

H SERIES | HL Elements

Nanofiltration

Water Softening

The H-Series proprietary thin-film nanofiltration membrane elements are characterized by an approximate molecular weight cut-off of 150-300 daltons for uncharged organic molecules. Divalent and multivalent ion rejection is dependent upon feed concentration and composition.

HL Nanofiltration Elements are used for water softening, color removal, and reduction of THM potential. They feature a fiberglass outer wrap and standard feed spacers.

ELEMENT SPECIFICATIONS

| MODEL | FLOW GPD (m ³ /d) | REJECTION AVE. | ACTIVE AREA FT ² (m ²) |
|-------------|---------------------------------|-------------------|--|
| HL2540FF | 780 (3.0) | 98.0% | 27 (2.5) |
| HL2540TF | 780 (3.0) | 98.0% | 27 (2.5) |
| HL4040FF | 2,400 (9.1) | 98.0% | 89 (8.2) |
| HL4040TF | 2,400 (9.1) | 98.0% | 89 (8.2) |
| HL8040F | 10,100 (38.2) | 98.0% | 350 (32.5) |
| HL8040F-400 | 11,500 (43.5) | 98.0% | 400 (37.2) |
| HL8040N | 10,100 (38.2) | 97.5% | 350 (32.5) |

Specification is based on a 2,000 mg/L MgSO₄ solution at 100 psi (690 kPa) operating pressure, 77°F (25°C), pH 7.5 and 15% recovery. Individual flux may vary +25%/-15%. Average salt rejection after a minimum of 24 hours of continuous operation.

OPERATING AND DESIGN PARAMETERS

THIN-FILM MEMBRANE (TFM™)

| TYPICAL OPERATING PRESSURE | TYPICAL OPERATING PROCESS FLUX | MAXIMUM PRESSURE | MAXIMUM TEMPERATURE | RECOMMENDED pH | CHLORINE TOLERANCE |
|--------------------------------|--------------------------------|---|---------------------|-----------------------------|--------------------|
| 70-300 psig (483-2,069 kPa) | 12-20 GFD (20-35 LMH) | 600 psig (4,137 kPa) TAPE 450 psig (3,103 kPa) | 122°F (50°C) | Operating pH Range: 3.0-9.0 | <0.1 ppm |

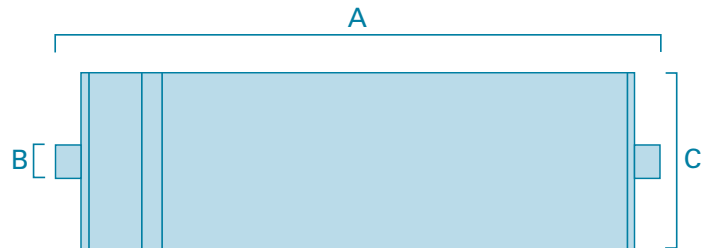
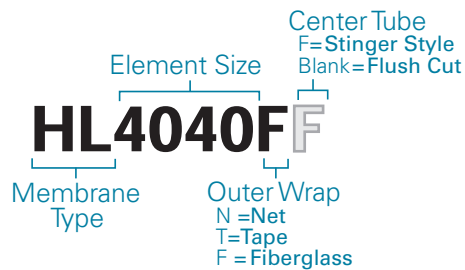
Feed NTU: <1, Feed SDI: <5



| MAXIMUM PRESSURE DROP | ELEMENTS PER PRESSURE VESSEL | | | | | |
|--------------------------|------------------------------|----------|----------|----------|----------|----------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| ΔP - psig (kPa) | 10 (69) | 20 (138) | 30 (207) | 38 (262) | 45 (310) | 50 (345) |

ELEMENT DIMENSIONS AND WEIGHT

MODEL NUMBER LEGEND



| MODEL | DIMENSIONS INCHES(MM) | | | DRY BOXED |
|-------------|-----------------------|------------|------------|-----------------|
| | A | B | C* | WEIGHT LBS (KG) |
| HL2540FF | 40.00 (1016) | 0.750 (19) | 2.40 (61) | 5 (2.3) |
| HL2540TF | 40.00 (1016) | 0.750 (19) | 2.40 (61) | 5 (2.3) |
| HL4040FF | 40.00 (1016) | 0.750 (19) | 3.88 (99) | 12 (5.5) |
| HL4040TF | 40.00 (1016) | 0.750 (19) | 3.88 (99) | 12 (5.5) |
| HL8040F | 40.00 (1016) | 1.125 (29) | 7.88 (200) | 32 (14.5) |
| HL8040F-400 | 40.00 (1016) | 1.125 (29) | 7.88 (200) | 32 (14.5) |
| HL8040N | 40.00 (1016) | 1.125 (29) | 7.88 (200) | 32 (14.5) |

* The element diameter (dimension C) is designed for optimum performance in GE pressure vessels. Other pressure vessel dimension and tolerance may result in excessive bypass and loss of capacity.

