DARWIN





# **DARWIN 3-STAGE POINT OF ENTRY SYSTEM**

DARWIN 3-Stage Point of Entry offers Dual Gradient filtration that will drop down to 1 Micron, followed by Radial Flow for efficient removal of chlorine and other waterbornec chemicals with KDF Filtration. The DARWIN 3-Stage Point of Entry System uses municipal potable water as the source of its raw water. The system is used to purify municipal potable water by removing iron rust, particles, chlorine and heavy metals.

Carbon filtration allows the reduction of chlorine taste and odour, providing fresh, clean and great tasting water from any sink in the home. By reducing chlorine in showers, it helps lessen the drying effects of chlorine, leaving hair and skin feeling softer and smoother.

Moreover, this technology filters water as it enters the home, protecting appliances and avoiding mineral build-up in the future. Filtered water also is more cost-effective than bottled water, reducing the environmental impact on our landfills. Water purification can further limit the need for purchasing expensive, wasteful bottled water.





Supplier	Pentair
Model	DWWAT001204
Working pressure	210 - 600 kPa
Working water temperature	5 ~ 38°C
Flow rate	10 GPM
Environmental temperature	5 ~ 38°C
Cartridge life	140,000L @15LPM
Inlet and outlet size	¾" BSPT male thread







# DARWIN SEDIMENT CARTRIDGES

DARWIN Sediment Cartridges are manufactured from 100% pure polypropylene and are designed for purity and will not impart taste, odour or colour to the liquid being filtered. Additionally, the polypropylene construction provides superior chemical resistance and is not prone to bacterial attack.

The cartridges' advanced design combines selective final filtration with appropriate prefiltration to achieve up to three times the dirt holding capacity of similar size sediment cartridges and even greater capacity than standard spun or string-wound cartridges.

The larger diameter of the filter reduces the particle load, allowing it to operate at higher velocities. The effective filter depth is increased to a full 233%, providing very high particulate reduction efficiencies and added loading capacity.

The design and performance characteristics of the DGD Series Cartridges make them an excellent choice for all residential, rural, municipal and commercial applications.





Supplier	Pentair
Model	DGD-7525
Part number	155355-43
Maximum dimensions	4.50" x 9.88" (114 mm x 251 mm)
Rating (nominal)*	25 micron
Initial △P (PSI) @ Flow Rate (GPM)	< 1.0psi @ 10 gpm (<0.1 bar @ 38 Lpm)
Filter Media	Polypropylene
Temperature Rating	40-145°F (4.4-62.8°C)



The DFX Series Diamond Flow cartridges are Tested and Certified by NSF International to NSF/ANSI Standard 42 for material requirements only.

<sup>\*</sup>Based on manufacturer's internal testing WARNING: Do not use with microbiologically unsafe or of unknown quality water without adequate disinfection before or after the system.







# DARWIN GRANULAR ACTIVATED CARBON CARTRIDGES

DARWIN Granular Activated Carbon Cartridges are constructed with a 70-micron porous polyethylene outer shell and durable polypropylene endcaps.

The 2-3/4" outer diameter cartridges have a polypropylene core and the 4-1/2" outer diameter cartridges incorporate a spun polypropylene core. Sandwiched between the outer shell and the core is a bed of granular activated carbon (GAC).

The unique radial flow design offers the benefits of granular activated carbon (GAC) filtration, such as low pressure drop, while at the same time significantly reducing the release of carbon fines commonly associated with GAC-style cartridges.

DARWIN Granular Activated Carbon Cartridges are available in a wide variety of sizes and are ideal for point-of-entry (POE) and other high flow rate applications.





Supplier	Pentair
Model	RFC-BB
Part number	155141-43
Maximum dimensions	4.50" x 9.75" (114 mm x 248 mm)
Chlorine taste & odour reduction @ flow rate (GPM)	>50,000 gallons @ 2 gpm (189,270 L @ 7.6 Lpm)
Initial △P (PSI) @ Flow Rate (GPM)	0.90 psi @ 2 gpm (0.06 bar @ 7.6 Lpm)
Filter Media	Granular activated carbon
Outer Shell	Polyethylene
Endcaps	Polypropylene
Core	Polypropylene
Gaskets	Buna-N
Temperature Rating	40-125°F (4.4-51.7°C)







#### FILTER CARTRIDGE REPLACEMENT

- 1. Turn off water supply. Press red pressure-relief button (if present).
- 2. Unscrew housing. Remove large o-ring, wipe clean, and set aside.
- 3. Discard used filter cartridge. Wash housing with dish soap and warm water using a nonabrasive sponge or cloth. Rinse thoroughly. Fill 1/3 with water. Add about one tablespoon of bleach and scrub to disinfect. Rinse thoroughly.
- 4. Lubricate o-ring with clean silicone grease. Insert o-ring in groove.

NOTE: This step is important to ensure a proper housing seal. Make certain the o-ring is seated level in the groove.

- 5. Insert new filter cartridge.
- 6. Screw housing onto the cap and hand-tighten. Do not over-tighten. Make sure cap standpipe slips into cartridge.
- 7. Turn on water supply. Press pressure-relief button (if present). Check for leaks before leaving installation.

**NOTE:** A carbon cartridge may contain carbon fines (very fine black powder). After installation, flush cartridge for 10 minutes, wait an hour, then flush again for 10 minutes before using the water. It is recommended that you run the tap at least 20 seconds prior to using water for drinking or cooking purposes. WARNING: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. CAUTION: Protect against freezing to prevent cracking of the filter and water leakage.

**CAUTION:** To prevent costly repairs or possible water damage, the sump of plastic housings must be replaced every five years for clear, and ten years for opaque. If sump is older than recommended, replace immediately. Date sump for reference and indicate replacement date.

#### NOTE:

- Make certain that installation complies with all state and local laws and regulations.
- This replacement filter cartridge has a limited service life. Changes in the taste, odour, colour and flow of the water being filtered indicate that the cartridge should be replaced.
- The contaminants or other substances removed or reduced by the cartridge are not necessarily in your water.
- After prolonged periods of non-use (such as during a vacation) it is recommended that the system be flushed thoroughly. Let water run for five to six minutes before using.

This cartridge is Tested and Certified by NSF International under NSF/ANSI Standard 42 for material requirements only.







# DARWIN KDF CARTRIDGES

DARWIN KDF Cartridges are enhanced with KDF media to inhibit scale buildup in the filter that can decrease product life.

These cartridges are constructed of high performance granular activated coconut shell carbon and a 5-micron spun bonded polypropylene post sediment element for increased dirt holding capacity. They are effective for chlorine taste and odour reduction in high capacity situations and where lime and scale buildup problems occur.





Supplier	Pentair
Model	DBC-10EX2
Part number	255748-43
Maximum dimensions	4.50" x 9.84" (114 mm x 250 mm)
Rating (nominal)*	5 micron
Initial ∆P (PSI) @ Flow Rate (GPM)	6 psi @ 2.0 gpm (0.41 bar @ 7.6 Lpm)
Filter Media	Coconut shell carbon
Temperature Rating	40-125°F (4.4-51.7°C)
Maximum pressure	125 psi





#### FILTER CARTRIDGE REPLACEMENT

- 1. Turn off water supply. Press red pressure-relief button (if present).
- 2. Unscrew housing. Remove large o-ring, wipe clean, and set aside.
- 3. Discard used filter cartridge. Wash housing with dish soap and warm water using a nonabrasive sponge or cloth. Rinse thoroughly. Fill 1/3 with water. Add about one tablespoon of bleach and scrub to disinfect. Rinse thoroughly.
- 4. Lubricate o-ring with clean silicone grease. Insert o-ring in groove.

NOTE: This step is important to ensure a proper housing seal. Make certain the o-ring is seated level in the groove.

- 5. Insert new filter cartridge. "THIS END NEXT TO VESSEL THREADS" should be visible when installing.
- 6. Screw housing onto the cap and hand-tighten. **Do not over-tighten.** Make sure cap standpipe slips into cartridge.
- 7. Turn on water supply. Press pressure-relief button (if present). Check for leaks before leaving installation.

NOTE: A carbon cartridge may contain carbon fines (very fine black powder). After installation, flush cartridge for 5 minutes before using the water. It is recommended that you run the tap at least 20 seconds prior to using for water for drinking or cooking purposes.

WARNING: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

**CAUTION:** Protect against freezing to prevent cracking of the filter and water leakage.

**CAUTION:** To prevent costly repairs or possible water damage the sump of plastic housings must be replaced every five years for clear, and ten years for opaque. If sump is older than recommended, replace immediately. Date sump for reference and indicate replacement date.

#### NOTE:

- Make certain that installation complies with all state and local laws and regulations.
- This replacement filter cartridge has a limited service life. Changes in the taste, odour, colour and flow of the water being filtered indicate that the cartridge should be replaced.
- The contaminants or other substances removed or reduced by the cartridge are not necessarily in your water.
- After prolonged periods of non-use (such as during a vacation) it is recommended that the system be flushed thoroughly. Let water run for 5-6 minutes before using.