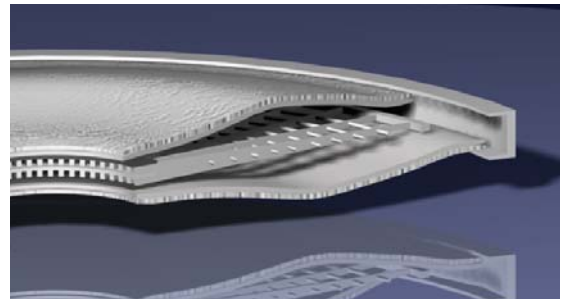




Zeta Plus® HT Maximizer™

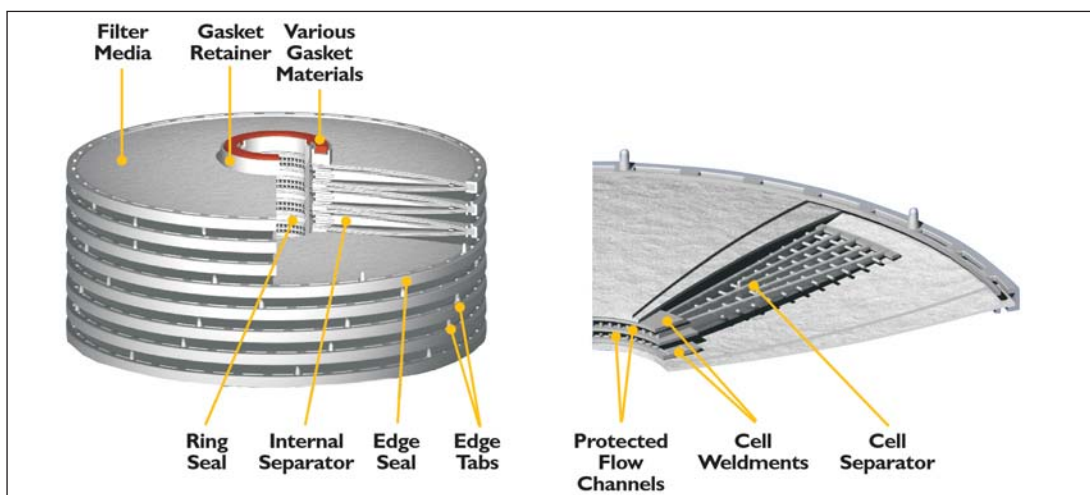
Applications: Food & Beverage

- Optimise life time to reduce overall filtration costs
- Easy scale up from lab to process scale
- 2 filtration step in one cartridge to reduce costs of housings and handling
- Unique “a la carte” concept



| Features | Benefits |
|---|---|
| <ul style="list-style-type: none"> ■ 2 grades of filtration combined in one cartridge | <ul style="list-style-type: none"> ■ Reduction of capital investment ■ Reduction of direct and indirect costs (reduced product loss, reduction in amount of water needed for regeneration, sanitation, rinsing, etc...) |
| <ul style="list-style-type: none"> ■ “A la carte” media | <ul style="list-style-type: none"> ■ Customised filter to match your product needs ■ Flexibility of use ■ Maximised final membrane protection |
| <ul style="list-style-type: none"> ■ Thermal and chemical stability | <ul style="list-style-type: none"> ■ Extended life - reduced filtration costs due to stability with chemical and thermal sanitation / regeneration |
| <ul style="list-style-type: none"> ■ Qualification testing | <ul style="list-style-type: none"> ■ System installation integrity testable |
| <ul style="list-style-type: none"> ■ High Tensile Strength media (H) | <ul style="list-style-type: none"> ■ Robust and easy to handle cartridge design |
| <ul style="list-style-type: none"> ■ Range of standard cartridges availability (8, 12 and 16”) | <ul style="list-style-type: none"> ■ Cost effective sizing |
| <ul style="list-style-type: none"> ■ Totally enclosed system | <ul style="list-style-type: none"> ■ Secure and hygienic with low product loss |

Cartridge construction



COMPATIBILITY

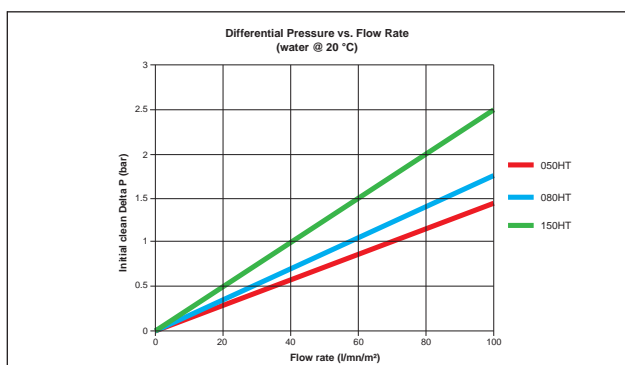
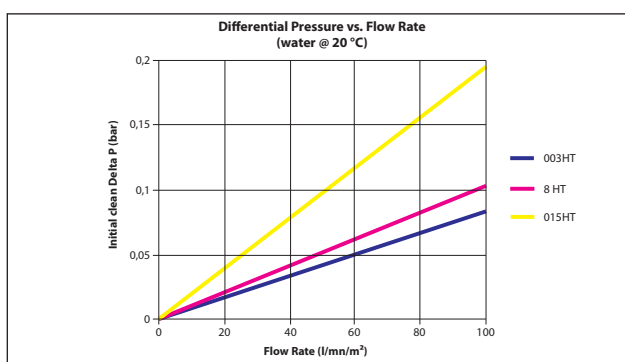
The compatibility with various commonly used chemicals is indicated in the table below. It is recommended that you test the product under standard conditions of use. All tests have been carried at ambient temperature (20°C) unless otherwise indicated.

| Product | Compatibility |
|----------------------|-----------------|
| Acetic Acid 5 to 20% | Satisfactory |
| Ethanol 10 to 98% | Satisfactory |
| Hypochlorate | Not recommended |
| Hydrogen Peroxide * | Satisfactory |
| Nitric Acid | Not recommended |
| Peracetic Acid* | Satisfactory |
| Sodium Hydroxide 2% | Not recommended |
| Sugar solution 10% | Satisfactory |
| Water up to 82°C | Satisfactory |

*As found in commonly used sanitation agents. Contact your local CUNO representative for advice on maximum recommended concentration.

FLOW RATE CHARACTERISTICS

The graphs below give the initial Delta P values for HT Maximizer as a function of unit area (l/min/m²) with clean filtered water. When sizing, always use the Delta P of the qualifying grade.



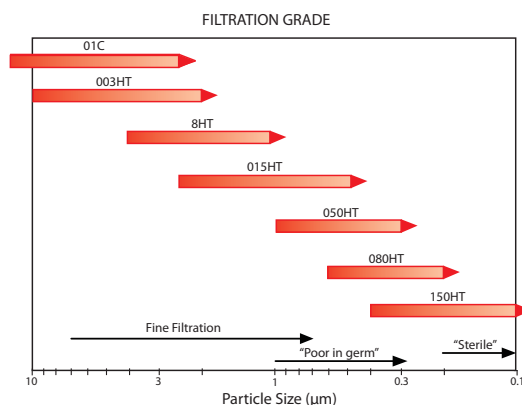
CONDITIONS OF USE

Maximum continuous service temperature: 82°C
 Recommended rinse volume: 50 l/m²
 Hot Water Sanitation: 90°C
 Steam sterilisation *: 20 min @ 121°C

* Except where grade 01C is incorporated.

CONDITIONS OF USE

HT Maximizer cartridges are available in various combination of grades to ideally match your different filtration application needs. The performances of the various media ratings are indicated in the table below. The optimal media combination choice for your application may require determination by an on-site trial or performed in one of our laboratory by our Scientific Application Support Services (SASS) group.



QUALITY CONTROL

HT Maximizer is manufactured using a quality assurance program certified under ISO 9000/2000. Every cartridge is identified with a unique lot number, which allows for total product and components traceability.

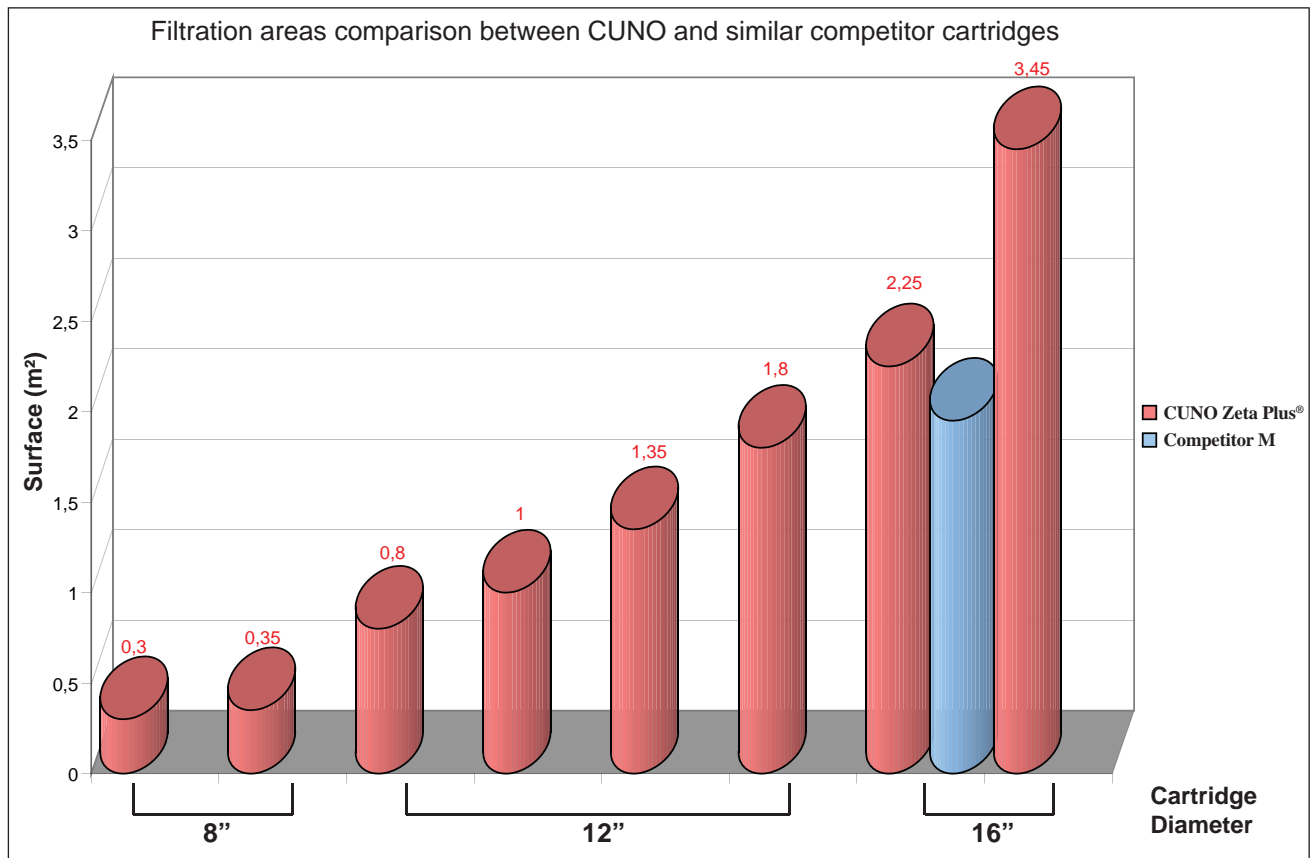
MICRO-ORGANISMS RETENTION

| HT Maximizer Qualifying Grade | Challenge Micro-organism | Retention Efficiency (%) |
|-------------------------------|---------------------------------|--------------------------|
| 015 HT | <i>Saccharomyces cerevisiae</i> | > 99,99 |
| 050 HT | <i>Saccharomyces cerevisiae</i> | > 99,99 |
| 080 HT | (ATCC - 36026) | > 99,99 |
| 080 HT | <i>Oenococcus oeni</i> | > 99,99 |
| 150 HT | (ATSS - 23279) | > 99,99 |
| 080 HT | <i>Brevundimonas diminuta</i> | > 99,99 |
| 150 HT | (ATCC - 19146) | > 99,99 |

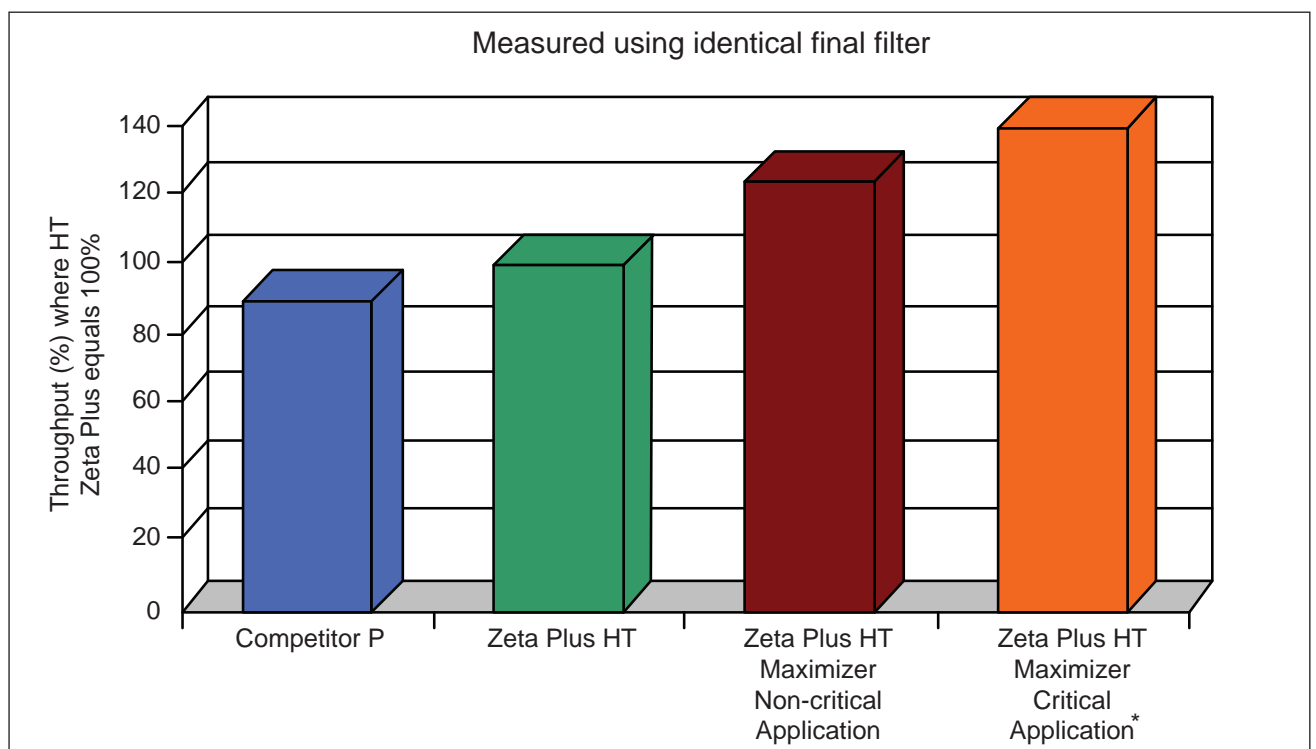
Test conditions :

Flow rate: 635 l/h/m² (0.26 gal/min/ft²).
 Initial bacterial challenge: 108 organisms per cm² of media.
 The results confirm the retention efficiency of HT Maximizer.

FILTRATION AREAS COMPARISON



THROUGHPUT COMPARISON



The graph is a comparison of throughput volumes for a high particulate load wine (critical application) and low particulate load wine (non critical).

Results are compared to throughput values generated on standard HT media and the Competitor P equivalent on a low particulate load wine. The results show a gain of 25% life on a low particulate load wine and up to 42% on a high particulate load wine

" In a recent study a customer realised a 31% cost saving during the regeneration and hot water sanitation steps of his process. 25% of his savings was from reduced water usage and 75% from reduced filter usage due to extended life and throughput offered by HT Maximizer".

Ordering Guide

| Zeta Plus® | Diameter (inch) | Cartridge Type | Gasket Type* | Filter Layer Grade | Maximizer™ HT | Prefiltration Grade |
|------------|-----------------|--|--|--|---------------|----------------------------------|
| Z | 08 | P - Plug-in 7 cells 0,30 m ² | <i>Standard</i> A – Silicone (MVQ) | 03 - 003HT 10 - 8 HT 30 - 015HT 50 - 050HT 80 - 080HT 150 - 150HT | MH | 01 02 03 05 07 08 |
| | | D - Standard 8 cells 0,35 m ² | <i>Standard</i> D – Nitrile (NBR) | | | |
| Z | 12 | C - 9 cells 1,0 m ² B - Special precoat 12 cells 1,35 m ² | <i>Options</i> A – Silicone (MVQ) B – Fluorocarbon (FPM) | | | |
| | | D - Standard 16 cells 1,80 m ² S - Special 7 cells 0,80 m ² | C – Ethylene Polypropylene (EPDM) | | | |
| Z | 16 | M - Standard diffusion netting 14 cells 3,45 m ² S - Special precoat 7 cells 2,25 m ² | | | | |

* ISO Designation

APPLICATIONS SUPPORT - SASS

CUNO's Scientific Applications Support Services (SASS) is staffed by scientists and engineers, with state-of-the-art laboratory facilities. The SASS staff, familiar with a wide range of filtration and separation applications, work closely with the customer to recommend the most effective and economical CUNO filtration systems.



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