

WATCH WATER®

NITROTRAPP®

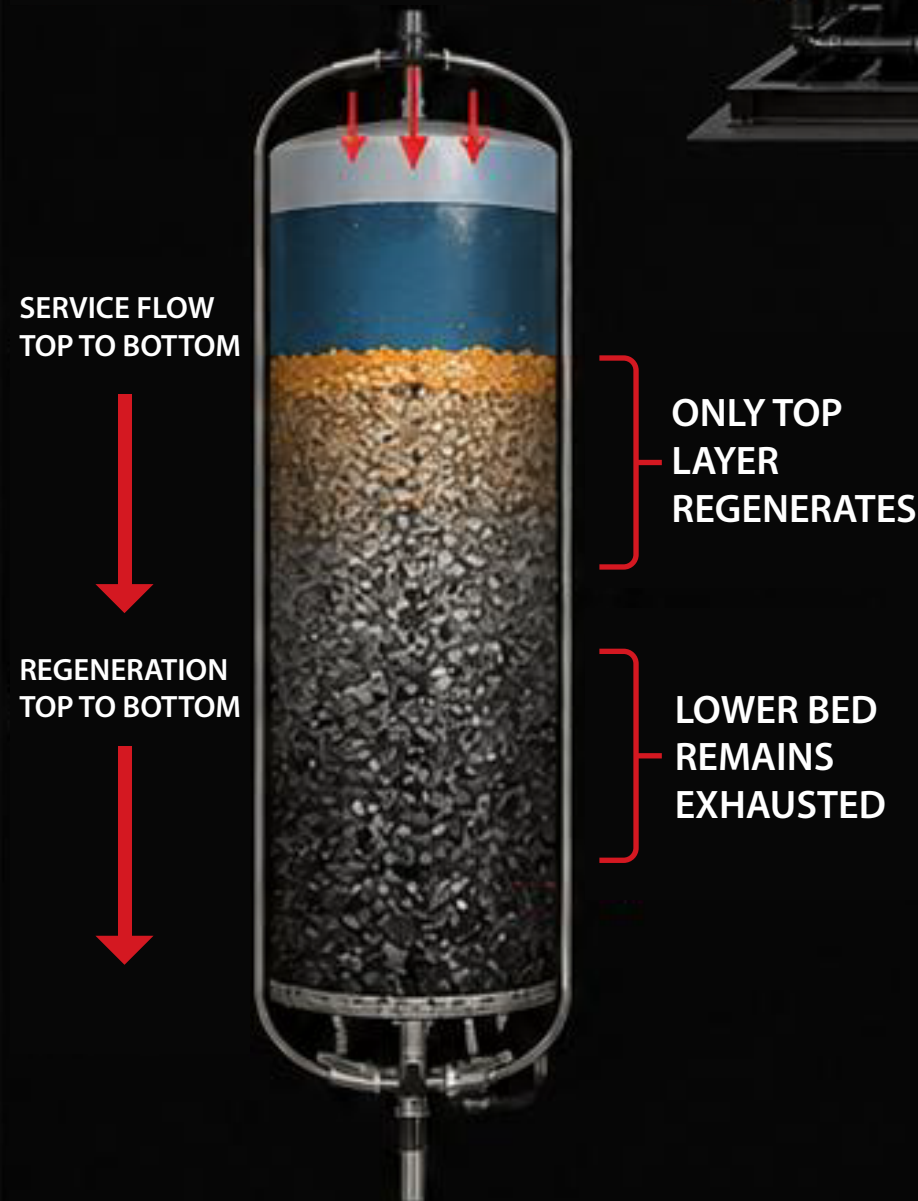
NITRATE REMOVAL SYSTEM FAILURE
THE DESIGN IS WRONG – NOT THE MEDIA



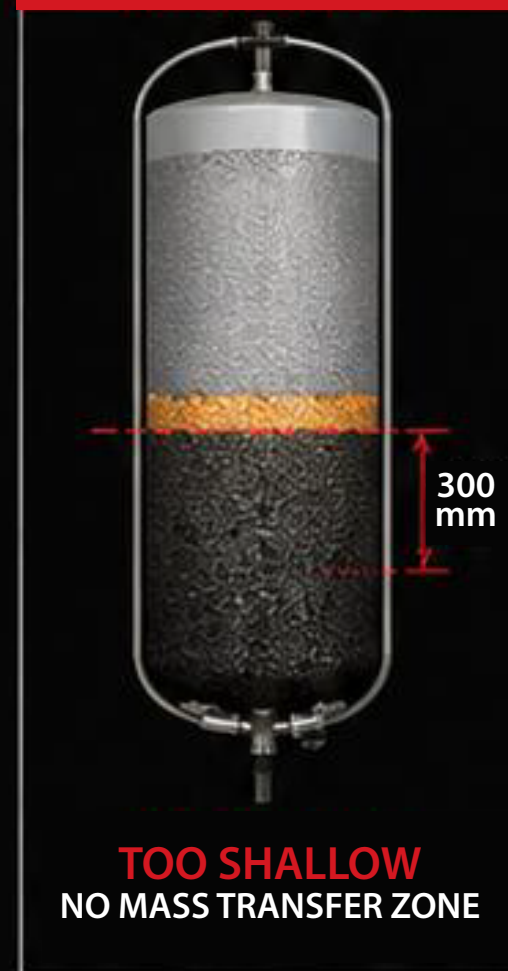
WHY SYSTEMS FAIL

- ✗ **WRONG FLOW DIRECTION**
Service: Top → Bottom
Regeneration: Top → Bottom
SAME DIRECTION
- ✗ **SHALLOW MEDIA BED**
Only -300 mm media
NO CONTACT TIME
NO MASS TRANSFER
- ✗ **NO DISTRIBUTION SYSTEM**
Channeling
Dead Zones
- ✗ **FAST BRINE PASSING**
Brine does not penetrate full bed
- ✗ **NO PROPER REGENERATION**
No Displacement rinse
No slow rinses
- ✗ **NO TRUE BACKWASH**
Bed not expanded
Media compacted

WRONG FLOW – CO-CURRENT TOP → BOTTOM



SHALLOW BED



NO DISTRIBUTION

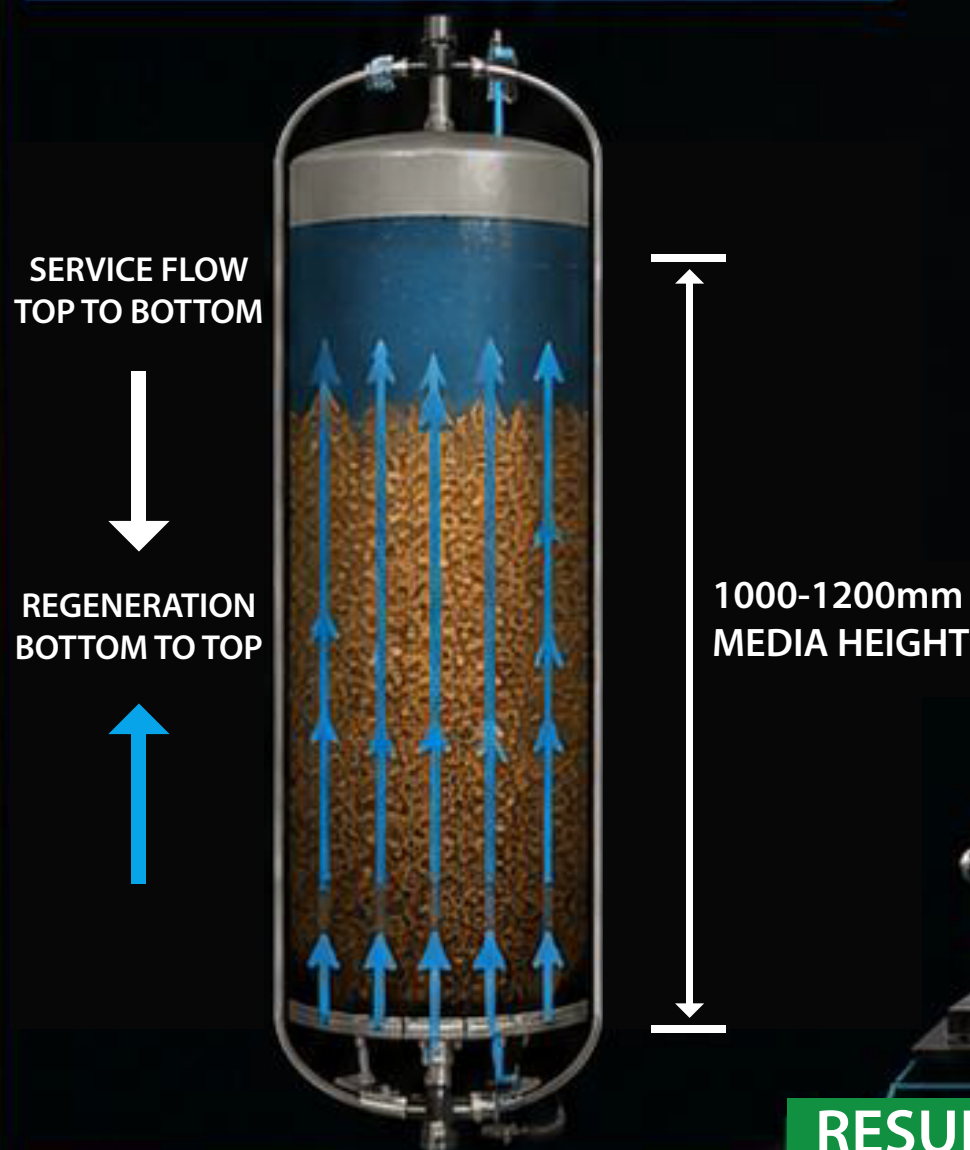


RESULT • ONLY TOP LAYER WORKS • LOWER BED DEAD • NITRATE BREAKTHROUGH

WATCH WATER® SOLUTION

- ✓ **COUNTER CURRENT REGENERATION**
Regeneration: Bottom → Top
Fresh brine meets most exhausted resin
- ✓ **DEEP BED DESIGN**
1000 – 1200 mm media height
FULL MASS TRANSFER ZONE
MAXIMUM CONTACT TIME
- ✓ **PRECISION DISTRIBUTION**
Engineered bottom distributor
Uniform flow across full bed
- ✓ **FULL REGENERATION CYCLE**
 - 1 Backwash (bed expansion)
 - 2 Slow brine injection
 - 3 Displacement rinse
 - 4 Slow rinse
 - 5 Fast rinse
- ✓ **ENGINEERED BACKWASH**
Proper expansion
Clean, active media
- ✓ **CONTROLLED HYDRAULICS**
Each vessel operates independently
Balanced system performance

CORRECT FLOW - COUNTER CORRECT BOTTOM → TOP



ENGINEERED SYSTEM

- ✓ NO CHANNELING
- ✓ UNIFORM FLOW
- ✓ FULL CONTACT
- ✓ COMPLETE REGENERATION

RESULT AFTER CORRECTION



100%
ACTIVE MEDIA



STABLE
NITRATE REMOVAL



NO
BREAKTHROUGH



LONG
MEDIA LIFE



INDUSTRIAL
RELIABILITY

WATCH WATER® : PERFECT FLOW = PERFECT WATER

WATCH WATER® GmbH

Fahlachstraße 14, 68165 Mannheim, Germany

Telephone : +49 621 879510

Email : info@watchwater.de

www.watchwater.de

WATCH WATER®
WATCH WATER

a Water Company