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3M™ Harvest RC Chromatographic Clarifier platform

Biopharmaceutical clarification processes are increasingly challenged with demands for higher cell densities, larger portfolios of modalities, and the need for scalable clarification solutions. What's more, all of these challenges must be addressed to increase speed to market while still delivering a high-quality drug product. Utilizing our expertise in material science, we've engineered an advanced solution that can help simplify your clarification processes: 3M™ Harvest RC Chromatographic Clarifier platform.

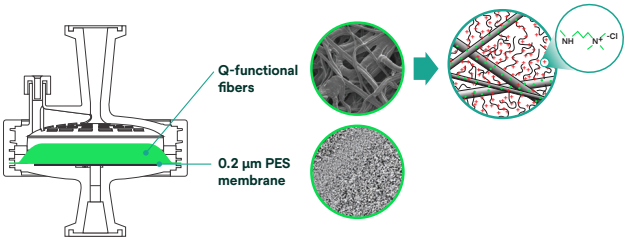
3M™ Harvest RC Chromatographic Clarifier platform

A high capacity, synthetic, and single-use clarification platform that is scalable across all development phases and process volumes for mAb and mAb-like modalities expressed in Chinese hamster ovary (CHO) derived cell cultures. The 3M™ Harvest RC Chromatographic Clarifier platform includes 3M™ Harvest RC Chromatographic Clarifier, for direct clarification, and 3M™ Harvest RC Centrate Chromatographic Clarifier, for centrate clarification. These next-generation products provide a scalable clarification platform solution that can compress clarification process trains while providing consistent and comparable fluid quality to streamline process development and impact speed to market.

- Modern, synthetic clarification platform utilizing Q-functional AEX fiber chromatography media
- Single stage, single media grade solutions for direct clarification and centrate clarification processes
- Typical product recoveries >95%
- Predictable performance scalability of capsule devices for consistent clarification at any process scale from discovery to manufacturing
- High fluid quality with turbidity reduction to <15 NTU and DNA reduction to <500 ppb

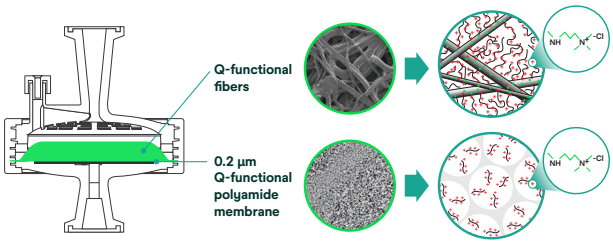
3M™ Harvest RC Chromatographic Clarifier

A single stage clarification solution that utilizes a combination of anion exchange (AEX) quaternary ammonium (Q) functionalized fibrous media and 0.2 µm polyether sulfone (PES) membrane to capture cells, cellular debris, and other insoluble and soluble impurities during the clarification of cell culture fluid. 3M™ Harvest RC Chromatographic Clarifier is designed for direct clarification of cell culture fluid, replacing laboratory membrane vacuum filtration and bucket centrifugation, conical plate (e.g., disc stack) centrifugation, and/or multiple stages of traditional depth filtration.



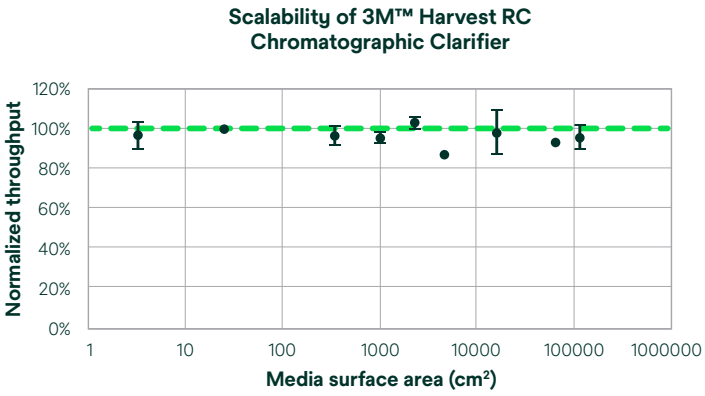
3M™ Harvest RC Centrate Chromatographic Clarifier

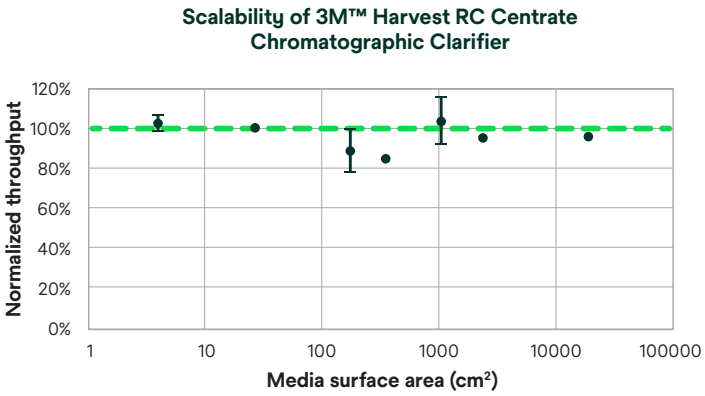
A single stage clarification solution that utilizes a combination of anion exchange (AEX) quaternary ammonium (Q) functionalized fibrous media and 0.2 µm quaternary ammonium (Q) functionalized highly asymmetric polyamide membrane to capture cellular debris and other insoluble and soluble impurities during the clarification of centrate. The product is designed to replace traditional depth filtration for clarification of centrate produced by conical plate (e.g., disc stack) centrifugation.



Platform scalability during process development and manufacturing

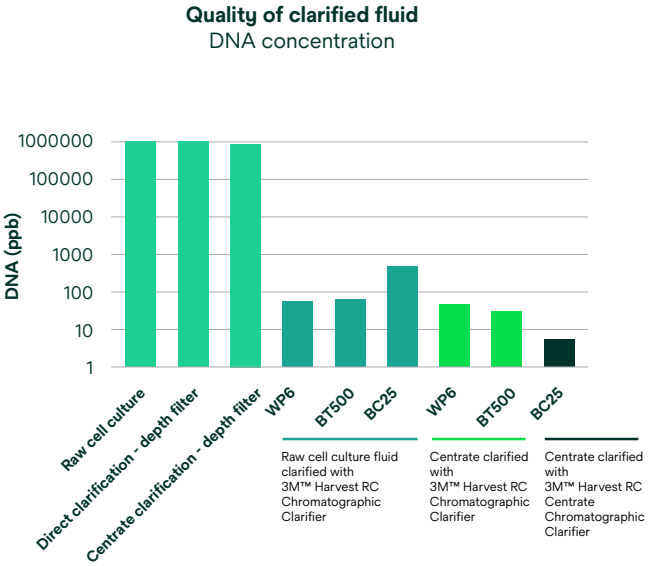
The 3M™ Harvest RC Chromatographic Clarifier platform capsule devices provide linear scalability that enables process scale-up, scale-out, and technology transfer from discovery to manufacturing. This can accelerate process development and simplify manufacturing strategies to improve process economics.

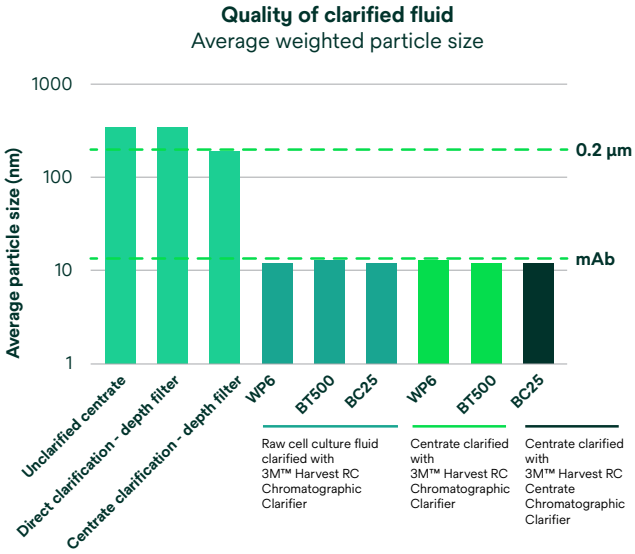




Predictable high fidelity clarification across process scales

The solutions in the 3M™ Harvest RC Chromatographic Clarifier platform provide comparable soluble and insoluble impurity reduction in terms of particle size and DNA clearance. This can simplify downstream process development and technology transfer across internal and external manufacturing footprints.



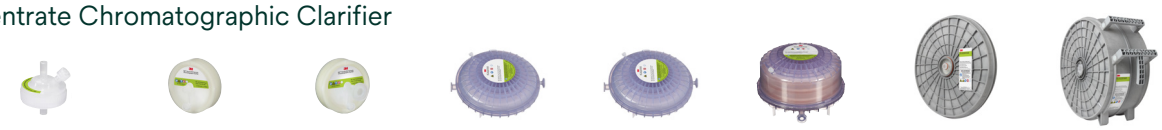


Ordering guide

3M™ Harvest RC Chromatographic Clarifier

Product name	WP6	CT15	BT5000	BC4	BC25 Luer	BC25 Sanitary	BC340	BC1020	BC2300	BC16000
Model name	EMP006HRC 2FA	EMP015HRC 2FA	EMP051HRC 2FA	MP201HRC 2FA	EMP301HRC 2FA	MP303HRC 2FA	EMP513HRC 2FA	MP533HRC 2FA	EMP710HRC 2FA	EMP770HRC 2FA
Media surface area	N/A	N/A	N/A	3.2 cm^2	25 cm^2	25 cm^2	340 cm^2	1020 cm^2	2300 cm^2	1.61 m^2
Cell culture volume range (5-8% PCV)[1]	15 mL per well	15 mL	500 mL	20-32 mL	150-250 mL	150 - 250 mL	2.0 - 3.4 L	6 - 10 L	14 - 23 L	100-180 L

3M™ Harvest RC Centrate Chromatographic Clarifier



Product name	BC4	BC25 Luer	BC25 Sanitary	BC170	BC340	BC1020	BC2300	BC18400
Model name	EMP201RCC 020R	EMP301RCC 020R	EMP303RCC 020R	EMP503RCC 020R	EMP513RCC 020R	EMP533RCC 020R	EMP710RCC 020R	EMP770RCC 020R
Media surface area	3.8 cm^2	25 cm^2	25 cm^2	170 cm^2	340 cm^2	1020 cm^2	2300 cm^2	1.84 m^2
Centrate volume range (150-300 L/m^2)[2]	48-96 mL	375-750 mL	375-750 mL	2.5-5.1 L	5.1-10.2 L	15.3-30.6 L	34.5-69.0 L	276-522 L

1. Cell culture volume range is the estimation for CHO cell culture fluid at 5-8% packed cell volume.
2. Centrate volume range is the estimation for CHO cell culture centrates with acidified turbidity (acidified NTU) values of <1,000.

For more information about the 3M™ Harvest RC Chromatographic Clarifier platform, contact your local sales or application engineering representative by calling **1-800-630-0778, option 2,** or visiting us at **go.Solventum.com/harvestrccentrate**

Intended Use: Single-use filter products are intended for use in biopharmaceutical processing applications of aqueous based pharmaceuticals (drugs) and vaccines in accordance with the product instructions and specifications, and GLP or cGMP requirements, where applicable.

Since there are many factors that can affect a product's use, the customer and user remain responsible for determining whether the Solventum product is suitable and appropriate for the user's specific application, including user conducting an appropriate risk assessment and evaluating the Solventum product in user's application.

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Solventum Corporation
2510 Conway Avenue East
Maplewood, MN 55144

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