150	200	250	300	350	400	450	
RX-34	0.86	RX-B	65	79	91	112	129	144	158	171	183	194	70°
RX-37	0.94	RX-A	65	79	91	112	129	144	158	171	183	194	80°
RX-34	0.86	RX-C	81	100	115	141	163	182	199	215	230	244	61°
RX-40	1.02	RX-B	81	100	115	141	163	182	199	215	230	244	75°
RX-49	1.25	RX-A	81	100	115	141	163	182	199	215	230	244	84°
RX-34	0.86	RX-D	97	119	137	168	194	216	237	256	274	290	60°
RX-40	1.02	RX-C	97	119	137	168	194	216	237	256	274	290	72°
RX-58	1.47	RX-A	97	119	137	168	194	216	237	256	274	290	84°
RX-34	0.86	RX-E	112	138	159	195	225	251	275	297	318	337	51°
RX-40	1.02	RX-D	112	138	159	195	225	251	275	297	318	337	66°
RX-55	1.40	RX-B	112	138	159	195	225	251	275	297	318	337	81°
RX-70	1.78	RX-A	112	138	159	195	225	251	275	297	318	337	90°
RX-37	0.94	RX-E	129	158	183	224	258	289	316	342	365	387	55°
RX-49	1.25	RX-D	129	158	183	224	258	289	316	342	365	387	64°
RX-49	1.25	RX-C	129	158	183	224	258	289	316	342	365	387	76°
RX-61	1.55	RX-B	129	158	183	224	258	289	316	342	365	387	85°
RX-37	0.94	RX-F	145	177	205	250	289	323	354	383	409	434	51°
RX-40	1.02	RX-E	145	177	205	250	289	323	354	383	409	434	59°
RX-55	1.40	RX-C	145	177	205	250	289	323	354	383	409	434	75°
RX-70	1.78	RX-B	145	177	205	250	289	323	354	383	409	434	86°
RX-40	1.02	RX-F	161	198	228	279	323	361	395	427	456	484	52°
RX-43	1.09	RX-E	161	198	228	279	323	361	395	427	456	484	63°
RX-52	1.32	RX-D	161	198	228	279	323	361	395	427	456	484	69°
RX-61	1.55	RX-C	161	198	228	279	323	361	395	427	456	484	80°
RX-76	1.93	RX-B	161	198	228	279	323	361	395	427	456	484	90°
RX-43	1.09	RX-F	177	217	250	306	354	396	433	468	500	531	53°
RX-49	1.25	RX-E	177	217	250	306	354	396	433	468	500	531	61°
RX-57	1.47	RX-D	177	217	250	306	354	396	433	468	500	531	70°
RX-67	1.70	RX-C	177	217	250	306	354	396	433	468	500	531	79°
RX-46	1.17	RX-F	194	237	274	335	387	433	474	512	548	581	55°
RX-52	1.32	RX-E	194	237	274	335	387	433	474	512	548	581	66°
RX-70	1.78	RX-C	194	237	274	335	387	433	474	512	548	581	80°
RX-52	1.32	RX-F	226	277	319	391	452	505	553	598	639	678	56°
RX-58	1.47	RX-E	226	277	319	391	452	505	553	598	639	678	63°
RX-70	1.78	RX-D	226	277	319	391	452	505	553	598	639	678	76°
RX-82	2.08	RX-C	226	277	319	391	452	505	553	598	639	678	84°
RX-49	1.25	RX-G	258	316	365	447	516	577	632	683	730	775	53°
RX-55	1.40	RX-F	258	316	365	447	516	577	632	683	730	775	59°
RX-64	1.63	RX-E	258	316	365	447	516	577	632	683	730	775	71°
RX-76	1.93	RX-D	258	316	365	447	516	577	632	683	730	775	80°
RX-94	2.39	RX-C	258	316	365	447	516	577	632	683	730	775	90°
RX-52	1.32	RX-G	290	356	411	503	581	649	711	768	821	871	52°
RX-61	1.55	RX-F	290	356	411	503	581	649	711	768	821	871	59°
RX-70	1.78	RX-E	290	356	411	503	581	649	711	768	821	871	69°
RX-82	2.08	RX-D	290	356	411	503	581	649	711	768	821	871	78°
RX-106	2.69	RX-C	290	356	411	503	581	649	711	768	821	871	90°
RX-58	1.47	RX-G	323	395	456	559	645	722	790	854	913	968	56°
RX-64	1.63	RX-F	323	395	456	559	645	722	790	854	913	968	64°
RX-91	2.31	RX-D	323	395	456	559	645	722	790	854	913	968	80°
RX-61	1.55	RX-G	355	435	502	615	710	794	870	939	1004	1065	55°
RX-70	1.78	RX-F	355	435	502	615	710	794	870	939	1004	1065	90°
RX-82	2.08	RX-E	355	435	502	615	710	794	870	939	1004	1065	75°
RX-100	2.54	RX-D	355	435	502	615	710	794	870	939	1004	1065	84°
RX-64	1.63	RX-G	387	474	548	671	775	866	949	1025	1095	1162	55°
RX-76	1.93	RX-F	387	474	548	671	775	866	949	1025	1095	1162	65°
RX-88	2.24	RX-E	387	474	548	671	775	866	949	1025	1095	1162	76°
RX-109	2.77	RX-D	387	474	548	671	775	866	949	1025	1095	1162	85°
RX-67	1.70	RX-H	483	591	683	836	966	1080	1183	1278	1366	1449	51°
RX-76	1.93	RX-G	483	591	683	836	966	1080	1183	1278	1366	1449	62°
RX-88	2.24	RX-F	483	591	683	836	966	1080	1183	1278	1366	1449	73°
RX-109	2.77	RX-E	483	591	683	836	966	1080	1183	1278	1366	1449	78°
RX-133	3.38	RX-D	483	591	683	836	966	1080	1183	1278	1366	1449	90°

orifice disc	orifice in mm	Whirl-chamber	Capacity (ltr/hr) @ various pressures (bar)										Approx. sprayangle
			50	75	100	150	200	250	300	350	400	450	
RX-76	1.93	RX-H	580	710	820	1004	1159	1296	1420	1534	1640	1739	51°
RX-85	2.16	RX-G	580	710	820	1004	1159	1296	1420	1534	1640	1739	64°
RX-103	2.62	RX-F	580	710	820	1004	1159	1296	1420	1534	1640	1739	74°
RX-127	3.23	RX-E	580	710	820	1004	1159	1296	1420	1534	1640	1739	86°
RX-82	2.08	RX-H	676	829	957	1172	1353	1513	1657	1790	1913	2029	55°
RX-97	2.46	RX-G	676	829	957	1172	1353	1513	1657	1790	1913	2029	66°
RX-115	2.92	RX-F	676	829	957	1172	1353	1513	1657	1970	1913	2029	75°
RX-142	3.61	RX-E	676	829	957	1172	1353	1513	1657	1970	1913	2029	86°
RX-82	2.08	RX-I	773	947	1094	1339	1547	1729	1894	2046	2187	2320	51°
RX-91	2.31	RX-H	773	947	1094	1339	1547	1729	1894	2046	2187	2320	63°
RX-106	2.69	RX-G	773	947	1094	1339	1547	1729	1894	2046	2187	2320	72°
RX-127	3.23	RX-F	773	947	1094	1339	1547	1729	1894	2046	2187	2320	81°
RX-88	2.24	RX-I	870	1066	1231	1507	1740	1946	2131	2302	2461	2610	50°
RX-100	2.54	RX-H	870	1066	1231	1507	1740	1946	2131	2302	2461	2610	60°
RX-118	3.0	RX-G	870	1066	1231	1507	1740	1946	2131	2302	2461	2610	72°
RX-142	3.61	RX-F	870	1066	1231	1507	1740	1946	2131	2302	2461	2610	79°
RX-94	2.39	RX-I	967	1184	1367	1675	1934	2162	2369	2558	2735	2901	54°
RX-106	2.69	RX-H	967	1184	1367	1675	1934	2162	2369	2558	2735	2901	67°
RX-127	3.23	RX-G	967	1184	1367	1675	1934	2162	2369	2558	2735	2901	74°
RX-154	3.91	RX-F	967	1184	1367	1675	1934	2162	2369	2558	2735	2901	86°
RX-106	2.69	RX-I	1128	1382	1596	1954	2257	2523	2764	2985	3191	3385	56°
RX-121	3.07	RX-H	1128	1382	1596	1954	2257	2523	2764	2985	3191	3385	65°
RX-145	3.68	RX-G	1128	1382	1596	1954	2257	2523	2764	2985	3191	3385	77°
RX-103	2.62	RX-J	1291	1581	1826	2236	2582	2886	3162	3415	3651	3873	50°
RX-115	2.92	RX-I	1291	1581	1826	2236	2582	2886	3162	3415	3651	3873	59°
RX-133	3.38	RX-H	1291	1581	1826	2236	2582	2836	3162	3415	3651	3873	68°
RX-110	2.79	RX-J	1446	1771	2045	2505	2892	3234	3543	3826	4091	4339	50°
RX-127	3.23	RX-I	1446	1771	2045	2505	2892	3234	3543	3826	4091	4339	59°
RX-145	3.68	RX-H	1446	1771	2045	2505	2892	3234	3543	3826	4091	4339	71°
RX-118	3.0	RX-J	1614	1976	2282	2795	3227	3608	3952	4269	4564	4841	56°
RX-136	3.45	RX-I	1614	1976	2282	2795	3227	3608	3952	4269	4564	4841	66°
RX-157	3.99	RX-H	1614	1976	2282	2795	3227	3608	3952	4269	4564	4841	76°
RX-127	3.23	RX-J	1769	2166	2502	3064	3538	3955	4333	4680	5003	5307	56°
RX-148	3.76	RX-I	1769	2166	2502	3064	3538	3955	4333	4680	5003	5307	66°
RX-136	3.45	RX-J	1936	2371	2738	3354	3873	4330	4743	5123	5477	5809	60°
RX-154	3.91	RX-I	1936	2371	2738	3354	3873	4330	4743	5123	5477	5809	71°
RX-151	3.84	RX-J	2092	2562	2958	3623	4183	4677	5123	5534	5916	6275	58°
RX-127	3.23	RX-K	2092	2562	2958	3623	4183	4677	5123	5534	5916	6275	51°
RX-136	3.45	RX-K	2259	2767	3195	3913	4518	5051	5533	5977	6389	6777	55°
RX-157	3.99	RX-J	2259	2767	3195	3913	4518	5051	5533	5977	6389	6777	65°

All tables are based on water at room temperature.

#### How to order

Ordering a complete nozzle	
Ordering a complete nozzle	
Ordering a Whirlchamber	
Ordering a Whirlchamber tallless	
Ordering an orifice disc	