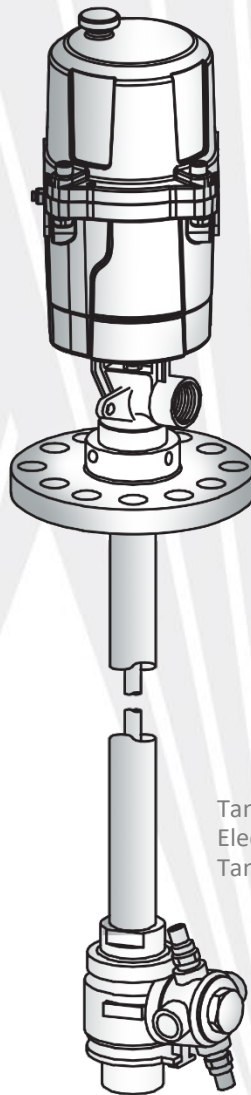


# TankJet<sup>®</sup> AA290E-EP Series Tank Cleaner

USER GUIDE



TankJet AA290E-EP  
Electric Motor-Driven  
Tank Cleaner



**Spraying Systems Co.<sup>®</sup>**  
Experts in Spray Technology

MI-AA290E-EP  
[spray.com](http://spray.com)

## CONTENTS

CONTENTS .....	2
FORWARD .....	2
INTRODUCTION .....	2
SPECIFICATIONS.....	2
DATA SHEETS.....	3
SAFETY PRECAUTIONS .....	5
Installation Precautions .....	5
General Safety .....	6
Operation Precautions .....	6
MAINTENANCE .....	7
WARRANTY .....	8
PARTS LIST.....	9
MAINTENANCE RECORD .....	10
DECLARATION OF CONFORMITY .....	11

**IMPORTANT: PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLING OR OPERATING UNIT. SAVE FOR FUTURE REFERENCE.**

### PROPRIETARY NOTICE

The information contained in this document is the exclusive property of **SPRAYING SYSTEM CO.**

Reproduction in whole or part is prohibited without prior consent of **SPRAYING SYSTEMS CO.**

## FORWARD

The equipment and/or parts described in this document were manufactured and assembled with quality and high reliability, which have become synonymous with the name Spraying Systems Co. The description and specifications contained herein were effective on the revision date of this MI. Spraying Systems Co. reserves the right to alter or modify any unit specification on Spraying Systems Co. product without notice or obligation.

## INTRODUCTION

This tank washer meets the requirements set forth in EC Directive 2006/42/EC. The latest motor manufacturer's Operation & Maintenance Manual is included with this tank washer as a separate manual since important safety precautions pertaining to the installation and operation of the motor itself are included.

## SPECIFICATIONS

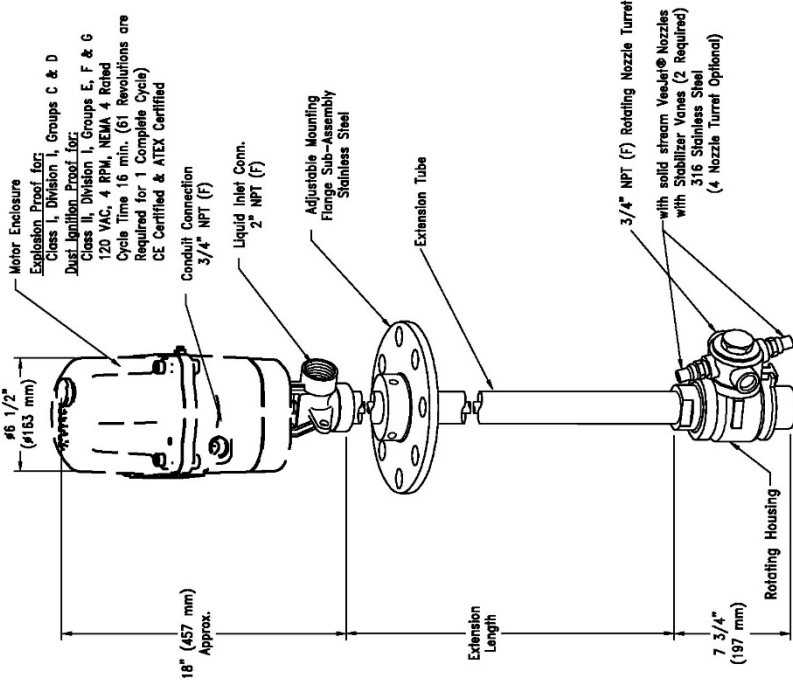
<b>Liquid Pressure:</b>	250 psi (17 bar) max.
<b>Flow Rates:</b>	Up to 284 gpm (1075 l/m)
<b>Liquid Temperature:</b>	200 degrees F (93 degrees C) max.
<b>Electrical Motor:</b>	120 Volt AC
<b>Tank Diameter:</b>	100 ft. (30.5 m) max. recommended
<b>Min. Tank Opening:</b>	Spray Head with two nozzles fits through a 7.25" (184.1 mm) dia. opening
	Spray Head with four nozzles fits through a 8.25" (209.5 mm) dia. opening

Tanks over the specified diameters could possibly be cleaned adequately depending on the maximum tank dimension, cleaning solutions being used, temperatures, spray pressures, flow rates and the material being cleaned from the tank.

The tank washer may be used with plain water or with a variety of chemicals (compatible with 316 SS, ethylene propylene rubber, and carbon graphite filled Teflon®). However, if chemicals are used, review MSDS sheets and chemical compatibility with material used to construct this product. Also, the unit should be flushed with clean water at the end of the day before the unit is stored. A liquid line strainer ahead of the unit is recommended to remove large particles which may damage the unit.



The AA290E\_F-EP-\_\_ Motor-Driven Rotary Tank Washer projects cleaning solution in concentrated high impact, solid stream sprays... with rotating motion that covers all internal surfaces of tanks. slow, controlled rotational speeds of rotating housing and nozzle turret provide a thorough cleaning action on the tank surface.



**Features:**

- Can be used as a permanently installed unit or removable unit.
- Extension into tank is fully adjustable.
- Nozzle turret with 2 or 4 solid stream nozzles is gear driven to give full coverage of internal tank surfaces.
- Motorized drive unit is mounted outside of the tank.
- Rotational speed of the nozzle turret is independent of the cleaning liquid pressure and flow.
- For tank diameters up to approximately 80 ft. (24.4 m), see Data Sheet 72041.
- For specifications and additional information, see Data Sheets: 290E-EP-1, PL290E-EP, and current tank wash catalog.
- Max pressure: 250 PSI (17 bar); Flow: 200 GPM (752 l/min); Temp: 200° F (93° C).
- Wetted parts are Teflon®, 316 Stainless Steel, and EPR.
- CE Certified & ATEX Certified

**HOW TO ORDER EXAMPLE:**

AA B 290E B F-EP-120V-6-2 + 55430-H3/4U-316SS00350

Flange Size \*      Specify Nozzle Size & Material (See U.S. 290E-EP-1)

Motor Type, 120V      Specify Number of Nozzles 2 or 4, \* this will determine flange size.

Add "B" to the Part No. for BSPT Connections      Specify Extension Length in Feet.

<b>Description:</b> No. AA290E_F-EP-__ Explosion Proof Motor-Driven Tank Washer		Spraying Systems Co. Spray Nozzles and Accessories P.O. Box 7900 - Waukegan, IL 60087-7901
Rev. No. 9	Date Sheet Iss. 290E-EP	
Ref.	Sheet 01	290E

© Spraying Systems Co.

**Motor end view of inlet body mounting flange**

O.D. Flange (See Tab.)

#A Bolt Hole Equally Spaced for Qty. (See Tab.)

Dia. Bolt Circle (See Tab.)

**Explosion Proof Motor Data**

Approx. Speed (RPM)	Current Draw (Amps)	Supply	Cycle Time (Min.)*
4	.44-.55	120VAC 60HZ	16

\* 61 Revolutions are Required for 1 Complete Cycle.

**Flow Rate Data**

Nozzle	Inlet Pressure, PSI (bar)				
	50 (3.5)	100 (7)	150 (10)	200 (15)	250 (17)
55430-H3/AU-316SS00100	22 (85)	32 (121)	39 (144)	45 (177)	50 (188)
55430-H3/AU-316SS00200	45 (171)	63 (241)	77 (288)	89 (333)	100 (376)
55430-H3/AU-316SS00250	56 (213)	79 (301)	97 (360)	112 (441)	125 (470)
55430-H3/AU-316SS00350	78 (298)	111 (422)	136 (505)	157 (618)	175 (658)
55430-H3/AU-316SS00400	89 (341)	128 (482)	155 (577)	179 (706)	200 (752)

Avg. Total Flow of 2 Nozzles (Equal Capacity)  
Gallons Per Minute (Liters Per Minute)

**Spray Head Tank Diameter Opening Requirements**

Four Nozzles: #8.25" [209.5 mm] Min.

Two Nozzles: #7.25" [184.1 mm] Min.

★ DIRECTION OF ROTATION IS VERY IMPORTANT. NOZZLE HUB MUST ROTATE AS INDICATED.

**Motor-Driven Tank Washer No.**

Motor-Driven Tank Washer No.	Extension Length	Weight
AA290E0F-EP-3-2	3' (0.9 m)	71 LBS. (32.2 kg)
AA290E0F-EP-4-2	4' (1.2 m)	75 LBS. (34.0 kg)
AA290E0F-EP-6-2	6' (1.8 m)	84 LBS. (38.1 kg)
AA290E10F-EP-3-4	3' (0.9 m)	78 LBS. (35.3 kg)
AA290E10F-EP-4-4	4' (1.2 m)	82 LBS. (37.1 kg)
AA290E10F-EP-6-4	6' (1.8 m)	91 LBS. (41.2 kg)

**Flange Part No.**

Flange Part No.	O.D. Dia. of Flange	Dia. of Bolt Hole Circle	No. of Flange Holes	#A Bolt Holes
58265-8F-316L	#13.5	#11.75	8	.86
58265-10F-316L	#16.0	#14.25	12	1.00

**Description:** Specifications for Electric Explosion Proof Motor-Driven Tank Washer

No. AA-290-F-EP-10F-6-4

Rev. No. 7

Ref.

**Spraying Systems Co.**  
Spray Nozzles and Accessories  
P.O. Box 7900 - Wheaton, IL 60187-7901

Date Sheet No. 290E-EP-1  
Sheet Of



## SAFETY PRECAUTIONS

### **YOUR SAFETY AND THE SAFETY OF OTHERS IS EXTREMELY IMPORTANT.**

We have provided important safety messages in this manual for your product. Always read and obey all safety messages.

Safety alert symbols alert you to hazards that can kill or harm you as well as others. The safety alert symbol and the words “DANGER” and “WARNING” will precede all safety messages. Read the following words and what they signify:



**DANGER:** You may be killed or seriously injured if you don't follow these instructions.



**WARNING:** You may be seriously injured if you don't follow these instructions.

All safety messages will identify the hazard, tell you how to reduce the chance of injury and tell you what can happen if the safety instructions are not followed.

**NOTE:** *Certain atmospheres within the tank being cleaned could become explosive, such as dust particles in a flour silo, or fumes in paint mixing tanks. For this reason, the following safety precautions should be observed.*

## INSTALLATION PRECAUTIONS

Qualified personnel must perform all work required to assemble, install, operate, maintain and repair this equipment. Improper installation and operation can result in severe personal injury and/or damage to property. Correct installation is your responsibility.



**WARNING:** Install proper guards as needed. Follow basic lifting guides when transporting or handling this product. Failure to follow this instruction can result in back injury, burns or other serious injury.

## CONNECTIONS

Please refer to datasheet 290E-EP during installation. Also reference the instructions for the electric motor shipped with the 290E-EP tank washer. Connect the power supply to the conduit connection hole as shown on datasheet 290E-EP, and verify that the nozzle hub rotates clockwise when viewed from the nozzle hub end. Connect the liquid line to the inlet connection of the liquid inlet body.

## WIRING

Route cabling through the most appropriate conduit entry making sure that cables will not foul on the cover assembly or internal components after refitting. Refer to the motor wiring diagram for connection details. Wire type must meet local and certifying agency (CSA, IEC Ex, ATEX, etc.) requirements and have a minimum temperature rating of 88°C.

## MOUNTING

Bolt or clamp the unit to the tank to be cleaned as dictated by the mounting flange provided. Adjustable flanges allow easy positioning of the tank wash unit to various spray depths for maximum cleaning effectiveness.

## LIQUID INLET CONNECTION

Proper installation requires liquid supply line (pipe, hose, etc.) meet or exceed maximum working pressure. Use of PTFE Pipe Tape or other appropriate sealant compatible with your process fluids is highly recommended for leak free connections.



**DANGER:** Failure to install the tank washer with insufficient connections could result in leaks and/or explosion. If you do not follow these instructions, you may be killed or seriously injured.

## MECHANICAL CLEARANCES

Proper installation requires that sufficient clearance be maintained between the rotary housing and nozzles of the tank wash unit and any internal baffles or the walls of the tank being cleaned.



**DANGER:** It is your responsibility to ensure that there is no possibility of the moving parts coming in contact with fixed objects. Failure to install the tank washer with sufficient clearances could result in the generation of sparks with a resultant explosion or fire. If you do not follow these instructions, you may be killed or seriously injured.



## GENERAL SAFETY

1. Never allow motor to be submerged in any liquid or operated while wet.
2. Never touch unit with wet hands or while standing in a wet environment until power is turned off to unit.
3. Always use a properly grounded power supply to unit.
4. Use wire/extension cords should be underwriters laboratories listed. The proper fuse size should always be used.
5. All wiring should be performed by a qualified electrician and follow all electrical and safety codes as well as the most recent national electrical code (NEC) and the occupational safety and health act (OSHA).
6. Protect electrical cord from sharp objects, hot surfaces, oil, and chemicals. Avoid kinking the cord. Replace or repair damaged or worn cords immediately.
7. Disconnect power before servicing unit. If power disconnect is out of sights, lock it in the open position and tag it to prevent unexpected application of power.
8. Do not touch an operating motor. Modern motors are designed to operate at high temperatures.
9. Never operate unit around explosive fumes or liquids or in an explosive atmosphere.

## GROUNDING

A ground screw is provided on the Liquid Inlet Body marked with a ground symbol. A ground wire should be clamped under the screw head and connected to earth ground via an approved grounding method. Likewise, a ground wire should be affixed to the tank and terminated at an earth ground.



**DANGER:** It is not sufficient to ground only the tank washer or the tank itself because the electrical continuity between the tank wash unit and tank cannot be guaranteed. A separate ground connection from both the tank wash unit and the tank itself should be made. Failure to follow this instruction can result in buildup of static charge between the tank and the tank washer parts which could cause a sudden discharge of current with a resultant explosion or fire.

**You may be killed or seriously injured if you do not follow these instructions.**

## HIGH IMPACT SPRAYS

This tank washer may be equipped with solid stream nozzles which concentrate the flow energy into a small area for maximum impact and cleaning efficiency. Operation at high pressure increases their effectiveness but also creates a hazard if the proper precautions are not followed.



**WARNING:** INJURY HAZARD FROM HIGH IMPACT SPRAYS.

High impact sprays can cause severe injury. The liquid pressure to the tank washer should never be turned on while the unit is outside the tank. **Failure to follow this instruction can result in fluid penetration through clothing and into the human skin causing severe injury, possibly resulting in amputation or death.** If any part of the body comes in contact with the spray stream, immediately consult a physician.

## OPERATION PRECAUTIONS

**It is your responsibly to operate this product at recommended speeds, loads and temperatures.**

Run the unit within the specified pressures and flow rates for the liquid and air motor to ensure safety. To maintain proper operations do not run the unit dry, always keep liquid flow on before stopping the air motor.



**DANGER:** DO NOT USE TO SPRAY FLAMMABLE LIQUIDS--SUCH USE COULD RESULT IN FIRE OR EXPLOSION CAUSING BODILY INJURY OR DEATH.

Sound level from motor may exceed 85db(A). Check compatibility of service fluid with materials used to construct this product. Use a pressure gauge to monitor liquid pressure (see 290E-EP-1 for flow rate data). Ensure that the pumping system has monitor controls and emergency shut off system in case of pressure spike which can cause harm to this product. Failure to follow this instruction can result in burns, eye injury or other serious injury.







**DANGER:** SPRAYING SYSTEMS CO. STRONGLY RECOMMENDS THE USE OF APPROPRIATE SAFETY EQUIPMENT WHEN WORKING WITH POTENTIALLY HAZARDOUS CHEMICALS. SEE YOUR CHEMICAL'S MSDS SHEET FOR ALL SAFETY MEASURES RELATING TO YOUR CHEMICAL.

**This equipment includes but is not limited to:**

- Protective hat
- Safety glasses or face shield
- Chemical-resistant gloves and apron
- Long sleeve shirt and long pants



Always remember to carefully read the chemical manufacturer's label and follow all directions.



**WARNING: OPERATING MOTOR HAND-WHEEL**  
NOTE: THAT UNDER NO CIRCUMSTANCES SHOULD ANY ADDITIONAL LEVER DEVICE SUCH AS A KEY WHEEL OR WRENCH BE APPLIED TO THE MOTOR HAND-WHEEL. THIS MAY CAUSE DAMAGE TO THE MOTOR OR THE TANK WASHER.

## MAINTENANCE

**It is your responsibility to regularly inspect and make necessary repairs to this product in order to maintain proper operation.**

It is recommended that the bushings and seals be inspected every 1000 hours of operation or sooner if excessive leakage of the seals occurs.

### REMOVAL AND REPLACEMENT OF SPRAY NOZZLES (ITEM 30 ON PARTS LIST DRAWING PL 290E-EP)

Make sure the unit is completely disconnected from the air source before attempting to service nozzles.

1. Unscrew spray nozzles (30) from nozzle hub (29) and inspect for plugging and wear.
2. If a nozzle is plugged or partially plugged, clean out the orifice and inlet area with a wooden toothpick or other relatively soft probe. Screwdrivers, wire or other hard metal items should not be used since they may scratch and severely damage the orifice.
3. If the nozzles need replacement, obtain new nozzles.
4. Replace spray nozzles (30) in nozzle hub (29) by tightly screwing them in.

### REMOVAL AND REPLACEMENT OF ELECTRIC MOTOR DRIVE (ITEM 13 ON PARTS LIST PL 290E-EP)

1. Unscrew (clockwise-left hand thread) rotary housing plug (31), and slide nozzle hub bushings (23) and nozzle hub (29) off the rotary housing (22).
2. Remove any foreign material from nozzle hub gear teeth.
3. To replace parts, slide one nozzle hub bushing (23) over the tube of rotary housing (22) up to the shoulder.
4. Insert second nozzle hub bushing (23) into nozzle hub (29) and push nozzle hub onto rotary housing tube.
5. Apply Loctite 243 or 242 to threads of rotary housing plug (31) and screw (counterclockwise) into rotary housing (29) until it seats firmly.
6. Torque to 150 lb-ft (203 Nm).

### REMOVAL AND REPLACEMENT OF ELECTRIC MOTOR (ITEM 1 ON PARTS LIST PL 290E-EP)

1. First make sure the unit is completely disconnected from the power source.
2. Unscrew both bolts (12) and lock washers (11). This will allow you to remove the motor sub-assembly (1).
3. Loosen set screw (3), slide motor coupler (4) from motor shaft to reveal key (2).
4. Reassemble in reverse order making sure that motor coupler (4) aligns with groove pin (7).

### REMOVAL/REPLACEMENT OF O-RINGS IN UPPER SHAFT SEAL BODY SUB-ASSEMBLY (5) (ON PARTS LIST PL 290E-EP)

1. If it has not already been done, remove the electric motor sub-assembly (1) per the previous instructions.
2. Carefully press out groove pin (7).
3. Loosen the upper shaft seal body sub-assembly (5) and remove it and gasket (6) from shaft.
4. Replace worn upper shaft seal body sub-assembly (5) with new sub-assembly (5).



#### REPLACEMENT OF O-RING (16) IN ADJUSTABLE FLANGE (ON PARTS LIST PL 290E-EP)

1. With motor sub-assembly (1), groove pin (7), and upper shaft seal body sub-assembly (5) removed, now remove the drive link retainer screw (28) and drive link (27). Note position of drive link tabs.
2. Remove lower bushing retainer (25), which also includes the shaft bushing (26) and O-ring (24).
3. Slide the shaft (13) out of the unit.
4. Remove either the inlet body (15) or bevel gear sub-assembly (20) including the rotary housing (22) and nozzle hub (29) from the extension tube (19).
5. Loosen the three set screws (17) and slide the flange assembly (18) off the extension tube (19).
6. Replace the O-ring (16) and reassemble flange onto the extension tube (19).
7. Reassemble in reverse order all parts onto the unit. Make sure all parts are tightened before start up of the unit making sure that the drive link (25) is installed with tabs in the same position as noted in step 1.

#### REPLACEMENT OF NOZZLE HUB BUSHINGS (23) (SEE PARTS LIST DRAWING PL 290E-EP)

1. Unscrew (Clockwise-left hand thread) rotary housing plug (31), and slide bushings (23) and nozzle hub (29) off the rotary housing (22).
2. Remove any foreign material from hub gear teeth.
3. After removing the worn bushings (23), assemble new parts onto the nozzle hub (29) and carefully slide the assembly onto the rotary housing (22).
4. Screw on (counter clockwise) the rotary housing plug (31) and tighten with wrench until tight.

#### REPLACEMENT OF ROTARY HOUSING BUSHING (23), SPLIT BUSHING (21), AND O-RING (24) (SEE PARTS LIST DRAWING PL 290E-EP)

1. Note position of drive link (27) tabs relative to rotary housing (22).
2. Remove drive link retaining screw (28), and drive link (27) from unit.
3. Remove the lower bushing retainer (25).
4. Slide the rotary housing (22) assembly with its bushings (23) and (21) off the bevel gear sub-assembly (20). Remove any foreign material from the bevel gear teeth.

5. Remove worn bushings (23) and (21) from the rotary housing (22).
6. Remove worn shaft bushing (26) and O-ring (24) from the lower bushing retainer worn shaft bushing (25) and replace with new parts.
7. Inspect shaft (13) for wear and replace shaft if worn.
8. Reassemble unit by installing split bushing (21) nearest the gear (20).
9. Hold split bushing (21) in place on bevel gear (20), slide rotary housing (22) over split bushing (21).
10. Install bushing (23) over bevel gear sub-assembly (20) into rotary housing (22).
11. Carefully screw the lower bushing retainer (25) over the shaft (13) and into bevel gear sub-assembly (20).
12. Tighten lower bushing retainer (25).
13. Reinstall the drive link (27) with tabs in the same position noted in step 1 and tighten retainer screw (28).

## WARRANTY

### SPRAYING SYSTEMS CO. WARRANTY

Seller warrants that its products will conform to and perform in accordance with the products' specifications. Seller warrants that the products do not infringe upon any copyright, patent or trademark. **THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

Because of the difficulty of ascertaining and measuring damages hereunder, it is agreed that, except for claims for bodily injury, Seller's liability to the Buyer or any third party, for any losses or damages, whether direct or otherwise, arising out of the purchase of product from Seller by Buyer shall not exceed the total amount billed and billable to the Buyer for the product hereunder. **IN NO EVENT WILL SELLER BE LIABLE FOR ANY LOSS OF PROFITS OR OTHER SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**

The AA290E-EP is equipped with a specialized motor that is pre-programmed for use with this tank washer. Altering any programming or settings **VOIDS WARRANTY** and **WILL** affect performance.





# PARTS LIST

ITEM	PART NO.	DESCRIPTION
★	1	45571-AC-4-250-ATEX Motor Sub-Assembly, Explosion Proof, CE Certified & ATEX Certified
★	2	CP45374-SS Square Key, Stainless Steel (3/16" x 1 3/16")
★	3	CP19108-SS Set Screw, Stainless Steel 1/4-20 x .250
★	4	CP45373-316SS Motor Coupler, 316 Stainless Steel
★	5	23687-316EPR Upper Bushing Retainer Sub-Assembly, 316 Stainless Steel & Ethylene Propylene Rubber
★	6	CP98536-NY Gasket Nylon®
★	7	CP23656-1-SS Groove Pin, Stainless Steel
★	8	CP20807-SS Cap Screw, Stainless Steel (2 Req'd)
★	9	CP20128-SS Lock Washer, Stainless Steel (2 Req'd)
★	10	CP45372-316SS Motor Flange, 316 Stainless Steel
★	11	CP15534-302SS Lock Washers, Stainless Steel (2 Req'd.)
★	12	CP7990-SS Bolts, Stainless Steel 5/16"-18 THD. (2 Req'd.)
★	13	CP23660-SS Shaft, 316 Stainless Steel
★	14	CP95000-3-1ZP Grounding Screw, #10-32 x 3/8" Lg., Steel, Zinc Plated
★	15	CP23642-SS Inlet Body, 316 Stainless Steel (2" NPT Conn.)
★	16	CP923642-SS Inlet Body, 316 Stainless Steel (2" BSPT Conn.)
★	17	CP7717-2-332-EPR O-Ring, Ethylene Propylene Rubber
★	18	CP23668-SS Set Screw, Stainless Steel (3 Req'd)
★	19	56260-8F-316L Flange & Hub Welding & Machining Sub-Assembly, 316L Stainless Steel, (For #AA_290E10F-EP-120V-__-4)
★	20	56260-10F-316L Flange & Hub Welding & Machining Sub-Assembly, 316L Stainless Steel, (For #AA_290E10F-EP-120V-__-2)
★	21	58265-8F-SS-CE Adjustable Flange Sub-Assembly, Stainless Steel (Includes Items 15, 16 & 17) (For #AA_290E8F-EP-120V-__-2)
★	22	58265-10F-SS-CE Adjustable Flange Sub-Assembly, Stainless Steel (Includes Items 15, 16 & 17) (For #AA_290E10F-EP-120V-__-4)
★	23	CP23661-__-316SS Extension Tube, 316 Stainless Steel
★	24	CP23667-316SS Bevel Gear Sub-Assembly, 316 Stainless Steel
★	25	CP23679-1-CRTEF Spill Bushing, Carbon Graphite Filled Teflon®
★	26	CP23644-SS Rotary Housing, Stainless Steel
★	27	CP23679-CRTEF Bushing, Carbon Graphite Filled Teflon® (3 Req'd)
★	28	CP7717-10-EPR O-Ring, Ethylene Propylene Rubber
★	29	CP23663-1-316SS Lower Bushing Retainer, 316 Stainless Steel
★	30	CP23658-CRTEF Shaft Bushing, Carbon Graphite Filled Teflon®
★	31	CP23649-SS Drive Link, Stainless Steel
★	32	CP19107-316SS Screw, 316 Stainless Steel
★	33	CP23647-2-SS Nozzle Hub, Stainless Steel, 2 Nozzles (For #AA_290E8F-EP-120V-__-2)
★	34	CP23647-4-SS Nozzle Hub, Stainless Steel, 4 Nozzles (For #AA_290E10F-EP-120V-__-4)
★	35	55430-H3/AU-316SS Spray Nozzle, Solid Stream VeeJet Nozzle With Stabilizer Vane, 316 Stainless Steel (2 or 4 Req'd.)
★	36	CP23664-316SS Rotary Housing Plug, 316 Stainless Steel
★	37	No. AA290E8F-EP-120V-__-2 TankJet® Electric Explosion Proof Motor-Driven Tank Cleaner (With 2 Nozzles) (NPT Inlet Conn.)
★	38	No. AA290E10F-EP-120V-__-4 TankJet® Electric Explosion Proof Motor-Driven Tank Cleaner (With 4 Nozzles) (NPT Inlet Conn.)
★	39	No. AA290E8F-EP-120V-__-2 TankJet® Electric Explosion Proof Motor-Driven Tank Cleaner (With 2 Nozzles) (BSPT Inlet Conn.)
★	40	No. AA290E10F-EP-120V-__-4 TankJet® Electric Explosion Proof Motor-Driven Tank Cleaner (With 4 Nozzles) (BSPT Inlet Conn.)

■ Note: See Torque Requirements and Loctite Notes for Re-Assembly of these parts.

Item	Torque Requirements		Loctite Adhesive Type Used
	Torque ±10%	Newton-Meter	
5	60 lb.-ft.	81 N.m	----
15 & 19	200 lb.-ft.	271 N.m	243
19 & 20	200 lb.-ft.	271 N.m	243
25	150 lb.-ft.	203 N.m	----
28	7 lb.-ft.	10 N.m	243
31	150 lb.-ft.	203 N.m	----

★ SOLD IN KITS ONLY NO. AB290E-EP-KIT SPARE PARTS KIT (INCLUDES ALL ITEMS MARKED WITH "★")

**Description:**  
 No. AA290E\_\_F-EP-120V-\_\_-2 &  
 No. AB290E\_\_F-EP-120V-\_\_-4  
 TankJet® Electric Explosion Proof  
 Motor-Driven Tank Cleaner  
 (With 2 or 4 Nozzles)

Parts List No. **PL 290E-EP-120V**  
 Sheet **Of**

Rev. No. **6**  
 Ref. **23640**

© Spraying Systems Co.



## DECLARATION OF CONFORMITY

We,



**Spraying Systems Co.®**

North Avenue and Schmale Road, P.O. Box 7900,  
Wheaton, IL 60187-7901

Tel: 1.800.95.SPRAY

Intl. Tel: 1.630.665.5000

Fax: 1.888.95.SPRAY

Intl. Fax: 1.630.260.0842

spray.com

**in accordance with the following directive(s):**

2006/42/EC                      The machinery directive

**hereby declare that:**

Equipment                      Tank Cleaning Devices  
Model number                 AA290E-EP

**is in conformity with the applicable requirements of the following documents:**

<b>Ref. no.</b>	<b>Title</b>	<b>Edition/Date</b>
EN 982	Safety requirements for fluid power systems and their components – Hydraulics	1996
EN12100-1	Safety of machinery – Basic concepts, general principles for design: Part 1: Basic terminology, methodology	2003
EN12100-2	Safety of machinery – Basic concepts, general principles for design: Part 2: Technical principles	2003
EN ISO 14121-1	Safety of machinery – Risk assessment Part 1: Principles	2007
ASME- B31.1	ASME Boiler and Pressure Vessel Code	2001

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all applicable essential requirements of the directives.

Signed by:

A handwritten signature in black ink that reads "Robert J. Adams".

Robert J. Adams, P.E.  
Director of Engineering-Industrial Division  
Spraying Systems Co.





***Spraying Systems Co.***<sup>®</sup>  
Experts in Spray Technology

North Avenue and Schmale Road, P.O. Box 7900,  
Wheaton, IL 60187-7901

Tel: 1.800.95.SPRAY

Intl. Tel: 1.630.665.5000

Fax: 1.888.95.SPRAY

Intl. Fax: 1.630.260.0842

[www.spray.com](http://www.spray.com)

