BECKMAN COULTER

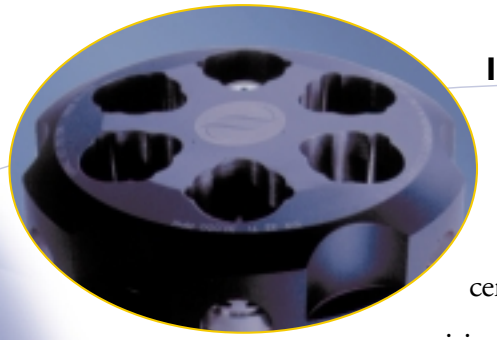
Ultracentrifuge solutions that optimize performance.

SW 32 Ti and SW 28

Swinging Bucket Rotors

Precision you can trust. Performance that speaks for itself.

When it comes to swinging bucket rotors, you now have more choices. The new SW 32 Ti series rotors complement the existing SW 28 series rotors by accommodating the same tube sizes, while providing improved performance and ease-of-use through their innovative top-loading design.



SW 32 titanium top-loading rotor.

Increase Ease-of-Use with SW 32 Ti's Top-Loading Bucket Design

You need rate-zonal centrifugation that delivers precision and performance for sub-cellular fractions and viruses. You want simplified bucket handling for enhanced convenience. Beckman Coulter satisfies both needs with its new SW 32 Ti and SW 32.1 Ti top-loading swinging bucket rotors.

Not only do the SW 32 Ti series rotors offer enhanced performance, speeds, *g* force and *k* factors resulting in more efficient separations, their user-friendly design helps eliminate potential mishooks, and dramatically reduce manual handling errors that sometimes occur with bottom-loading rotors.

Benefits of the SW 32 Ti series rotors:

- Top-loading design that provides positive bucket-rotor placement and eliminates potential mishooks and gradient-sample disruption.
- Buckets can be installed or removed while the rotor head remains in the centrifuge.

The Optima™ series centrifuges produce the highest quality separations in the shortest time.

Increased Efficiency—The SW 32 Ti Reduces Run Times by Up to 20 Percent

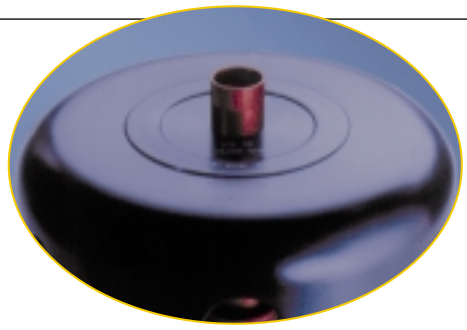
In addition to offering increased performance and enhanced convenience, the SW 32 Ti and SW 32.1 Ti can be used as direct substitutes for SW 28 and SW 28.1 rotors–which are among the most frequently referenced rotors in today's scientific applications.

Following are just a few examples of the thousands of application references available for the SW 28 and SW 28.1 rotors, which transfer directly to the new SW 32 Ti and SW 32.1 Ti rotors:

Viruses

Pelleting with SW 28:

- Virus, AIDS HIV-1, 28,000 RPM, 1.5 hour, 4 degrees, pelleting through 32% sucrose[1]



SW 28 swinging bucket rotor–the most widely used in the industry.

Sub-cellular Fractionation

Rate Zonal separations with SW 28:

- Microsomes, rat liver, discontinuous sucrose, 4–step 0.25–1.22 M, 82,500 x g[2]
- Microsomes, rat brain, sucrose, 7-30% w/v, 27,000 RPM, 6 hours[3]
- Plasma membranes, rat liver, discontinuous sucrose, 2–step 36.5–44% QP601.C7, 26,000 RPM, 1.5 hour[4]
- Human neutrophil, discontinuous ficoll, 2–step 16/25%, 113,000 x g, 24,800 RPM, 0.25 hour[5]

Virus Preparation

Rate Zonal separations with SW 28.1:

- Herpes simplex virus isolation, discontinuous sucrose, 4–step 15/25/35/60%, 20,000 RPM, 4 degrees, 4 hours[6]

SW 32 Ti and SW 28 Series Rotors

The ideal solution for applications in the cellomics and proteomics fields involving rate-zonal and differential centrifugation of sub-cellular fractions and viruses.

	SW 32 Ti	SW 28
Rotor Assembly Part Number	369650	342207
Speed	32,000 RPM	28,000 RPM
Volume	6 x 38.5 mL	6 x 38.5 mL
Density Rating	1.2 g/mL	1.2 g/mL
Max *g* Force†	175,000	141,000
k Factor	204	246
Number of buckets	6	6
Nominal tube dimensions *(largest tube)*	25 x 89 mm	25 x 89 mm
Nominal rotor capacity	231 mL	231 mL
Weight of fully loaded rotor	8.5 kg (19 lb)	5.9 kg (13 lb)
Rotor material	titanium	aluminum body; titanium buckets

	SW 32.1 Ti	SW 28.1
Rotor Assembly Part Number	369651	342216
Speed	32,000 RPM	28,000 RPM
Volume	6 x 17 mL	6 x 17 mL
Density Rating	1.2 g/mL	1.2 g/mL
Max *g* Force†	186,000	150,000
k Factor	228	276
Number of buckets	6	6
Nominal tube dimensions *(largest tube)*	16 x 102 mm	16 x 102 mm
Nominal rotor capacity	102 mL	102 mL
Weight of fully loaded rotor	8.3 kg (18 lb)	5.8 kg (12.7 lb)
Rotor material	titanium	aluminum body; titanium buckets

Both the SW 32 Ti and SW 28 series rotors accept the same variety of tube types, including Quick-Seal® and Open-Top. The SW 32 Ti accommodates the same large selection of tube sizes as the SW 28 (from 38.5 mL to 8.5 mL volume for SW 32/28 and from 17 mL to 4.2 mL volume for SW 32.1/28.1).

To discover how you can optimize your separations with top-loading swinging bucket rotors, call your Beckman Coulter representative today or visit www.beckmancoulter.com.

The SW 28, 28.1, 32 Ti and 32.1 Ti rotors are for use in Optima™ L, XL, and LE series ultracentrifuges, as well as L7 and L8M ultracentrifuges (H, R, and S classes).

References:

These references do not imply endorsement of Beckman Coulter products by the authors.

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† *Relative Centrifugal Field (RCF) is the ratio of the centrifugal acceleration at specified radius and speed (rw^2) to the standard acceleration of gravity (g) according to the following formula: $RCF = \frac{rw^2}{g}$ where r is the radius in millimeters, w is the angular velocity in radians per second (2π RPM/60), and g is the standard acceleration of gravity (9807 mm/s²). After substitution: $RCF = 1.12\, r \frac{RPM^2}{1000}$*

Beckman Coulter instruments include automated liquid handling, capillary electrophoresis, centrifugation, ultracentrifugation, chromatography data systems, DNA sequencing, electrochemistry, HPLC integrated core systems, laboratory data management, scintillation counting, and spectrophotometry.

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