Tank and Equipment Cleaning Nozzles Product Guide

Our tank cleaning nozzles deliver unmatched performance for effective, reliable cleaning throughout each cleaning cycle.

Ryan Derbyshire Production Operative

> Precision Tested. People Trusted.



We deliver nozzles you can depend on.

Diane Rogers Shipping & Receiving

> Delavan® Spray Technologies Continually Meet Your Manufacturing Challenges.

Delavan[®] Spray Technologies, part of R.W. Beckett Corporation, is a world leader in the design and manufacture of high quality spray nozzles and fluid handling systems. Since the company was founded back in 1935, the Delavan[®] name has always stood for quality, flexibility, and reliability.

Efficient cleaning of tanks, vessels, and barrels is critical to operational performance and product integrity in many industries and applications. Delavan® understands the complexity of these applications, and our engineering team designs solutions to best meet the challenges of today's market.



Selecting Your Tank Cleaning Nozzle

Tank cleaning is crucial for process industries to ensure product quality, maintain operational efficiency, and comply with safety regulations. Regular cleaning prevents contamination, preserves equipment longevity, and promotes a safe working environment, ultimately protecting the integrity of the entire production process. Delavan® offers several types of nozzles and cleaning heads, from individual nozzles and static spray balls to rotating and geared cleaning machines, for use in a wide range of vessel sizes with varying degrees of contamination. The following pages showcase our standard ranges. However, our engineers can also build a customized solution, working through your application at each stage to ensure any special requirements are met.

Determining the level of contamination present is key to selecting the correct cleaning nozzle. Delavan® uses three contamination levels to classify the application and select the appropriate nozzle to perform the duty.

- Low Contamination: Light powder or liquid residue that is easily rinsed away.
- Mid Contamination: Residue typically found in food and chemical applications requiring additional impact and cleaning.
- High Contamination: Debris and residue that is baked onto the surface requiring a longer cleaning cycle and high pressure jets.

Higher Pressure vs. Higher Impact

In many nozzle applications, high pressure can be important for creating highly atomized small droplets. In CIP applications, however, larger droplets work best. Large droplets provide the high impact force needed to remove soils. Small droplets are unable to break through buildup and do not provide complete tank coverage. For this reason, it is critical to operate any CIP nozzle at the recommended pressure.



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Fixed Head Nozzles

CL7 TYPE NOZZLE



Produces a solid cone type spray pattern from a multiple orifice body. The cluster consists of a body fitted with 7 removable solid cone spray nozzles. It provides relatively uniform distribution at all pressures and a 270° spray pattern.

Connection: 3/4" - 2" Capacity: 8.0 - 450 LPM Operating Pressure: 1.0 - 7.0 BAR Cleaning Diameter: 0.4 - 3.9 M Operating Temp: 5 - 95° C







Produces a solid cone type spray pattern from its multiple orifice body. The cluster consists of a body fitted with 9 removable solid cone spray nozzles. It provides relatively uniform distribution at all pressures as well as 360° spray coverage.

Connection: 1/2" - 1 1/2" Capacity: 9.0 - 350 LPM Operating Pressure: 1.0 - 7.0 BAR Cleaning Diameter: 0.4 - 2.9 M Operating Temp: 5 - 95° C



Spray Pattern: Solid Cone



is identified with the suffix 'FC'.

Connection: 11/2"

CIP15 TYPE NOZZLE

Used in place of a standard full cone

nozzle where finer atomization than a

single nozzle might normally provide is

required. The nozzle body is fitted with

15 removable solid cone spray nozzles.

normal spray angle of 230°. For full 360°

coverage with type CIP15, the assembly

The CIP15 provides relatively uniform

distribution at all pressures and a



DWN19 TYPE NOZZLE



Produces a solid cone type spray pattern from a multiple orifice body. The cluster consists of a body fitted with 19 removable solid cone spray nozzles. It provides a relatively uniform distribution at all pressures and produces a 360° 'Ball' shaped spray pattern.

Connection: 1"

Capacity: 28 - 146 LPM Operating Pressure: 1.0 - 7.0 BAR Cleaning Diameter: 0.4 - 2.3 M Operating Temp: 5 - 95 deg C

















Produces a full spray pattern from a multiple orifice body with 360° spherical cover for tanks up to 3 meters in diameter. The nozzle body is fitted with 21 removable solid cone spray nozzles. The CIP21 provides relatively uniform distribution at all pressures.

Operating Pressure: 1.0 - 7.0 BAR Cleaning Diameter: 1.0 - 3.5 M Operating Temp: 5 - 95 deg C



Spray Pattern: Solid Cone



Stationary, Fixed Head Cleaning

Stationary spray heads (also known as static spray balls) can be used for cleaning lightly soiled vessels or for rinsing. They are inexpensive upfront but require the highest operating costs for cleaning chemicals, temperatures for the CIP solution, and cycle times.

These nozzles are generally restricted to smaller vessels with low levels of contamination due to the relatively low impact value generated by static nozzles. They are typically fitted with full cone nozzles to achieve a predetermined coverage. With no moving parts, they are relatively low maintenance, which can be seen as an advantage to this type of head. Certain variations lend themselves to customization with the addition of different nozzle types to achieve a specific cleaning action for stubborn areas of the vessel.

CL7





	CL7 Chart															
Assembly	Nozzlas		BSP	P Thread	l Size		Flow Rate in Liters/Min at Bar.G.									
Number	NUZZIES	3/4"	1″	1 1/4"	1 1/2"	2″	0,7	1,0	2,0	3,0	4,0	5,0	6,0	7,0		
CL7-50	1/8" BIM 6	Х	Х	Х			8,75	10,50	15,26	18,55	20,09	22,46	23,87	24,78		
CL7-75	1/8" BIM 8	х	х	х			13,02	15,96	22,61	28,00	31,85	35,60	37,66	40,04		
CL7-100	1/4" BIM 12	х	х	х	х	х	19,53	23,87	31,85	37,10	41,37	46,25	49,14	53,06		
CL7-135	1/4" BIM 16	х	Х	Х	х	х	25,06	30,87	42,98	50,89	56,00	62,61	66,57	70,28		
CL7-160	1/4" BIM 20	х	х	х	х	х	31,22	38,22	52,78	63,42	70,00	78,26	83,44	88,41		
CL7-200	1/4" BIM 25	х	Х	Х	х	х	39,03	47,78	65,98	79,28	87,50	97,83	104,3	110,5		
CL7-250	3/8" BIM 32		Х	х	х	х	50,57	62,16	86,24	101,9	111,7	124,9	135,0	140,3		
CL7-300	3/8" BIM 37		Х	х	х	х	58,67	71,86	99,69	117,3	129,1	144,3	156,0	162,2		
CL7-350	1/2" BIM 42			х	х	Х	67,69	82,74	111,7	135,0	150,0	167,7	174,6	191,6		
CL7-400	1/2" BIM 49			х	х	х	81,34	99,68	130,8	161,9	175,3	196,0	205,0	227,6		
CL7-500	1/2" BIM 63				х	х	101,1	119,5	166,9	202,2	225,5	252,1	269,4	289,1		
CL7-600	1/2" BIM 77				х	х	113,2	135,4	191,4	234,4	270,6	302,6	331,4	325,4		
CL7-700	3/4" BIM 89					х	140,0	166,2	235,4	280,0	311,8	338,0	370,4	393,8		
CL7-825	3/4" BIM 102					х	146,4	171,6	270,8	323,8	350,0	384,0	420,7	451,8		

SPRAY TECHNOLOGIES

Industries:

- Wine Barrels
- Drums & Kegs
- Mixing Vats
- Small Tanks
- Tote Bins
- Cosmetics
- Reactors in Food/Drink
- Pharmaceutical and Chemical

Delavan®'s team of engineers is on-hand to review your existing installation and offer custom solutions for your CIP needs.

The CL7 nozzle produces a solid cone type spray pattern from a multiple orifice body. The cluster consists of a body fitted with 7 removable solid cone spray nozzles. It provides relatively uniform distribution at all pressures and a 270° spray pattern.

Features:

- Available with 3/4" 2" BSPP Female threads only
- Different spray nozzles can be installed to give non-standard spray patterns for targeted cleaning
- Made in Brass and Stainless Steel as standard
- Other materials available to special order

Dimensions and Weights											
Throad Sizo	Dimensio	ons (mm)	Weight (kg)								
Thread Size	A	B Dia	Weight (Kg)								
3/4"	43,25	59,0	0,33								
1"	55,00	67,5	0,66								
1 1/4"	80,00	100,0	1,63								
1 1/2"	80,00	110,0	1,66								
2"	90,00	130,0	2,10								

Maximum Recommended

Pressure: 35 Bar.G. (Metal), 7 Bar.G. (Plastic).

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DWN19

KN9





The KN9 nozzle produces a solid cone type spray pattern from its multiple orifice body. The cluster consists of a body fitted with 9 removable solid cone spray nozzles. It provides relatively uniform distribution at all pressures as well as 360° spray coverage.

Features:

- Available in a range of flow capacities and thread sizes
- Available with 1/2" 11/2" Male BSPT thread connection only
- Different spray nozzles can be installed to give non-standard spray patterns for targeted cleaning
- Made in Brass and Stainless Steel as standard
- · Other materials available to special order

Dimensions and Weights											
Thread Size	Dimensio	ons (mm)	Woight (kg)								
Thread Size	А	B Dia	weigilt (kg)								
1/2"	91,00	69,00	0,97								
3/4"	91,00	71,00	1,15								
1"	87,00	85,00	1,50								
1 1/4"	108,0	95,00	1,79								
1 1/2"	146,0	112,0	2,00								

Maximum Recommended

Pressure: 35 Bar.G. (Metal), 7 Bar.G. (Plastic).

	Capacity Chart															
Accombly			B	SPT Th	read Si	ize		Flow Rate in Liters/Min at Bar.G.								
Number	Nozzles	3/8"	1/2"	3/4"	1″	1 1/4"	1 1/2"	0,7	1,0	2,0	3,0	4,0	5,0	6,0	7,0	
KN9-50	1/4" BNM 6		х	х				9,44	11,28	15,98	19,55	22,55	25,24	27,64	29,58	
KN9-75	1/4" BNM 7		х	х				14,16	16,92	23,97	29,33	33,83	37,86	41,46	44,37	
KN9-100	1/4" BNM 8			х	х			18,88	22,57	31,92	39,10	45,14	50,48	55,25	58,75	
KN9-120	1/4" BNM 11			х	х			25,11	29,07	38,79	46,35	49,05	55,29	60,57	66,87	
KN9-150	1/4" BNM 16			х	х			28,32	33,85	47,87	58,63	67,69	75,69	82,88	88,11	
KN9-200	3/8" BNM 20				х	х		37,76	45,14	63,83	78,18	90,27	100,9	110,2	117,9	
KN9-250	3/8" BNM 25				х	х		47,19	56,41	79,78	97,72	112,8	126,1	138,1	146,8	
KN9-300	1/2" BNM 32					х	х	56,64	67,70	95,74	117,2	135,3	151,3	165,7	176,2	
KN9-400	1/2" BNM 37					х	х	75,52	90,28	127,6	156,3	180,5	201,8	220,4	235,8	
KN9-500	1/2" BNM 48						х	94,38	112,8	159,5	195,5	225,6	252,2	276,2	293,6	
KN9-600	1/2" BNM 59						х	113,2	135,4	191,4	234,4	270,6	302,6	331,4	352,4	







	DWN19 Chart													
Assembly	Nozzles	BSPP T Siz	'hread :e			Flow	Rate in Liters	/Min at Bar.() .					
Number		3/4"	1″	0,7	1,0	2,0	3,0	4,0	5,0	6,0	7,0			
DWN19-125	1/8" BIM 6		х	23,60	28,21	39,89	48,86	56,41	63,08	69,07	73,42			
DWN19-150	1/8" BIM 7		х	28,32	33,85	47,87	58,63	67,69	75,69	82,88	88,11			
DWN19-200	1/8" BIM 8		х	37,76	45,14	63,83	78,18	90,27	100,9	110,2	117,9			
DWN19-250	1/8" BIM 12		х	47,19	56,41	79,78	97,72	112,8	126,1	138,1	146,8			



The DWN19 nozzle produces a solid cone type spray pattern from a multiple orifice body. The cluster consists of a body fitted with 19 removable solid cone spray nozzles. It provides a relatively uniform distribution at all pressures and produces a 360° 'Ball' shaped spray pattern.

Features:

- Available in a range of flow
- capacities and thread sizes
- Available with 3/4" and 1" BSPP Female threads
- Different spray nozzles can be
- installed to give non-standard spray
- patterns for targeted cleaning
- Made in Brass and Stainless Steel as standard
- Other materials available to special order

	Dimensions	and Weights	
Thread Cine	Dimensio	Wainht (km)	
nread Size	А	B Dia	weight (kg)
3/4"	100	57,0	0,66
1"	100	57,0	0,63

Maximum Recommended Pressure: 35 Bar.G. (Metal) 7 Bar.G. (Plastic).



CIP15

CIP21

120





The CIP15 is used in place of a standard full cone nozzle where finer atomization than a single nozzle might normally provide is required. The nozzle body is fitted with 15 removable solid cone spray nozzles. The CIP15 provides relatively uniform distribution at all pressures and a normal spray angle of 230°. For full 360° coverage with type CIP15, the assembly is identified with the suffix 'FC'.

Features:

- Available in a range of flow capacities
- Manufactured with a 11/2" BSPT Female threaded body
- Different spray nozzles can be installed to give non-standard spray patterns for targeted cleaning
- Made in Brass and Stainless Steel as standard
- · Other materials available to special order

CIP15 Chart													
Accombly Number	Nozzles			Flow	Rate in Lite	ers/Min at	Bar.G.			Approx. Diameter of Coverage (mm)			
Assembly Number	NUZZIES									Pres	Pressure Bar. G.		
		0,7	1,0	2,0	3,0	4,0	5,0	6,0	7,0	1,0	3,0	5,0	
1.1/2" CIP 15 -100	1/4" BIM 6	18,75	22,50	28,20	32,70	39,75	44,44	51,15	53,10	900	1600	1900	
1.1/2" CIP 15 -140	1/4" BIM 8	27,90	34,20	42,60	48,15	60,00	67,08	80,70	85,80	900	1600	1900	
1.1/2" CIP 15 -200	1/4" BIM 12	41,85	51,15	61,35	68,25	79,95	89,39	105,30	113,70	900	1600	1900	
1.1/2" CIP 15 -275	3/8" BIM 16	53,70	66,15	79,50	92,10	109,05	121,92	142,65	150,60	1050	1900	2250	
1.1/2" CIP 15 -350	3/8" BIM 20	66,90	81,90	97,50	113,10	135,90	151,94	178,80	189,45	1050	1900	2250	
1.1/2" CIP 15 -380	3/8" BIM 22	76,65	93,60	112,65	124,80	146,70	164,02	198,45	213,60	1050	1900	2250	
1.1/2" CIP 15 -470	3/8" BIM 27	90,60	111,30	135,15	151,50	184,80	206,61	240,90	262,05	1400	2500	2950	
1.1/2" CIP 15 -550	3/8" BIM 32	108,75	133,20	162,15	184,80	216,60	242,17	289,35	306,00	1400	2500	2950	
1.1/2" CIP 15 -100 FC	1/4" BNM 6	18,75	22,50	32,70	39,75	43,05	48,13	51,15	53,10	800	1550	1750	
1.1/2" CIP 15 -140 FC	1/4" BNM 8	27,90	34,20	48,45	60,00	68,25	76,31	80,70	85,80	800	1550	1750	
1.1/2" CIP 15 -190 FC	1/4" BNM 11	41,85	48,45	64,65	77,25	81,75	91,40	100,95	111,45	800	1550	1750	
1.1/2" CIP 15 -250 FC	1/4" BNM 15	55,05	67,50	83,85	99,60	108,60	121,42	130,50	137,40	1000	1850	2100	
1.1/2" CIP 15 -300 FC	1/4" BNM 18	66,00	80,85	100,50	119,40	130,20	145,57	156,45	164,70	1000	1850	2100	
1.1/2" CIP 15 -380 FC	3/8" BNM 22	83,70	102,60	127,50	151,50	165,15	184,64	198,45	209,10	1000	1850	2100	
1.1/2" CIP 15 -430 FC	3/8" BNM 25	90,60	108,60	139,80	165,15	184,80	206,61	219,75	236,40	1200	2250	2600	
1.1/2" CIP 15 -550 FC	3/8" BNM 32	115,50	137,25	178,80	214,50	236,70	264,64	283,50	298,50	1200	2250	2600	

Approx. weight of assembly=1.34Kg

Maximum Recommended Pressure: 35 Bar.G. (Metal), 7 Bar.G. (Plastic).



105 Dia

The CIP21 produces a full spray pattern from a multiple orifice body with 360° spherical cover for tanks up to 3 meters in diameter. The nozzle body is fitted with 21 removable solid cone spray nozzles. The CIP21 provides relatively uniform distribution at all pressures.

Features:

	Capacity Chart														
Assembly	Nozzles			Flow Ra	te in Lite	ers/Min a	t Bar.G.			Approx. Diameter of Coverage (mm)					
Number	NOZZIES									Pres	ssure B	ar.G.			
		0,7	1,0	1,0	3,0	5,0									
1.1/2" CIP21-150	1/4" BIM 6	-	31,50	45,78	55,64	60,26	67,37	71,61	74,34	1000	1900	2000			
1.1/2" CIP21-200	1/4" BIM 8	-	47,87	67,83	83,98	95,55	104,8	112,9	120,1	1000	1900	2000			
1.1/2" CIP21-250	1/4" BIM 12	-	71,61	95,54	111,2	124,1	138,7	147,4	159,1	1200	2400	2500			
1.1/2" CIP21-300	3/8" BIM 12	58,59	69,72	99,33	122,4	138,6	154,9	163,5	171,5	1200	2400	2500			
1.1/2" CIP21-400	3/8" BIM 16	75,18	92,61	128,9	152,6	167,9	187,7	199,7	210,8	1200	2400	2500			
1.1/2" CIP21-500	3/8" BIM 22	107,3	131,1	174,7	205,3	229,1	256,1	277,8	298,9	1500	2990	3100			
1.1/2" CIP21-650	3/8" BIM 27	126,8	155,8	211,9	258,7	286,4	320,1	337,2	366,6	1500	2990	3100			
1.1/2" CIP21-750	3/8" BIM 32	152,1 186,5 258,7 303,2 335,1 374,6 405,1 428,2 1700 3300 3500													
1.1/2" CIP21-1000	3/8" BIM 42	203,1	242,8	335,2	405,1	449,6	478,3	524,0	574,8	1700	3300	3500			

Approx. weight of assembly=1.5Kg

Maximum Recommended Pressure: 35 Bar.G. (Metal), 7 Bar.G. (Plastic).



Precision Tested. People Trusted.

 Available in a range of flow capacities • Manufactured with a 11/2" BSPT Female threaded body • Different spray nozzles can be installed to give non-standard spray patterns for targeted cleaning • Made in Brass and Stainless Steel as standard

• Other materials available to special order



Free Spinning Nozzles

TJM NANO



Low flow rate cleaning head giving 360° coverage that is ideal for drums, kegs, and barrel washing.

Connection: 1/8" Capacity: 18 LPM **Operating Pressure: 2 BAR** Cleaning Diameter: 0.5 M Operating Temp: 4 - 95° C



TJM MICRO

Provides a rotating fan cleaning action using low volumes of liquid at low pressure with the flexibility of various coverage, flow, and connection options.

Connection: 3/8" Weld & Clip Capacity: 18-50 LPM **Operating Pressure: 2.5 BAR** Cleaning Diameter: 0.5 - 1 M Operating Temp: 5 - 95° C



Spray Pattern: Flat Spray

Connection: 1/2" 3/4" Weld & Clip Capacity: 70 - 168 LPM **Operating Pressure: 4 BAR** Cleaning Diameter: 2.0 - 3.0 M Operating Temp: 5 - 95° C

Our most versatile cleaning

to 3 meters in diameter.

head for use in applications up



TJM MINI



Spray Pattern: Flat Spray

TJM MAXI



Our largest bearing driven cleaning head for use in tanks up to 5 meters in diameter requiring a 360° cleaning coverage.

Connection: 1 1/4" Weld & Clip Capacity: 240 - 335 LPM Operating Pressure: 2.5 - 3.0 BAR Cleaning Diameter: 4-5 M Operating Temp: 5 - 95° C





Free Spinning Cleaning Head

Rotating spray heads (also known as spinner spray balls) are wellsuited for light to medium soiled vessels. They provide more effective cleaning than stationary nozzles but still require a moderate CIP solution, temperature, and cycle time for complete coverage.

These nozzles are designed with a dual bearing feature to allow rotation in any orientation. The rotation is driven by the cleaning fluid to provide 360 degree cleaning. Rotating spray heads tend to be more efficient than fixed head nozzles of the same capacity due to the scrubbing action generated by the rotation, ultimately saving time and money by reducing cleaning solution and downtime.

TJM NANO







Industries:

- Wine Barrels
- Drums & Kegs
- Mixing Vats
- Small Tanks
- Cosmetics
- Reactors in Food/Drink
- Pharmaceutical and Chemical

Delavan[®]'s team of engineers is on-hand to review your existing installation and offer custom solutions for your CIP needs.

• Tote Bins

NB! Not to be used in conjunction with demineralized water or compressed air for extended periods of time due to excessive wear of the bearings.

Precision Tested. People Trusted.



Spray	Operating			Dimensions		
Pattern	Temp	A	В	С	D	E
360	5 - 95 deg C	37 mm	NV 12 mm	G - 1/8"	Ø 14,5 mm	Ø 17 mm

TJM MICRO



TJM Micro Chart													
Тиро	Connection	Capacity	Operating	Cleaning	Spray	Operating			Dimensions				
туре	Connection	(LPM)	(BAR)	(M)	Pattern	Temp	A	В	С	D	E		
MICR0 1700	1/8"	18	2	0.5	360	5 - 95 deg C	37 mm	NV 12 mm	G - 1/8"	Ø 14,5 mm	Ø 17m <mark>m</mark>		
MICRO 5200C-180-RF316	3/8"	37	2.5	1	180	5 - 95 deg C	Ø 25 mm	Ø 21,5 mm	G 3/8"	H = 58 mm			
MICRO 5200CO -180- RF316	CLIP ON	37	2.5	1	180	5 - 95 deg C	H = 64mm	Ø 18,2 mm	Ø 25 mm	Ø 1,8 mm	55 mm		
MICRO 5200WDN15-180- RF316	WELD	37	2.5	1	180	5 - 95 deg C	Ø 25 mm	Ø 18,1 mm	Ø 21,5 mm	H = 83 mm	-		
MICRO 5200C 270-RF316	3/8"	45	2.5	1	270	5 - 95 deg C	Ø 25 mm	Ø 21,5 mm	G 3/8"	H = 58 mm	-		
MICRO 5200CO 270- RF316	CLIP ON	45	2.5	1	270	5 - 95 deg C	H = 64 mm	Ø 18,2 mm	Ø 25 mm	Ø 1,8 mm	55 mm		
MICRO 5200 WDN15-270- RF316	WELD	45	2.5	1	270	5 - 95 deg C	Ø 25 mm	Ø 18,1 mm	Ø 21,5 mm	H = 83 mm	-		
MICRO 5200C-RF316	3/8"	50	2.5	1	360	5 - 95 deg C	Ø 25 mm	Ø 21,5 mm	G 3/8"	H = 58 mm	-		
MICRO 5200CO-RF316	CLIP ON	50	2.5	1	360	5 - 95 deg C	H = 64 mm	Ø 18,2 mm	Ø 25 mm	Ø 1,8 mm	55 mm		
MICRO 5200 WDN15- RF316	WELD	50	2.5	1	360	5 - 95 deg C	Ø 25 mm	Ø 18,1 mm	Ø 21,5 mm	H = 83 mm	-		

5200C, 5200CO, & 5200WDN15



5200C 270, 5200CO 270, & 5200WDN15 270



5200C 180, 5200CO 180, & 5200WDN15 270





TJM MINI



TJM Mini Chart													
Turne	0	Capacity	Operating	Cleaning	Spray	Operating		Di	mensions				
гуре	Connection	(LPM)	(BAR)	(M)	Pattern	Temp	A	В	С	D	Е		
MINI 5000LF	3/4"	70	4	3	360	5 - 95 deg C	BSP 3/4" DYBDE 8 mm	Ø 35 mm	Højde 95 mm	Ø 35 mm	-		
MINI 5000LFCO	CLIP ON	70	4	3	360	5 - 95 deg C	Ø 35 mm	Ø 29 mm	Ø 25,4 mm	Ø 3,00 mm	H = 120 mm		
MINI 5000 / 180LF	3/4"	75	4	2	180	5 - 95 deg C	BSP 3/4" DYBDE 8 mm	Ø 35 mm	Højde 95 mm	Ø 35 mm	-		
MINI 5000 - 180	3/4"	95	4	2	180	5 - 95 deg C	BSP 3/4" DYBDE 8 mm	Ø 35 mm	Højde 95 mm	Ø 35 mm	-		
MINI 5000	3/4"	103	4	3	360	5 - 95 deg C	BSP 3/4" DYBDE 8 mm	Ø 35 mm	Højde 95 mm	Ø 35 mm	-		
MINI 5000EXT	WELD	103	4	3	360	5 - 95 deg C	Ø 25 mm	Ø 35 mm	Ø 35 mm	595 mm	-		
MINI 5000CO	CLIP ON	123	4	3	360	5 - 95 deg C	Ø 35 mm	Ø 29 mm	Ø 25,4 mm	Ø 3,00 mm	H = 120 mm		
MINI 5000 - 46	3/4"	168	4	3	360	5 - 95 deg C	BSP 3/4" 8 mm dyb	Ø 35 mm	Ø 46 mm	Højde 104 mm	-		
MAXI SPINNER 5500	1 1/4"	240	2.5	4	360	5 - 95 deg C	5/4" BSP	Ø 55mm	Ø 55mm	120 mm	-		
MAXI SPINNER 5500CO	CLIP ON	240	2.5	4	360	5 - 95 deg C	Ø 55mm	UDV. Ø 55 mm	INDV. Ø 50 mm	160 mm	110 mm		

5000



5000-46





5000LF

5000-180

TJM MINI



5000LFCO



5000EXT



3,5

3

4,5

4

5500



5500CO



TJM MAXI



TJM Maxi Chart													
-	a	Capacity	Operating	Cleaning	Spray	Operating	Dimensions						
Туре	Connection	(LPM)	Pressure (BAR)	Diameter (M)	Pattern	Temp	A	В	C	D			
MAXI SPINNER 8000XL	1 1/4"	335	3	5	360	5 - 95	5/4"	Ø	Ø 80	Length			
				_		deg C	BSP	55mm	mm	150 mm			
MAXI SPINNER 8000XLCO	CLIP ON	335	3	5	360	5 - 95 deg C	Ø 80 mm	UDV. Ø 55 mm	INDV. Ø 51 mm	Length 190 mm			

8000XLCO





8000XL

Rotary Jet Nozzles



Rotary Jet Cleaning

Rotary jet machines are the best CIP nozzles for heavily soiled vessels. They provide the highest impact force for breaking through the most difficult products. These tank cleaning machines have the best return on investment by minimizing CIP solution, temperature, and cycle times required.

Rotary jet cleaners use cleaning fluid or an electric motor to drive a set of gears at a predetermined speed which rotate a series of 2, 4, or 6 high pressure jets. The jets rotate over a set cycle time to provide a complete 360 degree cleaning. They are typically used in larger vessels with high contamination levels requiring the greatest impact and impingement to remove the contamination.

Industries:

- Wine Barrels
- Drums & Keqs
- Mixing Vats Small Tanks

• Tote Bins

Cosmetics

Delavan®'s team of engineers is on-hand to review your existing installation and offer custom solutions for your CIP needs.



• Reactors in Food/Drink

Pharmaceutical and Chemical

SPRAY TECHNOLOGIES



The TJM5 tank cleaning nozzle offers high impact cleaning with a 360° orbital spray pattern. The smallest in the TJM series, this nozzle is suitable for cleaning tanks, reactors, fermenters, silos, and more with diameters up to 7 m (23 ft). The TJM5 can be installed vertically, horizontally, or at any angle for 360° cleaning, but vessels with obstructions may require multiple nozzles for complete coverage.

NOTE: Recommended pressure range 1 to 5 bar. The nozzle cleaning efficiency is negatively impacted outside this range. Operating temperatures up to 182° C (360° F) with PTFE continuous service temperature 260° C (500° F).

Features:

- Flow rates between 1 to 4.5 m³ hr (264 to 1189 gal/hr)
- All wetted parts made from stainless steel and PTFE for sanitary applications
- Externally driven by an electrical motor with low power consumption and precise control of rotation and cycle time
- Available with 2 or 4 nozzles

Industries:

- Chemical
- Pulp & Paper • Brewing/Winery
- Dairy • Food & Beverage

TJM5					
А	1000 mm				
В	81 mm				
С	1" BSP male				
Weight	7 kg				
Material	316L / PTFE				
Nozzle Diameter	4 mm				







The TJM10 is designed for full power, solid stream high impact scrubbing with a 360° orbital spray pattern. It is the most versatile of the TJM series of machines for internal cleaning to sanitary or industrial standards. The TJM10 can be installed vertically, horizontally, or at any angle and can be raised or lowered to clean open-top tanks and through hatchways or manways, etc.

Features:

- Optimal flow rates from 4.5 - 20m³/h (20 - 90g/m)
- All wetted parts made from stainless steel and PTFE for sanitary applications
- Operating temperature range up to 360° F (182° C)
- Externally driven by an electrical motor with low power consumption and precise control of rotation and cycle time
- 2 or 4 nozzle configuration

TCM M10-TB Dimensions							
	H D1 G Weight						
Α	1540	235	1" F	18 Kg			
В	2015	235	1" F	21 Kg			
C	2515	235	1" F	25 Kg			
D	740	235	1" F	12 Kg			

TCM M10-EL Dimensions							
	H D1 G Weigh						
A	1580	235	1″ M	20 Kg			
В	2065	235	1" M	23 Kg			
C	2565	235	1" M	27 Kg			
D	740	235	1" M	14 Kg			

TCM M10-TB





TCM-M10-EL With variable speed (TYPE A-B-C-D refers to the length)

Ordering Example: M10.2061MBFA - M10 WITH 2 NOZZLE Ø6, 1" MALE THREAD BSP, FIXED REVOLUTION, TYPE A (1580MM)								
Туре	Number of Nozzle	Nozzle Diameter	Material Bushings	Material	Temperature-Range	Lubricating		
M10.2061MBF TYPE A-B-C-D	2	6	PTFE	316L	5-180°C	Cleaning Media		
M10.2071MBF TYPE A-B-C-D	2	7	PTFE	316L	5-180°C	Cleaning Media		
M10.2081MBF TYPE A-B-C-D	2	8	PTFE	316L	5-180°C	Cleaning Media		
M10.4061MBF TYPE A-B-C-D	4	6	PTFE	316L	5-180°C	Cleaning Media		
M10.4071MBF TYPE A-B-C-D	4	7	PTFE	316L	5-180°C	Cleaning Media		

ICM-M10-EL With variable speed (IYPE A-B-C-D refers to the length)										
Ordering E	Ordering Example: M10.2061MBVB - M10 WITH 2 NOZZLE Ø6, 1" MALE THREAD BSP, VARIABLE REVOLUTION, TYPE B (2065MM)									
Туре	Number of Nozzle	Nozzle Diameter	Material Bushings	Material	Temperature-Range	Lubricating				
M10.2061MVF TYPE A-B-C-D	2	6	PTFE	316L	5-180°C	Cleaning Media				
M10.2071MVF TYPE A-B-C-D	2	7	PTFE	316L	5-180°C	Cleaning Media				
M10.2081MVF TYPE A-B-C-D	2	8	PTFE	316L	5-180°C	Cleaning Media				
M10.4061MVF TYPE A-B-C-D	4	б	PTFE	316L	5-180°C	Cleaning Media				
M10.4071MVF TYPE A-B-C-D	4	7	PTFE	316L	5-180°C	Cleaning Media				

TCM-M10-TB (TYPE A-B-C-D refers to the length)								
Ordering Example: M10.2061FBA - M10 WITH 2 NOZZLE Ø6, 1" FEMALE THREAD BSP, TYPE A (1540MM)								
Туре	e Number of Nozzle Nozzle Material Diameter Bushings				Temperature-Range	Lubricating		
M10.2061FB TYPE A-B-C-D	2	6	PTFE	316L	5-180°C	Cleaning Media		



TCM M10-EL









TJM 20 Chart											
Туре	Nozzle	Temperature	Connection	Lubricating	Dimensions						
.,,,,,	Nozzle	Diameter	Bushings	material	Range		Labridating	Н	D	D1	G
M20.2071FB	2	7	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½″ F
M20.2071MB	2	7	304	316L	5-95°C	BSP 1½″ M	Cleaning Media	205	123	235	1½″ M
M20.2081FB	2	8	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½" F
M20.2081MB	2	8	304	316L	5-95°C	BSP 1½" M	Cleaning Media	205	123	235	1½″ M
M20.2101FB	2	10	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½" F
M20.2101MB	2	10	304	316L	5-95°C	BSP 1½″ M	Cleaning Media	205	123	235	1½″ M
M20.2141FB	2	14	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½" F
M20.2141MB	2	14	304	316L	5-95°C	BSP 1½″ M	Cleaning Media	205	123	235	1½″ M
M20.4061FB	4	б	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½″ F
M20.4061MB	4	б	304	316L	5-95°C	BSP 1½" M	Cleaning Media	205	123	235	1½″ M
M20.4071FB	4	7	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½″ F
M20.4071MB	4	7	304	316L	5-95°C	BSP 1½" M	Cleaning Media	205	123	235	1½″ M
M20.4081FB	4	8	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½" F
M20.4081MB	4	8	304	316L	5-95°C	BSP 1½″ M	Cleaning Media	205	123	235	1½″ M
M20.4082MB	4	8	304	316L	5-95°C	BSP 2" M	Cleaning Media	205	123	235	2" M
M20.4101FB	4	10	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½" F
M20.4101MB	4	10	304	316L	5-95°C	BSP 1½″ M	Cleaning Media	205	123	235	1½″ M
M20.4102MB	4	10	304	316L	5-95°C	BSP 2" M	Cleaning Media	205	123	235	2" M
M20.6061FB	6	6	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½″ F
M20.6061MU	6	6	304	316L	5-95°C	BSP 1½" M	Cleaning Media	270	123	235	1½″ M
M20.6071FB	6	7	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½" F
M20.6071MU	б	7	304	316L	5-95°C	BSP 1½" M	Cleaning Media	270	123	235	1½″ M
M20.6081FB	б	8	304	316L	5-95°C	BSP 1½" F	Cleaning Media	270	123	235	1½" F
M20.6081MU	6	8	304	316L	5-95°C	BSP 1½" M	Cleaning Media	270	123	235	1½" M



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M20.2071FB & M20.2071MB



M20.2081FB & M20.2071MB



M20.2101FB & M20.2101MB



M20.2141FB & M20.2141MB



M20.4061FB & M20.4061MB



M20.4071FB & M20.4071MB





<u>33</u>

M20.4081FB, M20.4081MB, & M20.4082MB



M20.4101FB, M20.4101MB, & M20.4102MB



M20.4101FB, M20.4101MB, & M20.4102MB



M20.6061FB & M20.6061MU



M20.6071FB & M20.6071MU



M20.6081FB & M20.6081MU





Standard Cleaning Nozzles

Delavan[®] provides a line of standard nozzles which can be applied to various applications where typical cleaning heads could potentially interfere with the process.

PU, AC, and BI nozzles can be positioned to clean hard to reach areas such as blind spots around agitators to provide targeted cleaning where CIP installations could potentially miss.

AL Nozzles are widely used in sanitization applications where a fine mist is required to disinfect the interiors of reactors, tanks, and containment booths.



The PU Micro can be installed flush with the wall of a duct or vessel and activated at a set point in the production run when cleaning is required, retracting back into the wall once the cycle is complete.



your Specific Needs.



Our specialist design teams can also provide customized designs for your own applications. Contact our sales team at +44 (0)151 424 6821 or inside USA Toll Free: 1-877-GO DELAVAN for more information.

Tank Cleaning Enquiry Form							
Name		E-Mail					
Company		Telephone Number					
Address		Fax Number					

Current Status	What is the current method of cleaning?		
	Cleaning Liquid		
	Temperature	Cleaning Time	

		Cleaning Inlets / Port	Sketch of Tank Including Restrictions / Internal Obstructions	
		Tank Dimensions		
	Vertical / Horizontal			
	Height			
	Length			
Tank Notaile	Diameter			
		360		
	Damas of daming	180 up		
	Degree of cleaning	180 down		
		270		
	Agitators	/ Mixers		
	Scra	pers		
	Heatin	g Coil		
	Baff	les		
	Other (E	xplain)		

General	Type of Products in Tank	
	Available CIP Pressure	
	Filter for Cleaning Liquid	
	Material Certification Requirements	

Comments			

Please Email to: andy.nixon@delavan.com

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SDX[®] Spray Dry Nozzles

is a world leader in the design quality spray nozzles and fluid handling systems. Since 1935, Delavan[®] has grown to be one from manufacturing facilities in the United States and in the 30,000 different components in virtually every imaginable manufacturing and processing industry. Visit us at delavan.com. Delavan[®], part of R.W. Beckett, is a world leader in the design and manufacture of high quality spray nozzles and fluid handling systems. Since 1935, we have grown to be one of the leading spray nozzle manufacturers. Operating from dedicated manufacturing facilities, Delavan[®] now supplies more than 30,000 different components to thousands of customers in virtually every manufacturing and processing industry. Our success has been driven by our outstanding service, our manufacturing flexibility, and our technical application expertise to ensure our customers obtain the maximum benefit from the solutions they choose.

Precision Tested. People Trusted.



For more information on our products and help connecting with a distributor near you, visit **delavan.com** or contact us at:

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