Australian Water & Irrigation Solutions Pty Ltd

DECHLORINATION
LPD-250 Dechlorinating Diffuser For 4 ppm or less Dechlorination

Visual reference to the consumption of tablets when the tablets are at 60%, simply open the cap at the top and insert new tablets as needed.

Already widely used in USA and Canada. This LPD-250 Unit is the easiest to use Dechlorination device available. Simply fill the feed tube with tablets and the LPD-250 will do the rest. There are no chemicals to mix or waste.

The LPD-250 is for use with chemically treated (4ppm or less chlorine/chloramines) potable water. For higher chlorine concentrations up to 300 ppm, refer to the COMBO KIT which works with the LPD-250 and gravity feeds liquid CAPTOR NSF into the LPD-250.

The LPD-250 uses either LPD-CHLOR Tablets (contains Sodium Sulfite 83.1%) or Vita-D-Chlor Tablets (contains Ascorbic Acid - Vitamin C) that neutralizes the chlorine/chloramines in the water that you are flushing.

When using LPD-CHLOR Tablets, the LPD-250 consumes about 1-tablet per 9000 Litres of water – the feed tube should be topped up with additional tablets after each increment of about 36,000 Litres of flow.

Weighing 15 Kgs, the LPD-250 is heavy enough to take the day-to-day abuse of flushing. You can flush straight off the hydrant thru the Standpipe or attach a hose to direct the flow where you want it to go.

The LPD-250 can handle flows from 720 to 4,500 Litres per minute and hydrant pressures up to 1,400 Kpa. For flows lower than 720 LPM, we recommend you use our Low Flow Inserts, which will allow more contact time for the water to run past the tablets.

Great for applications such as draining/Dechlorinating Swimming pools. For flows higher than 4,500 LPM we recommend a Hydrant Wyes (allows you to use 2 LPD-250’s off the hydrant connections) or you can use our Custom made Manifold Systems to attach up to 4 LPD-250’s for up to 18,000 LPM output.

NEW LIGHT WEIGHT ALLUMINIUM BODY LPD-250 ALUM

The same rugged and efficient design as the standard body, but now available in Aluminum which practically cuts the diffuser weight in half, just 7.5kg

This reduces the strain on the hydrant Nozzle and Swivel during direct hydrant flushing.

Use Tablets for 4 ppm or less Chlorine/Chloramines

Add a Superdechlor Kit to your LPD-250 for higher chlorine levels or long flushes

The LPD-250 will:

- Diffuse the flow of the hydrant and trap debris
- Allow you to measure flow (with optional pilot)
- Neutralize chlorine/chloramines safely when flushing! The LPD-250 dissolves the LPD-CHLOR Tablets into the discharge stream at a sodium sulfite concentration of approx. 12.5 ppm.
- Attach directly to the above ground hydrant or standpipe connection from the below ground hydrant. In other applications as illustrated, connect it to a hose direct the flow to a drain, or tanker as required.

The LPD-250 is very easy to use

- Simply drop in tablets as needed
- Comes standard with a 64mm (3 or 5 TPI) Pipe Thread Adaptors

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<td>LPD 250</td>
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<td>LPD Screen</td>
<td>Stainless Steel LPD tablet Screen for Vita-D-Chlor Tablets</td>
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<td>LPD Pitot Holder</td>
<td>LPD pitot holder only</td>
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<td>LPD pitot Kit</td>
<td>LPD Pitot w/dual Read Gauge &amp; Quick release</td>
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<td>LPD Gauge</td>
<td>LPD Dual Read Gauge 1400Kpa 4000 LPM</td>
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LPD 250 Low Flow Inserts:

For situations where flows lower than 720 LPM are needed, (the inserts should not be used above 720 LPM) you can use the LPD-250 Low Flow Inserts to ensure proper Dechlorination.

The LPD Low Flow Inserts are easy to install and increase the flow through the feed tube assembly so that an adequate tablet Dissolve rate is achieved.

For example, flushing a 100mm line at 1-MPS requires only 432 LPM – or draining a swimming pool with a portable pump where the flow rate is usually in the range of 360 to 540 LPM.

Operating Procedure:

Operation of the LPD-250 with Low Flow Inserts installed is similar to normal operation. Orient the LPD-250 with the feed tube in the vertical position, fill it with 10 or 11 tablets and turn on the water. No other adjustment is required and it will function from flow rates of about 72 to 720 LPM.

Measuring the Flow Rate with Low Flow Inserts installed and also with a pilot probe installed.

With the Low Flow Inserts installed, the pilot probe will indicate a flow rate somewhat greater than the actual flow rate because of backpressure caused by the inserts. However the pilot probe reading is suitable for monitoring the flow rate. If an accurate measurement of flow rate is required, an inline flow meter should be used.

Dechlorination Testing

Hach Chlorine Pocket Colorimeter 11

Pocket Colorimeter 11: Specifications

- Lamp: Light Emitting Diode (LED)
- Detector: Silicon Photocell
- Wavelength: Fixed wavelength 1+-2nm
- Filter Bandwidth: 15nm
- Absorbance Range: 0 to 2.5 Abs
- Sample Cell Pathlength: 1cm-22mm
- Display: Liquid Crystal Display(LCD), Backlit.
- Enclosure: IP67, waterproof at 1m for 30min.
- Operating Conditions: 0-50deg C 0-90%RH.
- Dimensions: 3.5 x 6.1 x15.5cm
- Net weight: 0.23 kg
- Power: 4 AAA Alkaline Batteries, Approximate battery life of 2000 tests
- Compliance: European CE mark.
- Warranty:

Australian and South East Asian Agents for Pollard Water
Dechlorination Mats: “Dechlormats”
Emergency Dechlorination Mats and Bags.

These are great for emergencies or “measures of last resort in a water main break situation, chlorinated potable water may be flooding to where it will react with sensitive receiving waters – First Responders can use the Dechlormats to achieve significant Dechlorination until the situation can be brought under control.

Emergency Dechlorination Mats and Strips (Potable Water)

Our Dechlorination Bags and Sleeves work well for situations where and when nothing else will work and should be used with 4ppm or less chlorinated water.

The mats and strips are constructed from coated polyester fabric. The Dechlor Bags have heavy duty grommets to enable the mat to be pegged down.

The Channel bags are fabricated out of Geotextile fabric.

<table>
<thead>
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<tbody>
<tr>
<td>Dechlor Mat</td>
<td>Dechlor Mat 1.00 x 1.200 (24 Tablet pockets)</td>
</tr>
<tr>
<td>Dechlor Strip</td>
<td>Dechlor Strip 150mm x 1000mm (6 tablet pockets)</td>
</tr>
<tr>
<td>Dechlor Bag</td>
<td>Gravel Tie Bag, Green Disposable</td>
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<tr>
<td>Dechlor Bag</td>
<td>Gravel Tie bag, Reusable</td>
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Estimating the number of tablets needed.

The typical scenario when using Dechlormats involves getting a situation under control. Chlorinated water is escaping either into a ditch or creek bed or it may enter a storm drain intercept. The problem is that chlorinated water may be reaching sensitive receiving waters.

How many tablets are required?

Usually it is a case of “the more the better.” One LPD-Chlor tablet will neutralize 16,000 gallons of water at Cl2 = 1 ppm, but to achieve this it must be completely dissolved and thoroughly mixed. In a flowing situation, the rate at which a tablet will dissolve depends upon the rate at which water is flowing over it. The capacity to neutralize depends on how much water flows per tablet.

In practice, one should channel the water so that the stream flows over the full width of the Dechlormat. If the stream is more than a few inches thick, a second Dechlormat should be put in series with the first mat. If possible, collect and test a sample 20 or 30 feet down stream of the mats. This will demonstrate if more tablets/mats are required. When the tablets reach half their original size, new tablets should be added.
Dechlorination Tablets

LPD-Chlor Sodium Sulfite Tablets
- Cost Efficient Flushing
- Manufactured Specifically for LPD 250
- MSDS Sheets available on request.

LPD-Chlor tablets are designed exclusively for the LPD 250 Dechlorinating diffuser.

Use 10 LPD-CHLOR tablets in the LPD-250 for flushing up to 36,000 litres of water with up to 4 ppm chlorine or chloramines. When the tablets are 60% of their original size, just add more as required.

LPD-CHLOR contains 81.3% sodium sulfite and has a shelf life of one year under cool dry conditions.

LPD-CHLOR can be shipped and is in stock in our warehouse.

Simply drop the tablets in and flush! – it doesn’t get any easier than that! There are no chemicals to mix or waste. LPD-CHLOR tablets that are not used can be saved for future use.

Specifications of LPD-CHLOR Tablets:
- Active Ingredient: Sodium Sulfite (Na2SO3) 81.3%
- Inert Ingredients: 18.7%
- CAS#: 7757-83-7
- Diameter: 50mm
- Thickness: 20mm
- Weight: 145gms
- Appearance: Green tablet

Description
LPD_CHLOR Tablets
LPD Screen

Vita-Chlor Ascorbic Acid (Vitamin C) Tablets
- Fish friendly Vitamin C
- Use with VitaScreen for LPD-250
- (screen tunes the consumption of Vita-Chlor Tablets to LPD-250)

Vita-Chlor Tablets are the only tablet that utilizes Vitamin C Chemistry. They are 100% soluble and 100% organic. They are fast dissolving and they can accommodate the high volume of water over a short period of time.

Vita-D-Chlor can be shipped and is in stock in our warehouses.

To use Vita-D-Chlor tablets with the LPD-250 we sell a Stainless Steel screen that will allow you to tune the consumption of the Vita-D-Chlor tablets to the LPD-250. Very easy to use- just insert the screen and use 5 tablets for up to 4ppm chlorine or chloramines.

For higher concentrations you can Vita-D-Chlor granular or Vita-d-Chlor neutral with a Venturi device or with a Combo Kit and LPD-250

Specifications of Vita-D-Chlor tablets:
- Active Ingredient: Vita-D-Chlor 75%
- Inert Ingredient: water soluble binder 25%
- Diameter: 50mm
- Thickness: 20mm
- Weight: 115gms
- Appearance: White Tablet with citrus odour

Description
Vita-D-Chlor Tablets 20
Vita-D-Chlor Tablets 40
Vita-D-Chlor Tablets 140

Australian and South East Asian Agents for Pollard Water
LPD-250 Super Dechlorinator

The Econo Kit is designed for contractors who need to dechlorinate short run jobs where only one 5-gallon shipping container of CAPTOR may be needed. Note that the Econo Kit does not include the LPD-250. That must be purchased separately.

The Econo Kit is very easy to use and it takes less than 5 minutes to set up. A handy case is provided for the hardware and fittings, and the legs come in a PVC tube.

The Economy Super Dechlorinating Kit is a gravity-feed system that uses the 5-gallon CAPTOR Shipping Container (Drum) as the feed tank. Flow from the 5-gallon Drum of CAPTOR goes directly to the flow control panel and from there to the LPD-250.

The flow control panel allows the user to set the amount of CAPTOR sent into the LPD-250 based on the flow and concentration of chlorine in the water you are flushing (see chart below). A supplied Pollard Pitot Probe and holder will allow you to measure the flow rate of your dechlorination. The chart displays Pitot pressure (psi) versus gallons per minute of flow.

To estimate the amount of CAPTOR required, please see our charts on page 51 or visit pollardwater.com and use our CAPTOR Calculator.

For longer run jobs where the 5-gallon drum of CAPTOR will need to be changed out, we suggest using a COMBO Kit as you will not need to stop flushing to change-out the 5-gallon CAPTOR drums. The COMBO Gravity Feed Tank enables you to change out the drums without interruption of your dechlorinating run.
LPD-250 COMBO Super Dechlorinating Kit

Large Flows of up to Millions of Litres with max Cl₂ of 300ppm

The COMBO Super Dechlorinator Kit is for all size projects. For shorter projects, the COMBO Kit includes an auxiliary base to hold a 5-gallon CAPTOR drum that gravity feeds into the feed tank.

The feed tank maintains a constant level of CAPTOR by using a float valve. You can change out the 5-gallon drums without stopping your dechlorination run. Simply disconnect the empty drum of CAPTOR and replace it with a fresh one, the feed tank will continue to feed CAPTOR while the change-out occurs.

For larger run projects, you can gravity feed CAPTOR into the feed tank using an elevated 55-gallon Drum or a 220-gallon Tote of CAPTOR.

For situations where elevating a drum or tote is not practical, you can use a Transfer Pump Kit that runs on 120 vac or 12 vdc. For dc operation, the Transfer Pump can be plugged into a vehicle cigarette lighter socket. The pump will run about 8 hours on a 72-ampere-hour battery.

Setting up the COMBO Kit is easy and can be done by one person in less than 5 minutes. It is also simple to operate. Based on the ppm of chlorine and the desired GPM flow rate, you determine the required CAPTOR flow meter reading from the chart on the flow control panel. The chart also shows the pilot psi reading vs. flow rate in GPM.

To begin operation, first open the CAPTOR control valve to set the required CAPTOR flow meter reading - then open the hydrant and bring the pilot reading up to the desired value. Immediately test for completeness of dechlorination and adjust the CAPTOR flow rate if required. You may perform this test with a chlorine colorimeter or total chlorine test strips (see pages 58-63 and our Lab Section).

To ensure that you maintain complete dechlorination, we suggest that you periodically test during your dechlor run.

Combo Super Dechlorination Kit

LPD-25 and Captor are not included in the kit and must be purchased separately.

Description

20 Litre Carboy Captor
200 Litre Drum Captor

Australian and South East Asian Agents for Pollard Water
Brass Hydrant Wyes

Brass Wyes are available and they are available in 5TPI or 3TPI.

These allow the use of two LPD-250 for flows in excess of 4500 litres per Minute.

Diffuser Manifold Assemblies

The diffuser allows the use of Three LPD-250’s to be used at one time. The LPD-250’s are usually attached as they normally be attached to a hydrant. The diffuser is used to recover dynamic pressure before diversion in the manifold and thereby minimizes the overall pressure drop required to achieve a 14,400LPM flow rates.

Large Riser Custom Manifold

Custom PVC Manifolds are fabricated to mate Multiple LPD-250 to risers for flushing large pipes. The manifolds are designed to provide uniform flow to each LPD-250.

The 4 No LPD-250 Custom Manifold shown is connected to a 200mm dia riser on a 600mm Dia pipeline. A flow rate of 15,000LPM was required to flush the pipeline at 1MPS.
BCI In-Line Dechlorinator – Model 260 & 260i

The Pollard BCI 1260 and BCI 260i Model In Line Dechlorinators work great for both Potable and Superchlorinated (New Water Main Installations) from 1 to 250 PPM Chlorine/Chloramines. The 260 flows up to 1350Lpm and can use either Captor NSF or Vita-D-Chlor NSF Granules to dechlorinate.

The BCI Chemical Injectors allows for easy adjustment of induced non-corrosive chemicals. Chemical injection into the fluid stream is controlled with a micro adjustable control knob with incremental markings. The device will deliver from 0 Lph to 400 Lph of chemical neutralizer. The control knob range is closed to 5 full turns to maximum delivery setting, with incremental markings on each rotation.

The Pollard BCI 260 is supplied with a metal carry case, Cam Lock connection couplings, and chemical induction tubing to allow quick and easy hook-up to commercial/domestic water supplies. The Pollard BCI 260i is a shortened version of the BCI260, with one change – its shorter and more compact.

Connections

Once we know what connections you require we can adapt it to suit the Camlock fittings.

Australian and South East Agents for Pollard Water
BCI In-Line Dechlorinator – Model 1500

The Pollard BCI 1500 In-Line Dechlorinator works great for both potable and new main installations from 1 to 300 ppm Chlorine/Chloramines. The model 1500 flows up to 6400lpm and can use either CAPTOR NSF or Vita-D-Chlor Granular to dechlorinate.

Attached to a hydrant using a swivel connection or to blow off connections using adaptors and Cam Lock fittings.

The Pollard BCI 1500 is designed for the induction od non corrosive chemicals into a full stream. It is designed for ease of use and it’s design allows the operator to test incoming waters at the inlet test valve for chlorine residual levels, and has a pitot centered in the stream to see actual flows whilst flushing.

The Pollard BCI 1500 allows for easy adjustment of inducted chemicals. Chemical injection into the fluid stream is controlled with a micro adjustable control knob with incremental markings. The device will deliver from 0Lph to 400Lph of chemicals neutralizer. The control knob range is closed to 5 full turns to maximum delivery setting, with incremental markings on each rotation.

Connections

Once we know what connections you require we can adapt it to suit the Cam Lock fittings.

Australian and South East Agents for Pollard Water
VITA-D-CHLOR

Vita-D-Chlor™ Granular: Ascorbic Acid NSF

- Cost effective flushing
- Use with LD-250 Combo Kit or Venturi Devices

Vita-D-Chlor™ is the only Ascorbic Acid (Vitamin C) with NSF certification for dechlorinating water.

Vita-D-Chlor™ is 100% organic, completely soluble, and provides a safe, rapid and complete method of dechlorination.

Vita-D-Chlor™ meets the new EPA regulations for dechlorinating water prior to flushing into streams, rivers and lakes. Vita-D-Chlor™ is a more environmentally conscious method of dechlorination than traditional sulfur-based chemicals.

Vita-D-Chlor™ is not toxic to humans or animals nor does it deplete oxygen in treated water. In fact, it is made with an essential vitamin for humans and many animals, which is known to boost the immune system in fish. One pound of Vita-D-Chlor™ will neutralize 45,000 gallons of water with less than 1 ppm chlorine.

The most effective method for using Vita-D-Chlor™ is to make a solution to be fed into the chlorinated water stream. Alternatively, it can be mixed into a tank or reservoir for dechlorination prior to flushing.

Specifications of Vita-D-Chlor™ Granular Ascorbic Acid NSF
- Active ingredient: Ascorbic Acid 100%
- Form: Easy dissolving fine granular
- Solubility: 2.5 mg/mL max
- Quality: NSF Certified
- Meets pharmaceutical industry standards for purity (USP/FCC)

CAPTOR

Liquid CAPTOR - Calcium Thiosulfate NSF60

- Safe, non-hazardous
- Water clear - nearly odorless
- Environmentally friendly
- Ready to use - no chemicals to mix
- Use with LD-250 Combo Kit or Venturi Devices

The old way to dechlorinate was with sulfur dioxide, an extremely hazardous gas or more recently sodium bisulfite, a DOT corrosive liquid - why not update to CAPTOR, it is nearly odorless and neutral, and is not DOT regulated. CAPTOR is by far the safer and more environmentally friendly dechlorinator.

Available in handy 5 gallon containers or for larger dechlorination jobs we offer 55 Gallons Drums or 220 Gallon Totes.

Ready to use, there are no chemicals to mix and keep in solution - just open and you are ready to dechlorinate using either our LD-250 Super Dechlorination Kit (pages 48-49) or our BC Venturi Dechlorination Devices (pages 54-55).

The amount of CAPTOR to be used on your dechlorination job can be calculated using the formula shown to the right, or by visiting Pollardwater.com and using our CAPTOR CALCULATOR. If you know the volume of water to be flushed, and amount of chlorine or chloramines in solution (in parts per million), it is easy to calculate the total amount of CAPTOR you will need for your job. We feature on Page 11 and on our web site handy charts for calculating the amount of CAPTOR you need if you only know the pipe diameter, length of run, and PPMs for your job.

CAPTOR 5 gallon shipping containers can be shipped via UPS/FedEx or for larger sizes or large quantities via truck. We stock CAPTOR 5 & 85 in our Warehouses in Long Island, NY and Redmond, WA to save you time and freight costs.

We normally ship 220 Gallon TOTES direct to you from Fresno, CA.

Calcium Thiosulfate based CAPTOR (NSF Certified ANSI/NSF 60)

ACTIVE INGREDIENT By Weight Calcium Thiosulfate 30%
INERT INGREDIENTS 70%
DENSITY:
- Specific Gravity 1.245
- Pounds per Gallon 10.40
HAZARD RATING:
- CERCLA HEALTH 0
- NFPA FLAMMABILITY 0
- REACTIVITY 0

DOT SHIPPIING: NOT REGULATED BY DOT