

Leopold® Type S and Type SL Underdrains

INCREASE FILTER RUN TIMES, REDUCE BACKWASH CONSUMPTION

With superior air scouring and water backwash performance, the Leopold Type S and Type SL underdrains provide highly effective media cleaning for longer filter runs and lower operating costs per gallon of water filtered.

The Type S underdrain is ideal for installations requiring extended-length laterals and high combined air and water backwash rates, while the lower profile of the Type SL underdrain allows greater media depth in shallow filters.

Efficient media cleaning

Type S/SL underdrains are designed for effective media cleaning and decades of trouble-free operation. The key to success? Leopold design innovations for uniform distribution of air and/or water backwash:

- Closely spaced, non-clogging orifices prevent dead zones, exposing all the filter media to the cleaning action.
- The dual parallel lateral design ensures even air and water distribution across the full length of the filter.
- A patented water recovery channel ensures continuous airflow across all top-deck orifices by allowing water to re-enter the underdrain and equalize any low-pressure areas.



Type S underdrain, with water recovery channel visible on top



Type SL underdrain

Leopold Type S and Type SL Underdrains

Adaptable collapse pulse cleaning

Type S/SL underdrains also enable various media configurations to benefit from collapse pulse cleaning during a concurrent air/water backwash. Concurrent air scour rates can be set as high as 5 scfm/ft² (91 m/hr), and concurrent water rates set as high as 5 gpm/ft² (12m/hr) for Type SL underdrains or as high as 8 gpm/ft² (20 m/hr) for Type S underdrains, depending on lateral length.

Optimized installation processes

Proper installation is critical to lasting underdrain performance; that's why Leopold designs its underdrains for ease of installation.

- Patented wire mesh installation process strengthens the grout bond for strong uplift resistance.
- Modular blocks snap together with bell and spigot seal, speeding installation.
- Grout-TITE® bridge prevents grout from entering the flume, eliminating costly cleanup.
- Forging level tolerances, due to interior baffles, simplify installation and retrofit.

Gain filter height with I.M.S® media retainers

Where additional media depth or filter freeboard is needed, Type S/SL underdrains can be installed with I.M.S media retainers, replacing up to 14 in (35 cm) of support gravel with a short, factory-installed cap.

I.M.S media retainers are engineered to prevent clogging and ensure the continued uniform distribution of backwash air and water.

Type SL underdrain with I.M.S® 200 media retainer is ideal for shallow filters where greater filter media depth is needed



Technical data

	Type S	Type SL
Material	HDPE	HDPE
Length	48 in (122 cm)	48 in (122 cm)
Width	11 in (28 cm)	11 in (28 cm)
Height	12 in (30 cm)	8 in (20 cm)
Weight	25 lbs (11.34 kg)	19 lbs (8.6 kg)
Uplift resistance	Up to 15 psi (1 bar)	Up to 15 psi (1 bar)
Standards met	NSF - 61	NSF - 61
Airflow range	2 to 6 scfm/ft ² (36 to 110 m/hr)	2 to 5 scfm/ft ² (36 to 91 m/hr)
Water flow	Up to 25 gpm/ft ² (61 m/hr)	Up to 25 gpm/ft ² (61 m/hr)
Concurrent air/water flow range	Air: 2 to 5 scfm/ft ² (36 to 91 m/hr) Water: 3 to 8 gpm/ft ² (7 to 20 m/hr)* <i>*depending on lateral length</i>	Air: 2 to 5 scfm/ft ² (36 to 91 m/hr) Water: 3 to 5 gpm/ft ² (7 to 12 m/hr)
Water maldistribution	Less than ±5%	Less than ±5%
Level tolerance	± 0.25 in (6 mm)	± 0.25 in (6 mm)

Maximum lateral length

