

Key Features

- 0.2µm High Gas Exchange Flask Seal
- Sterile Liquid Barrier
- Increased Aeration
- Hydrophobic Seal
- Resealable Multiple Times (Tested Up To 7 Day Growth)
- Compatible With Standard Flasks
- Eliminates Flask Contamination:



Phage



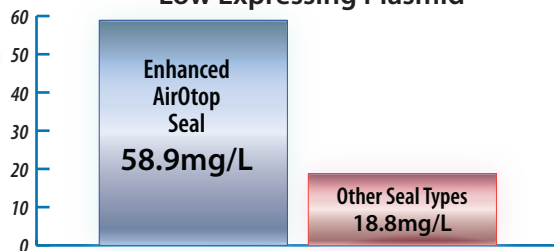
Mold



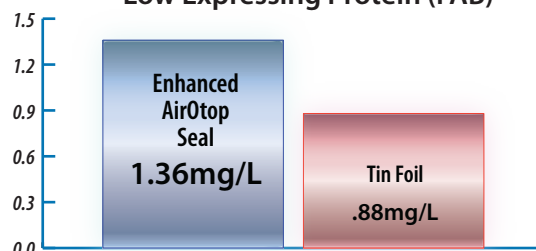
Spores

**AirOtop Seals
Increase
Expression**

Low Expressing Plasmid



Low Expressing Protein (FAB)



AirOtop Enhanced Flask Seal™ (patented)

U.S. Patent 7,381,559. U.K. Patent 2414994

Enhanced AirOtop Seals (patented) are simple, disposable, sterile High Air Exchange seals for all shake flasks. The Enhanced AirOtop Seal's properties include a .2µm sterile barrier with a long term resealable membrane for use with Ultra Yield and other brand flasks. Multiple sizes are available to keep all of your flasks covered. Testing has been conducted on multiple customer samples with great results on up to 7 days of cellular growth. This testing included Protista (Algae), E.coli and other microbes which, has all resulted in improved growth and more aerobic growth. Also, showing that the pH of the cultures were more neutral.

Why do they work?

Enhanced AirOtop Seals (patented) can be applied as a clean sterile barrier that allows samples to vent while preventing contamination from condensation and airborne particles such as phage, mold, spores, and dust. Enhanced AirOtop Seals replace plastic & metal flask caps, aluminum foil over flasks, cotton plugs, cheese cloth, etc. Enhanced AirOtop Seals are a convenient seal for all different flasks. When used in combination with the Ultra Yield Flasks they become a simple "Disposable Bioreactor" at a fraction of the price. Maximum aeration results from an Ultra Yield Flask using an Enhanced AirOtop Seal.

Common seals replaced with Enhanced AirOtop Seals

| Material | BAD QUALITIES | | | GOOD QUALITIES | | |
|----------------------|-------------------------|---------------------|-----------------------|---------------------------|--------------------|------------|
| | Non-Sterile Air Barrier | Min or low aeration | \$\$\$ Non-disposable | Sterile .2 µm Air Barrier | High Aeration Rate | Disposable |
| Enhanced Seal | | | | ✓ | ✓ | ✓ |
| Metal Flask Cap | ✗ | ✗ | ✗ | | | |
| Aluminium Foil | ✗ | ✗ | | | | ✓ |
| Cotton Plug | ✗ | | | | | ✓ |
| Cheese Cloth | ✗ | | | | | ✓ |

AirOtop Enhanced Seal™ For ULTRA YIELD FLASK™

| | | |
|---|------------|-----------------|
| AirOtop Enhanced Seal for Ultra Yield 2.5L Flask | 100 / pack | Part No. 899425 |
| AirOtop Enhanced Seal for Ultra Yield 500mL Flask | 100 / pack | Part No. 899424 |
| AirOtop Enhanced Seal for Ultra Yield 250mL Flask | 100 / pack | Part No. 899423 |
| AirOtop Enhanced Seal for Ultra Yield 125mL Flask | 100 / pack | Part No. 899421 |

Ordering Information:

Thomson Instrument Company

Toll Free

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Fax

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Online

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Oceanside, CA 92054

Enhanced AirOtop Seal Compatibility

Thomson Enhanced AirOtop Seals are fully compatible with other manufacturer's flasks. Please see the compatibility charts (right) for different flask manufacturers. Use the compatible Enhanced AirOtop Seal that will be flexible for your flask.

| ENHANCED SEALS | CORNING | | | | |
|----------------|---------|-------|-------|----|-----|
| | 125mL | 250mL | 500mL | 1L | 2L* |
| 899421 | ✓ | ✓ | | | |
| 899423 | | | ✓ | | |
| 899424 | | | | ✓ | |
| 899425 | | | | | ✓ |

*Use Thomson Ultra Yield Flask # 931136-B

| ENHANCED SEALS | NALGENE-NUNC | | | | |
|----------------|--------------|-------|-------|----|----|
| | 125mL | 250mL | 500mL | 1L | 2L |
| 899421 | ✓ | ✓ | | | |
| 899423 | | | ✓ | ✓ | |
| 899424 | | | | ✓ | |
| 899425 | | | | | ✓ |

| ENHANCED SEALS | OTHER DISPOSABLE | | | | |
|----------------|------------------|-------|-------|----|----|
| | 125mL | 250mL | 500mL | 1L | 2L |
| 899421 | ✓ | ✓ | | | |
| 899423 | | | ✓ | ✓ | |
| 899424 | | | | ✓ | |
| 899425 | | | | | ✓ |

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