

Molecular Diagnostics
The Power of Process

Centrifugation
Disease Management
Information Systems
Lab Automation

Flow Cytometry Primary Care

In 0.88 seconds, we'll save you 6.5 hours.

# Optima™ L-XP Ultracentrifuge System

(a) 5 (range 1 - 500)

(b) 7 (range 1 - 500)

Rotor: SW 32 Ti P...

Tube: 38.6 mL. Open Top. 326823 T...

Faradient: Sucrose 5-20% (w/w)

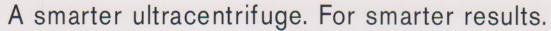
Particle Density (g/mL): 1.3

Temperature (°C): 20

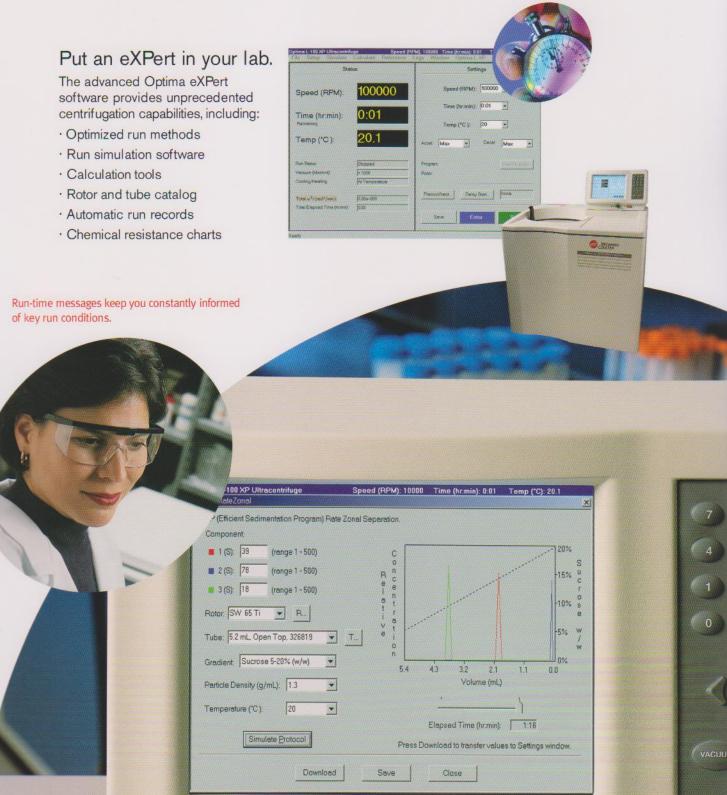
Simulate Protocol

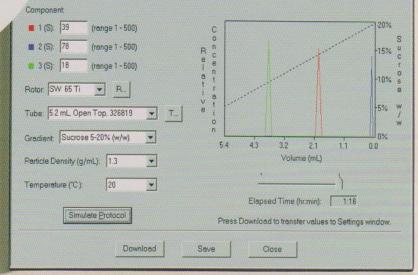
Download

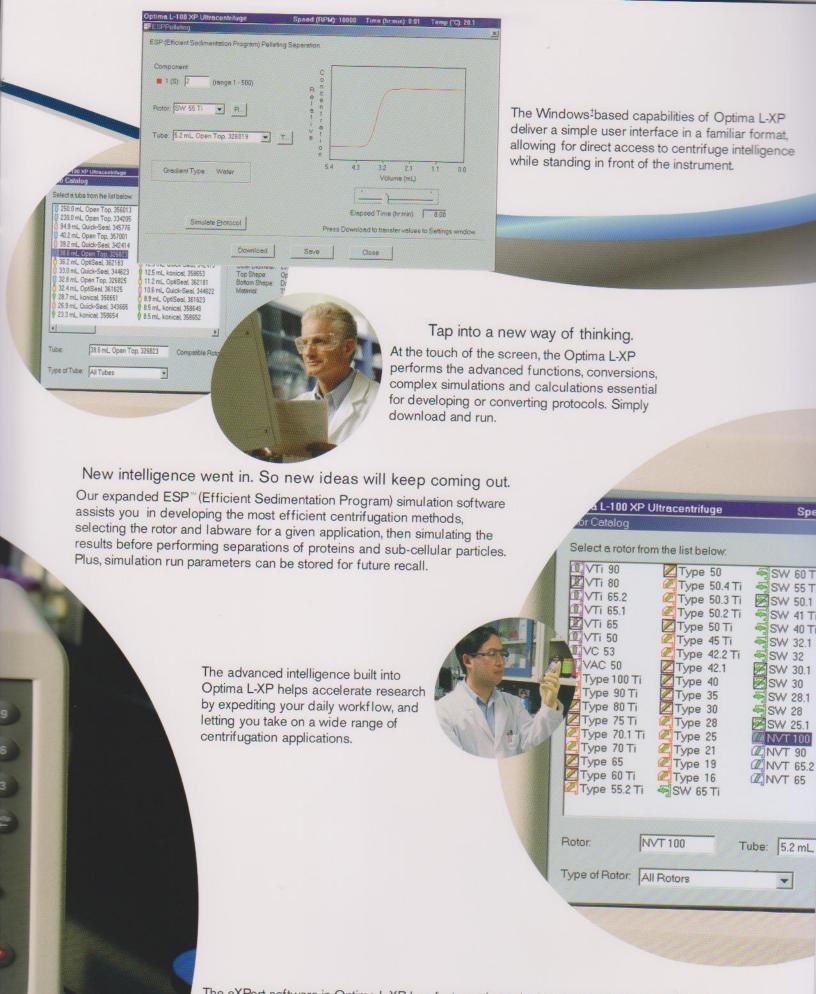
Save



From the world leader in centrifugation comes the most "intelligent" ultracentrifuge system ever. Thanks to a sophisticated on-board computer, enhanced firmware, powerful Optima eXPert software and an easy-to-use touch screen, Optima L-XP delivers superior functionality, optimized user efficiencies, far greater capabilities and faster turnarounds than any other ultracentrifuge.



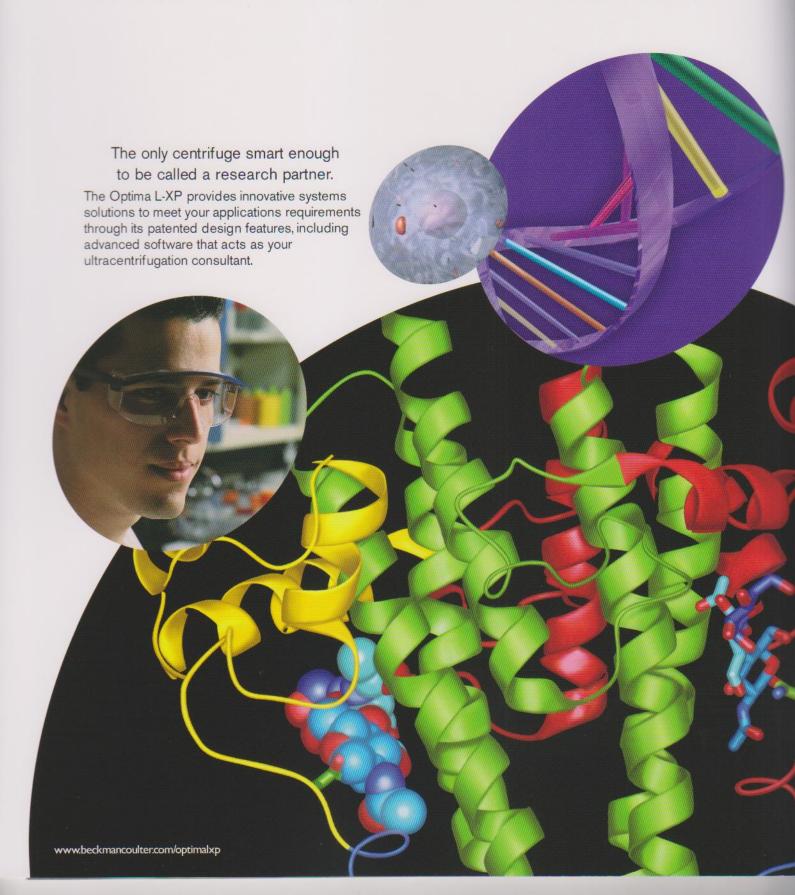




The eXPert software in Optima L-XP has features that calculate sedimentation coefficients, speed reductions for dense or precipitating solutions, concentration measures, pelleting times and rotor substitution parameters. And offers simulations of pelleting, rate zonal, and plasmid separations using patented methods, and more.

# Helping the world of science turn faster than ever.

The exciting worlds of protein and genetic research, and cellular analysis are moving forward at extreme speeds. So it's critical that your scientific tools keep pace. That's why we designed the Optima L-XP with the industry's most advanced capabilities, intelligence and hardware. All to help you get an inside track into tomorrow's promising new breakthroughs.



## **ULTRACENTRIFUGE ROTOR RECOMMENDATIONS**

Separation of subcellular particles and viruses <Lowest to highest speed> Largest volume for pelleting Type 45 Ti Type 70 Ti Type 100 Ti Type 90 Ti Fastest rate-zonal separation SW 41 Ti SW 55 Ti SW 60 Ti Largest volume rate-zonal separation SW 28 **SW 32 Ti** 

#### **PROTEOMICS**

The right tool for the right job. No matter what your application, our wide selection of rotors guarantees that you'll always get maximum performance.

Rate-zonal separation of proteins in su	icrose gradient	<lowest i<="" th="" to=""><th>nighest speed:</th><th></th></lowest>	nighest speed:	
Largest volume	SW 28	SW 32 Ti	SW 60 Ti	E-12 T
Greatest interband distance	SW 28.1	SW 41 Ti	SW60 Ti	SW 55 Tr
	SW 32.1 Ti			
	t In order of are	astact interband di	ctoneo	

Contract of Bullion Contract	THE PROPERTY AND ADDRESS OF THE PARTY OF THE
eparation of lipoproteins	< Lowest to highest speed

- Service And Annual Control of the		Control of the Contro	
Fastest differential flotation (D.F.)	Type 701 Ti	Type 90 Ti	Type 100 Ti
Largest number of samples for D.F.	Type 42.2 Ti	Type 50.4 Ti	
Largest volume for D.F.	Type 50.2 Ti	Type 70 Ti	Type 90 Ti
Greatest interband space (density)	SW 41 Ti	SW 55 Ti	SW 60 Ti
Fastest density gradient separation	V Ti 50	V Ti 651	V Ti 90
		V Ti 65.2	
	NVT 65	NVT 65.2	NVT 100
			NVT 90

#### GENOMICS

Pelleting RNA through a CsCl gradient	<lowest highest="" speed="" to=""></lowest>			
Fastest separation	SW 41 Ti	SW 55 Ti	SW 60 Ti	
Largest volume	SW 28	SW 32 Ti		
Isopycnic separation of plasmid DNA	<	Lowest to high	est speed>	

sopycnic separation of plasmid DNA		<lowest highest="" speed="" to=""></lowest>	
Eactact congration (vertical)	VEGEO	VEOD	

Fastest separation (vertical)	V II 65.2	V II 90
(near-vertical)	NVT 65 NVT 6	5.2 NVT 90 NVT 1
Greatest interband distance	Type 100 Ti	Type 90 Ti
Largest volume (vertical & FA)	Type 70.1 Ti	

**NVT 65** 

NVT rotors used for plasmid applications \*In order of greatest interband distance

(near-vertical)



By serving as an extension of your thinking, Optima L-XP helps take your research further than ever before.

**NVT 65.2** 



As activity intensifies in genetic and protein research—as well as drug discovery-scientists and researchers are increasingly demanding tools that accelerate the process. The efficiency and productivity of these researchers in unraveling the mystery of proteins and cells is greatly enhanced by our focus on systems solutions - Beckman Coulter's strategy of providing instrument systems and complementary products that simplify and automate laboratory processes throughout the biomedical testing world. By helping harness the power of genomics and proteomics, our Life Science tools are advancing the state of human health.

# Putting a smart new spin on your research.

The Optima L-XP is environmentally-friendly, meeting today's CFC-free

specifications.

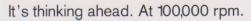
The innovative rotors, tubes and accessories we've built for the Optima L-XP are designed, manufactured and tested as a system from the inside out to make sure you get the highest quality of separation in the shortest possible time-safely and reliably.

## Innovative drive technology.

The air-cooled, patented design of our drives delivers the most energy-efficient ultracentrifugation system ever made. Plus, the imbalance-tolerant Optima L-XP drive safely accommodates tubes that are under- or over-filled by as much as 10%. And its unique design allows "eye-balancing."

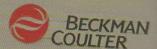
#### Top-loading SW 32 Ti rotor.

The increased efficiency of our SW 32 To series rotors can reduce run times, or the can be used as direct substitutes for SW 28 and SW 28.1 rotors. The top-loading design of the SW 32 Ti series rotors provides improved performance and ease-of-use for subcellular separations.



Optima L-XP utilizes the most advanced materials and technology to achieve the high performance needed for extending the boundaries of proteomics and genomics.





Optima L-100 XP Ultracentrifug

www.beckmancoulter.com/optimalxp



#### Innovative near-vertical tube (NVT™) rotors.

With a slight angle that positions contaminants away from the bands of interest, our patented NVT rotors deliver the highest purity in the shortest possible time. All of which makes them ideal for nucleic acid isolations.

#### One-touch sealing.

The design of our OptiSeal ™ System has an easy-fill mouth and delivers fast, reliable sealing without difficult or time-consuming tools, heat, or closure verification. Just insert the plug and press into place, and the centrifugation process itself provides guaranteed protection for your samples.



#### The best place for your samples.

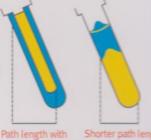
Since they're specially designed for innovative application solutions, our patented tubes deliver improved efficiencies, including:

- konical<sup>™</sup> seal for the most concentrated pellet
- · Quick-Seal \* for biocontainment
- · g-Max™ for the greatest volume efficiency
- · OptiSeal™ for the easiest sealing



## Maximize performance with g-Max™ tubes.

Our patented g-Max tubes adapt small samples to larger rotors without sacrificing the maximum force of the rotor. The resulting lower k factors produce shorter separation times by up to 50 percent.



Path length with conventional adapter

Shorter path length with g-Max system



### Service and support.

Our highly-trained customer support technicians help you get the most out of your Optima L-XP. And our Field Rotor Inspection Program brings Beckman Coulter specialists to your site for regular service and inspection. Plus, all servicing is made quick and easy by Optima's easy-access front panel.



The Optima LXP is one important part of a broad continuum of Beckman Coulter products, including automated liquid handling, capillary electrophoresis, centrifugation and ultracentrifugation, chromatography data systems, DNA sequencing, electrochemistry, HPLC, integrated core systems, laboratory data management, scintillation counting, and spectrophotometry.



\*Based on a representative rate zonal simulation with a SW 32 Ti rotor, †All trademarks are the property of their respective owners.

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