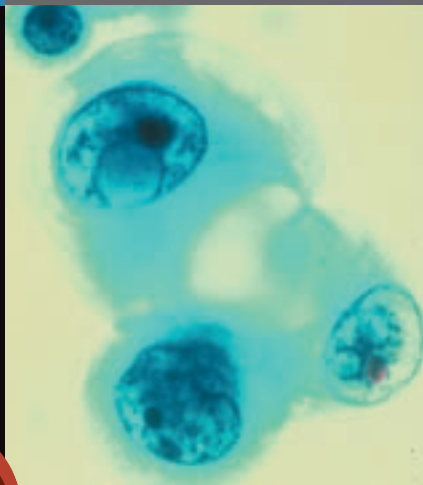


Shandon  
Cytospin® 4  
Cytocentrifuge



**NEW**  
Clipless  
Funnels

Thin-layer  
Cell Preparation  
System

a leader in anatomical pathology

**Thermo**  
ELECTRON CORPORATION

## Shandon Cytospin® 4 Cyto centrifuge

The ultimate thin-layer cell preparation system

The Cytospin was the first device to use carefully controlled centrifugation to separate and deposit a thin layer of cells on slides while maintaining cellular integrity. It produces better cell capture and good representation of all cell types present in homogeneous liquid samples.



The Cytospin has been synonymous with cyto centrifugation for over 35 years. More than 15,000 laboratories worldwide use this simple, reliable instrument. It provides economical thin-layer preparations from any liquid matrix, especially hypocellular fluids such as spinal fluid.



### Features

- Accepts all protocols from **Cytospin 1, 2, and 3.**
- **Redesigned Lid-release Mechanism** allows for **one-handed opening and closing** of the outer lid for easy access. As an added safety measure, the Cytospin will only operate when the lid is locked into position. The lid remains **locked at all times** during rotation. The polycarbonate window allows the operator to see the Sealed Head during cyto centrifugation.
- **Excellent safety design prevents accidental fluid spillage** from damaging the mechanical or electronic components and allows for easy disinfecting. It meets stringent IEC 61010 standards for centrifuge safety.
- **Pull-out Program Card** allows for up to **nine programs** to be logged for fast and convenient retrieval (erasable ink pen included).

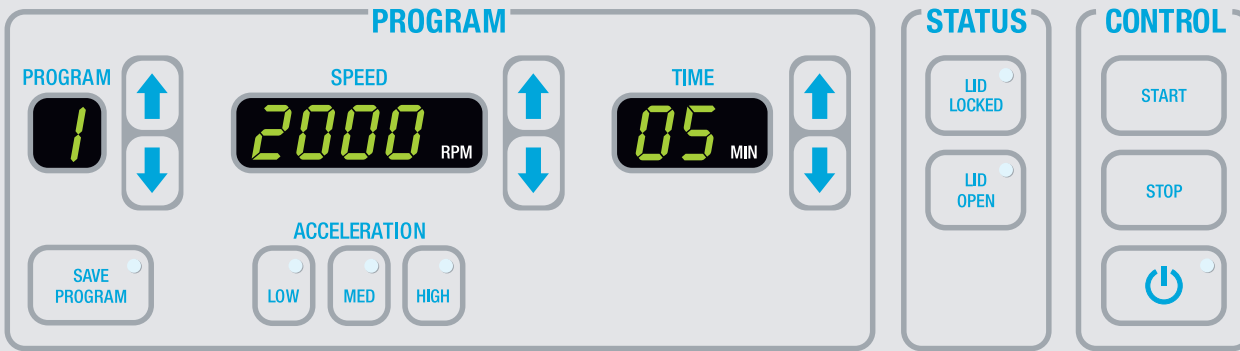
### Safe and Reliable

The Cytospin is designed to protect the operator before, during and after sample preparation. Safety is our top priority. The ability to load the Cytospin Sealed Head in a microbiological cabinet is the ultimate safety procedure.

- Auto-locking, plastic outer lid
- Autoclavable Sealed Head
- Disposable sample chambers with caps
- Safety alarms that protect users and specimens
- Wipe-clean control panel

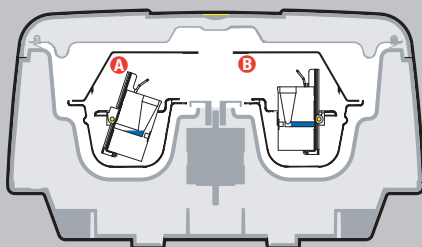
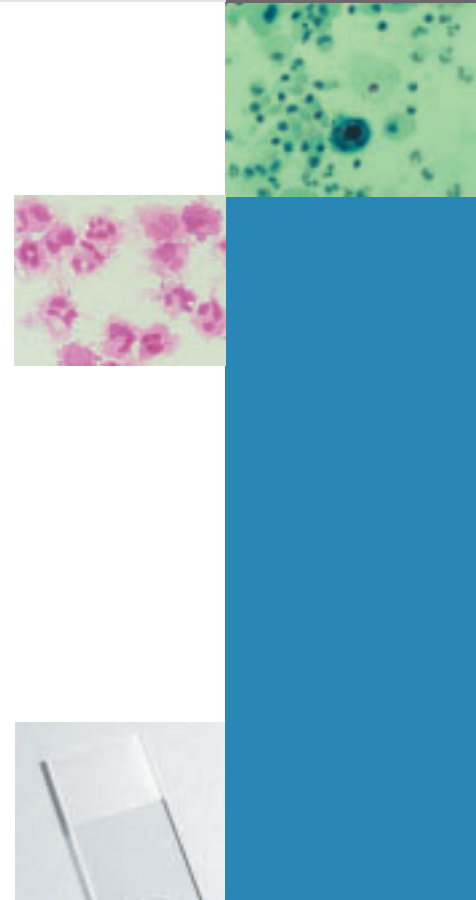


# Shandon Cytospin 4



## Simple and Precise Controls

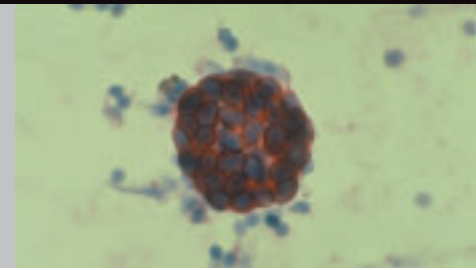
- **Protected Program Memory** stores up to 23 routines for instant recall and protects from power loss.
- **Program Key Pad** has “easy-touch” design that allows for easier keystrokes and more intuitive programming.
- **Speed** window displays the programmed spinning speeds from 200 – 2000 rpm.
- **Three Acceleration Control** buttons allow the operator excellent flexibility and exceptional protection for fragile samples.
- **Time** window displays the programmed and remaining run time from 1– 99 minutes.
- **Control** feature has a standby power saving mode. Displays are also turned on and off by the standby key.
- **Safety Alarms** include an **audible alarm** that signals the operator if the Cytospin is out of balance, outside the speed tolerance, or if the lid is not properly locked. As an extra measure of safety for the user, the unit will not spin if the lid is not locked.
- **Specimen safety alarm** feature has been added to remind users at one-minute intervals to remove specimens, protect them from “air-drying” and ensure consistent results.



- **A** In-Load Position (Stopped)
- **B** In Operation (Spin)

## Simple Principle for Excellent Presentation

Using centrifugal principles, the Cytospin® deposits cells onto a clearly-defined area of a glass slide and allows for the absorption of the residual fluid into the sample chamber's filter card. Cyto-centrifugation also constructively flattens cells for excellent nuclear presentation. During operation, the instrument's spinning action tilts Cytofunnels® upright and centrifuges cells onto the deposition area of the slide, giving all cell types equal opportunity for presentation. In the Load or Stop position, this unique tilting feature reduces cell loss by preventing residual fluid from coming into contact with the prepared slide.



## Disciplines That Use the Cytospin

### Cytology

- Still the gold standard for Non-Gynecological Cytology, especially hypocellular fluids.
- Many types of collection fluids and funnel options to choose from.
- Quality presentation at a fraction of the cost of other “thin-layer” technologies.
- Prepares both “air dried” and “fixed” specimens.

### Microbiology

- Micro-organisms are often present in low numbers from limited sample volumes. Cytocentrifugation effectively spins the micro-organisms onto the slide, maximizing the yield and presenting those organisms in a clean, defined area, allowing for straightforward morphological identification.
- Only a small sample volume is needed so multiple samples may be run for a variety of special staining and support testing. It also concentrates samples for Gram stains.

### Hematology/Oncology

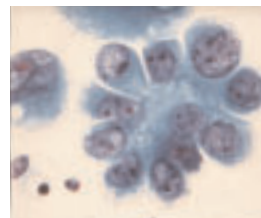
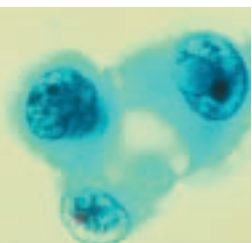
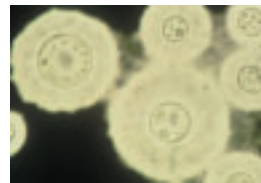
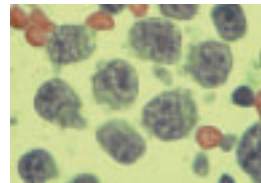
- Easy to achieve a constant cell/unit volume.
- Excellent for all fluids, bone marrow, and peripheral blood.
- Even with a cell count of “zero,” the Cytospin often locates the few cells in the fluid that the counter missed.

### Virology

- There are many published technical papers utilizing the Cytospin for the rapid detection of respiratory viruses, CMV Detection, ISH, FISH, etc.

### Research/General Use

- The most cost-effective, time-effective way to make quality thin-layer cell presentations.
- Excellent for molecular studies, specialized staining applications, and EM.
- Used in veterinary, dental and chemosensitivity protocols.





## Collection Fluids

### CytoRich Red™ Collection Fluid\*

Concentrated Formula

- Ready-to-use alcohol-based fluid.
- Lyses RBC's and solubilizes protein.
- Helps optimize diagnostic cell yield by removing blood before presentation.
- Helps soften mucus for greater cell retrieval.
- Compatible with immunohistochemistry.
- Pre-filled containers available.



### Shandon Cytospin® Collection Fluid

- Ready-to-use alcohol/CARBOWAX® (PEG) combination for direct specimen collection and fixation.
- Permits storage of specimens or unstained slides for weeks.
- Pre-filled containers available.



### Shandon Mucolexx™

- Multi-purpose specimen transport medium.
- Liquefies (with agitation) mucoid specimens.
- Short-term preservation of specimens.



### Shandon Cell-Fixx™

- Spray fixative for convenient preparation of slides.
- Includes CARBOWAX which coats the smear to maintain cellular detail.
- Prevents air drying artifact and cell loss.



## Shandon Cytoslides®

Specially marked Slides for the Cytospin

- Specimen area is outlined for **rapid location** during screening.
- All slides are 75 x 25 mm, made from **high-quality optical glass**.

### Coated Slides

- Eliminates the need for albumin coating procedures. **Saves labor** and resource time.
- **Eliminates** background staining on albuminized, IHC or ISH processed slides.

### Single Cytoslides

- Specially made for use with Cytospin Single Sample Chambers.
- A white, 12 mm diameter circle on the slide defines the area where cells will be displayed to allow for efficient and rapid location.
- Uncoated slides available with circle on front or back.



### Double Cytoslides

- Specially produced for use with Double Cytofunnel Chambers.
- Each specimen is displayed onto the slide within a circle marked "1" or "2" which corresponds with the Double Cytofunnel chamber.



### Mask Cytoslides

- Specially produced for immunofluorescence.
- Black-coating masks out UV light so that only the specimen within the circle can be viewed through a microscope.



Description	CE [IVD]	Pkg/Qty	Order Number
<b>CytoRich Red Collection Fluid</b>		4L bottle	B9990800
		500 ml bottle (2 per pack)	B9990801
		Case of 180 – 20ml vials (filled to 10ml)	B9990802
		Case of 125 – 120ml cup (filled to 60ml)	B9990803
<b>Cytospin Collection Fluid</b>		10L bottle x 2	9990310
		4L bottle (with pump)	6768001
		500ml bottles x 2	6768315
		125/Case – 120ml cups (filled to 60ml)	9990323
<b>Mucolexx Transport Fluid</b>		4L bottle	9990371
		500ml bottles x 3	9990370
		50/Case – 120ml cups (filled to 60ml)	9990375
<b>Cell-Fixx Spray Fixative</b>		50ml pump spray bottle x 6	6768326

Description	CE [IVD]	Pkg/Qty	Order Number
<b>Cytoslide, Single Circle</b> coated circle on back		100/box	5991056
<b>Cytoslide, Single Circle</b> non-coated circle on back		100/box	5991051
<b>Cytoslide, Single Circle</b> non-coated circle on front		100/box	5991059
<b>Cytoslide, Double Circle</b> , coated		100/box	5991055
<b>Cytoslide, Double Circle</b> , non-coated		100/box	5991054
<b>Cytoslide</b> , Single Circle, Black mask		100/box	5991057
<b>Cytoslide</b> , Double Circle, Blue mask		100/box	B5991050

\* CytoRich Red is manufactured under the license of TriPath Imaging  
CARBOWAX is a registered trademark of Union Carbide Chemicals



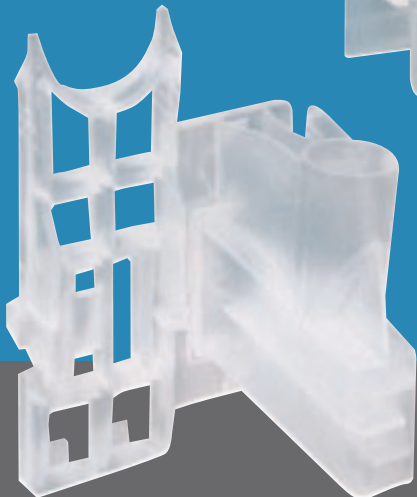
## Shandon EZ Cytofunnel® Sample Chambers



### Shandon EZ Cytofunnel

- Intended for single use on the Shandon Cytospin® Cyto centrifuge.
- Optimizes cell yield.
- Safe – reduces the risk of exposure to pathogenic samples.
- Disposable – eliminates time-consuming decontamination and cleaning.
- Decreases the possibility of cross-contamination.
- Eliminates the need for metal Shandon Cytoclips®.
- Closure caps provided with kit.
- Simple and easy to use.
- Produces more cost-effective thin-layer preparations when compared to other thin-layer methods.

- No more clips!
- Easy-to-use operation illustrations included in package



### Shandon EZ Megafunnel™

- Designed for convenient preparation of larger volume samples.
- Shandon Cytofunnels designed for spinning large samples up to 6 ml.
- Minimizes the need to pre-centrifuge.
- Cell deposition area of 22 x 14.75 mm (325 mm<sup>2</sup>) for increased cell yield.
- Shandon Megafunnel Cytoslides® included.
- Can prepare both air-dried and fixed preparations, providing additional valuable diagnostic information

Description	CE [VD]	Pkg/Qty	Order Number
Shandon EZ Megafunnel		25/box	A78710001



**Shandon EZ Single Cytofunnel®  
with White Filter Cards**

- Disposable Sample Chambers with White Filter Cards
- Use for sample volumes up to 0.5 ml.
- Cell deposition area of 6 mm in diameter (28mm<sup>2</sup>)
- Pre-attached white filter card for high absorbency.

Description	CE [IVD]	Pkg/Qty	Order Number
Shandon EZ Single Cytofunnel with White Filter Cards and Caps		50/box	A78710003



**Shandon EZ Single Cytofunnel  
with Brown Filter Cards**

- Disposable Sample Chambers with Brown Filter Cards.
- Use for sample volumes of 0.4 ml or less.
- Cell deposition area of 6 mm in diameter (28mm<sup>2</sup>)
- Pre-attached brown filter card for slower absorbency.
- Excellent for scanty specimens such as CSF.

Description	CE [IVD]	Pkg/Qty	Order Number
Shandon EZ Single Cytofunnel with Brown Filter Cards and Caps		50/box	A78710004



**Shandon EZ Double Cytofunnels**

- Disposable Sample Chambers
- Allows 2 sample deposition areas on a single slide.
- Double the number of sample presentations per run.
- Funnel markings correspond to slide markings for simple identification.
- Pre-attached filter card.
- Ideal for use with immunochemistry techniques.

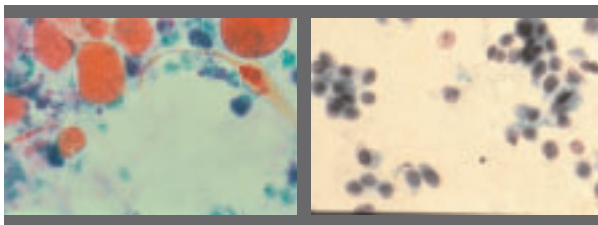
Description	CE [IVD]	Pkg/Qty	Order Number
Shandon EZ Double Cytofunnels with White Filter Cards and Caps		50/box	A78710005

**Shandon Cytospin® Sealed Head**

- One Sealed Head is included with the Cytospin, but many laboratories shorten preparation time by having a second Sealed Head ready for when the first finishes processing.
- Autoclavable, 12-chamber Head seals completely.

Description	CE [IVD]	Pkg/Qty	Order Number
Cytospin Sealed Head		Each	59910018





#### Shandon EA-50

- Polychromatic cytoplasmic stain.
- Clearly differentiates cellular components with pink, green, and blue-green hues.

#### Shandon EA-65

- Polychromatic cytoplasmic stain.
- Lower concentration of Light Green improves expression of eosin-stained components.
- Ideal for thicker non-GYN preparations.

#### Shandon OG-6

- Demonstrates keratin in cytoplasm.

Description	CE [IVD]	Pkg/Qty	Order Number
Shandon EA-50		4 L x 1	6766002
Shandon EA-50		1 L x 2	6766001
Shandon EA-65		4 L x 1	6766004
Shandon EA-65		1 L x 2	6766003
Shandon OG-6		4 L x 1	6766006
Shandon OG-6		1 L x 2	6766005

#### Shandon Cytology Spatula

- Economical.
- Designed with classic Ayre end and tapered tip.
- Made from smooth, select wood for excellent cell retention and release.



Description	Pkg/Qty	Order Number
Shandon Cytology Spatula	1000 (40 bags x 25)	9990330

## Shandon Cytospin® 4 Cytochrome Oxidase

Description	Order Number
Shandon Cytospin 4 with Starter Kit	A78300001
Shandon Cytospin 4 without Starter Kit	A78300002

#### Physical Specifications

##### Dimensions (H x W x D)

With Closed Lid:	9.5" x 16" x 24.5" (24 x 40.5 x 62 cm)
With Opened Lid:	25" x 16" x 24.5" (62.5 x 40.5 x 62 cm)

##### Weight

26.5 lbs. (12 kg)

##### Power Requirements

150VA (maximum)

#### Included with Product\*

Included with Product*	Order Number
Sealed Head/Rotor	Each 59910018
Marking Pen	Each AP14891
Operator Manual (specify language)	Each A78310250
Service Record Book	A78310252
Standard Workflow Diagram	A783-1001

\* Contents, Packaging, and Quantities of items listed under "Included with Product" are subject to change without prior notice.

#### Additional Accessories

Additional Accessories	Order Number
Service Manual	Each A78310251
Sealed Head Seals	3 / Pk. 59910019

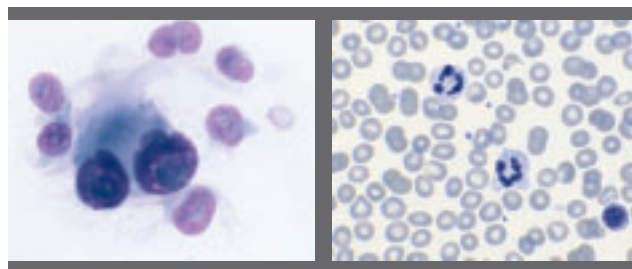
#### Starter Kit

Assortment of Disposable Cytofunnels

Glass Microscope Slides

#### Agency Approvals

IEC 61010, CSA, UL, and CE Mark (IVDD compliant).



#### Shandon Kwik-Diff™ Stains

- Fast 3-step differential stain for bone marrows, smears, FNAs and microorganisms such as Helicobacter pylori.
- A quick alternative to traditional Wright's and Giemsa Staining procedures.
- Kit components include: Reagent 1, Fixative; Reagent 2, Eosin; and Reagent 3, Methylene Blue.
- Available in kit for or as individual components.

Description	Pkg/Qty	Order Number
Shandon Kwik-Diff Stain Kit	500 ml Reagent Size	9990700
Shandon Kwik-Diff Stain Kit	125 ml Reagent Size	9990701
Shandon Kwik-Diff Reagent 1	4 L	9990705
Fixative		
Shandon Kwik-Diff Reagent 2	4 L	9990706
Eosin		
Shandon Kwik-Diff Reagent 3	4 L	9990707
Methylene Blue		

Leading the world in high-tech instruments, Thermo Electron Corporation helps life science, laboratory and industrial customers advance scientific knowledge, enable drug discovery, improve manufacturing processes, and protect people and the environment with instruments, scientific equipment, and sample-in/knowledge-out solutions. Based in Waltham, Massachusetts, Thermo Electron Corporation has revenues of more than \$2 billion, and employs approximately 11,000 people in 30 countries worldwide.