
# EVERYBODY,
# EVERY DAY,
# IN EVERY LITTLE WAY

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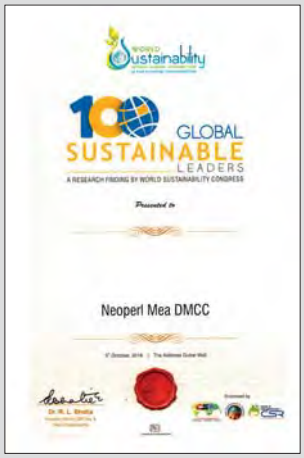
NEOPERL®
flow, stop and go®

# NEOPERL **MIDDLE EAST**




Neoperl MEA DMCC was founded in Dubai, United Arab Emirates in 2014 and is part of the international Neoperl Group.

Our team strives to provide excellent service to our customers in the Middle East and Africa every single day.

With our state-of-the-art test bench, built according to DIN standards, we are able to run test curves from 0.1 up to 10 bar.

We invite and welcome our customers to optimise their plumbing products while making sure they adhere to the latest standards and requirements.


# THE **NEOPERL** GROUP

**All in one: your drinking water expert**
The Neoperl Group is a leading supplier for the plumbing industry around the globe. We develop, produce and market solutions for drinking water. For more than 50 years and counting, faucet manufacturers, industrial customers, retailers and distributors have placed their trust in us.

NEOPERL® products shape the water stream, regulate the flow rate, connect appliances to water and protect drinking water from contamination. Our water-saving products enable everyone to reduce their use of this precious resource and to reduce their energy consumption by heating less water – a simple solution to the benefit of the environment and the climate.

**Bound to succeed: thanks to our know-how**
The know-how provided by our approx. 1,700 employees in 18 countries is the cornerstone of our success. Production sites in Europe, Asia and the United States as well as sales offices in all major markets form our dense global network.

Through our extensive regional presence we have gained detailed knowledge of local and country-specific characteristics. We understand what makes each market unique. Our technical know-how combined with our international sales and marketing expertise turn us into specialists for drinking water – all around the world.

**The perfect product: through innovation and focus on quality**
The research & development department in Müllheim (Germany) is our "innovation engine". In our first-class state-of-the-art facilities we develop competitive solutions tailored to the multifaceted needs of our international clients. To do so, we rely on the valuable input provided by our customers and partners. Together, we keep exploring – and pushing – the boundaries of the technically feasible and thus develop tomorrow's solutions today.

In order to secure our leading position quality-wise, we rely on automation to the greatest possible extent, while every single production step is subject to an integrated, 100% quality control process.

**Like a mountain stream, we never cease to follow our course.
If we encounter obstacles, we gather speed and find ways to get round them.
Our competent staff, innovative power and the vast wealth of knowledge
at hand provide the continuous flow of energy that drives us forward.**

# PLUMBING COMPONENTS THAT ENSURE BETTER PERFORMANCE.

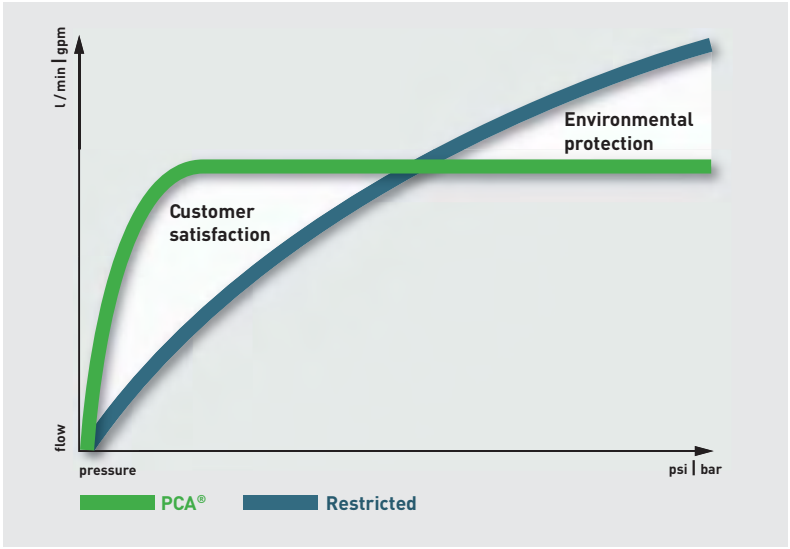

**CASCADE SLC M24×1 Aerator**

# FLOW REGULATION

## Aerators and Washer Regulators with flow regulation

**PCA = P**ressure **C**ompensating **A**erator / PCW= **P**ressure **C**ompensating **W**asher

There are basically two ways to control the flow. One is to restrict it by defining the size of the orifice in such a way as to permit a predetermined flow rate at a specific pressure (e.g. 3 bar). Neoperl refers to these products as "flow restrictors". While flow restrictors allow little water to pass at low pressure, the flow rate is often higher than necessary at high pressure.

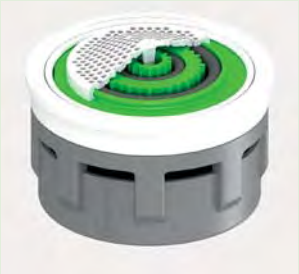



**Example: aerator with integrated flow regulator**
Under normal conditions, the water flow through an aerator increases as the pressure rises. However, it may be necessary to achieve a virtually constant flow rate, regardless of pressure fluctuations, in situations where the flow rate is subject to certain requirements, e.g.
– compliance with standards in specific markets
– saving water
– regulated distribution of water.

This is where the flow regulator technology comes in. PCA aerators and PCWs are easier and more convenient to use than flow restrictors at low pressure and save water at high pressure. The user uses as much water as needed (customer satisfaction) but not more than is necessary (environmental protection).

**Standard PCA**
**from 1.0 to 5.0 bar**

**Dual Core**
**from 0.2 to 5.0 bar**

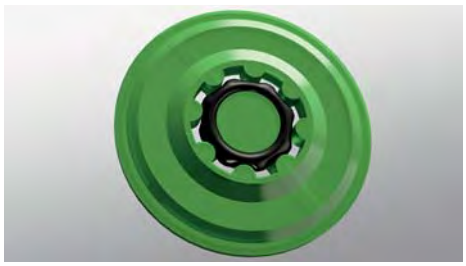


**Available from spring 2017!**

The new Dual Core technology offers all the benefits of Neoperl's flow regulator technology and on top of that, it can be used in low-pressure applications.

## Operating principle

**Static state** (no flow, no or low pressure)
The o-ring is relaxed (position 1).



**Dynamic state** (flow)
As soon as water flows through the flow regulator, the o-ring becomes distorted and is pressed into the gaps between the teeth of the core. This reduces the size of the opening for the water (position 2).

The deformation of the o-ring increases as the **pressure rises** (position 3).

When the pressure decreases, the o-ring gradually returns to its original shape, thus increasing the size of the opening for the water (returning to position 2 and then to position 1).

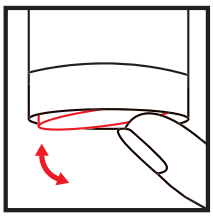
# AERATORS

## Features


SLC integrated

SLC optional

**SLC (Smart Lime Cleaning)**
Lime deposits at the tip of the aerator can simply be rubbed away thanks to the soft elastomer surface. This extends the service life substantially.



SSR integrated

SSR optional

**SSR (swivel plate)**
The SSR function offers a means of adjusting the direction of the water stream as needed. The inclination angle of the swivel plate on the outlet side is adjustable. The maximum swivel angle depends on the model and varies between ±6° and ±10°.


AC integrated

AC optional

**AC (AutoClean)**
The dome screen of an AC aerator has an automatic cleaning function. Small dirt particles (up to 0.7 mm in size) are simply flushed out. This ensures that the stream pattern and flow rate remain unaffected, even after long periods of use.

## Insert and housing sizes

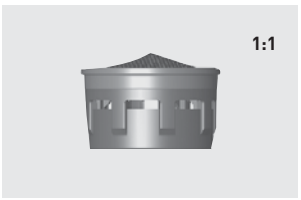

**TT (Tom Thumb) size**

female M16 ×1
male M18 ×1
IG 3/8″


**TJ (Tiny Junior) size**

female M19 ×1
male M20 ×1

Compact Vandal Proof
male M24 ×1




**STD (Standard) size**

female M22 ×1*
male M24 ×1*

US female 55/64"–27 UNS-2B*
US male 15 /16"–27 UNS-2A*


**Shorty STD (Standard) size**

Shorty male M24 ×1

Shorty US female 55/64"–27 UNS-2B
Shorty US male 15 /16"–27 UNS-2A


**TF (Tub Filler) size**

male M28 ×1

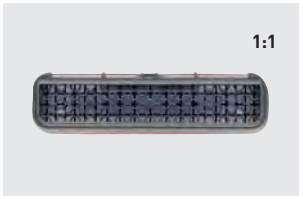
All aerator housings are available upon request with special surface finishes, customised laser engraving and in various colours.

* Vandal-proof versions available.


**Small 24 × 6 mm**


**Medium 28 × 7 mm**


**Large 32 × 8 mm**




**X-Large 40 × 10 mm**

## Stream patterns

**Aerated stream**
Aerators use the Venturi effect to introduce air into the water stream. This gives the water a pleasantly abundant, soft feel for the user – regardless of the flow rate. Uncontrolled water splashing is a thing of the past.

**Mikado stream**
The new Mikado stream is a real eye-catcher. The extraordinary, grid-like spray pattern – formed by individual water jets – looks clear and harmonious. Owing to its form the spray loses density as it moves downwards, hence the force of the jets ranges from vigorously massaging to pleasantly soft.

**Spray stream**
The spray stream offers an ideal means of dispersing water over the largest possible wetting area when the flow rate is low. Its water-saving attributes also make the spray stream an interesting prospect for highly frequented washrooms (e.g. in public buildings).

**Atomized stream**
Aerators with atomizer stream offer a good water dispersion (thanks to atomization) and extremely low flow rates.

## Lime build-up

**Aerator testing:**
Two new aerators have been tested in the following conditions:
– simulation of the equivalent of 5 to 6 years of use
– water temperature of approx. 15 °C/59 °F
– room temperature of approx. 20 °C/68 °F
– water hardness 20–30° dH (German hardness)

**Aerators with metal wire mesh screen**
A film of water builds up over time, which forms a bridge between the insert and the housing. This is where lime begins to form. The lime gradually spreads towards the middle of the screen and finally clogs the air inlets. The stream becomes hard and splashes.

**Aerators without metal wire mesh screen**
With full-plastic aerators, the formation of water film bridges is hindered. Lime build-up is slowed down considerably thanks to their unique structure (CASCADE and HONEYCOMB). They continue to produce a straight, non-splashing stream of water, even after long periods of use.

**Additional lime protection: SLC feature**

Lime clogs aerators over time. Neoperl has developed the SLC feature for maximum lime resistance: you can simply rub away any lime deposits on the outlet surface of the aerator with your finger.

# AERATORS

## Aerator product lines: inserts with housings for standardised threads


### PERLATOR® HONEYCOMB

Improved lime protection due to HONEYCOMB structure; extended life time; perfect stream quality; very low noise level.

| Size | Flow rate | Colour code | Insert only | M24×1  | M22×1  |
|---|---|---|---|---|---|
| STD | PCA 1.0 gpm max. (~3.8 l/min) | blue | 40.2058.000 | 40.2058.033 | 40.2058.023 |
| STD | PCA 1.5 gpm max. (~5.7 l/min) | green | 40.2056.000 | 40.2056.033 | 40.2056.023 |

| Size | Flow rate | Colour code | Insert only | M18×1 | M16×1 |
|---|---|---|---|---|---|
| TT | PCA 1.0 gpm max. (~3.8 l/min) | blue | 44.3058.000 | 44.3058.033 | 44.3058.023 |
| TT | PCA 1.5 gpm max. (~5.7 l/min) | green | 44.3056.000 | 44.3056.033 | 44.3056.023 |

| Size | Flow rate | Colour code | Insert only | M20×1 | M19×1 |
|---|---|---|---|---|---|
| TJ | PCA 1.0 gpm max. (~3.8 l/min) | blue | 43.2058.000 | 43.2058.033 | 43.2058.023 |
| TJ | PCA 1.5 gpm max. (~5.7 l/min) | green | 43.2056.000 | 43.2056.033 | 43.2056.023 |

| Size | Flow rate | Colour code | Insert only | M28×1 |
|---|---|---|---|---|
| TF | B (22.8 - 25.2 l/min at 3 bar) | dark blue | 41.2005.000 | 41.2005.093 |
| TF | C (27.0 - 30.0 l/min at 3 bar) | dark grey | 41.2006.000 | 41.2006.093 |


### PERLATOR® HONEYCOMB SSR

SSR

Simply change the stream angle via the insert's tilting plate. ± 6° to ± 10° adjustment is possible (depending on model).

| Size | Flow rate | Colour code | Insert only | M24×1  | M22×1  |
|---|---|---|---|---|---|
| STD | PCA 1.0 gpm max. (~3.8 l/min) | blue | 40.6058.000 | 40.6058.033 | 40.6058.023 |
| STD | PCA 1.5 gpm max. (~5.7 l/min) | green | 40.6056.000 | 40.6056.033 | 40.6056.023 |
| STD | PCA 2.0 gpm max. (~7.6 l/min) | lilac | 40.6057.000 | 40.6057.033 | 40.6057.023 |


## CASCADE

Excellent lime protection (extended life time); perfect stream quality; very low noise level.

| Size | Flow rate | Colour code | Insert only | M24×1  | M22×1  |
|---|---|---|---|---|---|
| STD | PCA 0.35 gpm max. (~1.3 l/min) | brown | 40.1068.000 | 40.1068.033 | 40.1068.023 |
| STD | PCA 0.5 gpm max. (~1.9 l/min) | lime | 40.1059.000 | 40.1059.033 | 40.1059.023 |
| STD | PCA 1.0 gpm max. (~3.8 l/min) | blue | 40.1058.000 | 40.1058.033 | 40.1058.023 |
| STD | PCA 1.5 gpm max. (~5.7 l/min) | green | 40.1056.000 | 40.1056.033 | 40.1056.023 |
| STD | PCA 2.0 gpm max. (~7.6 l/min) | lilac | 40.1057.000 | 40.1057.033 | 40.1057.023 |

| Size | Flow rate | Colour code | Insert only | M28×1 |
|---|---|---|---|---|
| TF | B (22.8 - 25.2 l/min at 3 bar) | dark blue | 41.1005.000 | 41.1005.093 |
| TF | C (27.0 - 30.0 l/min at 3 bar) | dark grey | 41.1006.000 | 41.1006.093 |


## CASCADE SLC

SLC

Maximum lime resistance: SLC (Smart Lime Cleaning) for maximum aerator lifespan. Simply rub the limescale away with the finger; perfect stream quality.

| Size | Flow rate | Colour code | Insert only | M24×1  | M22×1  |
|---|---|---|---|---|---|
| STD | PCA 1.0 gpm max. (~3.8 l/min) | blue | 40.0058.000 | 40.0058.033 | 40.0058.023 |
| STD | PCA 1.5 gpm max. (~5.7 l/min) | green | 40.0056.000 | 40.0056.033 | 40.0056.023 |
| STD | PCA 2.0 gpm max. (~7.6 l/min) | lilac | 40.0057.000 | 40.0057.033 | 40.0057.023 |

| Size | Flow rate | Colour code | Insert only | M28×1 |
|---|---|---|---|---|
| TF | B (22.8 - 25.2 l/min at 3 bar) | dark blue | 41.0005.000 | 41.0005.093 |
| TF | C (27.0 - 30.0 l/min at 3 bar) | dark grey | 41.0006.000 | 41.0006.093 |

# AERATORS

## Aerator product lines: inserts with housings for standardised threads


### Shorty

The Shorty HONEYCOMB aerator opens up new possibilities in faucet design with its shortened housing for a classical yet modern touch.

| Size | Flow rate | Colour code | Insert only | M24×1 (short) | M22×1 (short) |
|---|---|---|---|---|---|
| STD | PCA 1.5 gpm max. (~5.7 l/min) | green | 40.2956.000 | 40.2956.243 | 40.2956.233 |
| STD | PCA 2.0 gpm max. (~7.6 l/min) | lilac | 40.2957.000 | 40.2957.243 | 40.2957.233 |

| Size | Flow rate | Colour code | Insert only | M18×1 (short) |
|---|---|---|---|---|
| TT | PCA 1.0 gpm max. (~3.8 l/min) | blue | 44.3958.000 | 44.3958.243 |
| TT | PCA 1.5 gpm max. (~5.7 l/min) | green | 44.3956.000 | 44.3956.243 |

Housing comparison:
classic M24×1 and Shorty M24×1


### PCA Spray

Spray stream: good water dispersion at low flow rates; recommended for wash troughs in public facilities.

| Size | Flow rate | Colour code | Insert only | M24×1  | M22×1  |
|---|---|---|---|---|---|
| STD | PCA 0.35 gpm max. (~1.3 l/min) | brown | A5.9041.1 | A5.9241.0 | A5.9141.0 |
| STD | PCA 0.5 gpm max. (~1.9 l/min) | lime | A5.9042.1 | A5.9242.0 | A5.9142.0 |
| STD | PCA 1.0 gpm max. (~3.8 l/min) | blue | A5.9046.1 | A5.9246.0 | A5.9146.0 |


### PCA Spray SLC SLC

Spray stream: good water dispersion at low flow rates; recommended for wash troughs in public facilities. With SLC feature to easily remove limescale deposits.

| Size | Flow rate | Colour code | Insert only | M24×1  | M22×1  |
|---|---|---|---|---|---|
| STD | PCA 0.35 gpm max. (~1.3 l/min) | brown | 40.7268.000 | 40.7268.033 | 40.7268.023 |
| STD | PCA 0.5 gpm max. (~1.9 l/min) | lime | 40.7259.000 | 40.7259.033 | 40.7259.023 |
| STD | PCA 1.0 gpm max. (~3.8 l/min) | blue | 40.7258.000 | 40.7258.033 | 40.7258.023 |


### Atomizer Aerator

An atomized stream with an ultra-low flow rate. For cold water applications only.

| Size | Flow rate | Version | Insert only | M24×1  | M22×1  |
|---|---|---|---|---|---|
| STD | ~ 0.15 l/min at 3 bar | single-jet | 02.0422.0 | 01.0423.0 | 01.0424.0 |
| STD | ~ 0.7 l/min at 3 bar | triple-jet | 02.0420.0 | 01.0418.0 | 01.0419.0 |

# DESIGNER STREAM PATTERNS: MIKADO & RECTANGULAR


### MIKADO Aerator DUE

The MIKADO aerator turns the stream into an eye-catcher when washing your hands.

| Size | Flow rate | | Insert only | M24×1  | M22×1  |
|---|---|---|---|---|---|
| STD | PCA 0.35 gpm max. (~1.3 l/min) | brown | 40.7C68.000 | 40.7C68.033 | 40.7C68.023 |
| STD | PCA 0.5 gpm max. (~1.9 l/min) | lime | 40.7C59.000 | 40.7C59.033 | 40.7C59.023 |

## Aerator product lines: specialty with rectangular stream shape


### PERLATOR® Rectangular

Enables uniquely shaped water stream, thus offering completely new options in tap design.
RS = rectangular sealing.

| Size | Flow rate | Colour code | Insert |
|---|---|---|---|
| 32×8 mm | PCA 1.2 gpm max. (~4.5 l/min) | pink | 02.3234.0 |
| 32×8 mm | PCA 1.5 gpm max. (~5.7 l/min) | green | 02.3236.0 |
| 32×8 mm RS | PCA 1.2 gpm max. (~4.5 l/min) | pink | 02.3225.0 |
| 32×8 mm RS | PCA 1.5 gpm max. (~5.7 l/min) | green | 02.3226.0 |

# FLOW REGULATORS

**Flow regulators maintain a defined, virtually constant flow rate regardless of pressure fluctuations. You can use flow regulators to reduce water consumption in showers, shattafs and bib taps.**

NEOPERL® flow regulators comprise a precision control o-ring, a core and a housing (certain models only). The gap between the o-ring and the teeth of the core is the opening through which the water flows.

## Product lines

### PCW-01 washer regulator

Two functions in one: regulating and sealing. Replaces the washer in shower hoses.

| Flow rate | Colour | Part no. | Size |
|---|---|---|---|
| 1.0 gpm max. (~3.8 l/min) | dark blue | 58.8644.1 | 1/2" connection |
| 1.5 gpm max. (~5.7 l/min) | green | 58.8645.1 | 1/2" connection |
| 2.2 gpm max. (~8.3 l/min) | yellow | 58.8648.1 | 1/2" connection |
| 4.0 l/min | dark grey | 58.8634.1 | 1/2" connection |
| 6.0 lmin | black | 58.8636.1 | 1/2" connection |
| 9.0 l/min | orange | 58.8639.1 | 1/2" connection |
| 12.0 l/min | red | 58.8642.1 | 1/2" connection |

### PCW-02 washer regulator

Two functions in one: regulating and sealing. Replaces the washer in shower handles or bib taps.

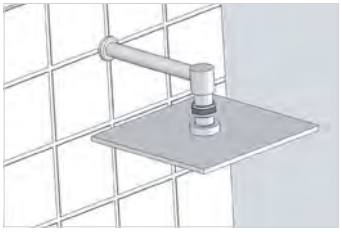
| Flow rate | Colour | Part no. | Size |
|---|---|---|---|
| 1.0 gpm max. (~3.8 l/min) | dark blue | 58.9170.1 | 1/2" connection |
| 1.5 gpm max. (~5.7 l/min) | green | 58.9171.1 | 1/2" connection |
| 2.2 gpm max. (~8.3 l/min) | yellow | 58.9174.1 | 1/2" connection |
| 4.0 l/min | dark grey | 58.9086.1 | 1/2" connection |
| 6.0 l/min | black | 58.9088.1 | 1/2" connection |
| 9.0 l/min | orange | 58.9091.1 | 1/2" connection |
| 12.0 l/min | red | 58.9094.1 | 1/2" connection |

**PCR-E 1/2“ x 1/2“ Shower Connection**

Simply insert the ½” screw connection between shower faucet and hose. Easy to install – perfect for retrofit.

| Flow rate | Part no. |
|---|---|
| 4.0 l/min | A5.2213.0 |
| 6.0 l/min | A5.2217.0 |
| 9.0 l/min | A5.2223.0 |
| 12.0 l/min | A5.2226.0 |

# PRESSURE LIMITER



**Pressure limiter**

Limits the dynamic downstream pressure on application to 1 bar, independent of supply pressure (dynamic = flow rate >0).

| Model | Part no. |
|---|---|
| Pressure Limiter G1/2” 1 bar | A5.0006.0 |

# SHOWER HOSES

## CHROMALUX Supreme


| | |
|---|---|
| **1 Outer hose** | transparent PVC |
| **2 Coloured foil** | |
| **3 PVC layer** | |
| **4 Reinforcement** | longitudinal and cross-linked wires |
| **5 Inner hose** | PVC |

chrome

polished brass

shiny black

shiny white

## CHROMALUX Metallic


| | |
|---|---|
| **1 Outer layer** | transparent PVC |
| **2 Metallic wrap** | polyester foil band |
| **3 Reinforcement** | longitudinal threads |
| **4 Inner hose** | PVC |

chrome

## CHROMALUX Stainless

(for shattaf application)


| | |
|---|---|
| **1 Outer layer** | transparent PVC |
| **2 Braiding** | stainless steel |
| **3 Inner hose** | PVC |

stainless steel

# CONNECTING HOSES

## FLEXCORE

Very flexible and kink-free, for extremely small mounting spaces. Drinking water approved.

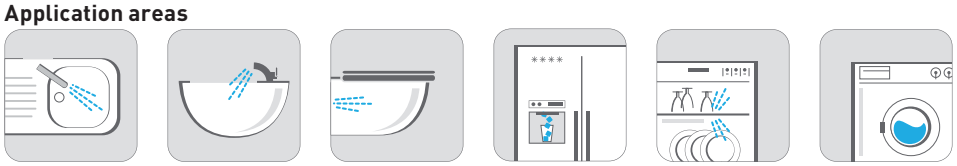
| DN8 | Type | Overall length (in mm)* | | | |
|---|---|---|---|---|---|
|  | G1/2" x G1/2" | 350 | 450 | 600 | 900 |
|  | G1/2" x M10×1 | 350 | 450 | 600 | 900 |

* other lengths available on request

**Inliner** corrugated



**Application areas**



**Technical information**

| | | | | | |
|---|---|---|---|---|---|
| Operating / max. temperature | 70° C | Tensile strength | > 1000 N | Braided outer diameter | 12.5 mm |
| Max. working pressure | 10 bar | Bending radius | 25 mm | Flow rate (300mm, 3 bar, open atmosphere) | 29 l/min |
| Burst pressure | > 100 bar | Bending behaviour | < 15% | | |

**Attainable standards**

CSTBat · DVGW CERT · SVGW SSIGE · kiwa · WRAS APPROVED PRODUCT

# **PRODUCT** OVERVIEW

October 2016









**VERTECO FZCO &**
**VERTECO Turnkey Projects LLC**
Polyclean Building, Al Quoz 3
PO Box 54287, Dubai
United Arab Emirates

T: +971 4 338 1155
E: info@verteco.ae

www.verteco.com
www.SaveWaterUAE.com



NEOPERL®
flow, stop and go®