AN INTRODUCTION TO

ROTATING TANK WASHING NOZZLES

WHAT THEY DO – HOW THEY DO IT – WHAT THEY DON’T DO
Rotating Tank Washing Nozzles

“True 360° spray coverage in a compact, self-cleaning assembly.”

- D. Keeley, Applications Engineer
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CHAPTER ONE

WHAT THEY DO

Deliver a concentrated spray to clean inside a vessel.

A rotating nozzle is ideal if your application involves:
- Washing or rinsing bottles
- Washing the inside of kegs, barrels or small storage tanks
- Washing plastic crates
- Cleaning machines in place

Industries that use rotating nozzles include dairy, beverage, brewing, processed foods, pharmaceuticals & cosmetics.
A rotating nozzle is NOT suitable for:
- Cleaning a tank larger than 10 – 30 feet in diameter
- Removing heavy or caked on materials
- Pressure higher than 100psi that will cause faster wear on the ball as it rotates around the stem.

Self-rotating nozzles may be a viable alternative when the cleansing action is more dependent on a chemical reaction than the impact of the spray.
HOW THEY DO IT

Two slots create a moving, fan-type spray in a concentrated area.

- Two slots deliver a concentrated spray directed at a small area for better distribution
- Rotation moves the impact of the spray around inside the vessel
- Can be installed in any orientation
CHAPTER TWO

HOW THEY DO IT

True 360° spray – or angled to where it’s needed.

- Self-cleaning
- Self-lubricating
- Installed in any orientation
- Effective up to 3 meters (10 feet) in diameter
- Maximum pressure is 100psi
- FDA approved materials (316 stainless steel, PVDF, Teflon, Polypropylene)
Available with `Sanitary` Connection.
CHAPTER THREE

ROTATING VS CLUSTER

Concentrated, higher impact over smaller target area vs simultaneous spray with less impact, over larger area.

Rotating Nozzle
Concentrated, higher impact spray moves over a smaller target area.
Variety of spray angles to focus the spray where it’s needed.
Larger droplets from the two slots carry further and have greater impact on the target.
Cost effective molded PVDF material

Cluster Nozzles
360° simultaneous spray over a larger area.
Less impact on the target
For tanks larger than 3 meters (10 feet) in diameter
MAINTENANCE TIPS

Self-cleaning and self-lubricating, by design.

The slot design doesn’t plug, unless a piece of debris the same size and shape becomes lodged in it. Sediment that gathers at the ends of the slots will be pushed through by the fluid rushing past. Weeping at the top and bottom of the rotating ball works to self-lubricate the rotation.

Other features:
• Easy disassembly for cleaning
• Keyed ball cannot be installed backward
• Sanitary connection option using stainless steel hitch pin

Monitoring performance inside a tank is difficult. This is when a pressure gauge can help determine if the nozzle inside a tank requires cleaning or is worn.

Pressure going up could mean it requires cleaning.

Pressure going down could mean its worn, and needs replacing.
MAINTENANCE TIPS

Life expectancy depends on several factors.

Rotating nozzles in cleaning applications are used to spray anything from pure water to water mixed with detergent or acid/caustic fluids.

The cleanliness and abrasiveness of the fluid being sprayed are two of the many factors related to life expectancy.

Spray should be monitored weekly and nozzles cleaned regularly.
CHAPTER FIVE

HOW TO BUY THEM

Make sure the application fits the nozzle.

Talk to our Technical Service representative about what you need to accomplish.

The right part...when it’s needed.

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