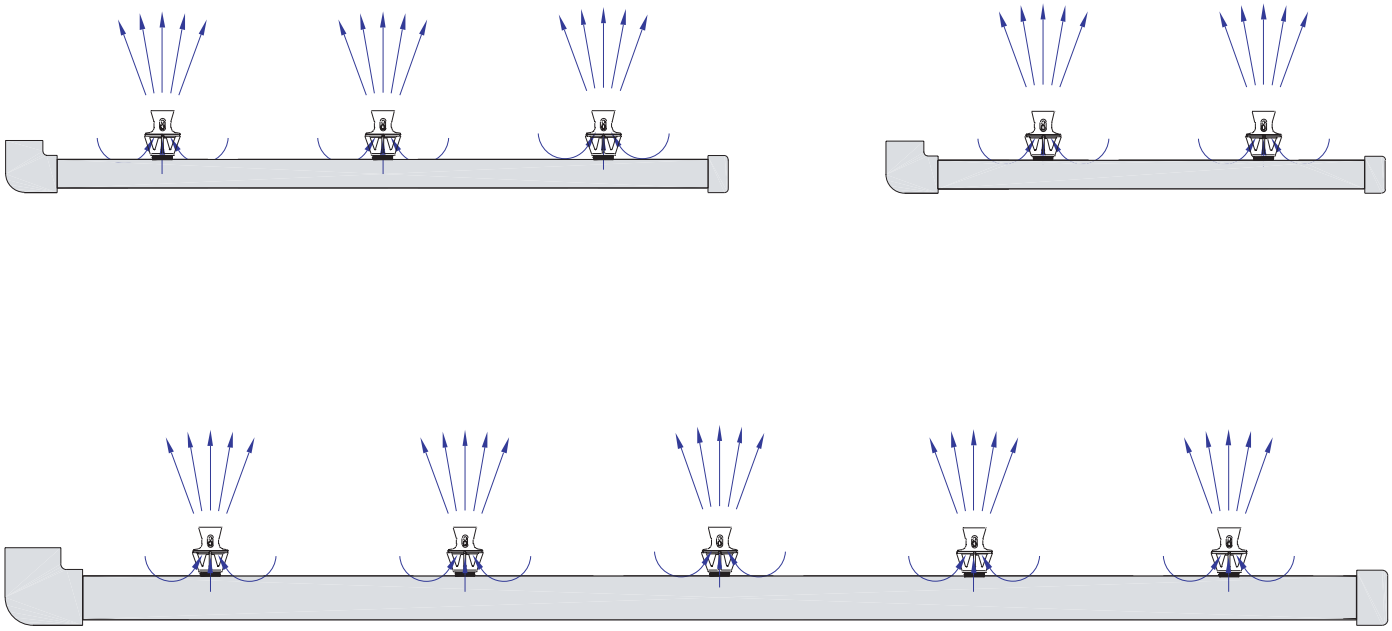
Series PES

Penguin Penductor™ Systems



Features:

- Available as systems with pumps, kits, or Penductors™ sold separately
- Deluxe model includes adjustable nozzles
- Non-metallic contact with solution
- Perfect for large tank usage
- Induces four extra gallons of flow for every gallon pumped through nozzle
- Used to enhance circulation in a wide variety of recirculating process tanks.

  Ideal for:

  - Vigorous and constant agitation
  - Dispersing and mixing chemicals more uniformly
  - Eliminating hot spots/temperature stratification
  - "Sweeping" debris or sludge toward a filter intake
  - Keeping solids in suspension
  - Mixing immiscible liquids
  - Allowing for increased density causing faster plating rates
  - Eliminating aeration and gas pitting problems
  - Creating more uniform plating distribution
  - Permitting considerable improvements in plating throw and deposit in blind holes and recesses

Recommended Applications:

- Eductors are currently installed in the following types of re-circulating process tanks:
  - Cleaners
  - E-coat paints and paint strippers
  - Chemicals, fertilizers, caustics, and permangenates
  - PCB plating sludge
  - Cooling towers
  - Slurries
  - Plating tanks:
    - Chrominum
    - Anodizing
    - Phosphate
    - Bright Nickel
    - Electroless Nickel/Copper
    - Etching
    - Phosphate
    - Acid Copper
    - Tin
    - Acid Zinc
    - Gold
    - Silver
    - Alloys

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Specifications

Eductor System Model	Pipe Size & Connection	No. of Penductors™ per Manifold	Manifold Length (A)
PES-1 1/2-2	1 1/2"	2	19.5"
PES-1 1/2-3	1 1/2"	3	31.5"
PES-1 1/2-4	1 1/2"	4	43.5"
PES-1 1/2-5	1 1/2"	5	55.5"
PES-2-2	2"	2	19.5"
PES-2-3	2"	3	31.5"
PES-2-4	2"	4	43.5"
PES-2-5	2"	5	55.5"
PES-2-6	2"	6	68.5"

Configurations

Possible Configurations		Simplex		Duplex	
Eductor System Model	Recommended Pump Model	Manifold Pressure (PSI) • •	Total Flow (GPM)	Manifold Pressure (PSI) • •	Total Flow (GPM)
PES-1 1/2-2	P-1/2	14	87	•	•
PES-1 1/2-3	P-3/4	16	139	14	304
PES-1 1/2-4	P-3/4	15	180	•	•
PES-1 1/2-5	P-1	16	237	•	•
PES-2-2	P-1 1/2	26	118	22	218
PES-2-3	P-1 1/2	24	170	19	304
PES-2-4	P-1 1/2	22	218	15	360
PES-2-5	P-2	25	290	17	478
PES-2-6	P-2	23	337	13	502

Data based on ambient water, specific gravity 1.0 with 1" NPT Penductor™

• Not recommended for duplex systems

• • More vigorous mixing occurs with higher manifold pressures

Manifold Widths

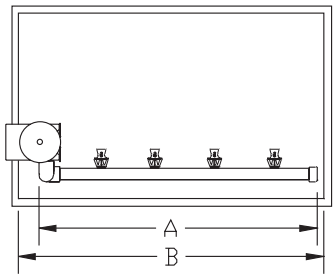
Tank Width (D)	2'	3'	4'	5'
Manifold Width (C)	22"	34"	46"	58"

Nomenclature

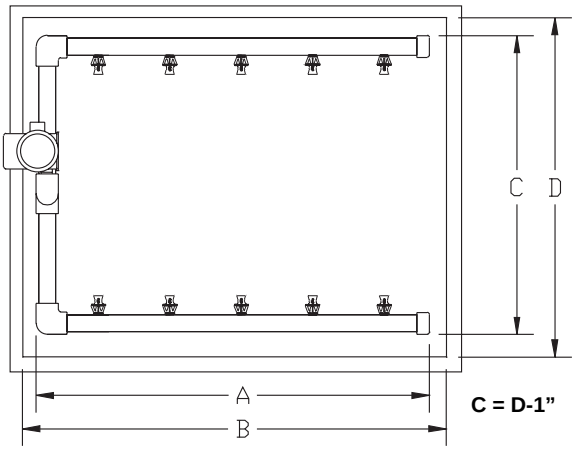
PES	-	1 1/2	-	4	x	4
Penductor™ Systems		Manifold Size 1 1/2 = 1 1/2" 2 = 2"		Tank Length (B) 2 = 2' 3 = 3' 4 = 4' 5 = 5' • 6 = 6'		Tank Width Duplex Sys Only (D) 2 = 2' 3 = 3' 4 = 4' 5 = 5' 6 = 6'

• = 2" Manifolds Only

Simplex



Duplex



C = D-1"

Introduction: Eductors utilize a unique venturi design which enables smaller pumps to circulate larger volumes of tank solution. The eductor can circulate four to five gallons of solution for each gallon pumped.

Kits consist of:

Simplex: Penductors™, manifold, hose barb, hose clamp, and 10' of PVC hose.

Duplex: Penductors™, 2 manifolds, 2 threaded nipples, threaded tee, hose barb, hose clamp, and 10' of PVC hose.

NOTE: 1)For proper operation manifold pressure should be at least 10 psi, which produces 37 gpm per Penductor™.

2)Manifold should be secured to bottom or side of tank to prevent shaking, rattling, or breaking of rigid plumbing accessories.

Consult factory for pricing and availablity of custom units.

Your Stocking Distributor:
Chemical Distributors, Inc. - Buffalo, NY - 800.777.2436 - Fax 716.856.7115

PENGUIN™
FILTER PUMP INDUSTRIES