

FaST technology



Creating a cleaner, safer world™



Agenda

1. The foam technology
2. How does it work
3. Health aspect
4. Safety aspect
5. Financial aspect
6. Summary
7. Demonstration

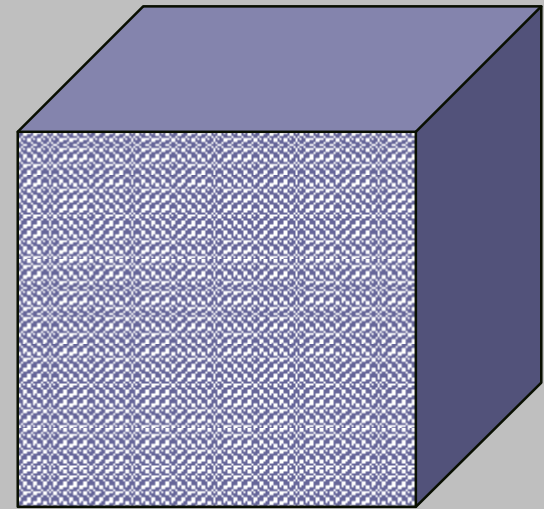
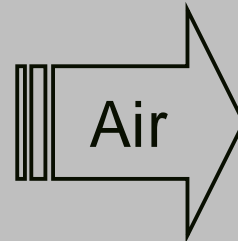
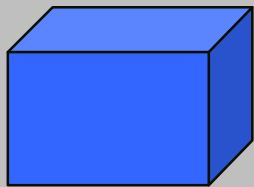


1. The Foam technology

- l Used in many industries : car wash, high pressure washers, shampoo, shaving gel,...
- l Breakthrough in hard floor scrubbing: an engineered self-collapsing foam
- l Unique designs (several patents)



2. How does it work?

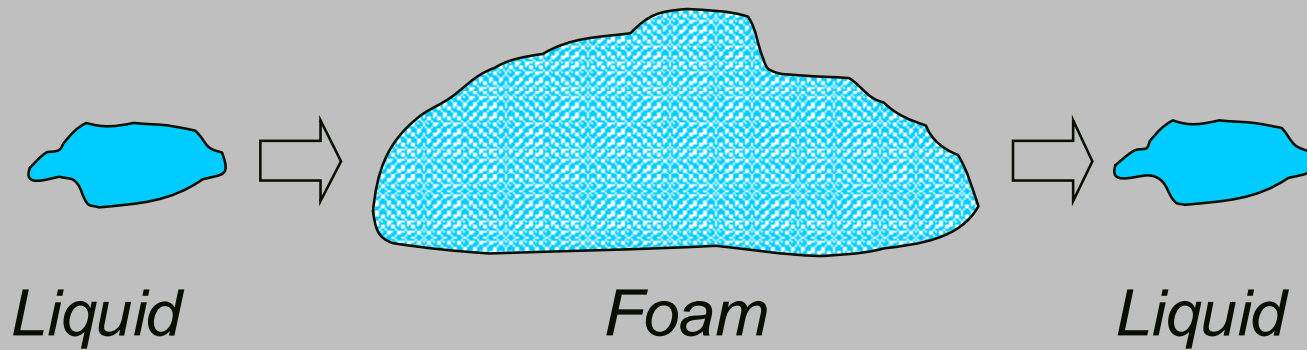


1 Litre solution
1 Litre cleaning solution

1 Litre solution
4 Litre cleaning solution

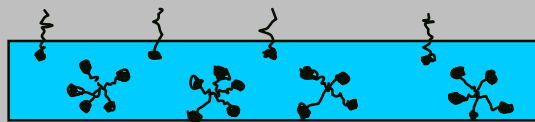


Engineered Self-Collapsing Foam Technology

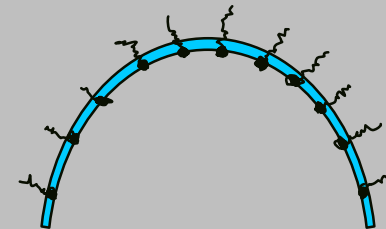


Cleaning Effectiveness

- l More efficient use of the detergent than conventional.
- l With foam, a higher % of detergent is activated at the surface of the millions of bubbles, more readily available to connect to “dirt” than traditional liquid detergent solutions.



Conventional Liquid



FaST Foam



Tennant 365 FaST-PAK™

- 2L of highly concentrated detergent
- 75.000 -100.000 m² coverage per box

- Detergent ratio:

FaST : fix ratio 1:1000

Conventional : between 1:100 and 5:100

- Lower overall cost per square meter compared to conventional scrubbing detergents



Tennant 365 FaST-PAK™

FaST is available on:

- Pedestrian & ride-on machines
- Disc & cylindrical
- Battery & IC machines
- Scrubber-dryers & Scrubber-sweepers

T3	5400	5680	
T7	7100	7200	7300
7400(lp/d)			
8300			

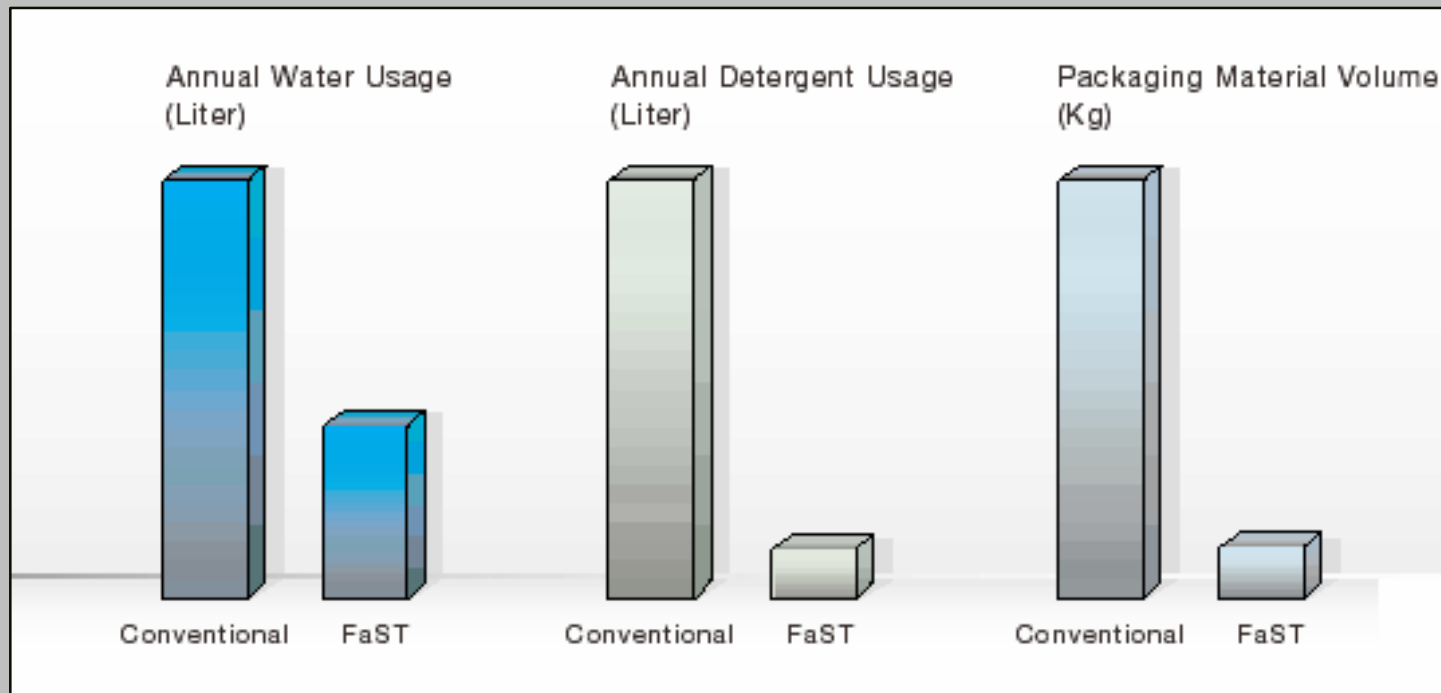


3. Health aspect

- pH neutral, polymer free detergent
- Biodegradable
- Environmental:
 - **Less water** usage: more efficient foam technology (up to 80% savings)
 - **Less detergent**: dosing foam/water of 1:1000 since highly concentrated product (up to 95% savings)
 - **Less packaging** (up to 95% savings)

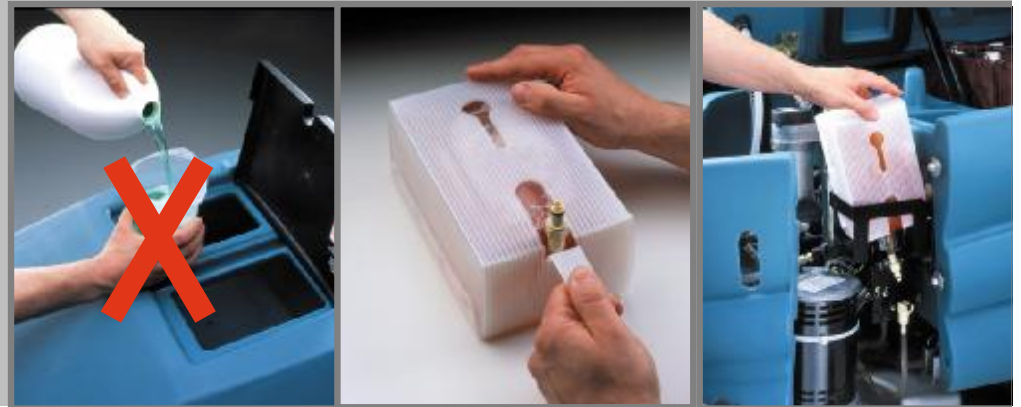


Environmental example



- Eliminate detergent measuring & mixing
- FaST-PAK™ is completely sealed - just insert and connect

No direct skin contact with detergent



Health certification

A. Greenseal

US ecolabeling program (www.greenseal.org) with many global references

Using test methods and procedures that are internationally accepted.

Green label standards are set to identify the most environmentally preferable products currently available

FaST Greenseal approval will be obtained in Q4 2005

B. Obtain a similar ecolabel in Europe:

“**Bra miljöval**” approved in Scandinavia.

“Good environmental Choice”

Test approval requirements are in progress.



C. Approval in food environments

FaST 365 concentrate NSF

(non-food compounds registration program):

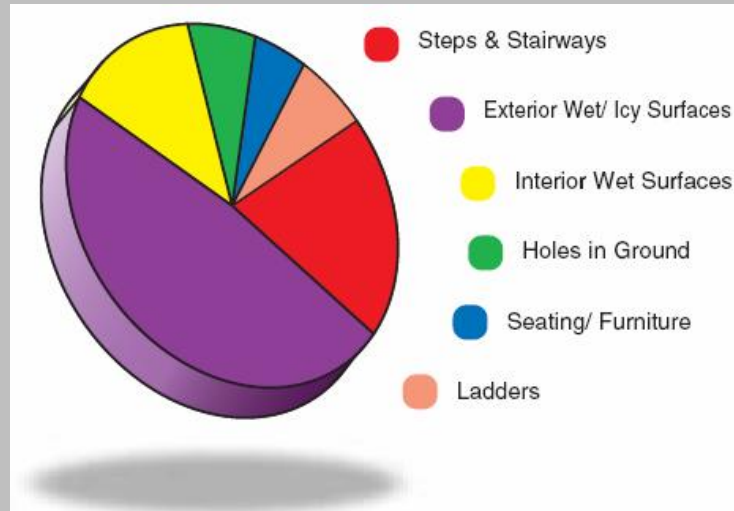
Approval in Food area's



4. Safety aspect

1. Slip / Fall Accident prevention

Leading Causes of Slip / Fall Accidents



Six most common causes of slips, trips & falls.

Source: NDS Database 12/31/00

Claims received 1996/96 to 1999/00



Outcome of Slip / Falls

- Workplace / Employee Data

- **85% of worker's compensation claims** are attributed to employees slipping on slick floors
- **65% of all lost work days** are due to slip/fall accidents



2. National Floor Safety Institute (NFSI) Certification

- I Mission: Aid in the prevention of slip/fall accidents through education, training and research
- I Web site: www.nfsi.org.
- I NFSI's Four Key steps to Accident Prevention
 - Step 1 : Select Certified Floor Coverings
 - Step 2 : Use Certified Floor Maintenance Equipment / Technologies and chemicals
 - Step 3 : Hazard identification & remediation Training
 - Step 4 : Continuous Monitoring & Measurement

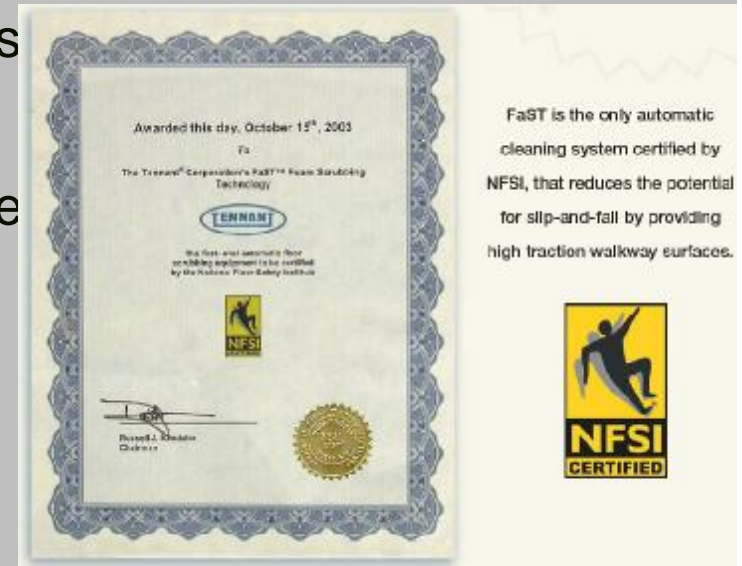


- | FaST meets Highest Cleaning standards using 70% less solution, leaving floors immediately dry
- | Removes old, slippery detergent residues

The result:

- | Reduced potential for slip and fall accidents
- | Floor traction is increased by up to 21%
- | Only automatic scrubbing system to receive NFSI's High Traction Certification

Proven reduction of slip-and-fall



3. Case story : FaST in Forklift industry

In distribution centers forklift operators are often paid based upon the number of pallets picked a day.

This means they drive at a high speed in warehouses and distribution centers resulting in accidents and damaging premises as well as the equipment.

To avoid these accidents, more customers apply FaST to clean due to the dryer surfaces and the higher traction so that the machines don't slip.

Tests have shown that a machine on a surface cleaned with FaST stopped almost immediately after 0,4 ft. With another detergent they stopped after 5 ft.



5. Financial aspect

Most cost effective solution:

1. **Less labour:** can work 3x longer with one tank before empty/refill, less refills means more cleaning time

Ex.: T7: approx 80 min per tank vs 25 min conv

2. **Downsize machine investment:** Smaller machine for the same job
3. **Less handling cost:** work for weeks with same FaST pack

Ex.: 5680: approx 40hrs with one 2L pack

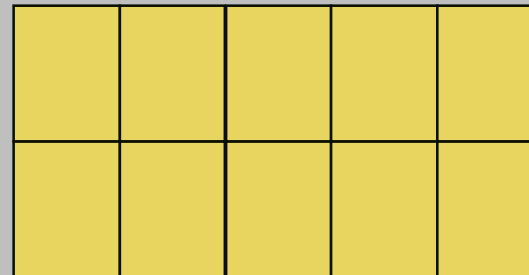


Most cost effective solution:

4. **Less water** usage due to more efficient foam technology (up to 80% savings)
5. **Less detergent:** dosing foam/water of 1:1000 since highly concentrated product (up to 95% savings)
6. **Less packaging** (up to 95% savings): no need for a big locker room for big storage of spare packs or big drums



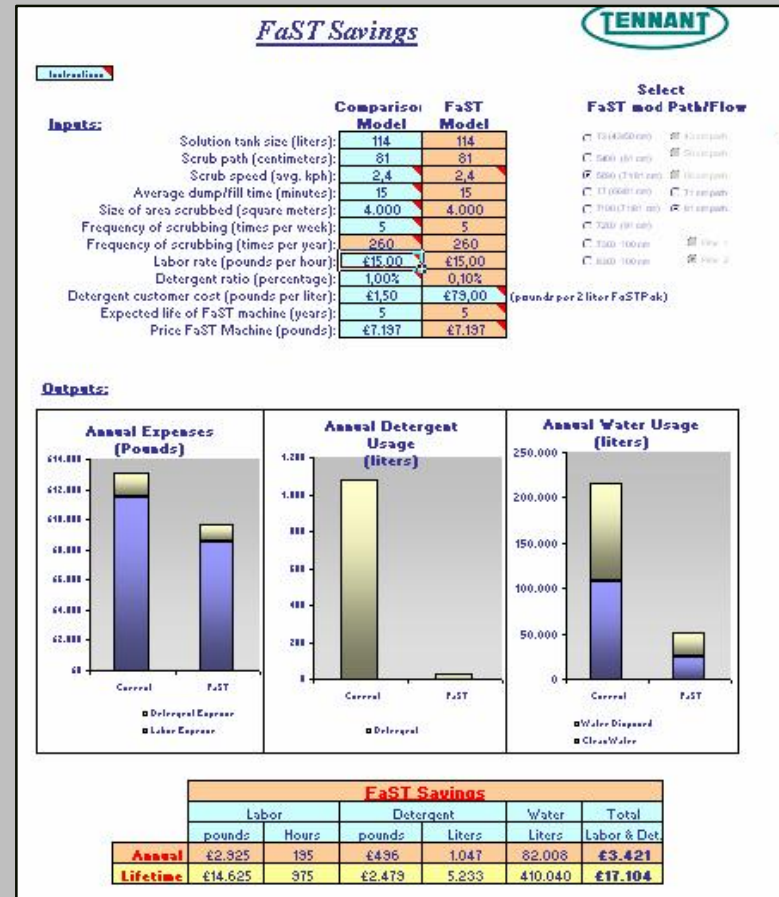
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Note: this is just an example. It depends on the flow rate of the machine, the operator, type of detergent, detergent ratio



Savings example



Ex.: 5680-80cm with/without FaST; 4000m²; 5d/w



FaST Awards 2003

France Europropre - Prix de l'Innovation

U.K. Birmingham - Award for innovation

Australia ISSA Best new product

New Zealand Most Innovative

U.S.

- "Seven wonders of Engineering Award" Minnesota society of professional engineers

- ICAN Most innovative at ISSA 2003

- National Floor Safety Institute (NFSI) Certified

Only automatic scrubber approved

Proven to reduce the potential for slip-and-fall by providing high traction surfaces



6. Summary

- I Safe for operators, employees and customers
 - Reduces slip & fall, automatic metering and no contact with chemicals
- I Safe for the environment and save on your budget
 - Less water usage and disposal
 - Less detergent
 - Less packaging
 - Less storage
 - Less handling
 - Less labour
 - Smaller machine requirements
- I Safe for floors
 - Not harsh and won't harm different floor types/finishes
- I Safe purchasing decision for all customers
 - Provides increased productivity, simple & consistent cleaning and reduces their overall cleaning cost



Annex: FaST 365 Data Sheet

TENN 365

Tennant FAST 365 is a multipurpose cleaner suitable for mechanical application on several kind of waterproof hard floor coverings. It is based on the revolutionary FAST foam technology, an engineered self collapsing foam system that reduces cleaning job time by up to 30% and saves costs, water and detergents by up to 70%. Ideal for daily cleaning of medium to heavy soils and light to medium grease. This product is subject to the law on the environmental impact of detergents and cleansers and the resulting regulations regarding the biodegradability of raw materials.



Features

- FAST technology
- Foam cleaning with surfactants
- Completely sealed package
- High emulsifying power
- Use level not subject to special marking regulations, according to EU guidelines
- pH neutral
- CE/MSD tested

Benefits

- Lower cost and higher productivity per m², 1.00.000m² coverage per 3L cartridge
- Larger active areas, fast dirt penetration
- Safe and easy to use, no direct contact with the concentrated product
- Cleans effectively, easy dirt collecting
- User friendly, no special safety precautions necessary
- Safe, no impact to skin or body
- Does not change floor properly

Applications

Suitable for final construction, intensive and maintenance cleaning on all water resistant flooring like casting resin, epoxy resin, artificial stone bound in resin, hard glassed back tiles, stone ware, porcelain tiles, concrete, washed concrete, granite and quartz stone. Intensive cleaning of waterproof, hard and elastic floor coverings such as magnesite (magnesite clay floor), square concrete stone, marble, impregnated stone, linoleum, rubber, synthetic rubber, PVC, polyurethyl, polyurethan. Excellent on floors coated with polymer dispersions. Ideal to clean shipping marks, newspapers, newspapers, receipts, stations, sport facilities, warehouse and distribution centres. Not suitable for unsealed wooden floors.



On-board FaST-PWA



No messy misting & rinsing



Easy correction



Machine in action



Detergents

365

	FLOOR TYPES AND CONDITIONS							
	INDUSTRIAL COATED OR UNCOATED		RESIDENTIAL				SKI QUALITY	
	Concrete, asphalt, stone, tile, epoxy resin, wood floors, semi-permanent stains	Various, just grout, quarry tiles, no wax, rubber, glass, pavers	WITH APPLIED FINISH	TOP COATS		MAINTENANCE		NO APPLIED FINISH
SOLUBLE	Specific	Maintenance	Top Coats	Maintenance	Specific	Stone	General	
ANIMAL FAT'S	-	-	-	-	-	-	-	-
COBBLE BLACK	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
COOKING OILS	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
COOKING OILS	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
COOKING OILS	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
GREASE	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
RUBBER BURNS	-	-	-	-	-	-	-	-
SYNTHETIC OILS	-	-	-	-	-	-	-	-
TEAR	-	-	-	-	-	-	-	-
BEER	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
BETCHUP	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
CHOCOLATE	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
CHEESE	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
COUGH SYRUP	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
CUTTING OILS	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
DOORH	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
EGG	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
FLOUR	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
FRESH JUICE	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
GREASE	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
ICE MELTED	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
JAM/FRUIT	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
KETCHUP	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
MILK	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
MUD	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
LIQUOR WINE	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
PAINT	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
PRODUCE	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
SALT RESIDUE	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365
SOFT SOAPS	-	FAST 365	-	FAST 365	FAST 365	FAST 365	FAST 365	FAST 365

Ingredients

- Aqueous solution based on anionic surfactants, 10-30% amphoteric surfactants, 10-30% nonionic surfactants.
- pH value (concentrated): approx. 6.5 - 8

Use

Read and connect the FAST PA to the machine.

Availability

- Package of 2 x 2L cartridge

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Creating a cleaner, safer world™



Demonstrate Technology

Hands – on

