

ISCO Density Gradient Systems –

Density gradient centrifugation is used for density based gentle isolation of cellular ribosomes, RNA, DNA, organelles or any other component. **ISCO Density Gradient Systems** automate the preparation of gradients, fractionation and UV scanning of zones after the centrifugation. This Programmable Density Gradient System reproducibly forms density gradients and Samples can be immediately loaded on-to prepared gradients and spun in a centrifuge.

Once the centrifugation is completed, the system allows you to fractionate and quantitate different zones formed due to centrifugation with high precision. The Isco Density Gradient System produces a continuous absorbance profile as the gradient is collected in precisely measured fractions. Fractionation is performed by introducing a dense chase solution into the bottom of the centrifuged tube, raising the gradient intact by bulk flow. Chase solution may be injected either by piercing the bottom of the tube or from the top with the optional cannula.



Applications:

- Protein interactions
- Separation of organelles
- Separation of mRNA, DNA
- Cell synchronization
- Protein isolation
- Nucleic acid isolation

Features of the machine-

- System includes tube piercing stand; peristaltic pump; UA-6 Detector with 254 and 280nm filters, density gradient flow cell; Foxy Jr. Fraction Collector, Gradient Former, organizer shelf, cables, and tubing
- Prepare gradients and use immediately without overnight refrigeration.
- Hands-off fraction separation; rack for collection in microcentrifuge tubes
- Seals and punctures the bottom of most common centrifuge tubes.
- Zone broadening and mixing are minimized with upward bulk flow.
- 254 and 280 nm detector wavelengths included.

Sorvall Sure-Spin 630 Ultra Centrifuge Rotor



Sorvall Sure Spin 630 is a swinging bucket rotor for ultra centrifugation applications. Many procedures like density gradient based separations require a swinging bucket to achieve the best results. This rotor has comparatively long path length and therefore centrifugation can be done for a longer period for better resolution.

The Sure-spin 630 swinging bucket rotor is supplied with two interchangeable sets of buckets which can be used for a variety of applications. The 17 and 36 ml buckets are relatively long and skinny, making them ideal for rate zonal runs. The unique top loading design allows the operator to load samples with unprecedented ease.

Applications:

- Protein interactions
- Isolation of RNA, Ribosome
- Isolation of viruses
- Pelleting protocols for immune complexes, DNA, certain viruses, and subcellular organelles or glycoproteins
- Separation of organelles
- Separation of mRNA, DNA
- Cell synchronization
- Protein isolation
- Nucleic acid isolation