

Polymers

Films

Laminates

Packaging

Pipes

Automotive

Rubber

Textiles

Pharma

Medical Devices

Cosmetics

Food

.....

TENSILE

COMPRESSION

FLEXURAL

PEEL / BOND

SEAL

COF

WVTR

OTR

LEAK

TORQUE

GLOSS

HAZE

OPTICAL DENSITY

COLOR

HYDROSTATIC  
PRESSURE IN PIPES

PIPE BURST

FALLING WEIGHT

THERMO CYCLING

RCP

CARBON BLACK  
DISPERSION

NOTCH MILLING  
MACHINE

.....

**Product Guide  
FILMS & PACKAGING TESTING**

*Human Touch to Testing*



**HEM TECHSYS**  
PRIVATE LIMITED

# HEM TECHSYS PRIVATE LIMITED

Popularly known as **HEMTECH**

## About us

**HEMTECH** is a company established and run by Technocrats. **HEMTECH** is focussed in the field of Testing Instruments and Automation Systems for Polymer, Films & Laminates, Packaging, Pharma Packaging, Polymer Pipes, Textiles & Technical Textiles, Automotive Industries. **HEMTECH** works very closely with all reputed Institutes and Industries in the field and so have good exposure and experience in the respective fields.

**HEMTECH** is Committed to bring to you world's best and latest technology Instruments as Authorised Agent for world renowned companies in their respective fields. **HEMTECH** also expanded activities by also establishing local manufacturing facility with near Imported Quality Value for Money Instruments for the Quality Conscious Indian and foreign customer. Thus **HEMTECH** has unique balance of world class imported Instruments and near Imported Quality best in class locally manufactured Instruments under the registered trademark brand of **HEMTECH**.

## Team

HEMTECH is a young and Dynamic team of

- **Electronics Engineers**
- **Mechanical Engineers**
- **Software Development Engineers.**
- **Instrumentation Engineers**
- **Electrical Engineers**

**Positive Attitude, Hard Work, Sincerity, Honesty and Team work** is the core strength of the team HEMTECH.

## Service

HEMTECH believes in COMPLETE services. Our team believes that Service starts even before selling the Instrument or System. At HEMTECH Services are package of



**Pre-Sales**



**Installation  
&  
Commissioning**



**Repairs  
&  
Maintenance**



**Training  
&  
Tech Support**



**Calibration**



**Retrofit  
&  
Computerisation**

## Divisions

We at HEMTECH believe that better focus gives better results. Hence, we have divided our company operation in divisions.

- **Sales Division** – Pre-Sales Service, Sales, Application Support , Liaison...
- **Service Division** – Installation & Commissioning, Training, Repairs & Maintenance, Technical Support , Calibration...
- **D & D Division** – Design, Development of Instruments, Electronics, software, Retrofits...
- **Manufacturing Division** – Manufacturing of Instruments, Accessories, SPM...
- **Testing Division** –Testing Facility for Industries on Commercial bases...

## Achievements

- ✓ National Award for Innovation in Technology - by Ministry of Chemical & Fertilisers 2011
- ✓ National Award for Innovation in Technology - by Ministry of Chemical & Fertilisers 2012
- ✓ Development of Instrument for Mozzarella Cheese Testing for Anand Agriculture University
- ✓ Development of Retrofit kit for Imported HOT TACK TESTER



# Film & Laminates Testing Instruments

## Tensile Tester

Microcontroller based  
LCD Display & Keypad  
Micro-stepping / Servo Drives  
High Data Rate  
Built in RS 232 Interface

Self Identification Loadcell  
Accurate Force Measurement.  
Wide Speed Range

**hemWIZARD** – WINDOWS based  
Software for Control & Data  
Acquisition



## Peel-Bond Tester

Microcontroller based  
LCD Display & Keypad  
Micro-stepping / Servo Drives  
High Data Rate  
Built in RS 232 Interface

Self Identification Loadcell  
Accurate Force Measurement.  
Wide Speed Range

**hemWIZARD** – WINDOWS based  
Software for Control & Data Acquisition



## Friction Tester

### COF

Microcontroller based  
LCD Display & Keypad  
Micro-stepping / Servo  
Drives  
High Data Rate  
Built in RS 232 Interface



**hemWIZARD** – WINDOWS  
based Software for Control  
& Data Acquisition

## Heat Sealers

Microcontroller based  
LCD Display & Keypad

True  
Pressure Measurement  
Dwell time Self Tuning



**Pressure Pulse based  
Dwell time Control**

## Balloon Burst Tester

Meets ASTM  
Digital  
Peak Hold

Restraining Plates



## Tear Tester

Elmendorf type  
Digital  
Printer Option



## Stiffness Tester

Analogue  
Version



## Falling Dart Impact Tester

Method A  
Method B

Built In Vacuum  
Pump  
Pneumatic  
Clamp  
assistance

Automatic Dart  
Release system



## Thickness Tester

Desktop Model

Hand Held Model



## Moisture Balance

Halogen heating  
Accurate  
Repeatable

**Models up to  
Resolution  
0.001% available**



## GLOSS Meter



Tri-angle  
(20,45 & 80 deg)

Single angles Models

## OPTICAL DENSITY Meter



0 to 5.00 D  
Accuracy : +/-0.02D

## HAZE METER



Measures TRANSMITTANCE & HAZE  
Confirms to Standard **ASTM D 1003**  
Intearating Sphere Sensor



# Ancillaries for Paper, Corrugated Sheet Testing Instruments



**Bursting Strength Tester**

Digital  
Manual clamping

Optional Pneumatic lamping



**90 Degree Peel Tester**

Digital  
Keeps Peel Angle Constant  
at 90 deg



**Core Strength Tester**

Digital  
Paper Core

Optional  
Fixtures for  
various sizes.



**180 Degree Peel Tester**

Digital  
Keeps Peel Angle Constant at  
180 deg



**Loop Tack Tester**

Digital  
For testing Adhesive  
Tapes



**BOX  
Compression  
Tester**

Digital  
Pneumatically  
Operated  
Accurate Force  
Measuring  
system

Different Models  
as per Platform  
size available.



**Shear Adhesion  
Tester**

**2 stations to 30  
stations models**

Digital Timer  
Battery Operated  
Auto Hold  
Test end sensing



**Bottle Compression tester**

For Top Load Test



**Dynamic  
Shear Adhesion Tester**

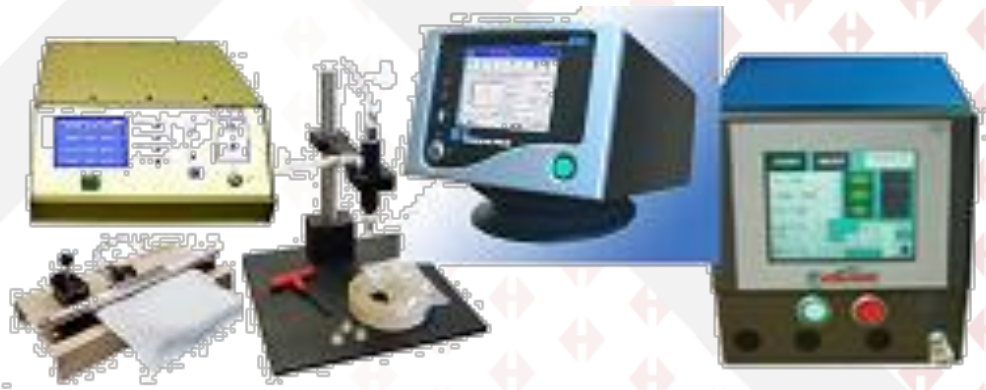
# Package Testing Instruments

## Automated Package Tester

Suitable for performing

**Seal Strength Test**  
(Burst, Creep, Creep-to-Failure)  
Porous & Non-Porous Flexible Packages

**Leak Integrity Test**  
Leak Test for Non-Porous Flexible Packages



## LEAK & LEAK / FLOW TESTERS



**Pressure or Vacuum Decay Models**

Suitable for performing

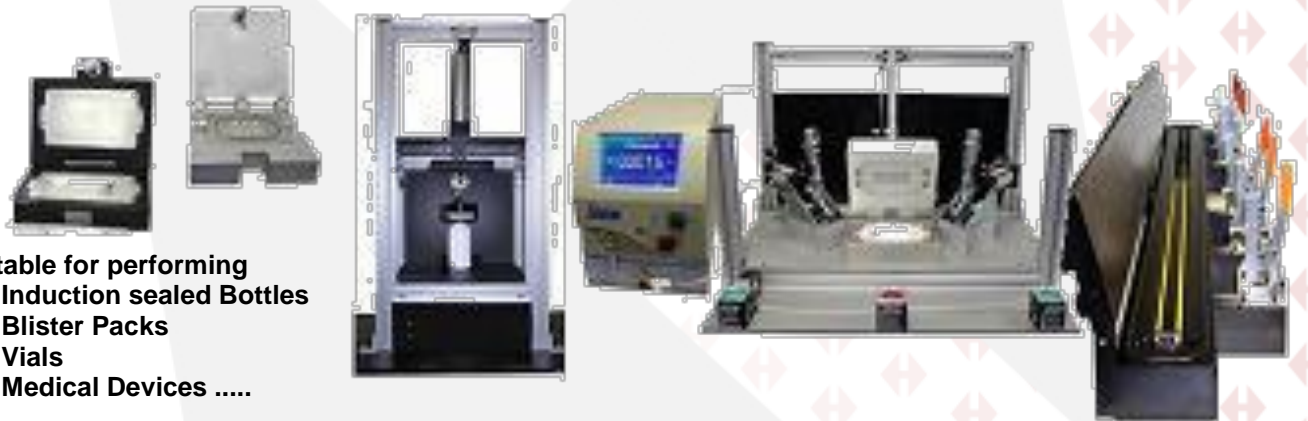
- ✓ Leak Test
- ✓ Leak / Flow Test
- ✓ Leak / Occlusion Test

NIST Traceable  
Resolution 0.0001 psi



## NON DESTRUCTIVE LEAK TESTERS

**Pressure or Vacuum Decay**



Suitable for performing

- ✓ Induction sealed Bottles
- ✓ Blister Packs
- ✓ Vials
- ✓ Medical Devices .....

## GAS ANALYSER

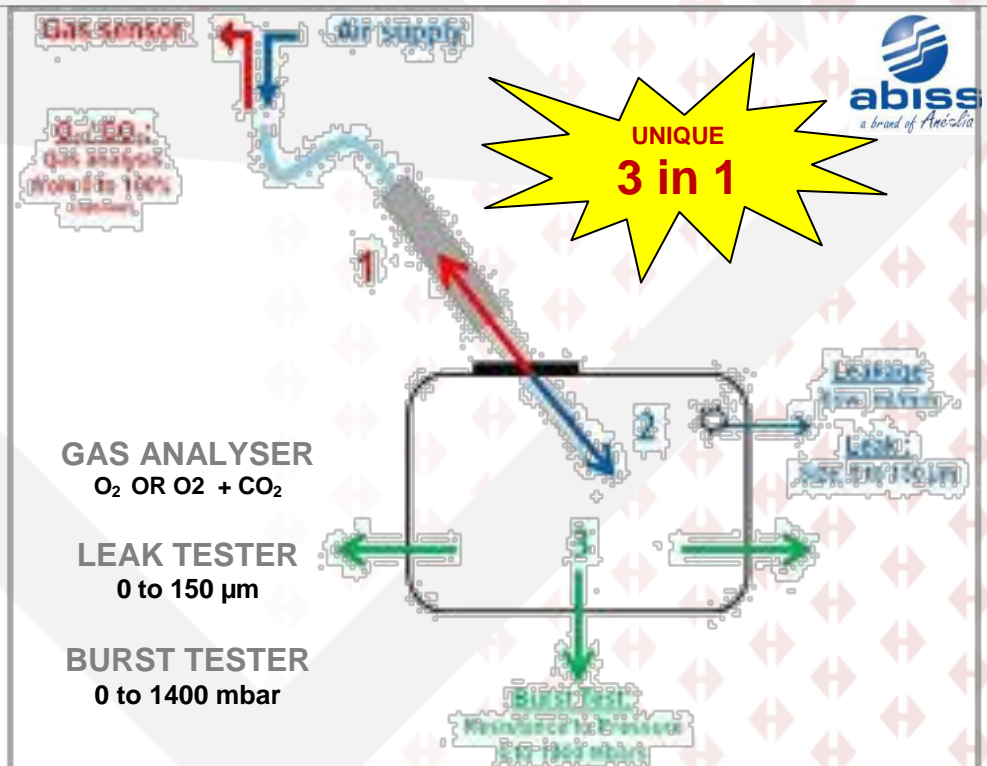


**Handheld**  
O<sub>2</sub> OR O<sub>2</sub> + CO<sub>2</sub> Analyser  
in Packages  
for Food & Pharma

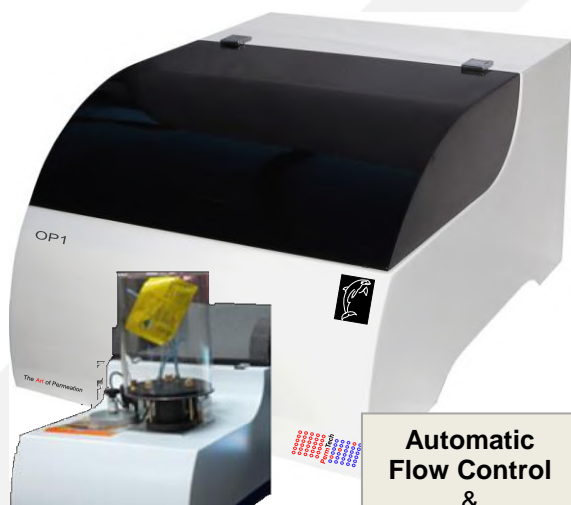
## LEAK TESTER



Models for measuring Leaks up to as low as **5 Micron**



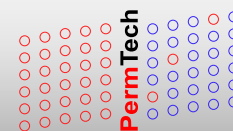
## Permeability Testers For Films & Packages



Automatic  
Flow Control  
&  
Pressure  
Compensatio

### Meets Latest Standards

**WVTR :** ASTM F 1249  
**OTR:** ASTM D 3985,  
F 2622  
**CO2TR :** ASTM F2476



The Art of Permeation

### Measuring Range

Test Range H<sub>2</sub>O  
**0.002-100 g.m<sup>-2</sup>.24h<sup>-1</sup>.bar<sup>-1</sup> (unmasked)**  
**0.04-2000 g.m<sup>-2</sup>.24h<sup>-1</sup>.bar<sup>-1</sup> (masked)**

Test Range O<sub>2</sub>  
**0.01-15000 cm<sup>3</sup>.m<sup>-2</sup>.24h<sup>-1</sup>.bar<sup>-1</sup> (unmasked)**  
**0.2-80000 cm<sup>3</sup>.m<sup>-2</sup>.24h<sup>-1</sup>.bar<sup>-1</sup> (masked)**

Test Range CO<sub>2</sub>  
**0.25-18000 cm<sup>3</sup>.m<sup>-2</sup>.24h<sup>-1</sup>.bar<sup>-1</sup> (unmasked)**  
**20-360000 cm<sup>3</sup>.m<sup>-2</sup>.24h<sup>-1</sup>.bar<sup>-1</sup> (masked)**

### Product Range :

#### WOCP1

3 in 1 Instrument

*Only of its kind in World Market*

#### WOP1 & WOP2

2 in 1 Instrument

*Only of its kind in World Market*

#### OP2+

Both side RH Control

*Only of its kind in World Market*

#### WP1 & WP2

Water Vapour Transmission Rate - WVTR

#### OP1 & OP2

Oxygen Transmission Rate - OTR

#### CP1 & CP2

Carbon Dioxide Transmission Rate - CO<sub>2</sub>TR

#### OP1E - Economical

Oxygen Transmission Rate - OTR

- ✓ Fully Computer Controlled
- ✓ Single Cell or Two Cell Models
- ✓ Temperature Control 10 – 50 °C (+/- 0.1 °C)
- ✓ Humidity Control from 5 to 95% (+/- 1.5%)
- ✓ 100% Humidity Mode
- ✓ 0% Humidity Mode (for O<sub>2</sub> & CO<sub>2</sub>)

- ✓ Allows sample thickness up to 2.5 mm
- ✓ Automatic Flow Control (10 – 75 ml/min)
- ✓ Unique Closure System—No need to cut samples !
- ✓ Data storage & Graph Storage for viewing later on
- ✓ LABVIEW based latest Software
- ✓ Latest USB Interface !

#### CARBP1

for Carbonated Beverage Bottles  
Carbon Dioxide Transmission Rate  
CO<sub>2</sub>TR

***Gives result in an Hour  
which normally takes weeks !!!***





# HOT TACK TESTER

**DTC**  
Dynamic Testing Consultants



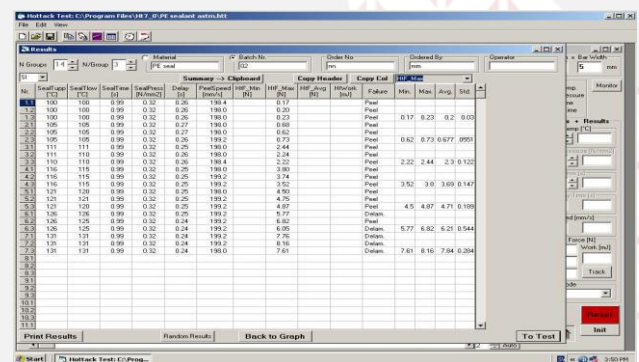
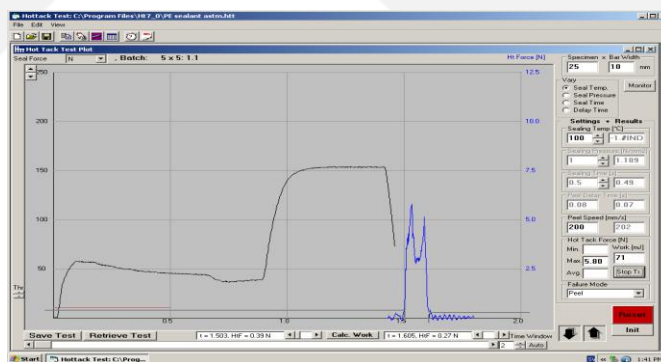
**NEW**

## What is NEW !!!

- ✓ USB interface
- ✓ Windows 7 Operating system (Option for Win8 is available)
- ✓ Test software Wintack ver. 11
- ✓ Indication of Actual Sealing Temperature on the Instrument.
- ✓ Improved Hardware

## Auto -Digital Pressure Regulation

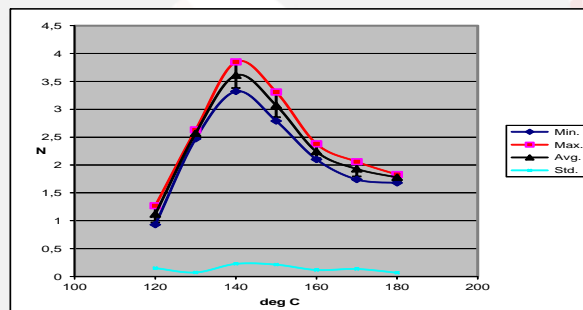
**Controls**  
Sealing Temperature  
Sealing Pressure  
Dwell Time  
Delay Time



<b>Material:</b> TP	<b>SealTemp:</b> Vary	7 Groups: 4 pcs/group
<b>Batch Nr:</b> 1	<b>Seal Time:</b> 0,5	
<b>Testpar:</b> AMC41109	<b>SealPress:</b> 0,5	
<b>Operator:</b> nn	<b>Delay time:</b> 0,20	
<b>Created:</b> 2002-06-06	<b>PeelSpeed:</b> 200	

SealTemp	HtF_Max		Avg.	Std.
	Min.	Max.		
120	0,93	1,27	1,12	0,15
130	2,47	2,63	2,57	0,0735
140	3,32	3,85	3,61	0,228
150	2,79	3,31	3,07	0,214
160	2,1	2,38	2,24	0,118
170	1,74	2,06	1,93	0,136
180	1,68	1,83	1,78	0,0678

spec. width 25 mm



# TORQUE TESTER

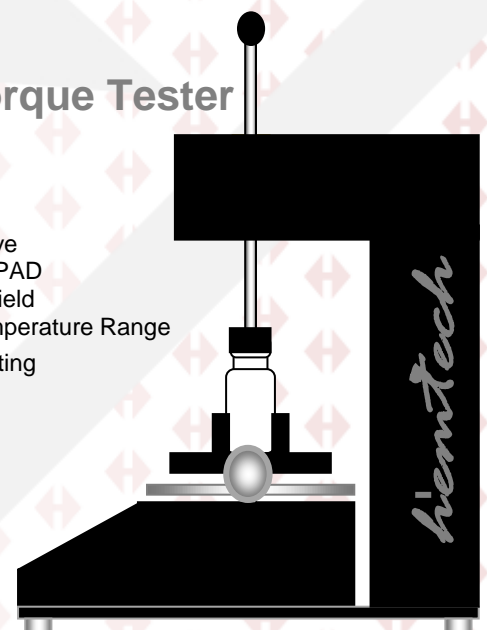
## Manual torque Tester



Micro-controller based Digital Operating Console with Key pad & LCD Calibration facility

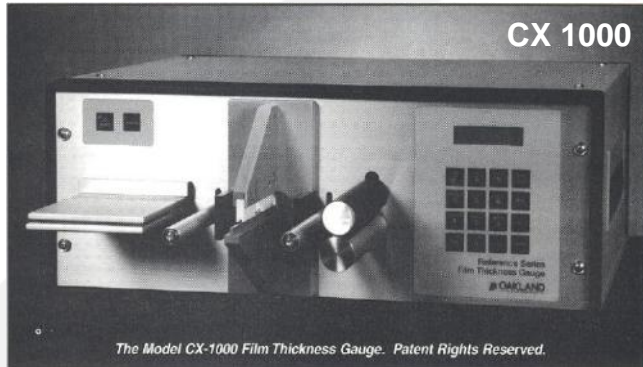
## Motorised Torque Tester

- ✓ Compact Size
- ✓ Constant Speed Drive
- ✓ LCD Display & KEYPAD
- ✓ Calibratable in the Field
- ✓ Wide Operating Temperature Range
- ✓ Non-destructive Testing
- ✓ RS-232 Port



# Thickness Measuring Systems

## Offline Film Profile Gauge – CX Series



Desk top  
Offline  
Upgradable

Capacitance Probe  
Excellent Stability

RS 232 Interface  
SOFTWARE

### PATENTED TECHNOLOGY

Unique RWREFERENCE SENSOR  
Unique AUTOCAL system (CX 1020)

Thickness Calibration Facility based on :

- ✓ Thickness Measurement
- ✓ GSM

## Micro Gauge Thickness Tester

**MX 1210**  
Auto Lifting of Sensor  
Auto Film Advance system



Desk top  
Offline  
Drive for Film

LVDT Sensor  
Excellent Stability

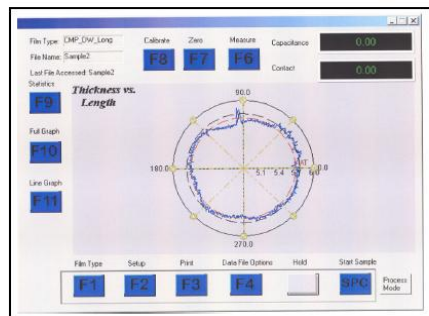
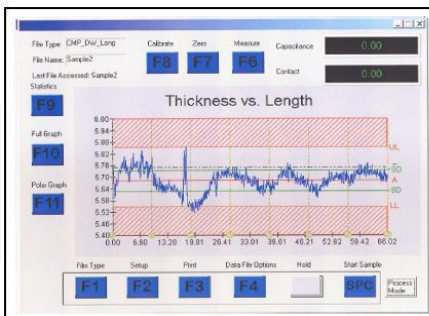
Optional  
RS 232 Interface  
SOFTWARE

**MX 1200**  
Auto Lifting of Sensor



MX 1100

## Software



### WINDOWS based Advanced Software

- ✓ Liner Profile View
- ✓ Polar Profile view
- ✓ Statistical Results (High, Low, Average, SD..)
- ✓ Reporting Facility

RS 232 Port needed in PC

## Opacity Tester



## Shrinkage Tester





## Our Extended Family (Partial List of Valued Customers)

AMCOR	GAIL	MANTRA	SAFAL
APPL	GHODAVAT FOOD	MARVEL	SEKHANI
ADRDE	GLENMARK	MEHATA FLEX	SHAILLY ENGINEERING
ASHIRVAD PIPES	HOLISTER	MERIL ENDOSURGERY	SHANKAR PACKAGIN
ASTRAL	HUTAMAKI	MONTAGE GLOBAL	SHEFIELD POLYMERS
AXEL POLYMERS	IDEX	MULTIFLEX	SHIVA TEX
BALAJI WAFERS	IDMC	MULTI FILMS	SHRINATH ROTO PACK
BENTLAY FITTINGS	IISC	NAVAMI	SHUBHAM EXTRUSION
BHANSALI ENGINEERING	IOCL	NAVRANG POLY FILMS	SIDMAK LABORATORIES
C K ZIPPERS	INJECTOPLAST	ORIFLAME	SPOT ON COATINGS
CAPITOL FIBRES	ION EXCHANGE	OSWAL EXTRUSIONS	STRONG STRAPS
CAPRI COATINGS	IPR	PACKAGING INDIA	SUNPHARMA
CAVIN KARE	ITC	PAPER PRODUCTS	SUPREME
CHIRIPAL FILMS	JESONS	LIMITED	SWAPNIL AGRO
CIPET	KALPENA INDUSTRIES	PARIKH PACKAGING	SWISS PACK
CLARIENT	KJR FILMS	PARLE	THIAGRAJA UNIVEERSITY
CONSTANTIA	LARPM	PARRY	TUFLEX
DRDE	LAXMI SNACKS	PLATICHEMIX	UFLEX
EASTER	LOHIA	POSITIVE PACKAGING	ULTIMATE FLEXIBLES
ECOPLAST	M C COLLEGE	RAJASHREE POLYPACK	VIKAS GLOBAL
EPC	M J BIOPHARMA	REAL NAMKEEN	WIRE & FABRIK
GABA	M S UNIVERSITY	RELIANCE INDUSTRIES	YESH LAMI PRINT

## International Customers

J F Packaging – Srilanka  
 F I P C O – Oman  
 Sun Pharma De Mexico - Mexico



**"Total Customer Satisfaction Through Quality Services"**



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 PRIVATE LIMITED

Systemised Solutions 4 Your Need

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Human Touch to Testing

HEMTECH follows the policy of continuous improvement and reserves the rights to change the specifications, color & look without notice.