NANCREDE ENGINEERING CO.

'NCP' Series Condensate Polisher Systems



Overview

The NECO 'NCP' Series condensate polisher system offers a sound solution for removing impurities such as iron, copper, and hardness from returned steam condensate resulting in improved boiler feedwater quality and lower operating costs. Using sodium-cycle, cation exchange resin, they operate similar to water softeners requiring only salt for regeneration material. The system is fully automatic as standard and all valves and controls are completely factory pre-piped, pre-wired, and pre-tested for minimal installation time and cost. Multiple tank systems in alternating or parallel configurations, to achieve higher service flow or continuous supply of treated condensate are also available.

Standard Features

- 304 Stainless steel resin tanks
- Air-Operated butterfly style control valves
- Automatic timer initiated regeneration cycle
- Polyethylene brine tank assembly
- High capacity, High cross-link exchange resin
- Cold water backwash/regeneration supply water
- Automatic raw water bypass valve
- Inlet/Outlet tank sampling valves

Materials of Construction

• Resin Tanks: 304SS

• Exterior Piping: 304SS

Internal Distributors: 304SS

Control Valve Body: Cast Iron

Controls / Instrumentation

- Allen-Bradley PLC controller
- Simplex, alternating or parallel flow control
- NEMA-4X electrical enclosure
- Inlet/Outlet tank pressure gauges

Operating Parameters

• Inlet Pressure: 30-100 psig

• Electrical: 120VAC, 1-Ph, 60 Hz.

• Temperature: 100-230°F

• Air Source: 80-100 psig (Dry, oil-free)

Available Options

- ASME rated resin tanks
- 316 stainless steel construction
- Sub-surface wash distributor
- Water meter and totalizer
- Differential pressure switch
- Brine pump systems
- Alternate ion exchange resins
- Manually operated design
- Skid mount design for multi-tanks



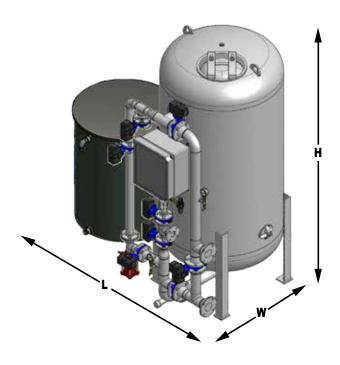




'NCP' Series Specifications

| MODEL NUMBER | CAPACITY (Grains) SALT DOSAGE (LBS.) MAX. | FLOW RATES (PER TANK) | | | PIPE SIZE | | | TANK SIZES | | | |
|-----------------|--|-----------------------|-------------------|----------|-----------|--------|---------|------------|---------|------------------------------------|--------------------|
| | | SERVICE | | BACKWASH | SERVICE | DRAIN | RESIN | SOFTENER | BRINE 4 | OVERALL DIMENSIONS (LxWxH, INCHES) | SHIPPING WEIGHT |
| | | CONT. GPM 2 | PEAK GPM 6 | GPM | INCHES | INCHES | CU. FT. | INCHES | INCHES | 6 | (LBS.) 🌀 |
| NCP-5-2 | 150,000 75 | 45 | 65 | 10 | 2 | 1 | 5 | 20x54 | 24x50 | 50x33x72 | 830 |
| NCP-7-2 | 210,000 105 | 60 | 95 | 15 | 2 | 1 | 7 | 24x54 | 24x50 | 54x37x74 | 1,050 |
| NCP-10-2 | 300,000 150 | 100 | 150 | 20 | 2 | 1 | 10 | 30x54 | 24x60 | 60x45x77 | 1,570 |
| NCP-20-3 | 600,000 300 | 140 | 210 | 30 | 3 | 1-1/2 | 20 | 36x60 | 39x60 | 81x53x90 | 2,790 |
| NCP-30-3 | 900,000 450 | 190 | 285 | 45 | 3 | 1-1/2 | 30 | 42x60 | 42x60 | 90x60x94 | 3,860 |
| NCP-40-3 | 1,200,000 600 | 250 | 375 | 60 | 3 | 2 | 40 | 48x60 | 50x60 | 120x72x99 | 6,250 |
| NCP-50-4 | 1,500,000 750 | 315 | 475 | 80 | 4 | 2 | 50 | 54x60 | 66x46 | 140x78x101 | 7,530 |
| NCP-60-4 | 1,800,000 900 | 390 | 585 | 100 | 4 | 3 | 60 | 60x60 | 72x46 | 152x84x102 | 8,380 |
| NCP-90-6 | 2,700,000 1,350 | 565 | 850 | 140 | 6 | 3 | 90 | 72x60 | 82x60 | 174x96x107 | 12,300 |

'NCP' Series Dimensions



Notes

- Salt dosage equal to 15 lbs. per cu. ft. resin for maximum exchange capacity.
- 2 At a pressure drop not exceeding 15 psig.
- **3** At a pressure drop not exceeding 25 psig.
- **4** Brine tanks designed for a salt storage of at least 4 regeneration cycles.
- **6** Dimensions are estimate only. Actual dimensions may vary depending on options selected.
- **6** Shipping weights are estimate only. Weights include resin and gravel.

