

Structure

Neva-Clog® consists of two sheets of light gauge metal in which circular perforations are made in a predetermined hole diameter and spacing. The sheets are joined by spotwelding in a specific pattern, dependent on the medium's application. This welding pattern, besides assuring uniform joining of the sheets, also controls the functional characteristics of the medium.

Neva-Clog[®], produced in its largest quantity in stainless steel, can be produced in any commercially available sheet metal possessing the proper perforation and welding characteristics.

Neva-Clog® in Filter Leaves

Although originally developed as an underdrain material, Neva-Clog® has found wide use as the filter media on pressure and vacuum filter leaves. Neva-Clog® provides fast precoating, easy cake release and easy leaf cleaning due to its smooth surface. Neva-Clog® is RUGGED and thus resists abrasion and abuse during cleaning or acid washing.

In combination with Wedge-Flow® or Por-O-Septa® as the chamber material, Neva-Clog® becomes a general purpose filter leaf for many applications.

Operating Principle

Fluids pass through the holes of the top sheet, turn at right angles to pass through the controlled spacing between the sheets, then turn again at right angles to pass through the holes in the bottom sheet. Solids too large to pass through are retained on the surface. Finer particles are retained by the formulation of a filter bed or cake Neva-Clog® operates best with free draining solids or as a supporting medium for precoat material.

Grades

There are three grades of standard and three grades of "back-to-back" Neva-Clog®. Grade I is used for coarse retention, Grade II is used for finer retention and Grade III is used where a flatter surface is desired, such as on filter leaves. The "back-to-back" is used where more restricted and more equally distributed flow is desired.

Neva-Clog® in Underdrains

Neva-Clog® is used as a support for granular activated carbon in processing columns for removal of colors, odors, and tastes. Neva-Clog's® strength and performance characteristics have resulted in its installation in sugar, chemical, petrochemical and food refining plants. Because of its rigidity, compared with woven media, it requires minimum undersupport and no protective top screen. Neva-Clog's® particle retentivity, in the range of 100 mesh, enables it to handle all corresponding granula carbon and bone char.

Neva-Clog's® strength and freedom from internal plugging insure long service life, making it especially valuable for towers in inaccessible locations or in hazardous service.

Neva-Clog® is also used for underdrains in catalyst towers, resin towers and ion exchange units.

Industries Served

Sugar

Wine

Beer

High Fructose

Soda Ash

Water Treatment

Wastewater Treatment

Oil Additives

Chemical

Petrochemical



Magnification of Neva-Clog®, showing path of flow through two offset, perforated sheets.

Sample of Neva-Clog®, Grade III

See Reverse Side For More Details

U.S. Patent Nos. 3,052,360 and 4,234,430

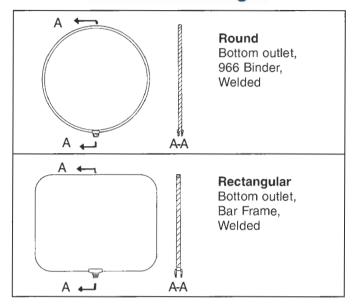


LEEM / LSS Filtration

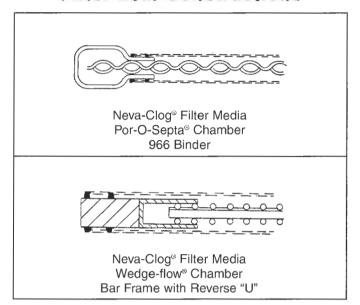
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Filter Leaf Designs



Filter Leaf Constructions



Underdrain Designs



Flat

Neva-Clog® is ideal for permanent installation in flat tower bottoms. Discs may be rolled up for insertion through manways for easy installation.

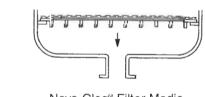


Conical

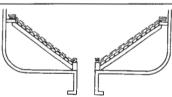
Particularly suited to conical bottoms.

Neva-Clog's® smooth surface facilitates discharge of solids.

Underdrain Constructions



Neva-Clog[®] Filter Media Wedge-Flow[®] Support Screen Multi-Grate Sub-support



Neva-Clog[®] Filter Media Por-O-Septa[®] Support Screen Multi-Grate Sub-support

Retention and Flow Data — Various Materials

| | Neva-Clog [⊚] | | | 24 x | AU | 12 x | 20 x | 100 x |
|---------------------|------------------------|----------|-----------|----------|------------|----------|----------|-------|
| | Grade I | Grade II | Grade III | 110 | Multibraid | 64 | 250 | 100 |
| Nom. Micron Ret. | 140 | 130 | 120 | 245 | 250 | 400 | 100 | 140 |
| G.P.M./in²,△P 5 psi | 3.5 | 3.0 | 2.5 | 16.2 | 4.1 | 22.8 | 6.4 | 34.8 |
| Weave | _ | _ | | PL Dutch | Braided | PL Dutch | TW Dutch | PL |