TORO Count on it.

NGE® AL

Anti-Drain Pressure Compensating Emitter

Micro-Irrigation

Application:

The NGE AL pressure compensating emitter is ideal for greenhouse and nursery applications, or any situation that requires precise irrigation of containers or individual plants. Water is applied uniformly from each emitter outlet, and the unique anti-drain feature eliminates drainage caused by differences in elevation.

Features and Benefits:

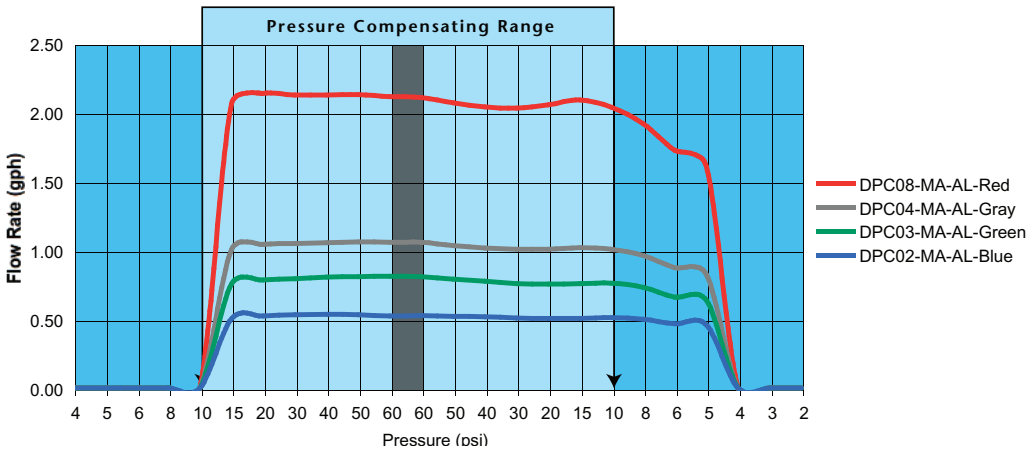
- Acid resistant high-grade material construction provides the emitter with superior weathering characteristics and protection against chemical degradation.
- The unique emitter design and pressure compensating diaphragm allows:
  - The emitter to remain closed until an opening pressure of 13 psi (0.9 Bars) is achieved. As a result, start-up time is kept to a minimum, and uniformity is maximized.
  - Self-flushing during operation to facilitate cleaning.
  - The emitter to shut-off at 3.0 to 5.0 psi (0.24 to 0.34 Bar) depending on the emitter flow rate. This prevents complete drainage of system pipes and facilitates efficient system pulsing. Quicker system start-up also results in a reduction of chemical and fertilizer waste.
  - The emitter to close upon system shut down, thus inhibiting back siphoning and reducing the risk of emitter clogging.
- The semi-circle inlet filters and large turbulent flow path design provide clogging resistance by preventing large debris from entering the emitter, and by allowing smaller particles to exit the flowpath during the self-flushing cycle.
- The exceptional emitter design allows uniform flow rates from 13 to 60 psi (.9 to 4.1 Bar). This wide range allows use in demanding applications, even in nurseries and greenhouses where exceptional precision is required. The pressure compensating feature, along with a manufacturing Cv of 3% or less makes the NGE one of the highest performing emitters available.
- Also available in a male adapter (-MA) outlet outlet configuration with an internal bug shield, allowing use with 1/4" (4mm) leader tubes or Black Spider multi-outlet devices.
- Available in four flow rates:

DPC02-MA-AL-Blue	0.5 gph	(2.0 lph)
DPC03-MA-AL-Green	0.8 gph	(3.0 lph)
DPC04-MA-AL-Gray	1.0 gph	(4.0 lph)
DPC08-MA-AL-Red	2.1 gph	(8.0 lph)

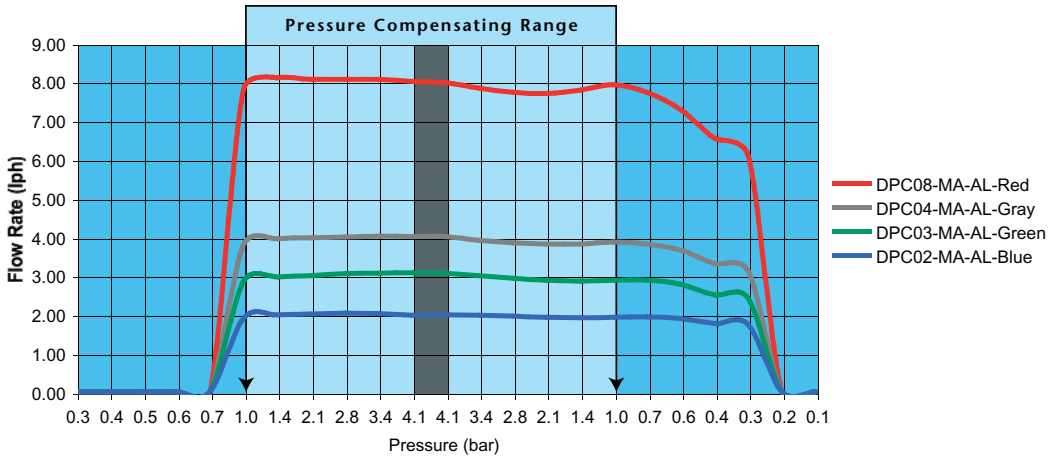
NGE® AL

Anti-Drain Pressure Compensating Emitter

Emitter Discharge Rate vs. Pressure, English



Emitter Discharge Rate vs. Pressure, Metric



Specifications	DPC02	DPC03	DPC04	DPC08
Nominal Flow Rate (Q)				
gpm	0.5	0.8	1.0	2.1
lph	2.0	3.0	4.0	8.0
Recommended Pressure Range (P)				
psi		13 to 60 psi		
Bar		0.9 to 4.1 Bar		
Closing Pressure				
psi	3.5	4	4.5	5
Bar	0.24	0.28	0.34	0.34
Emitter Exponent (x)	0.000	0.000	0.000	0.000
Coefficient of Variation (Cv)		≤ 3%		
Minimum Filtration Requirement		140 Mesh (105 Micron)		
Color	Light Blue	Light Green	Gray	Light Red

Understanding Part Numbers

Example: DPC04-MA-AL-Gray

DPC 04 -MA AL -Gray

- -Gray: Color (Base)
- AL = Anti Drain
- -MA: MA = Male Adapter, DC = Dust Cap (Outlet Configuration)
- 04: Flow Rate (lph)
- DPC: Model

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TORO® Count on it.

Black Spider

Accessories for NGE AL (Greenhouses)

Applications

- Ideal for greenhouses, nurseries and potted plants.
- Ideal for situations where precise irrigation is required, such as tank farming, on rock wool, beads or other inert materials.

Features

The Black Spider is available in six versions: 4 outlets, 2 outlets and 1 outlet, 60 cm or 80 cm long
The 4 outlets version is made up of a kit including:

- 1 cross for 4 outlets with female socket for emitter with 4 mm male exit off take
- 4 drip point stakes, with internal turbulent flow path
- 4 PEVA 3x5 mm flexible microtube (60 cm o 80 cm). The Kit is supplied fully assembled

Specifications

- The flow rate of each single stake may differ according to different types of installation and materials used
- Black Spider single outlet uses IPS0301BQ 90° barbed stake to avoid back-pressure problems with autocompensation decrasing

PEVA: Mixture of polythylene and vinilacetate, it makes polyethylene more flexible.

Don't use with Euro-Key, Euro-Plus and Turbo-Plus.

Emitter NGE AL

Code

IT-DBS1BQ	Black Spider-Kit 60 cm (1 outlet) - 90°
IT-DBS2	Black Spider-Kit 60 cm (2 outlets)
IT-DBS4	Black Spider-Kit 60 cm (4 outlets)
IT-DBS1BQ-80	Black Spider-Kit 80 cm (1 outlet) - 90°
IT-DBS2-80	Black Spider-Kit 80 cm (2 outlets)
IT-DBS4-80	Black Spider-Kit 80 cm (4 outlets)
DNS1	1 outlet manifold straight (180°)
DNS1Q	1 outlet elbow (90°)
DNS2	2 outlets manifold (Tee)
DNS4	4 outlets manifold (Cross)
IPSO301	Stake 180° Turbulent flow
IPSO301Q	Stake 90° Turbulent flow
IPSO301BQ	Stake 90° barbed
IT-EHD503PEVA	3x5 mm microtube PEVA (reel)
SFH0332-24	3x5 mm microtube PEVA 60 cm precut
SFH0332-32	3x5 mm microtube PEVA 80 cm precut