

FibriTimer<sup>TM</sup>



**First**  
by any Indian  
Company

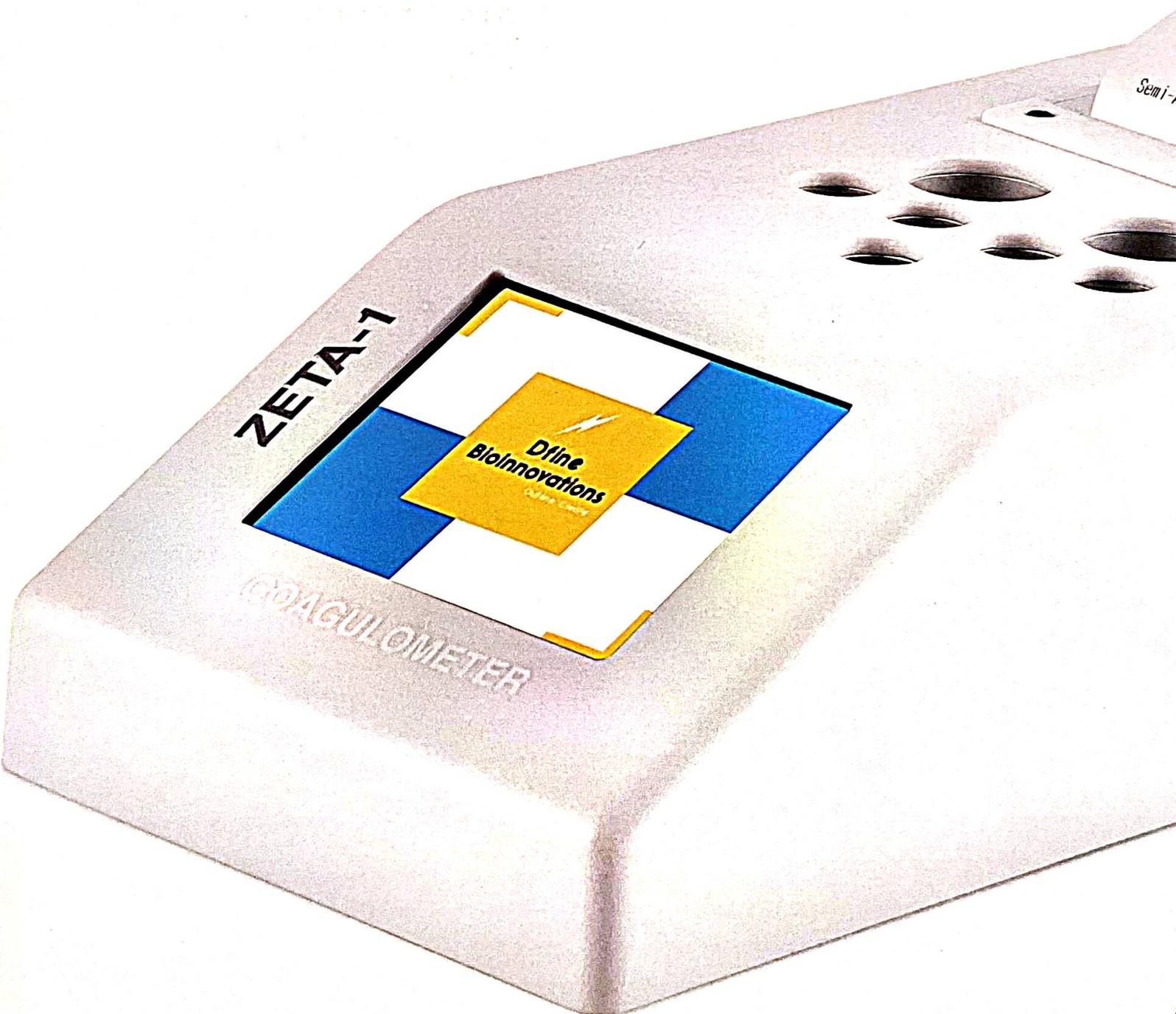
# Zeta-1

## Semi-Automated Coagulation Analyzer - 1 Channel

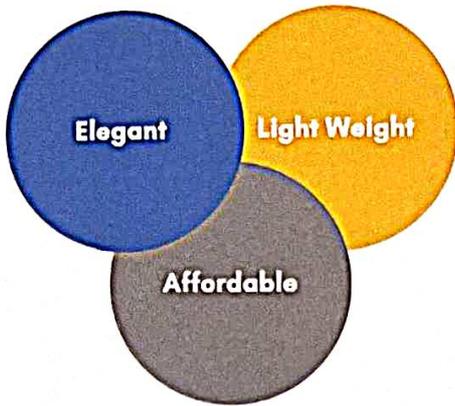
Cat no: FTOPTM-Z1

Design Patent No-371384-001

Technology Patent no: 529922



# Instill confidence in test reporting



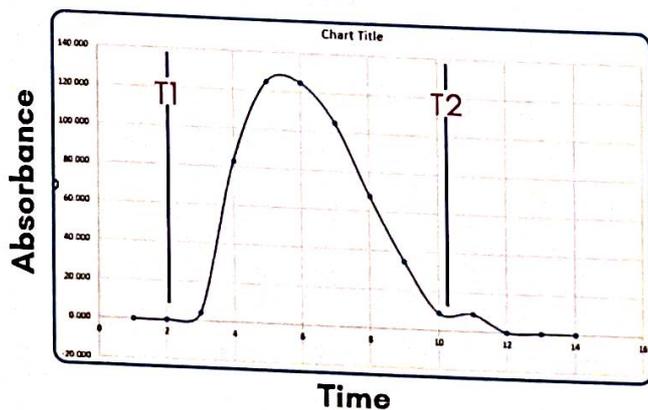
## Features

- Patented Dual technology
- 3.5-inch touch capacitive screen
- Easy menu options
- Single use disposable cuvette
- Dedicated QC file to perform external quality control and review the data for accuracy and precision
- An optional automated pipette
- Adaptor with inbuilt Power backup
- Inbuilt printer

## The Dual technology in Zeta 1 is pathbreaking

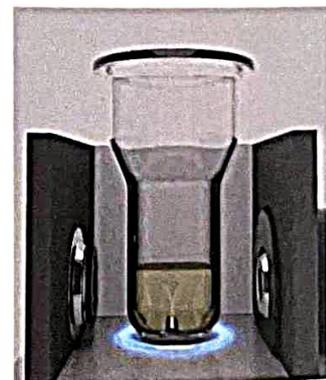
### a) Optical Transmittance

A light source (LED, 630 nm) passes through the reaction well. The transmittance is continuously recorded within the reaction well to monitor any change in the chemical reaction/ turbidity. This change is read by the instrument & reads the final value.



### b) Mechanical by ball movement

A periodic magnetic field imparts a sustained pendular motion along a curvilinear path to the stainless-steel ball within the inner perimeter & observes the change in turbidity/ viscosity of the test solution & reads it as a fibrin clot when the ball movement ceases to move.



# First Indian company to develop a hemostasis system indigenously

- Zeta 1 supports INHOUSE testing
- Powerful, Economical & Empowers the small labs
- Serves as a excellent backup for large throughput labs

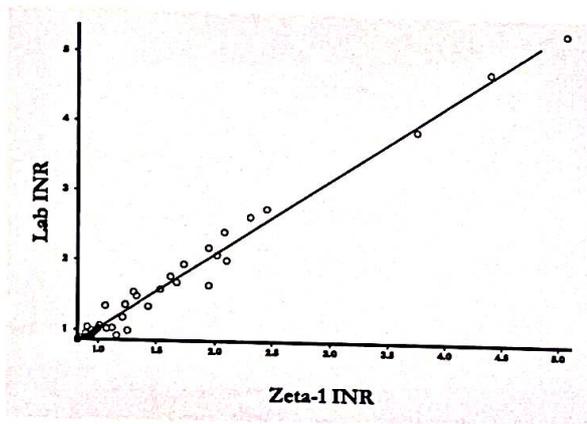


## Precision Study:

	PT				APTT			
	Within Run		Between Run		Within Run		Between Run	
	Control Normal Level 1	Control Abnormal Level 2	Control Normal Level 1	Control Abnormal Level 2	Control Normal Level 1	Control Abnormal Level 2	Control Normal Level 1	Control Abnormal Level 2
<b>Mean</b>	12.41	28.01	12.4	28.26	28.49	43.39	28.3	44.48
<b>SD</b>	0.30	1.66	0.09	0.66	1.21	1.15	0.46	0.44
<b>CV%</b>	2.42	5.91	0.76	2.34	4.25	2.65	1.64	0.99

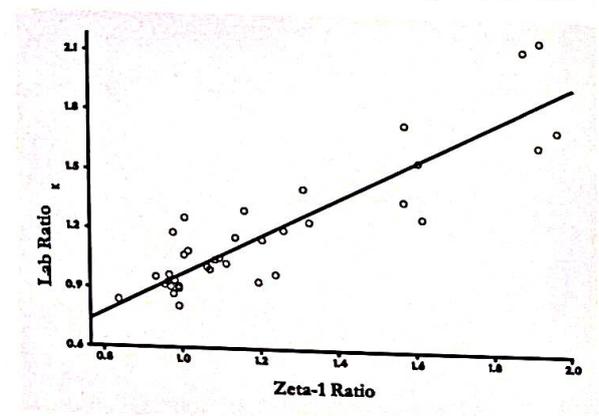
## Correlation Study:

INR results comparison on Zeta 1 Optical Vs Sysmex CS-1600



Correlation coefficient is significantly different from zero  
 Correlation coefficient (r) = 0.997201 (r<sub>s</sub> = 0.982479)  
 Two sided P < 0.0001  
 Power (for 5% significance) > 99.999%

APTT Ratio comparison Zeta-1 Optical Vs Sysmex CS-1600



Correlation coefficient (r) = 0.907779 (r<sub>s</sub> = 0.822974)  
 Two sided P < 0.0001  
 Power (for 5% significance) > 99.999%

Sysmex and CS -1600 are brands owned by Sysmex Corp, Japan

FibriTimer™ Zeta-1 is developed and manufactured by Dfine Bio-Innovations Pvt Ltd - an ISO 13485-2016 and ZED certified, CDSCO registered MedTech Startup from Bangalore, India and is incubated at the CPDMED: FSID - A incubation wing at IISc - Bangalore.



FINALIST



Dfine Bio-innovations is committed to maintain high standard in its design and delivery

# Technical Specifications

- **Type** : Single channel hemostasis system
- **Number of measuring channels** : 1
- **Display** : 3.5-inch capacitive touch screen
- **Memory** : 1000 test results
- **QC files** : Dedicated 2 level QC files with memory recall
- **Measuring principle** : Optical & Mechanical (by ball method)
- **Tests (Optical)** : PT, aPTT, D-Dimer, Factor assay, aPCR, etc\*
- **Tests (Mechanical)** : PT, aPTT, TT, FIB, LA, Factor assay, aPCR, etc\*
- **Default testing mode** : Optical (LED) 630 nm
- **Cuvette pre-heating stations** : 4
- **Reagent pre-heating stations** : 2
- **Measuring range** : 0 - 200 Sec (Optical), 4.5 - 999 Sec (Mechanical)
- **Working Temperature** : 10-40°C
- **Measuring block temperature** : 37.0°C (±0.1°C)
- **Power requirements** : Input Voltage: 100V to 300V AC  
Output Voltage : 12V DC, 2A ± 5%
- **Electrical Safety** : IEC 61010-1 cleared (STQC)
- **Relative Humidity** : ≤ 90%
- **Atmospheric Pressure** : 86 kPa~106 kPa
- **RS 232** : Unidirectional
- **Dimensions** : 218 x 125 x 93 mm (L-W-H)
- **Weight** : 1200 g

\*Test under development

## Standard Accessories:

Cat no.	Description	Unit
FTOPTM-Z1	FibriTimer™ Z-1	01
FT-ZIUPSA	Adaptor with inbuilt Power backup	01
FT-ZITR	Thermal roll	01
FT-ZIBC	Buffer cup	02
FT-ZICuv	Cuvettes & Balls	25
FT-ZIUM	User Manual	01
FT-ZITWR	Tweezer	02

## Optional Accessories:

Cat no.	Description	Unit
FT-Z1VP	Variable-Volume automatic pipette with cable & connector	01
FT-Z1PA	Power adaptor	01
FT-Z1SSB	Stainless Steel Balls	200



**DESIGNED & MANUFACTURED BY**  
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