



FOR TANK DIA. UP TO **20ft.**
(6.0 m)

CHEMICAL PROCESSING TANKS
MIXING TANKS • PHARMACEUTICAL
VESSELS • DRUMS AND KEGS
FOOD PROCESSING TANKS
BREWERY TANKS



TANK DIA. UP TO 20 FT. (6 M)
INTRODUCTION



SUPERIOR TANK CLEANING IN SANITARY AND CHEMICAL ENVIRONMENTS








EFFECTIVE SPRAY IN A VARIETY OF MATERIALS AND SPRAY COVERAGES

Offered in a variety of sanitary and chemical-resistant configurations, these nozzles are built to efficiently clean and rinse. With numerous spray coverage options and varying impact ratings, these compact TankJet nozzles are powerful and effective solutions for medium-sized tanks and vessels.





QUICK REFERENCE GUIDE

Model	Cleaning Power	Max. Tank Diameter ft. (m)	Operating Principle	Flow Rate Range gpm (lpm)	Operating Pressure psi (bar)	Spray Coverage	Max. Temperature °F (°C)	Materials	Page Number
TankJet® 27500 & 27500-R 	Medium impact	15 to 20 (4.3 to 6.0)	Fluid-driven reactionary force	9.0 to 224 (34 to 850)	10.0 to 50 (0.7 to 3.4)	180° up/down, 270° up/down, 360°	200 (93)	PTFE fluoropolymer resin	D4
TankJet 28500 & 28500-R 	Medium impact	18 (5.5)	Fluid-driven reactionary force	9.0 to 78 (34 to 295)	10.0 to 50 (0.7 to 3.4)	180° up/down, 270° up/down, 360°	200 (93)	Body, saucer & spacer – PTFE fluoropolymer resin Locking pin – 316 stainless steel	D6
TankJet 12900	Rinsing	18 (5.5)	Fixed stationary	72 to 385 (280 to 1470)	20 to 50 (1.4 to 3.4)	360° and custom spray angles	212 (100)	Brass or 316 stainless steel	D8
TankJet AA090	High impact	16 (4.9)	Motor-driven	1.5 to 7.3 (5.7 to 28)	100 to 500 (6.9 to 34.5)	360°	200 (93)	Seals – Carbon-filled PTFE fluoropolymer resin All other metallurgy – 316 stainless steel	D10
TankJet D26984 & D40159 	Rinsing	10 to 16 (3.0 to 4.9)	Fluid-driven constant speed	3.2 to 19.8 (12.0 to 75)	30 to 90 (2.1 to 6.2)	65° down, 120° down, 180° up/down, 260° up/down, 360°	160 (70)	Stainless Steel – 303 or 316 stainless steel body with PTFE sleeve and washer PVDF – PVDF body with PTFE washer and PE sleeve	D14
TankJet D41800E  	Rinsing	10 to 16 (3.0 to 4.9)	Fluid-driven constant speed	3.0 to 22.8 (11 to 86)	30 to 90 (2.1 to 6.2)	360°	265 (130)	303 or 316L stainless steel	D16
TankJet D41990 	Rinsing	6.5 to 16 (2.0 to 4.9)	Fluid-driven reactionary force	2.4 to 37 (9.0 to 141)	15.0 to 60 (1.0 to 4.1)	180° up/down, 360°	265 (130)	316L stainless steel	D18
TankJet 9 B & C	Rinsing	12 to 16 (3.7 to 4.9)	Fluid-driven reactionary force	5.0 to 38 (18.9 to 144)	10.0 to 120 (0.7 to 8.3)	360	190 (88)	Bearings – Carbon-filled PTFE fluoropolymer All other metallurgy – 316 stainless steel	D20
TankJet 63225 	Rinsing	13 (4.0)	Fixed stationary	22 to 51 (83 to 192)	15.0 to 40 (1.0 to 2.8)	360°	400 (204)	316L stainless steel	D22
TankJet 14 & 19	Medium impact	12 (3.7)	Fluid-driven turbine	10.0 to 30 (38 to 114)	50 to 200 (3.4 to 13.8)	180° up/down, 270° down, 360°	250 (121)	Stainless steel and PTFE	D26



TANKJET 27500 AND 27500-R TANK CLEANING NOZZLE FEATURES AND BENEFITS

- With rotation driven by the reactionary force of the cleaning liquid, these rotating nozzles provide excellent cleaning and rinsing and are especially well-suited to clean-in-place (CIP) systems
- Spray angles range from 180° to 360° and can be used to clean specific areas or the entire tank interior
- Made of corrosion- and chemical-resistant PTFE fluoropolymer resin, both models offer peak performance when used with debris-free liquid and deliver greater impact than static spray balls
- The rotating spray heads on 27500-R nozzles can be easily removed from the body for inspection and maintenance
- 27500-R nozzles with 1/2 in. and 3/4 in. inlet connections are also available in carbon-filled PTFE for improved thermal characteristics and higher mechanical strength
- ATEX-certified versions available



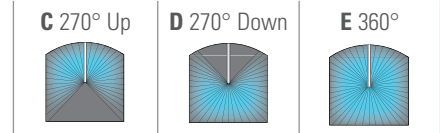
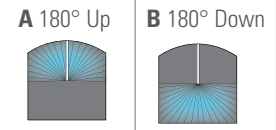
TankJet 27500 tank cleaning nozzle



TankJet 27500-R tank cleaning nozzle



SPRAY COVERAGE



MOUNTING OPTIONS

Vertical	↑	↓
Horizontal	←	→
45° Up	↖	↗
45° Down	↘	↙

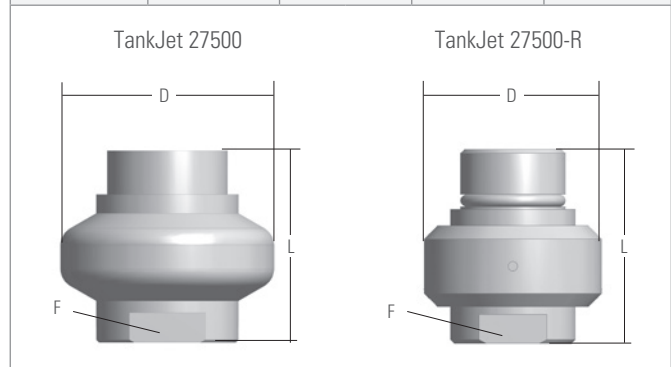
SPECIFICATIONS

TankJet Tank Cleaning Nozzle	27500	27500-R
Max. tank diameter:	15 to 20 ft. (4.3 to 6.0 m)	15 to 20 ft. (4.3 to 6.0 m)
Operating principle:	Fluid-driven reactionary force	Fluid-driven reactionary force
Flow rate:	9.0 to 224 gpm (34 to 850 lpm)	9.0 to 224 gpm (34 to 850 lpm)
Operating pressure:	10.0 to 50 psi (0.7 to 3.4 bar)	10.0 to 50 psi (0.7 to 3.4 bar)
Max. temperature:	200°F (93°C)	200°F (93°C)
Materials:	PTFE fluoropolymer resin or CTEF	PTFE fluoropolymer resin or CTEF
Inlet connection:	3/4" to 2" NPT or BSPT (F)	3/4" or 1" NPT or BSPT (F)
Optional accessories:	Strainers, recommended mesh size: 100 (150 micron) See page G2	

For lances, mounting kits, adapters and more, see page G6

DIMENSIONS AND WEIGHT

Model	Inlet Conn. in.	D (Dia.) in. (mm)	L in. (mm)	F (Flats) in. (mm)
27500, 27500-R	3/4	2.25 (57.2)	2.63 (66.6)	1.31 (33.3)
27500, 27500-R	1	2.75 (69.8)	3 (76.2)	1.63 (41.5)
27500	2	4.88 (123.8)	4.38 (111)	2.75 (69.8)



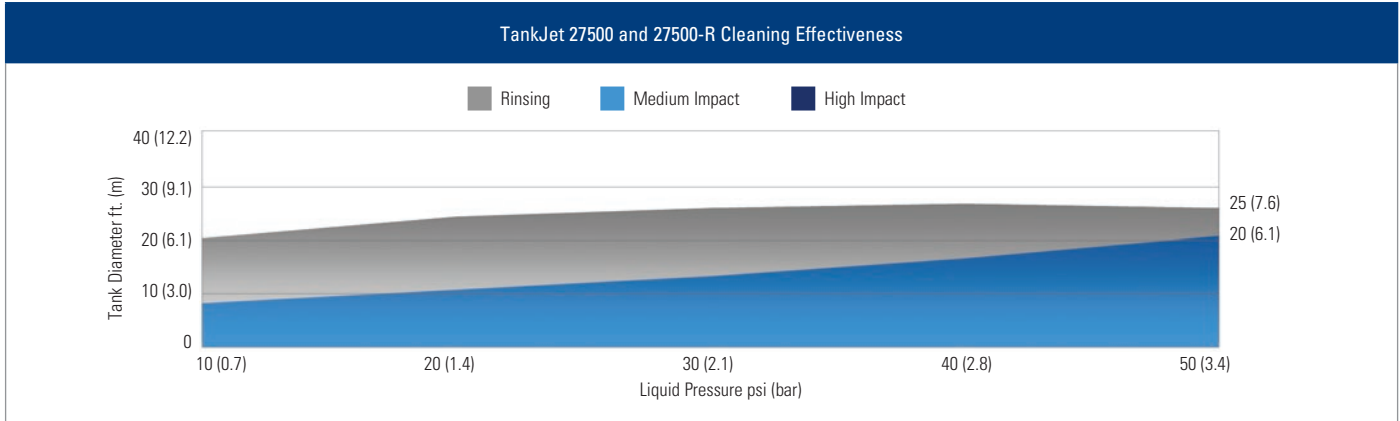
Additional sizes available:
Page C16 – 3 in. conn.
Page E4 – 3/8 and 1/2 in. conn.

IDEAL FOR CLEANING:

- Broke chests
- Chemical tanks
- PCB washers
- Pharmaceutical tanks
- Process tanks



PERFORMANCE DATA



Model		Inlet Conn.	Capacity Size	Orifice Dia. in. (mm)	Liquid Flow Capacity gpm (lpm)					Max. Tank Dia. ft. (m)
27500	27500-R				10 psi (0.7 bar)	20 psi (1.4 bar)	30 psi (2.1 bar)	40 psi (2.8 bar)	50 psi (3.4 bar)	
•	•	3/4	18	0.094 (2.4)	9.0 (34)	12.7 (48)	15.6 (59)	18 (68)	20 (76)	15 (4.3)
•	•		32	0.156 (4.0)	16.0 (61)	23 (89)	28 (103)	32 (126)	36 (136)	15 (4.3)
•	•		46	0.234 (6.0)	23 (87)	33 (130)	40 (148)	46 (182)	51 (196)	15 (4.3)
•	•	1	50	0.156 (4.0)	25 (95)	35 (140)	43 (161)	50 (197)	56 (215)	18 (5.5)
•	•		70	0.219 (5.6)	35 (133)	49 (195)	61 (225)	70 (275)	78 (300)	18 (5.5)
•	•		90	0.297 (7.5)	45 (172)	64 (250)	78 (290)	90 (355)	101 (385)	18 (5.5)
•	•	2	100	0.234 (6.0)	50 (191)	71 (280)	87 (320)	100 (395)	112 (425)	20 (6.0)
•	•		125	0.266 (6.7)	63 (240)	88 (350)	108 (400)	125 (495)	140 (530)	20 (6.0)
•	•		150	0.313 (7.9)	75 (285)	106 (420)	130 (480)	150 (590)	168 (640)	20 (6.0)
•	•		175	0.375 (9.5)	88 (335)	124 (490)	152 (560)	175 (690)	196 (745)	20 (6.0)
•	•		200	0.422 (10.7)	100 (380)	141 (560)	173 (645)	200 (790)	224 (850)	20 (6.0)

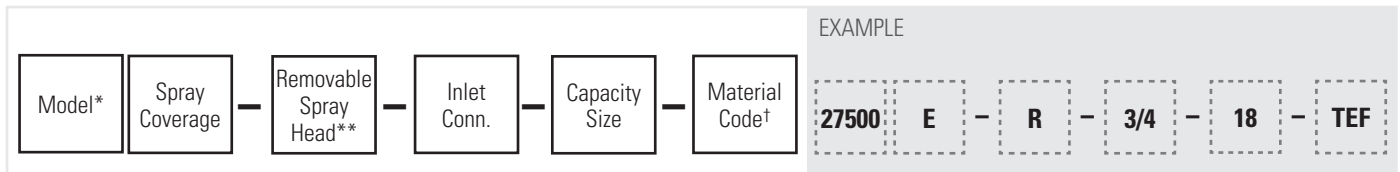
Suggested optimum operating range: 20 to 40 psi (1.5 to 2.8 bar).

ADDITIONAL SIZES AVAILABLE

Page C16 – 3 in. conn.
Page E4 – 3/8 and 1/2 in. conn.

ORDERING INFORMATION

TANKJET 27500 AND 27500-R TANK CLEANING NOZZLES



*Add B prior to the nozzle type for BSPT connections.
 **Leave blank for standard version.
 †Indicate CTEF for carbon-filled PTFE on 3/4 in. inlet connections for 27500-R.



**TANKJET 28500-R
TANK CLEANING NOZZLE
FEATURES AND BENEFITS**

- Rotating nozzles for use with sanitary tubing resist harsh chemicals and provide excellent cleaning and more impact than static spray balls
- 28500-R nozzles conform to 3-A Sanitary Standard 78 for spray cleaning devices to remain in place (does not apply to horizontal mounting)
- Well-suited for clean-in-place systems; no motor source is needed as the reactionary force of the cleaning liquid rotates the spray head
- Threadless, tapered design promotes self-draining to prevent build-up on nozzle
- 28500-R rotating spray head is easily removable from the body for inspection and maintenance

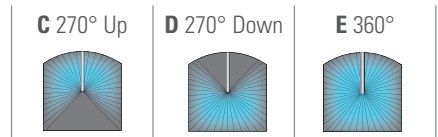
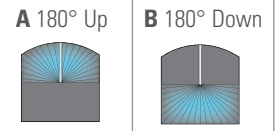


TankJet 28500-R tank cleaning nozzle

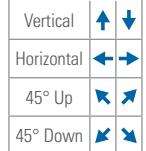


This unit meets the requirements of 3-A Sanitary Standard 78. Spray cleaning devices intended to remain in place.

SPRAY COVERAGE



MOUNTING OPTIONS



SPECIFICATIONS

TankJet 28500-R Tank Cleaning Nozzles	
Max. tank diameter:	18 ft. (5.5 m)
Operating principle:	Fluid-driven reactionary force
Flow rate:	9.0 to 78.3 gpm (34 to 296 lpm)
Operating pressure:	10.0 to 50 psi (0.7 to 3.4 bar)
Max. temperature:	200°F (93°C)
Materials:	Body, saucer & spacer – PTFE fluoropolymer resin Locking pin – 316 stainless steel
Inlet connection:	3/4", 1", DN20, DN25 sanitary tubing
Optional accessories:	Strainers, recommended mesh size: 100 (150 micron) See page G2

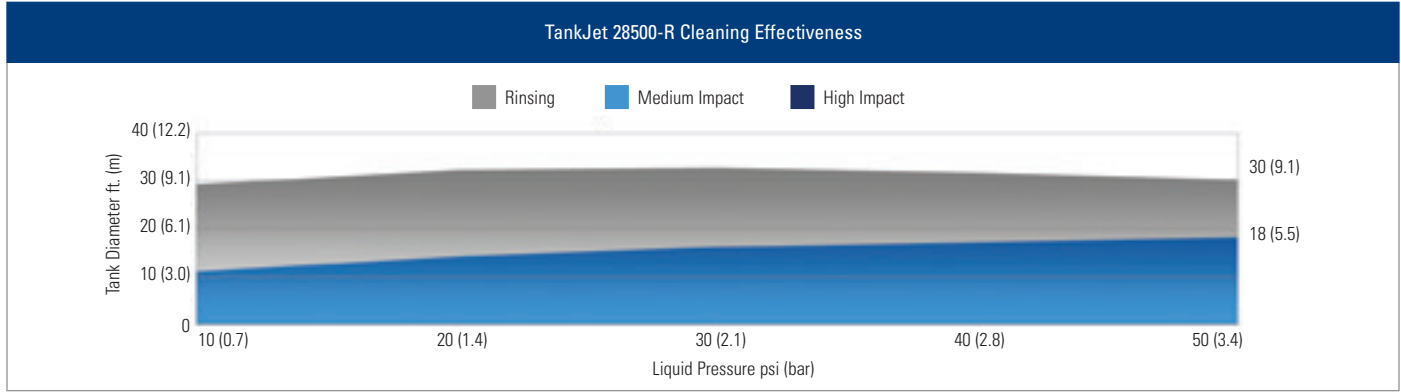
IDEAL FOR CLEANING:

- Chemical tanks
- Dairy vats
- Food processing tanks
- Pharmaceutical vessels

For lances, mounting kits, adapters and more, see page G6



PERFORMANCE DATA



Nozzle 28500-R		Orifice Dia. in. (mm)	Liquid Flow Capacity gpm (lpm)				
Nozzle Inlet	Capacity Size		10 psi (0.7 bar)	20 psi (1.4 bar)	30 psi (2.1 bar)	40 psi (2.7 bar)	50 psi (3.4 bar)
3/4 or DN20	18	0.089 (2.3)	9.0 (34)	12.7 (48)	15.6 (59)	18.0 (68)	20.0 (76)
	23	0.110 (2.8)	11.5 (44)	16.3 (62)	19.9 (75)	23.0 (87)	26.0 (98)
	32	0.154 (3.9)	16.0 (61)	22.6 (86)	27.7 (105)	32.0 (121)	35.8 (136)
	46	0.257 (6.5)	23.0 (87)	32.5 (123)	39.8 (151)	46.0 (174)	51.4 (195)
1 or DN25	33	0.152 (3.9)	16.5 (62)	23.0 (87)	29.0 (110)	33.0 (125)	37.0 (140)
	50	0.209 (5.3)	25.0 (95)	35.4 (134)	43.3 (164)	50.0 (189)	55.9 (212)
	70	0.266 (6.8)	35.0 (132)	49.5 (187)	60.6 (229)	70.0 (265)	78.3 (296)

DIMENSIONS AND WEIGHTS

TankJet 28500-R Tank Cleaning Nozzles	Model	Inlet Conn. Size/Type in.	Inlet Dia.	W in. (mm)	L in. (mm)	A in. (mm)	Min. Tank Opening in. (mm)	Weight lbs. (kg)
	28500-R	3/4	0.76 in.	2.25 (57.2)	3.69 (93.7)	1.43 (36.3)	2.5 (63.5)	0.5 (226)
		DN20	22.2 mm					
		1	1.02 in.	2.75 (69.9)	4.13 (104.9)	1.50 (38.1)	3.0 (76.2)	0.54 (249)
		DN25	28.2 mm					

Min. tank opening size is 2.5 to 4.5 in. (64 to 114 mm) depending on capacity size.

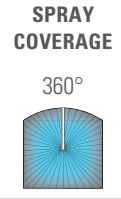
ORDERING INFORMATION

TANKJET 28500-R TANK CLEANING NOZZLES

Model	Spray Coverage	Removable Spray Head	Inlet Conn. Size/Type	Capacity Size	Material Code
EXAMPLE					
28500	E	R	3/4	23	TEF

**TANKJET 12900 TANK CLEANING NOZZLE
FEATURES AND BENEFITS**

- Stationary cluster nozzle offers extra-large flow capacity for robust and reliable tank cleaning
- Equipped with 13 FullJet® nozzles to provide high-capacity cleaning
- No moving parts; stationary nozzles prevent debris from blocking rotation so cleaning is simple and reliable
- Can be specially designed for a wide range of coverages, such as changing individual nozzles to plugs to meet specific coverage needs
- To rinse deeper tanks, Model 12900-2 is equipped with 12 FullJet® nozzles and a 1-1/2 in. bottom outlet connection which can be used with a pipe extension and a TankJet 6353 nozzle assembly
- Special materials available on request



MOUNTING OPTIONS

Vertical	↑ ↓
Horizontal	← →
45° Up	↗ ↘
45° Down	↙ ↚



TankJet 12900-1 tank cleaning nozzle

SPECIFICATIONS

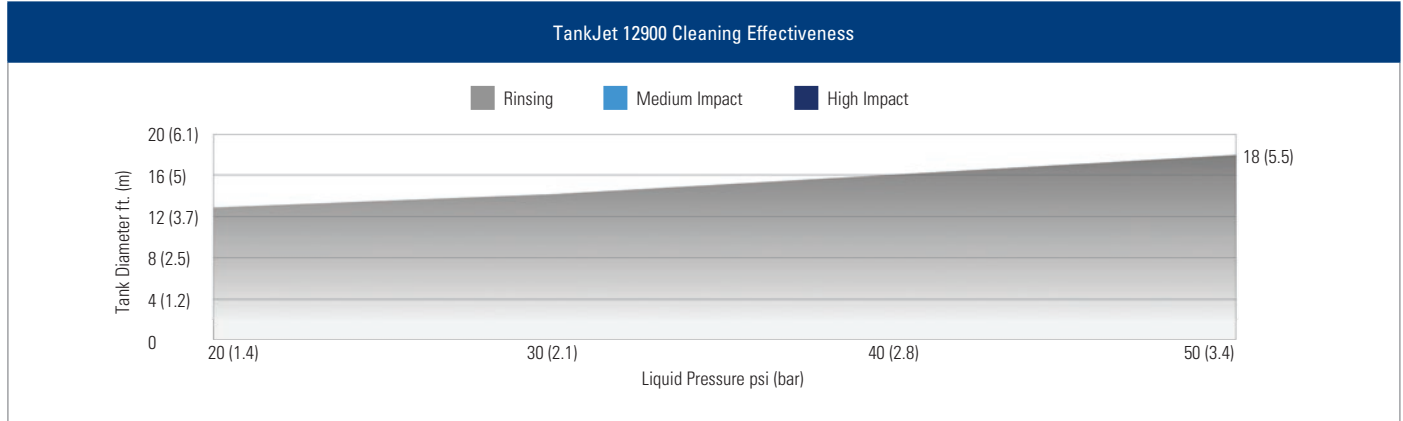
TankJet 12900 Tank Cleaning Nozzle	
Max. tank diameter:	18 ft. (5.5 m)
Operating principle:	Fixed stationary
Flow rate:	72 to 385 gpm (280 to 1470 lpm)
Operating pressure:	20 to 50 psi (1.4 to 3.4 bar)
Max. temperature:	212°F (100°C)
Materials:	Brass or 316 stainless steel (316SS)
Inlet connection:	3" NPT or BSPT (F)
Body outlet:	1/2", 3/4" and 1"
Optional accessories:	Strainers, recommended mesh size: 16 to 100 (1190 to 150 micron). See page G2

IDEAL FOR CLEANING:

- Chemical tanks
- Pulp chests
- Process tanks
- Tanker trucks

For lances, mounting kits, adapters and more, see page G6

PERFORMANCE DATA



Model 12900-1	FullJet® Nozzle		Max. Free Passage in. (mm)	Liquid Flow Capacity, gpm (lpm)				
	Body Outlet	Nozzle Size		Capacity Size	20 psi (1.4 bar)	30 psi (2.1 bar)	40 psi (2.8 bar)	50 psi (3.4 bar)
	1/2	1/2HH	40	0.141 (3.6)	72 (280)	86 (320)	99 (390)	109 (415)
	3/4	3/4HH	7	0.203 (5.2)	148 (580)	180 (660)	205 (800)	225 (860)
	1	1HH	12	0.250 (6.4)	252 (1000)	306 (1130)	350 (1370)	385 (1470)

Contact your local spray expert for 12900-2 flow rate data.

DIMENSIONS AND WEIGHTS

TankJet 12900 Tank Cleaning Nozzle	Model	Body Outlet	L in. (mm)	W in. (mm)	Min. Tank Opening in. (mm)	Weight lbs. (kg)
	12900-1	1/2	6.53 (166)	7.5 (191)	10 (254)	13.7 (6.2)
		3/4	6.84 (174)	8.25 (210)	10 (254)	15.3 (6.9)
		1	7.22 (183)	9 (229)	10 (254)	18.1 (8.2)

ORDERING INFORMATION

TANKJET 12900-1 TANK CLEANING NOZZLE

TANK CLEANER			NOZZLE			EXAMPLE
Model	Body Outlet	Material Code	Nozzle Size*	Material Code**	Capacity Size	
						12900-1 - 3/4 - 316SS + 3/4HH - 316SS 7

*Add B prior to the nozzle type for BSPT connections.

**Leave blank when ordering brass. Specify 316SS for Stainless Steel Type 316 (DIN 1.4571).

**TANKJET AA090 TANK CLEANER
FEATURES AND BENEFITS**

- Versatile, high-impact tank cleaner provides efficient, consistent, reliable cleaning with virtually no maintenance
- Lightweight units can be installed permanently or easily moved from tank to tank
- Unit is constructed using corrosion-resistant materials with the motor positioned outside the tank away from harmful caustics for trouble-free operation and long service life
- Component and configuration options allow easy customization to meet the needs a variety of cleaning operations. Choices include:
 - Variable speed, CE-approved air (AG), electric (E), or explosion-proof (E-EP) electric motors
 - Shaft lengths from 1 ft. (0.3 m) up to 10 ft. (3 m)
 - Three nozzle capacity sizes
 - Optional adjustable flange for precise positioning of turret in tank
- Flange mounting options include: three-prong (standard), ASME® raised face, and sanitary tri-clamp

SPECIFICATIONS

TankJet AA090 Tank Cleaner	
Max. tank diameter:	16 ft. (4.9 m)
Operating principle:	Motor-driven
Flow rate:	1.5 to 7.3 gpm (5.7 to 28 lpm)
Operating pressure:	100 to 500 psi (6.9 to 34.5 bar)
Max. temperature:	200°F (93°C)
Materials:	316 stainless steel and carbon filled PTFE fluoropolymer resin seals
Inlet connection:	1" NPT or BSPT (F)
Motor options:	Air, electric, explosion-proof electric
Optional accessories:	Strainers, recommended mesh size: 100 (150 micron) See page G2



TankJet AA090AG tank cleaner with air motor

HI
HIGH
IMPACT

**SPRAY
COVERAGE**

360°



**MOUNTING
OPTIONS**

Vertical	↑ ↓
Horizontal	← →
45° Up	↖ ↗
45° Down	↘ ↙



TankJet AA090AG tank cleaner

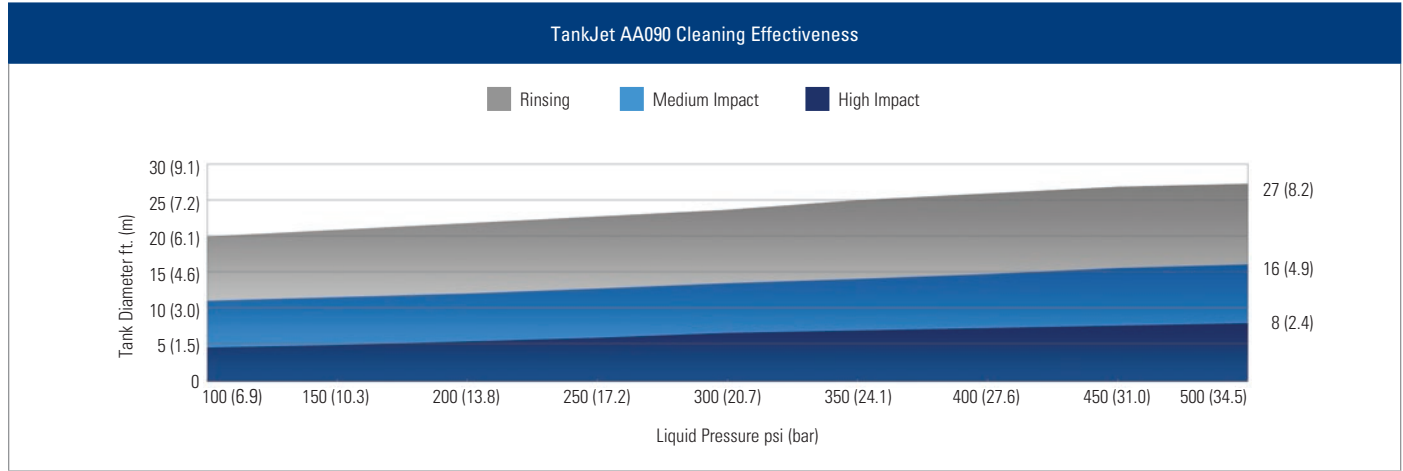
IDEAL FOR CLEANING:

- Drums
- Totes
- Process tanks

For lances, mounting kits, adapters and more, see page G6



PERFORMANCE DATA



Model	Nozzle Size	Total Flow of Equal Capacity, gpm (lpm)* Liquid Inlet Pressure				
		100 psi (6.9 bar)	200 psi (13.8 bar)	300 psi (20.7 bar)	400 psi (27.6 bar)	500 psi (34.5 bar)
AA090	W0005	1.5 (5.7)	2.0 (7.6)	2.4 (9.1)	2.8 (10.6)	3.2 (12.1)
	W0010	2.7 (10.2)	3.7 (14.0)	4.5 (17.0)	5.1 (19.3)	5.8 (22.0)
	W0014	3.5 (13.2)	4.7 (17.8)	5.8 (22.0)	6.6 (25.0)	7.3 (28.0)

*Note: Flow rates tabulated above include pressure drop through unit.

**AIR MOTOR (AG)
CYCLE TIME DATA**

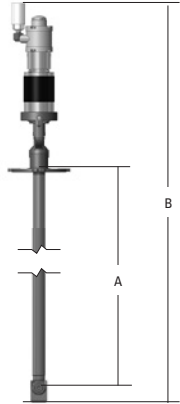
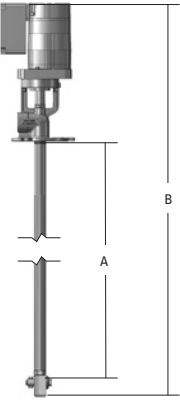
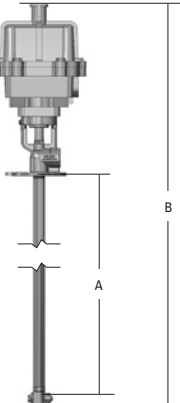
Air Pressure psi (bar)	Air Consumption scfm (l/sec)	Approx. Speed (rpm)	Approx. Time for One Complete Cycle (min.)			
			Liquid Pressure, psi (bar)			
		100 (6.9)	500 (34.5)	100 (6.9)	500 (34.5)	
6 (0.41)	2.3 (65)	5.6	6.3	5.5	4.9	
8 (0.55)	3.2 (91)	8.7	9.2	3.6	3.4	
10 (0.68)	4 (113)	10.7	11.6	2.9	2.7	

**ELECTRIC (E) & EXPLOSION-PROOF (E-EP) MOTORS
CYCLE TIME DATA**

Motor Type	AC Frequency	Speed (rpm)	Current (amps)	Power (watts)	Approx. Time for One Complete Cycle (min.)
Electric	50 Hz.	3.1	.39	41	11
	60 Hz.	3.8	.33	34	9
Explosion- Proof	50 Hz.	0.8	0.3	33	44
	60 Hz.	1.0	0.3	28	35



DIMENSIONS AND WEIGHTS

TankJet AA090	Tank Cleaner	A Extension Length ft. (m)	B Overall Length in. (m)	Weight lbs. (kg)*
AA090AG tank cleaner with air motor 	AA090AG	1.5 (0.5)	35 (0.8)	12.5 (5.7)
	AA090AG	3 (0.9)	53 (1.3)	14 (6.4)
	AA090AG	4 (1.2)	65 (1.6)	15.5 (7)
	AA090AG	6 (1.8)	89 (2.2)	18.5 (8.4)
AA090E tank cleaner with electric motor 	AA090E	1.5 (0.5)	29.6 (0.7)	12.5 (5.7)
	AA090E	3 (0.9)	47.6 (1.2)	14 (6.4)
	AA090E	4 (1.2)	59.6 (1.5)	15.5 (7)
	AA090E	6 (1.8)	83.6 (2.1)	18.5 (8.4)
AA090E-EP tank cleaner with electric explosion-proof motor 	AA090E-EP	1.5 (0.5)	32.6 (0.8)	20 (9.1)
	AA090E-EP	3 (0.9)	50.6 (1.3)	21.5 (10)
	AA090E-EP	4 (1.2)	62.6 (1.6)	23 (10.5)
	AA090E-EP	6 (1.8)	86.6 (2.2)	26 (11.8)

*Add additional weight from the flange options' chart if not using the standard flange.

DIMENSIONS AND WEIGHTS

TankJet AA090 Spray Head	Min. Tank Opening in. (m)	A in. (mm)	B in. (mm)	C in. (mm)
	2.3 (59)	1.1 (29)	0.73 (18)	2.0 (51)

FLANGE OPTIONS

Flange Type	Size	Sales Code	Net Weight lbs. (kg)*
Three-Prong (std.)	—	—	—
ASME® 150# Raised Face Flange	3	3F	10.5 (4.8)
	4	4F	15.5 (7.0)
	6	6F	24.5 (11.1)
Sanitary Tri-Clamp Flange	3	3SF*	—
	4	4SF	0.25 (0.1)
	6	6SF	3.0 (1.4)

*Add additional weight to tank cleaner if not using the standard flange.

ORDERING INFORMATION

TANKJET AA090 TANK CLEANER

TANK CLEANER				NOZZLE		EXAMPLE
Model ¹	Motor ²	Flange	-EP ³	Extension Length	+ Nozzle Size ⁴	AA090 E 6F -EP - 3 + W005

¹Add B after AA in the tank cleaner model for BSPT connections.

²Motor: Specify AG for air, E for electric.

³Add -EP for explosion-proof, leave blank for standard version.

⁴Add B prior to nozzle size for BSPT connections.

**TANKJET D26984 AND D40159
TANK CLEANING NOZZLE
FEATURES AND BENEFITS**

- Driven by the flow of the cleaning liquid, three flat sprays mounted in a rotating spray head rotate at a near-constant speed of 2 to 30 rpm over a wide range of fluid pressures and deliver as much as four times the impact of conventional rotating nozzles
- Slow, controlled rotation provides extended dwell time on tank surface making these nozzles ideal for cleaning, sanitizing and foaming applications
- Sanitary tubing and wall mounting options available upon request
- ATEX-certified versions available upon request



For lances, mounting kits, adapters and more, see page G6

D26984 & D40159 stainless steel tank cleaning nozzle



D26984 & D40159 PVDF tank cleaning nozzle



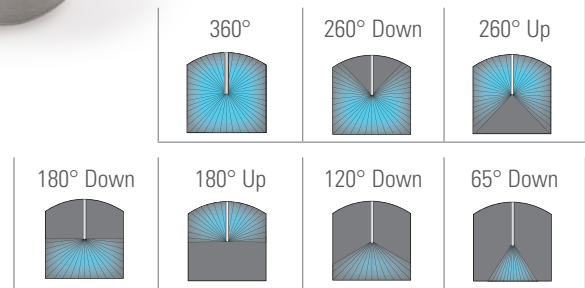
SPECIFICATIONS

TJ D26984 and D40159 Tank Cleaning Nozzles	Stainless Steel	PVDF
Max. tank diameter:	16 ft. (4.9 m)	16 ft. (4.9 m)
Operating principle:	Fluid-driven constant speed	Fluid-driven constant speed
Flow rate:	3.2 to 19.5 gpm (12.0 to 74 lpm)	3.2 to 19.5 gpm (12.0 to 74 lpm)
Operating pressure:	30 to 90 psi (2.1 to 6.2 bar)	30 to 90 psi (2.1 to 6.2 bar)
Max. temperature:	160°F (70°C)	160°F (70°C)
Materials:	Stainless Steel – 303 or 316 stainless steel body with PTFE sleeve and washer	PVDF – PVDF body with PTFE washer and PE sleeve
Inlet connection:	1/2" NPT or BSPT	3/8" and 1/2" NPT or BSPT
Optional accessories:	Strainers, recommended mesh size: 200 (74 micron) See page G2	

IDEAL FOR CLEANING:

- Chemical processing tanks
- Food processing tanks
- Dry powder tanks
- Mixing tanks
- Pharmaceutical

SPRAY COVERAGE

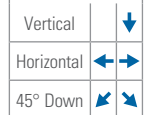


STRAINER OPTION



See page G2 for specifications.

MOUNTING OPTIONS



SPRAY COVERAGE

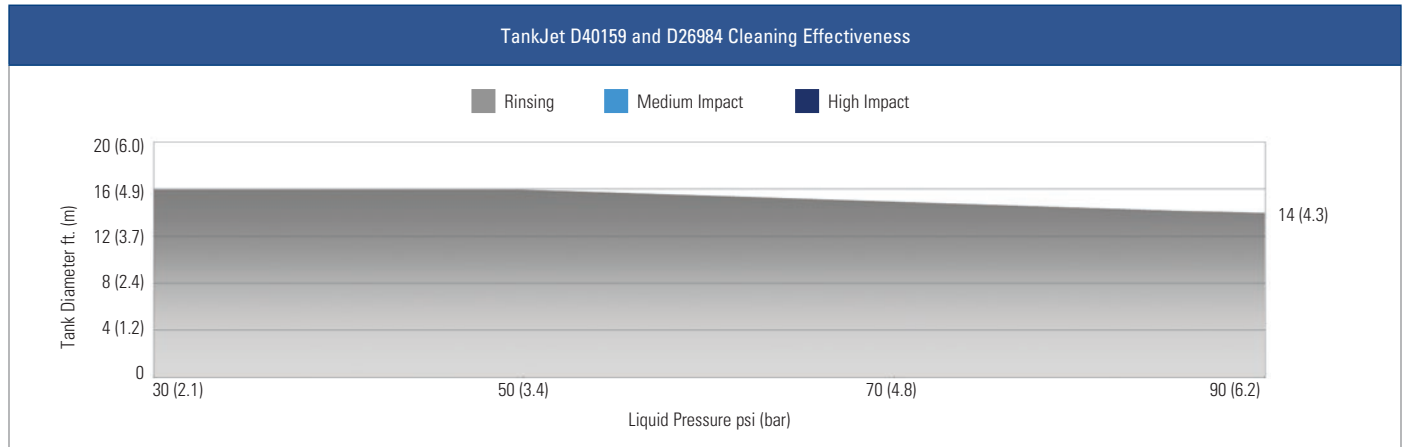
Nozzle Model	Capacity Size	360°	260° Down	260° Up**	180° Down	180° Up**	120° Down	65° Down
D40159	3.2		•	•	•	•	•	
	4.5		•	•	•	•	•	
	9.9		•	•	•	•	•	•
	13.6		•	•	•	•	•	
D26984	All	•						

Note: D40159-SS, -316SS not available in 3.2 capacity.

**Add "A" to the D40159 part number for upward spray toward inlet.



PERFORMANCE DATA



Model		Inlet Conn. Size in.	Capacity Size	Liquid Flow Capacity gpm (lpm)			
D40159	D26984			30 psi (2.1 bar)	50 psi (3.4 bar)	70 psi (4.8 bar)	90 psi (6.2 bar)
	•	3/8	3.2	3.2 (12.1)	3.8 (14.5)	4.4 (16.9)	5 (19.1)
	•		4.5	3.8 (14.4)	4.7 (17.9)	5.5 (21)	6.3 (24)
•	•	1/2	3.2	3.2 (12.1)	3.8 (14.5)	4.4 (16.9)	5 (19.1)
•	•		4.5	3.8 (14.4)	4.7 (17.9)	5.5 (21)	6.3 (24)
•	•		9.9	8.4 (32)	10.6 (40)	12.5 (48)	14.4 (55)
•	•		13.6	11.3 (43)	14.5 (55)	17.3 (66)	19.8 (75)

DIMENSIONS AND WEIGHTS

Tank Cleaning Nozzles	Model	Material	L in. (mm)	A in. (mm)	B in. (mm)	Min. Tank Opening in. (mm)	Net Weight lbs. (kg)
	D40159	PVDF	5.75 (146)	1.94 (49)	1.92 (49)	2.25 (56)	0.43 (0.19)
	D26984						
	D40159	SS	5.75 (146)	2 (50)	1.6 (41)	2.25 (56)	1.62 (0.73)
	D26984						

ORDERING INFORMATION

D40159 TANK CLEANING NOZZLE

Model - Inlet Conn. Size* - Material Code** - Capacity Size - Spray Coverage - Spray Direction†

EXAMPLE: **D40159** - **3/8** - **PVDF** - **3.2** - **260** - **A**

D26984 TANK CLEANING NOZZLE

Model - Inlet Conn. Size* - Material Code** - Capacity Size


EXAMPLE: **D26984** - **3/8** - **PVDF** - **3.2**

*Add B prior to the inlet connection for BSPT connections.

**Material: Specify PVDF for chemical-resistant material. Specify SS for Stainless Steel Type 303 (DIN 1.4305). Specify 316SS for Stainless Steel Type 316 (DIN 1.4571).

†Add "A" to the D40159 part number for upward spray toward inlet.

**TANKJET D41800E TANK CLEANING NOZZLE
FEATURES AND BENEFITS**

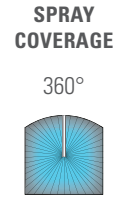
- Compact, constant-speed nozzles provide up to four times the impact of conventional rotating nozzles
- Rotating head with three flat sprays is driven by the flow of the cleaning liquid
- Rotates at nearly constant speed over a wide range of fluid pressures
- Slow, controlled rotation provides more dwell time on tank surface, making it perfect for cleaning, sanitizing and foaming applications
- Patented self-flushing water bearing design eliminates internal bearings and races
- ATEX-certified versions available upon request 
- Choice of threaded or sanitary pin
- TankJet D41800-3A nozzles conform to 3-A Sanitary Standard 78 for spray cleaning devices to remain in place
- All stainless steel construction provides maximum chemical and wear resistance

SPECIFICATIONS

TankJet D41800E Tank Cleaning Nozzle	
Max. tank diameter:	16 ft. (4.9 m)
Operating principle:	Fluid-driven constant speed
Flow rate:	3.0 to 22.8 gpm (11.0 to 86 lpm)
Operating pressure:	30 to 90 psi (2.1 to 6.2 bar)
Max. temperature:	265°F (130°C)
Materials:	303 stainless steel or 316L stainless steel
Rotation speed:	2 to 30 rpm
Inlet connection:	3/8" NPT or BSPT (F), DN19
Optional accessories:	Strainers, recommended mesh size: 200 (74 micron) See page G2

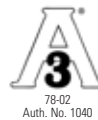


TankJet D41800E constant speed tank cleaning nozzle



MOUNTING OPTIONS

Vertical	↑	↓
Horizontal	←	→
45° Up	↖	↗
45° Down	↘	↙



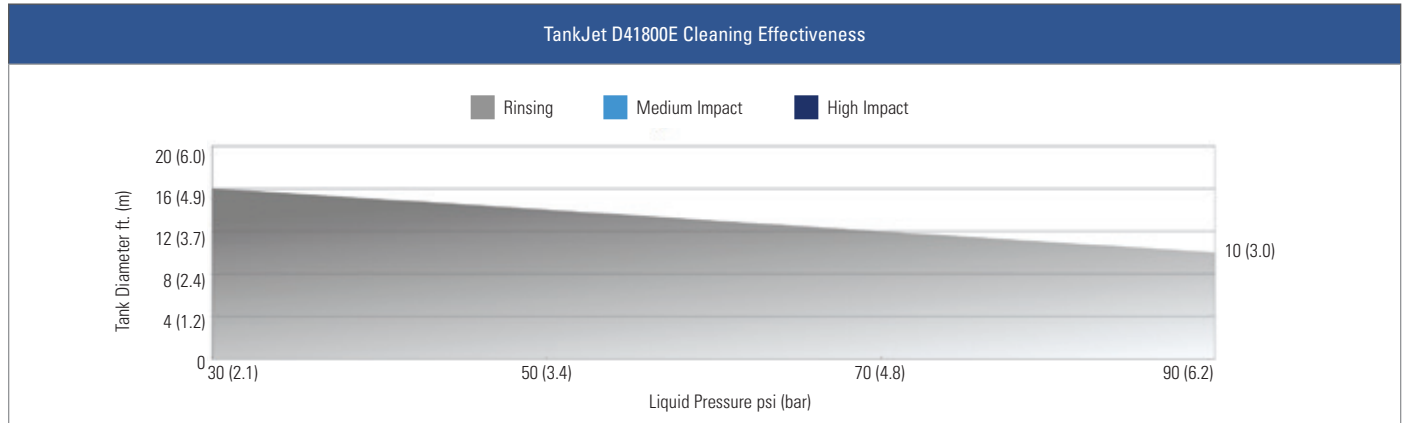
This unit meets the requirements of 3-A Sanitary Standard 78. Spray cleaning devices intended to remain in place.

IDEAL FOR CLEANING:

- Chemical processing tanks
- Dry powder tanks
- Food processing tanks
- Mixing tanks
- Pharmaceutical tanks

For lances, mounting kits, adapters and more, see page G6

PERFORMANCE DATA



Model	Inlet Conn. Size/Type	Capacity Size	Liquid Flow Capacity gpm (lpm)			
			30 psi (2.1 bar)	50 psi (3.4 bar)	70 psi (4.8 bar)	90 psi (6.2 bar)
D41800E	3/8	3.2	3.0 (11)	3.7 (14)	4.4 (17)	5.0 (19)
		4.5	4.1 (15)	5.2 (20)	6.2 (23)	7.1 (27)
		9.9	8.6 (33)	10.9 (41)	13.0 (49)	14.9 (56)
		13.6	12.4 (47)	15.6 (59)	18.5 (70)	21.1 (80)
	DN19	3.2	4.0 (15)	5.1 (19)	6.1 (23)	7.0 (26)
		4.5	4.6 (17)	5.8 (22)	6.9 (26)	7.9 (30)
		9.9	9.2 (35)	11.6 (44)	13.8 (52)	15.8 (60)
		13.6	13.4 (51)	16.8 (64)	20.0 (76)	22.8 (86)

DIMENSIONS AND WEIGHTS

D41800E Tank Cleaning Nozzle	Model	Inlet Conn.	L in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	Pin Length in. (mm)	Min. Tank Opening in. (mm)	Weight lbs. (kg)
	D41800E	3/8"	3.1 (78)	1.2 (30)	0.84 (21.2)	-	-	1.25 (31)	0.28 (0.13)
		DN19	3.8 (97)	1.2 (30)	0.85 (21.6)	0.76 (19.2)	1.5 (38)	1.6 (40)	0.29 (0.13)
	D41800E-3A	DN19	4.1 (104)	1.2 (30)	0.85 (21.6)	0.76 (19.2)	1.5 (38)	1.6 (40)	0.29 (0.13)

ORDERING INFORMATION

TANKJET D41800E TANK CLEANING NOZZLE

Model	Inlet Conn.*	Material Code**	Capacity Size	EXAMPLE
				D41800E - 3/8 - SS 9.9

TANKJET D41800E-3A TANK CLEANING NOZZLE

Model	Inlet Conn. Size/Type*	Material Code**	Capacity Size	3A Version†	EXAMPLE
					D41800E - 19 - 316L 9.9 - 3A

*Add B prior to the inlet connection for BSPT connections.

** Materials: Specify SS for Stainless Steel Type 303 (DIN1.4305). Specify 316L for Stainless Steel Type 316L (DIN1.4404).

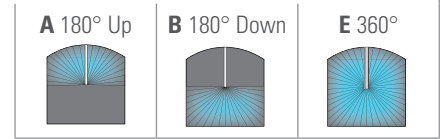
†Leave blank for standard version.

**TANKJET D41990 TANK CLEANING NOZZLE
FEATURES AND BENEFITS**

- Low-pressure, low-volume rinsing of small tanks and containers
- Fluid-driven reactionary force nozzle – no motor source needed to drive spray head
- Micro-size nozzle fits into very small tank openings – as small as 1 in. (25 mm)
- All 316L stainless steel construction for long wear life and corrosion resistance
- Suitable for high-temperature applications up to 265°F (130°C)
- ATEX-certified versions available upon request



SPRAY COVERAGE



MOUNTING OPTIONS

Vertical	↑	↓
Horizontal	←	→
45° Up	↖	↗
45° Down	↙	↘



TankJet D41990A tank cleaning nozzle, see page E10



TankJet D41990 tank cleaning nozzle

SPECIFICATIONS

TankJet D41990A Tank Cleaning Nozzle	
Max. tank diameter:	16 ft. (4.9 m)
Operating principle:	Fluid-driven reactionary force
Flow rate:	7.5 to 37 gpm (29 to 141 lpm)
Operating pressure:	15.0 to 60 psi (1 to 4 bar)
Max. temperature:	265°F (130°C)
Materials:	316L stainless steel
Inlet connection:	3/8", 1/2", 3/4" NPT or BSPT (F), CIP 182 or 192
Optional accessories:	Strainers, recommended mesh size: 200 (74 micron) See page G2

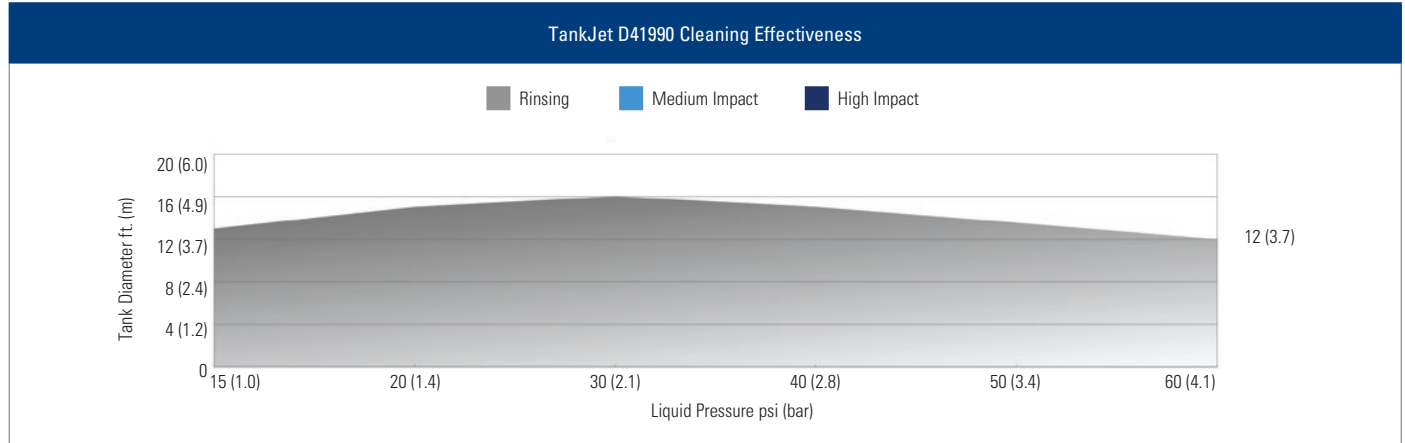
IDEAL FOR CLEANING:

- Chemical tanks
- Beverage tanks
- Canisters
- Food tanks
- Keg/drum
- Tote/container

ADDITIONAL SIZES AVAILABLE
For D41990 up to 6.5 ft. see page E10



PERFORMANCE DATA



Inlet Conn. Size/Type	Capacity Size	Capacity, gpm (lpm)					
		15 psi (1.0 bar)	20 psi (1.4 bar)	30 psi (2.1 bar)	40 psi (2.8 bar)	50 psi (3.4 bar)	60 psi (4.1 bar)
1/2" CIP192	13.6	7.5 (29)	8.8 (33)	10.5 (40)	12 (45)	13.1 (49)	14.2 (54)
	15	9 (34)	10.5 (40)	12.6 (48)	14.4 (55)	15.8 (60)	17.2 (65.1)
	21	12.8 (49)	15 (57)	18 (68)	21 (78)	23 (95)	25 (93)
	24	13.6 (52)	16 (61)	19.4 (74)	22(85)	25 (93)	27 (101)
3/4" CIP192	32	20 (76)	23 (88)	28 (105)	32 (120)	34 (130)	37 (141)

DIMENSIONS AND WEIGHTS

TankJet D41990 Tank Cleaning Nozzle	Inlet Conn. Size*	L in (mm)	A in (mm)	B in (mm)	C in (mm)	Pin Length in (mm)	Min. Tank Opening in (mm)	Weight lbs. (kg)
	1/2", 3/4"	4.4 (111)	1.3 (34)	1.2 (31)	-	-	1.5 (38)	0.8 (0.36)
	CIP192	4.4 (111)	1.3 (34)	1.2 (31)	0.76 (19.2)	3.9 (98)	3.87 (99)	0.8 (0.36)

*Additional sizes available: See page E10 – 3/8 in. and CIP182 conn.

ORDERING INFORMATION

TANKJET D41990 TANK CLEANING NOZZLE

Model	Spray Coverage	Inlet Conn. Size/Type*	Material Code	Capacity Size
-------	----------------	------------------------	---------------	---------------

EXAMPLE

D41990	E	-	1/2	-	316L	-	21
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Add B prior to the inlet connection size/type for BSPT connections.

**TANKJET 9 TANK CLEANING NOZZLES
FEATURES AND BENEFITS**

- Multiple flat spray nozzles are mounted in a rotating spray head that is driven by the flow of the cleaning liquid
- Simple and reliable, with no ball bearings, tank cleaners operate effectively in any position, vertical or horizontal
- Well-suited to clean-in-place and sanitary applications, chemical distribution and passivation
- Offered in three versions for medium-size tanks:
 - TankJet 9-A features two flat side sprays, each covering 175°, see page E14
 - The TankJet 9-B and 9-C versions each have six flat sprays and provide coverage of the entire tank

TankJet 9-A tank cleaning nozzle, see page E14



TankJet 9-B tank cleaning nozzle



TankJet 9-C tank cleaning nozzle



R
RINSING

SPRAY COVERAGE
TJ9-B, TJ9-C
360°

MOUNTING OPTIONS

Vertical	↑	↓
Horizontal	←	→
45° Up	↖	↗
45° Down	↙	↘

SPECIFICATIONS

Tank Cleaning Nozzle	TJ9-B	TJ9-C
Max. tank diameter:	12 ft. (3.7 m)	16 ft. (4.9 m)
Operating principle:	Fluid-driven reactionary force	Fluid-driven reactionary force
Flow rate:	5 to 17 gpm (18.9 to 64 lpm)	12 to 38 gpm (45 to 144 lpm)
Operating pressure:	10 to 120 psi (0.7 to 8.3 bar)	10 to 120 psi (0.7 to 8.3 bar)
Max. temperature:	190°F (88°C)	190°F (88°C)
Materials:	Bearings – Carbon-filled PTFE fluoropolymer All other metallurgy – 316 stainless steel	Bearings – Carbon-filled PTFE fluoropolymer All other metallurgy – 316 stainless steel
Inlet connection:	1/2" NPT or BSPT (F)	3/4" NPT or BSPT (F)
Optional accessories:	Strainers, recommended mesh size: 20 (840 micron) See page G2	

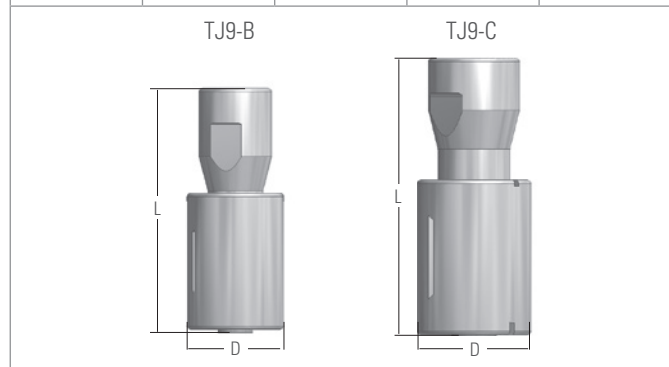
For lances, mounting kits, adapters and more, see page G6

IDEAL FOR CLEANING:

- Brewery tanks
- Chemical containers
- Drums and kegs
- Food processing tanks
- Pharmaceutical tanks
- Wine barrels and vats

DIMENSIONS AND WEIGHTS

Nozzle	L in. (mm)	D (Dia.) in. (mm)	Min. tank opening in. (mm)	Weight lbs. (kg)
TJ9-B	3.5 (88)	1.38 (35)	1.5 (38)	.58 (.26)
TJ9-C	4 (102)	1.63 (42)	1.75 (44)	.96 (.44)



Additional sizes available: See page E12 – 3/8 in. conn.

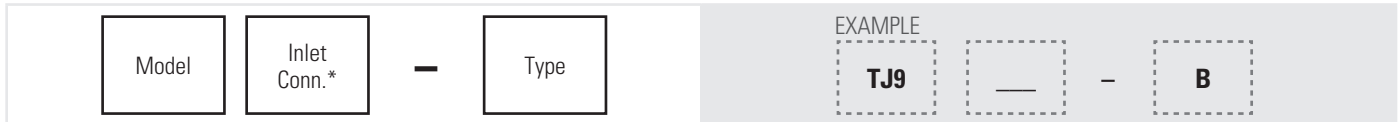
PERFORMANCE DATA



Model	Type	Liquid Flow Capacity gpm (lpm)							
		10 psi (0.7 bar)	30 psi (2.1 bar)	50 psi (3.5 bar)	70 psi (4.8 bar)	90 psi (6.2 bar)	100 psi (6.9 bar)	110 psi (7.6 bar)	120 psi (8.3 bar)
TJ9	B	5.0 (18.9)	8.0 (30)	11.0 (42)	13.0 (49)	14.0 (53)	15.0 (57)	16.0 (61)	17.0 (64)
	C	12.0 (45)	20 (76)	25 (95)	30 (114)	33 (123)	35 (133)	37 (140)	38 (144)

ADDITIONAL SIZES AVAILABLE
TankJet 9-A see page E14

ORDERING INFORMATION
 TANKJET 9-B AND 9-C TANK CLEANING NOZZLE



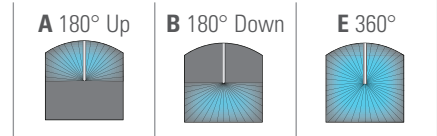
* Leave blank for NPT connection or insert B for BSPT connection.

TANKJET 63225 & 63225-3A SPRAY BALL FEATURES AND BENEFITS

- Stationary spray balls are ideal for sanitary rinsing and low-pressure washing, offering a low-cost way to handle easy-to-remove residues
- Wrap-around retaining clip is supplied with each spray ball
- Because there are no moving parts spray balls are well-suited to clean-in-place (CIP) installations
- 63225-3A sanitary spray balls have a polished 32Ra interior and exterior surface finish with a threadless, self-draining design that prevents buildup
- Choice of 180° or 360° spray coverage, with custom drilling available for both spray pattern and flow rate on model 63225-3A spray balls
- Can be installed in any position
- 316L stainless steel construction permits use with a wide array of chemicals



SPRAY COVERAGE



MOUNTING OPTIONS

Vertical	↑	↓
Horizontal	←	→
45° Up	↖	↗
45° Down	↘	↙

TankJet 63225-3A spray balls



SPECIFICATIONS

TankJet 63225 & 63225-3A Spray Balls	
Max. tank diameter:	13 ft. (4 m)
Operating principle:	Stationary
Flow rate:	22 to 51 gpm (83 to 192 lpm)
Operating pressure:	15 to 40 psi (1.0 to 2.8 bar)
Max. temperature:	400°F (204°C)
Materials:	316L stainless steel
Inlet tube size:	TankJet 63225: 3/4", 1" TankJet 63225-3A: 3/4", 1", 1-1/2"
Optional accessories:	Strainers, recommended mesh size: 16 to 50 (1190 to 297 micron). See page G2



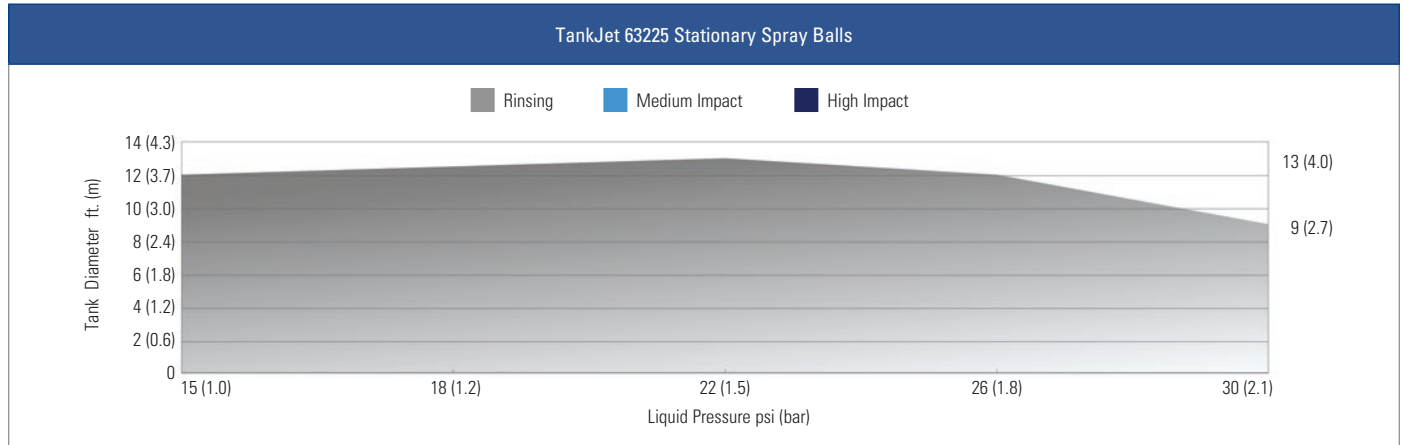
This unit meets the requirements of 3-A Sanitary Standard 78. Spray cleaning devices intended to remain in place.

IDEAL FOR CLEANING:

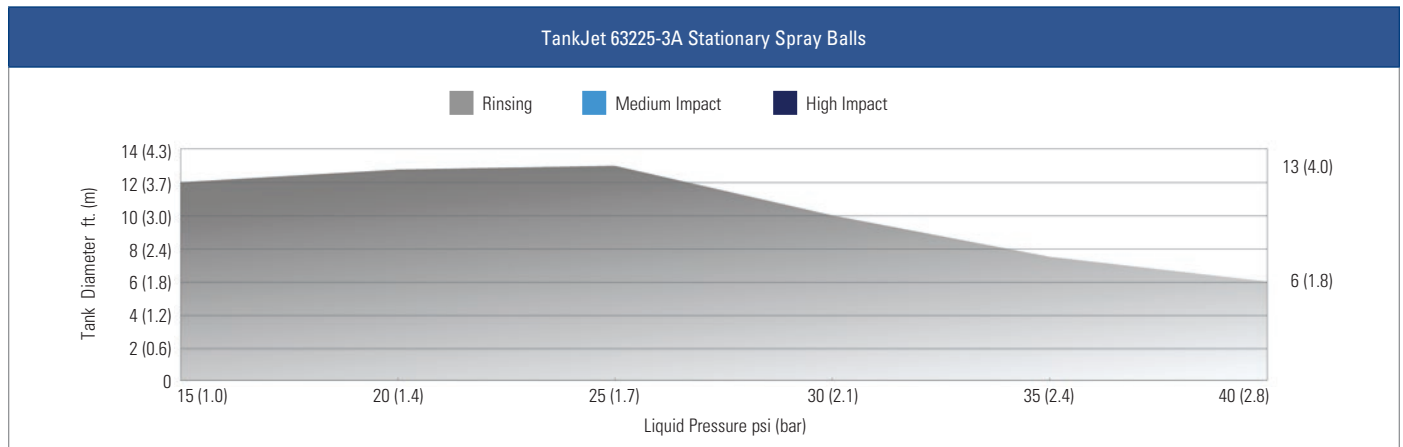
- Chemical processing tanks
- Food processing vats and tanks
- Pharmaceutical vessels

For lances, mounting kits, adapters and more, see page G6

PERFORMANCE DATA



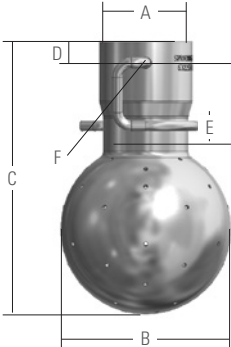
Model 63225		Liquid Flow Capacity gpm (lpm)			Max. Tank Dia. ft. (m)
Inlet Tube Size in.	Capacity Size	15 psi (1.0 bar)	22 psi (1.5 bar)	30 psi (2.1 bar)	
3/4	22	22 (83)	27 (102)	31 (117)	10 (3.0)
1	32	32 (121)	39 (148)	45 (170)	13 (4.0)



Model 63225-3A			Liquid Flow Capacity gpm (lpm)			Max. Tank Dia. ft. (m)
Inlet Tube Size	Ball Diameter	Capacity Size	15 psi (1.0 bar)	25 psi (1.7 bar)	40 psi (2.8 bar)	
3/4	1.5	40	31 (115)	40 (151)	51 (192)	10 (3.0)
1	2					13 (4.0)
1-1/2	2.5					13 (4.0)
1-1/2	2.5					13 (4.0)
1-1/2	3					13 (4.0)
1-1/2	4					13 (4.0)



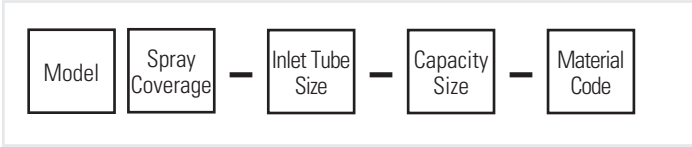
DIMENSIONS AND WEIGHTS

TankJet 63225 & 63225-3A Spray Balls	Tank Cleaner	A tube size in.	B (Dia.) in. (mm)	C Length in. (mm)	D in. (mm)	E in. (mm)	F (Pin dia) in. (mm)
 <p>63225</p>	63225_*-3/4-22-316L	3/4	2 (51)	3.64 (93)	.51 (13)	1.25 (31.8)	.13 (3.3)
	63225_*-1-32-316L	1	2.5 (64)	4.40 (112)	.51 (13)	1.56 (39.6)	.13 (3.3)
 <p>63225-3A</p>	63225_*-.75-1.5-40-3A	3/4	1.5 (38.1)	2.53 (64.3)	.33 (9.5)	.25 (6.4)	.14 (3.6)
	63225_*-1-2-40-3A	1	2 (50.8)	3.31 (84.1)	.33 (9.5)	.33 (9.5)	.14 (3.6)
	63225_*-1.5-2.5-40-3A	1- 1/2	2.5 (63.5)	4.25 (108)	.25 (6.4)	.75 (19.1)	.20 (5.2)
	63225_*-1.5-3-40-3A	1- 1/2	3 (76.2)	4.78 (121.4)	.25 (6.4)	.75 (19.1)	.20 (5.2)
	63225_*-1.5-4-40-3A	1- 1/2	4 (101.6)	5.75 (146)	.25 (6.4)	.75 (19.1)	.20 (5.2)
	63225_*-1.5-4-40-3A	1- 1/2	4 (101.6)	5.75 (146)	.25 (6.4)	.75 (19.1)	.20 (5.2)

* Available in A, B or E spray coverage.

ORDERING INFORMATION

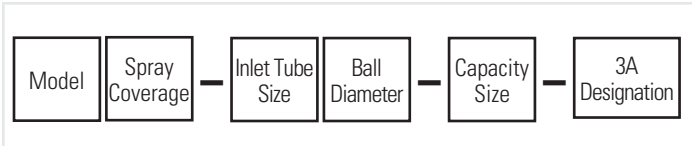
63225 TANK CLEANING SPRAY BALLS



EXAMPLE



63225-3A TANK CLEANING SPRAY BALLS



EXAMPLE



**TANKJET 14 AND 19
TANK CLEANING NOZZLE
FEATURES AND BENEFITS**

- Slim design is ideal for cleaning tanks with small openings
- Sleek design helps prevent residue buildup and simplifies maintenance
- Carefully drilled solid stream orifices are strategically placed to provide four different spray coverages
- Fluid-driven unit rotates at a slow speed of 3 to 15 rpm for increased dwell time on tank surface compared to free spinning units
- Suitable for CIP or portable installations and easily passes through a 2 in. sch 40 pipe
- A 6 in. extension is available for TJ19 for kegs, drums, & barrels
- See case study on page E16



TankJet 14
tank cleaner



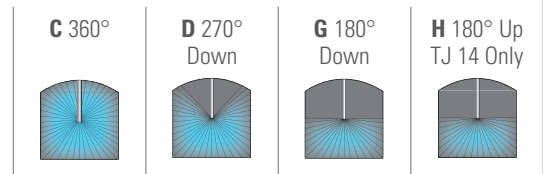
TankJet 19
tank cleaner



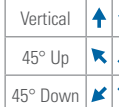
SPECIFICATIONS

Tank Cleaning Nozzles	TankJet 14	TankJet 19
Max. tank diameter:	12 ft. (3.7 m)	12 ft. (3.7 m)
Operating principle:	Fluid-driven turbine	Fluid-driven turbine
Flow rate:	13.0 to 34 gpm (49 to 129 lpm)	10.0 to 30 gpm (38 to 114 lpm)
Operating pressure:	50 to 200 psi (3.4 to 13.8 bar)	50 to 200 psi (3.4 to 13.8 bar)
Max. temperature:	250°F (121°C)	250°F (121°C)
Materials:	Stainless steel and PTFE	Stainless steel and PTFE
Rotation speed:	3.0 to 15.0 rpm	3.0 to 15.0 rpm
Inlet connection:	3/4" NPT or BSPT (F), 1" sanitary flange	3/4" NPT or BSPT (F), 1" sanitary flange
Optional accessories:	Strainers, recommended mesh size: 20 (840 micron) See page G2	

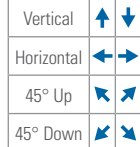
SPRAY COVERAGE



**TJ-14
MOUNTING
OPTIONS**



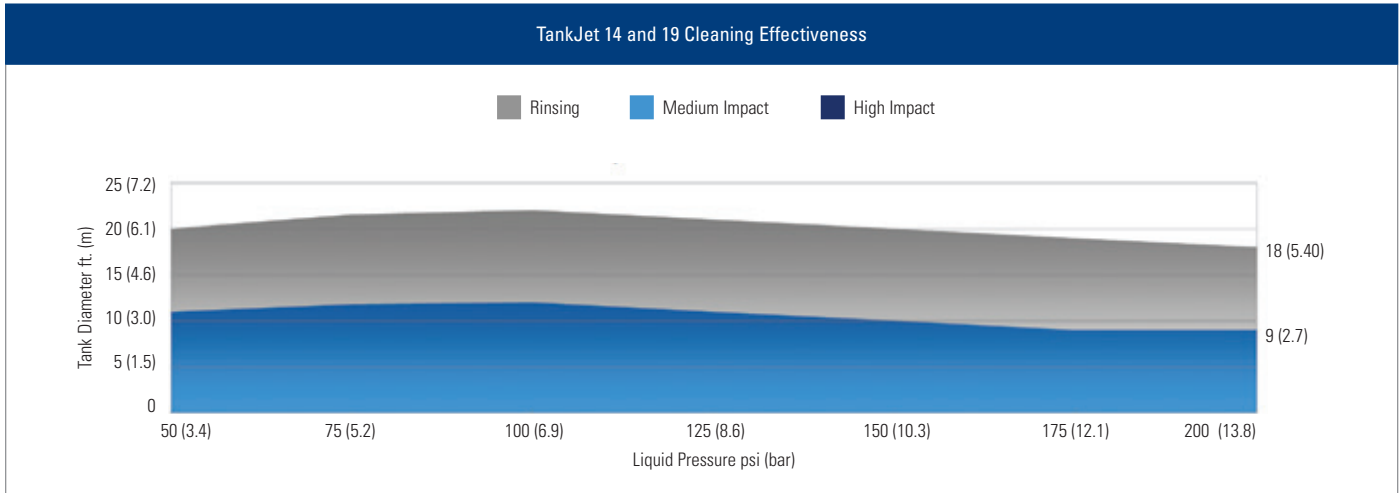
**TJ-19
MOUNTING
OPTIONS**



IDEAL FOR CLEANING:

- Chemical mixers/blenders
- Drums and kegs
- Food processing tanks
- Pharmaceutical tanks
- Tablet coating machines

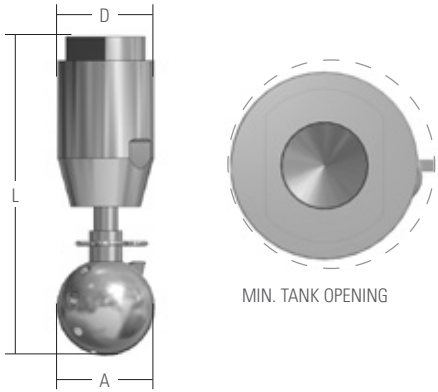
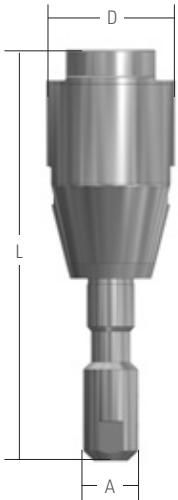
PERFORMANCE DATA



Model	Spray Coverage	Liquid Flow Capacity gpm (lpm)								
		50 psi (3.4 bar)	70 psi (4.8 bar)	90 psi (6.2 bar)	100 psi (6.9 bar)	120 psi (8.3 bar)	140 psi (9.7 bar)	160 psi (11.0 bar)	180 psi (12.4 bar)	200 psi (13.8 bar)
TJ14	D	13.0 (49)	16.0 (61)	18.0 (68)	19.5 (74)	21 (79)	23 (87)	25 (93)	27 (100)	28 (106)
	G, H	16.0 (61)	18.5 (70)	21 (79)	23 (87)	24 (91)	26 (98)	28 (106)	30 (114)	32 (121)
	C	17.0 (64)	19.5 (74)	22 (83)	25 (93)	26 (98)	28 (104)	30 (112)	32 (121)	34 (129)
TJ19	G	12 (45)	14 (53)	16.5 (62)	17.5 (66)	19 (72)	21 (79)	23 (85)	24 (91)	26 (98)
	D	16 (61)	18 (68)	20 (76)	21 (79)	23 (85)	24 (91)	26 (98)	28 (104)	29 (108)
	C	17 (64)	19 (72)	21 (79)	22 (83)	24 (91)	26 (97)	27.5 (104)	29 (110)	30 (114)

For lances, mounting kits, adapters and more, see page G6

DIMENSIONS AND WEIGHTS

TankJet Cleaning Nozzle	Model	Inlet Conn.	L in. (mm)	A in. (mm)	D (Dia.) in. (mm)	Min. Tank Opening in. (mm)	Weight lbs. (kg)
	TJ14	Threaded	6.56 (167)	1.95 (49)	1.97 (50)	2 (51)	2.25 (1)
		Sanitary flange	7.56 (192)	1.95 (49)	1.97 (50)	2 (51)	2.5 (1.1)
	TJ19	Threaded	6.65 (169)	0.84 (21)	1.97 (50)	2 (51)	2 (.9)
		Sanitary flange	12.65 (321)	0.84 (21)	1.97 (50)	2 (51)	2.3 (1.0)
	TJ19-6	Threaded	6.65 (169)	0.84 (21)	1.97 (50)	2 (51)	2 (.9)
		Sanitary flange	13.65 (347)	0.84 (21)	1.97 (50)	2 (51)	

* 7/8 in. (22 mm) probe available for smaller keg or drum bungholes

ORDERING INFORMATION

TANKJET 14 AND 19 TANK CLEANING NOZZLES

Model	Inlet Conn.*	—	Spray Coverage	EXAMPLE TJ19 — C
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* Leave blank for NPT connection. Insert B for BSPT connection or SF for sanitary flange.