

FOOD SERVICE TECHNOLOGY CENTER

PROMOTING ENERGY EFFICIENCY IN FOODSERVICE

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CA

94583

Pre Rinse Spray Nozzle Test Summary Report

FSTC Report #: 501311018

Date: April 14, 2011

Specifications

| | |
|--------------------------------|-----------------------------------|
| Make | Strahman |
| Model | Kwik Clean 3 (5 degree Fan spray) |
| Rated Flow Rate @ 60 psi (gpm) | 0.98 |

Test Parameters

| | |
|-------------------|------------|
| Water Pressure | 60 ± 2 psi |
| Water Temperature | 120 ± 4°F |

Nozzle #1

| Test | Flow Rate (gpm) | Cleanability (seconds) |
|---------|-----------------|------------------------|
| 1 | 0.96 | 20 |
| 2 | 0.96 | 20 |
| 3 | 0.96 | 22 |
| Average | 0.96 | 21 |

Nozzle #2

| Test | Flow Rate (gpm) | Cleanability (seconds) |
|---------|-----------------|------------------------|
| 1 | 0.86 | 23 |
| 2 | 0.86 | 21 |
| 3 | 0.86 | 22 |
| Average | 0.86 | 22 |

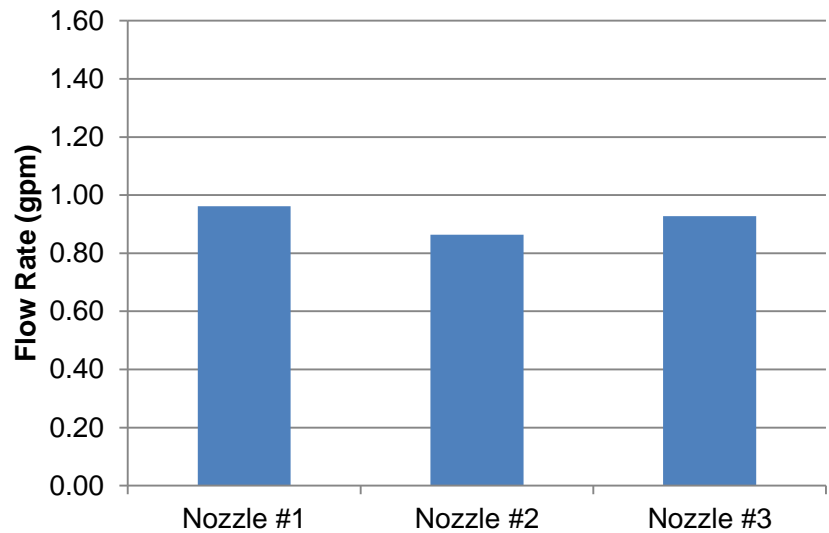
Nozzle #3

| Test | Flow Rate (gpm) | Cleanability (seconds) |
|---------|-----------------|------------------------|
| 1 | 0.93 | 22 |
| 2 | 0.93 | 22 |
| 3 | 0.92 | 22 |
| Average | 0.93 | 22 |

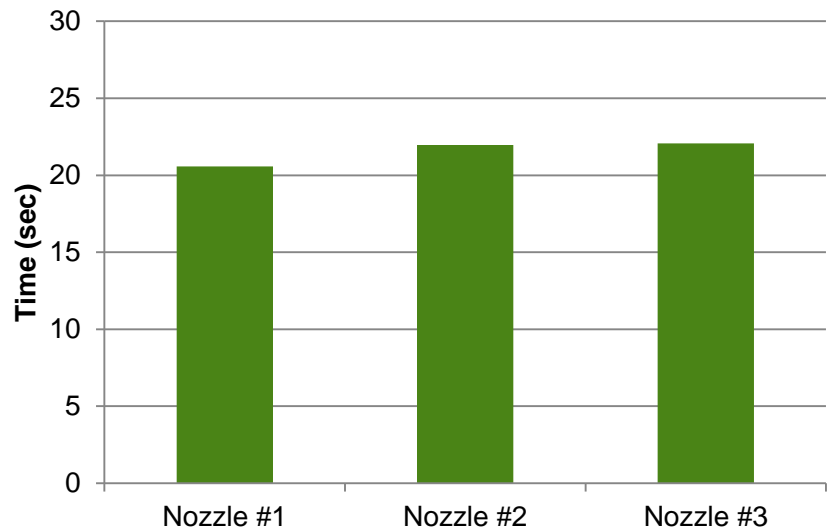
Average Results

| | Water Flow (gpm) | Cleanability (seconds) |
|----------------|------------------|------------------------|
| Nozzle #1 | 0.96 | 21 |
| Nozzle #2 | 0.86 | 22 |
| Nozzle #3 | 0.93 | 22 |
| Average | 0.92 | 22 |

Nozzle Average Flow Rate



Nozzle Average Cleanability Time



- Tested in accordance with ASTM F2324 - 03 (Standard Test Method for Prerinse Spray Valves)
- Tested nozzles are in compliance with the minimum performance provisions shown in section 1605.3(h) of CA Title 20 Appliance Efficiency Regulation
- Tested nozzles are in compliance with the appropriate marking requirements shown in section 1607 of CA Title 20 Appliance Efficiency

- The Food Service Technology Center program is funded by the California utility customer and administered by the Pacific Gas & Electric Company under the auspices of the California Public Utilities Commission

Strahman's Award-Winning

KWIK CLEAN³®

Pre-Rinse Spray Nozzle

A True **Revolution** in Ultra-Low-Flow, Ultra-High-Efficiency Pre-Rinse Spray Nozzles for Commercial Kitchens!

The world's best cleaning time, lowest water use, lowest sewage use, lowest energy consumption, best warranty, best user satisfaction and best lifetime cost!

ALL STAINLESS STEEL OPERATING PARTS (No chrome-plated brass or plastic)



**5-year
warranty**

*versus the industry
standard of 1 year!*



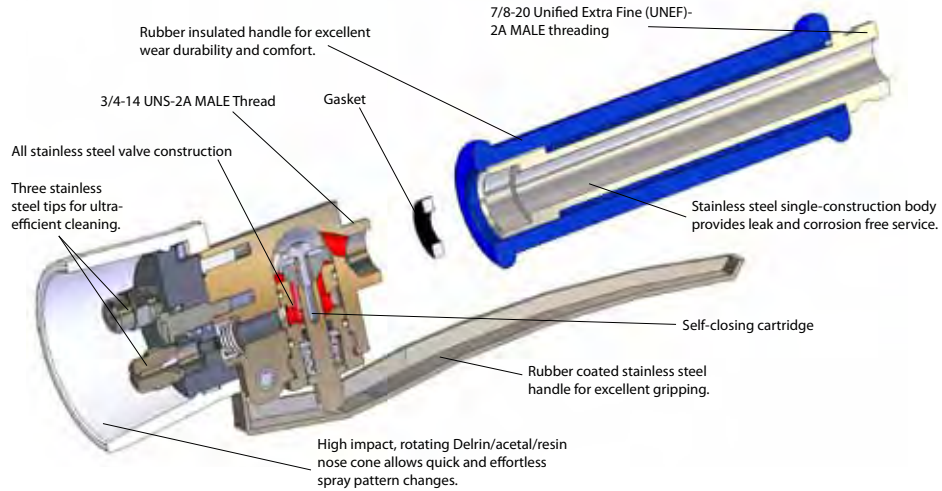
**EPA Act 2005
Compliant**

KWIK CLEAN 3[®]

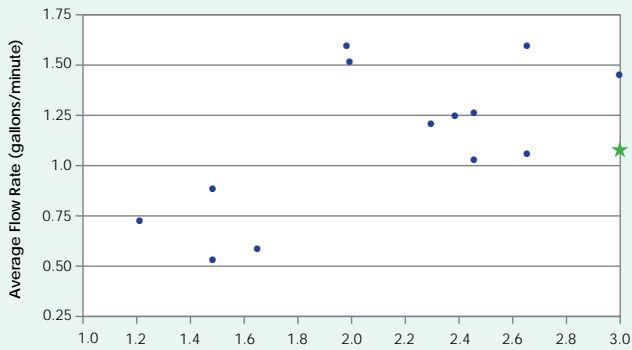
Since 1921, Strahman has been the food industry standard for the highest-quality, highest-efficiency, longest-lasting spray nozzles and wash down equipment.

Key Benefits of Kwik Clean 3[®]:

- ◆ Lowest lifetime cost
- ◆ Lowest per nozzle water use
- ◆ Highest user-satisfaction
- ◆ World record cleaning time
- ◆ Best environmental friendliness of any pre-rinse nozzle in the world
- ◆ All stainless steel construction
- ◆ 3 Unique spray patterns to handle any job



Flow Rate vs. User Satisfaction

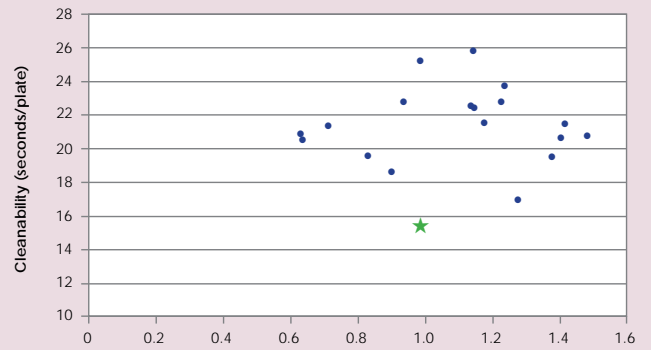


Average User Satisfaction (1-not satisfied, 3-completely satisfied)

★ Strahman Valves' Kwik Clean 3[®] Pre-Rinse Spray Nozzle

Data from EPA Pre-Rinse Spray Valve Study (reported Sept. 2010)

FSTC-Tested Flow Rate vs. Cleanability



FSTC-Tested Flow Rate (gpm @ 60 psi)

★ Strahman Valves' Kwik Clean 3[®] Pre-Rinse Spray Nozzle

FSTC: Food Service Technology Center, San Ramon, CA; funded by the California Public Utilities Commission

Cleanability: Time to complete cleaning a plate in accordance with ASTM F2324-03

Spray Pattern Choices



15° Fan Spray Tip

Flow Rate: 0.91 gpm @ 60 psi
Description: for light rinse cleaning applications.



Solid Stream Tip

Flow Rate: 0.99 gpm @ 60 psi
Description: High-impact jet pattern for tough cleaning applications.

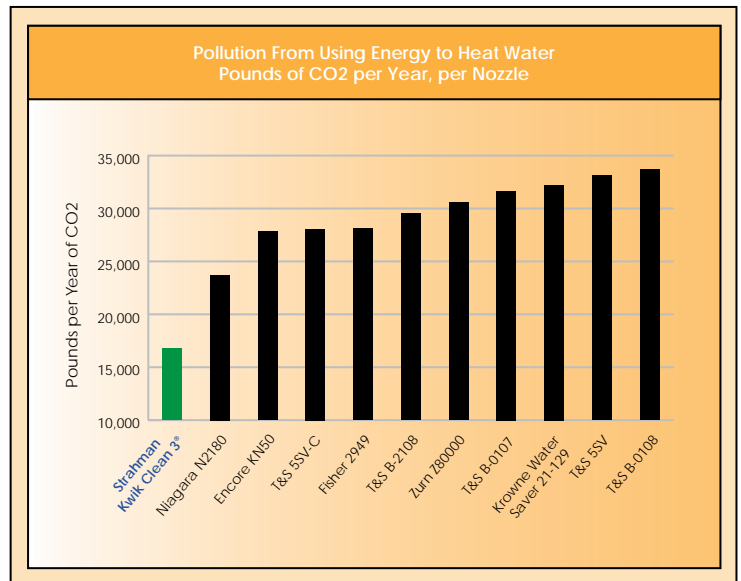
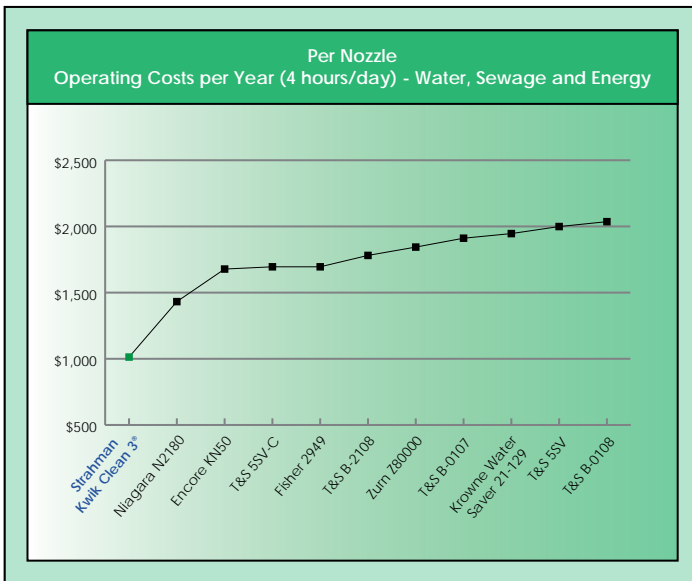
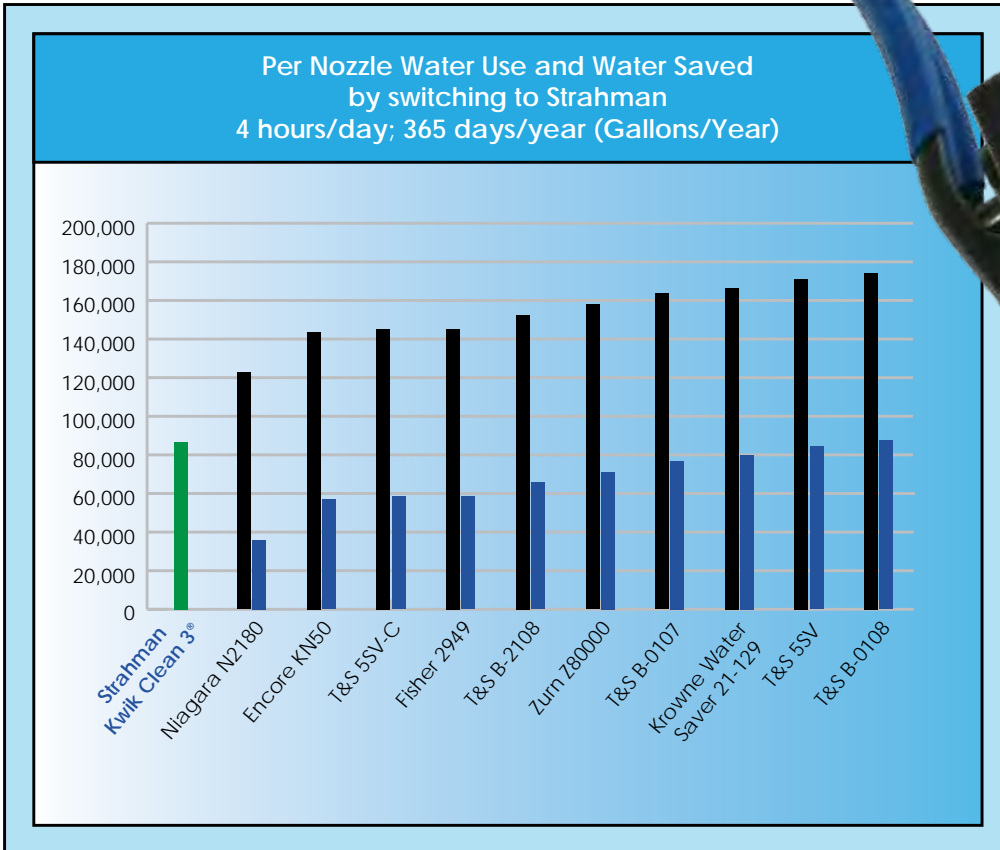
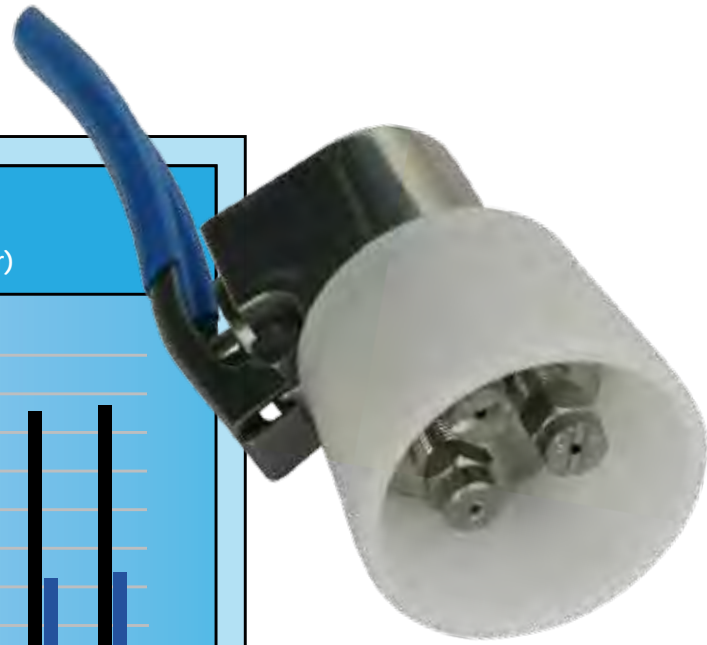


5° Fan Spray Tip

Flow Rate: 0.92 gpm @ 60 psi
Description: for normal rinse cleaning applications.

Maximum Operating Temperature: 160°F. Other tips available, down to 0.3 gpm.

Kwik Clean 3® Pre-Rinse Spray Nozzle Performance Comparisons



One Kwik Clean 3® saves up to 15,000 pounds/year of CO₂ emissions!

The Strahman Family of Pre-Rinse Products Includes:

pre-rinse spray nozzles, handles, hoses, hose reels and Pivot Pro swivel connectors. Designed for use in restaurants, hotels, supermarkets, and all commercial kitchens, food serving and food preparation applications.



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