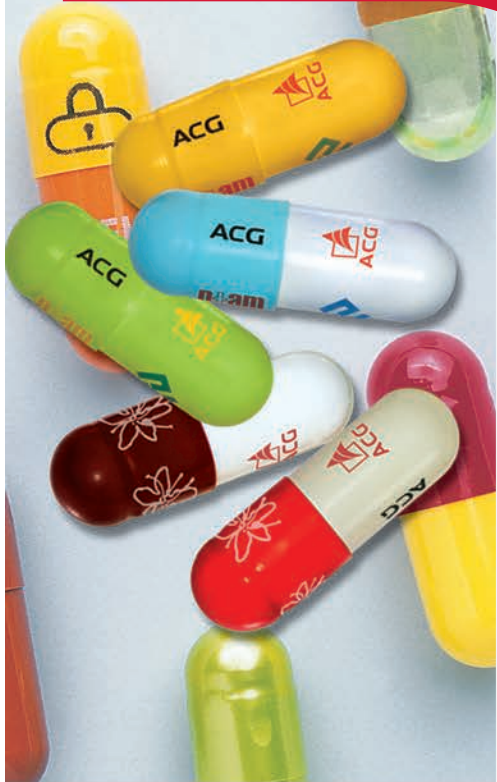


CONSUMABLES' RANGE CATALOGUE



EMPTY HARD CAPSULES | PACKAGING FILMS | TABLET TOOLING

www.acg-world.com

ACG Worldwide is one of the world's leading integrated providers of manufacturing, packaging and R&D solutions.

Its solutions are not just reliable, innovative and globally renowned, but they in turn help you develop products that drive your company's growth.

High-quality raw materials
Intensive In-process controls
Regulatory compliant
Global inventory & supplies
Efficient service network

A GLOBAL ENTERPRISE



About ACG Worldwide

With over fifty years of industry expertise, ACG Worldwide has established itself as a one stop shop offering integrated manufacturing, packaging and R&D solutions to the global pharmaceutical industry. We synergistically integrate businesses right from granulation & coating equipment to hard capsules & capsule filling machines; barrier packaging films to blister & cartoning machines; tablet compression systems to tablet tooling; vision inspection systems to end-of-line machines. A state-of-art R&D facility, SciTech Center in Mumbai, stands testimony of a continuous investment in innovative products & technologies.

Our Global Presence

- BRAZIL
- CHINA
- CROATIA
- EUROPE
- INDIA
- INDONESIA
- NORTH AMERICA
- PHILIPPINES



- Fluid Bed Equipment
- Hard Gelatin Capsules
- Cellulose Capsules
- Barrier Packaging Films
- Capsule fillers
- Blister Packing Machines
- Coating Systems
- Tablet Presses
- Inspection Systems
- Tablet Tooling
- Cartoning Machines
- End-of-line Solutions

Highest Global Standards



ACG-Associated Capsules

ACG-LUKNPS
Croatia

ACG Associated Capsules (ACG ACPL) is one of the largest manufacturers of empty two-piece hard gelatin capsules in the world. To complement its wide range of hard gelatin capsules, ACG ACPL also manufactures cellulose capsules from natural source (Naturecaps®), capsules for filling liquids and pastes (Flofit™), four-color circular-print anti-counterfeit capsules (Brandshield® 4C), clinical trial capsules (Clinicaps®) and more. Along with ACG Lukaps, ACG ACPL caters to the global pharmaceutical and dietary supplement industry in over 100 countries with a capacity to produce over 60 billion capsules annually.

Continuous Quality Improvement

ACG-pharmapack
I N N O V A T I O N

ACG Pharmapack, an ACG Worldwide company, provides a complete range of high-quality barrier packaging films for the pharmaceutical, medical-device, personal care and food packaging sectors.

ACG Pharmapack's state-of-the-art plant in India maintains ISO and cGMP standards, in line with global compliance standards. This includes compliance with European Pharmacopoeia and CFDA regulations. ACG Pharmapack uses the latest technologies for testing, developing and quality-assuring packaging materials, ensuring a comprehensive range and quality of barrier packing films.

Consistency and Conformance to Specifications

ACG Metalcrafts

Protool is the tablet tooling brand of ACG Metalcrafts - the precision component manufacturing company and a member of ACG Worldwide. From its state-of-the-art facility in Shirwal, India, ACG Metalcrafts manufactures high-precision tooling (punches & dies) and machinery parts for internal customers.



SciTech Centre Powered by Innovation. Enriched by Knowledge.

ACG Worldwide has a dedicated R&D centre in India to introduce breakthrough technologies in solid dosage forms.

The SciTech Centre is a 50,000 sq. ft. research and development centre where new ideas are conceptualized, developed and implemented - all under one roof. It has a dedicated team that works towards technological innovations and serves the pharmaceutical fraternity. The primary objective is developing innovations for offering better solutions that let you keep up with the future.

ScitechCentre



ACG ACPL facility in India



ACG Lukaps facility in Ludbreg, Croatia



ACG-Associated Capsules

ACG-LUKAPS
Croatia

EZEEFIT™
BRANDSHIELD™ 360
BRANDSHIELD™ 4C
NATURECAPS™
MARINECAPS™
CLINICAPS™
TD CAPS™
FLOFIT™
PEARLZ™

One of the world's largest manufacturers of high-quality empty hard gelatin capsules primarily for pharmaceutical and dietary supplements. We have four state-of-the-art manufacturing plants near Mumbai, India, and one in Ludbreg, Croatia.

We also have subsidiary companies, with offices in the USA, the UK, Indonesia and the Philippines. These locations are well-equipped with the best warehousing facilities to ensure quick deliveries to customers worldwide. Our global business division serves more than 100 countries, in every continent, with active support from locally-based representatives. We produce over 60 billion capsules annually, catering to reputed pharmaceutical companies across the globe. Our high-speed machines are capable of producing both gelatin and cellulose in a wide range of sizes. Our modern two/four colour printing machines manufacture products in an array of colours, with linear and circular-oriented printing. In addition, we can provide customized capsules based on customer-specified requirements.

The ACG Associated capsules' manufacturing units are:

- Inspected by the US FDA without a single 483
- Compliant with cGMP guidelines and have been assigned DMF registration numbers by US FDA
- WHO GMP certified and have the ISO 9001-2000 approval from the internationally recognized BVQI

We also have a dedicated TSE-free capsules manufacturing facility to meet specific requirements of the US and European countries.

ACG Associated Capsules and ACG Lukaps provide an exhaustive range to help create innovative dosage applications with hard capsules for the pharmaceutical and dietary supplement industries.

Pharmaceutical and nutraceutical enterprises around the world hope to partner with us to formulate new capsule product lines, enhance existing product lines that convert dosage form to capsules, and to ensure clinical trials without bias and efficient after-sale support systems.

PRODUCT PORTFOLIO



EZEEFIT™

Hard gelatin capsules in fourteen sizes from size '000 to 5'

Get the dose of medicine, hygienically



NATURECAPS™

Hard capsules made from cellulose (HPMC)

Ideal for moisture sensitive formulations because of its low moisture content



FLOFIT™

Hard capsules to fill liquids, pastes, and can be band-sealed

Enhanced bio-availability and improved product stability (vis-à-vis softgel capsules)



PEARLZ™

Hard capsules with elegant pearl finish

Unique cosmetic look capsules with a metallic appearance



BRANDSHIELD™ 360

Hard capsules with circular-oriented 'two color' printing

Helps retain brand identity & security right upto the end user



CLINICAPS™

Hard capsules for 'double-blind' studies

Two-piece gelatin capsules that are specially designed for clinical trials



MARINECAPS™

Hard capsules made from fish gelatin

Made from non-ruminant material, hence do not pose the risk of BSE or TSE

Brandshield is a value addition available on all product variants

CUSTOMER SERVICE

Our business runs on SAP. On-time and accurate information on orders on any of these products is always available. Recognizing the prompt supply and service needs of customers, our network of offices, subsidiary companies, warehouses and representatives around the globe, help us respond to customer requests swiftly. Product range, high quality capsules and logistic network ensures scheduled deliveries on time, every time.

ACG Associated Capsules & ACG Lukaps understand that as the global scenario changes, so will the needs. To cater to your innovative product lines, we have developed some 'unique' capsules products for the pharmaceutical and dietary supplements industries.

Be it building a brand differentiator or improving patient compliance or products for sensitive drug compounds, we have a product to suit your needs.

CAPSULE INNOVATIONS

BRANDSHIELD™ 4C

Competition, patent regulations, counterfeit issues, and generic marketing have all pushed pharmaceutical companies to re-think their marketing strategies. Brand differentiation is clearly emerging as one of the key strategies used in the marketing mix.

Brandshield 4C, the four-colour, circular-oriented printing on hard capsules from ACG Associated Capsules, provides an excellent opportunity to create a 'differentiator' for your brand.

Brandshield 4C capsules' snapshots:

- Impact brand recall and aid salience
- Imprint brand logo, brand name, graphics, etc.
- Variety in color choice and acceptable colorants
- Get 'one-of-its-kind' identity in the marketplace
- Unique two-colours on cap and two-colours on body
- Counterfeit security right until it reaches the consumer



PEARLZ™

Pearlz are hard capsules with an elegant pearl finish. They offer a unique cosmetic look to your capsule brand that makes it stand apart from competition.

Pearlz capsules' snapshots:

- Capsules with shining pearl finish
- Oral calcium focused at post-menopausal women
- Product differentiator for slimming products
- Golden capsules also available, especially for aphrodisiacs

TD CAPS

TD Caps are special two-piece capsules, used for dry powder inhaler (DPI) applications. It is a well-established method of dosing medicines into the lungs, especially in the treatment of pulmonary and systemic diseases. TD Caps are chosen for DPI application. They are relatively inert powder carriers, can be filled with small quantities, are easy to be used in a breath-actuated device, and are simple to format to reduce development times.





ACG Pharmapack facility in Mumbai, India



ACG-pharmapack™

I N N O V A T I O N

PHARMACEUTICAL
MEDICAL DEVICE
PERSONAL CARE
FOOD

ACG Pharmapack, a member of ACG Worldwide, provides a complete range of high quality barrier-packaging films for the pharmaceutical, medical-device, personal care and food packaging sectors. It is unique in that it manufactures a complete range of high quality barrier-packaging films for the pharmaceutical, OTC and dietary supplement industries. This includes calendared PVC film, PETG, Borex, PVdC coats and produces PVC/Aclar and other complex laminates.

ACG Pharmapack's range of products include the ultimate high barrier Aluminium Cold Forming Blister Foil and pin hole-free lidding foil, marketed in collaboration with global leaders. ACG-Pharmapack provides slitting, stocking and technical services that enhance the value of the final product to the customer.

ACG Pharmapack has set up an Innovation Lab to keep pace with market dynamic that fulfills customer's tangential as well as non-tangential needs. Innovation in ACG Pharmapack provides a platform to all our customers to toy with their ideas that help in keeping them all the time ahead of competition. Till now, the Innovation Lab has successfully launched a high barrier Galaxy film and Alukbliss as replacement to Cold Form blister film and both these novel ideas have been filed for Intellectual Proprietary Rights.

ACG Pharmapack's state-of-the-art plant is ISO 9002 certified and maintains the cGMP standards required for the pharmaceutical industry. The facility adheres to global compliance standards and DMF preference for all products. The facility is in line with global compliance standards and DMF preference for everything that is produced, including compliance with the US FDA, European Pharmacopoeia and SFDA (China) regulations.

ACG Pharmapack uses the latest technologies to test, develop and assure the quality of packaging materials and offers the most comprehensive range of blister packing products in the world. Our products ensure a high degree of quality conformance. ACG encourages clients to share their packaging struggles so that we can advise you on the most appropriate packaging material.

ACG Pharmapack offers a complete range of barrier packaging films to meet the exact barrier requirements for pharmaceutical products. The entire manufacturing area complies with cGMP along with coating, lamination and slitting under Class 100,000.

ACG Pharmapack also offers pharmaceutical-grade barrier packaging films that is manufactured right from PVC resin stage. Not only does this guarantee consistent quality, but also ensures traceability of every batch supplied.

FILMS PRODUCT PORTFOLIO

PVC

PVC is a plasticizer-free calendared rigid film. It is available in a wide range of colors and thicknesses and works well on all blister packing machines.

Features

PH200 specs - Excellent performance on rotary vacuum forming blister packing machines

PH 400 specs - Excellent performance on both flatbed compressed air forming and rotary blister packing machines

PVC/ PVdC

PVdC coated, high-performance polymer blister packaging films offer excellent barrier properties. It is available in clear transparent, white opaque and a wide range of colours and in various PVC thicknesses and PVdC coating levels.

Features

Good barrier properties against water vapour, oxygen and gases. It also has superior retention capability for aroma and flavour.

Specially suited for blister packaging of hygroscopic/moisture sensitive products.

PVC/PE/PVdC

These films are designed with unique thermo-forming properties and outstanding seal, and peel seal characteristics. They enable material savings and guarantees superior performance and efficiency.

Features

Excellent barrier properties against water vapour, oxygen and gases. It also has superior retention capability for aroma and flavour.

Specially suited for blister packaging of very hygroscopic/moisture sensitive products.

Improved barrier properties because of uniform PVdC layer after formation, offering strength to the blister pack.

PE Suppository films

These PVC/PE or PVC/PE/PVdC film laminates are a sealable/peelable composite and are available in random print, register print or distortion printed versions. Various structures from PVC/PE laminate incorporating with PVdC and EVOH layers provide barrier to moisture and oxygen and better performance on machine.

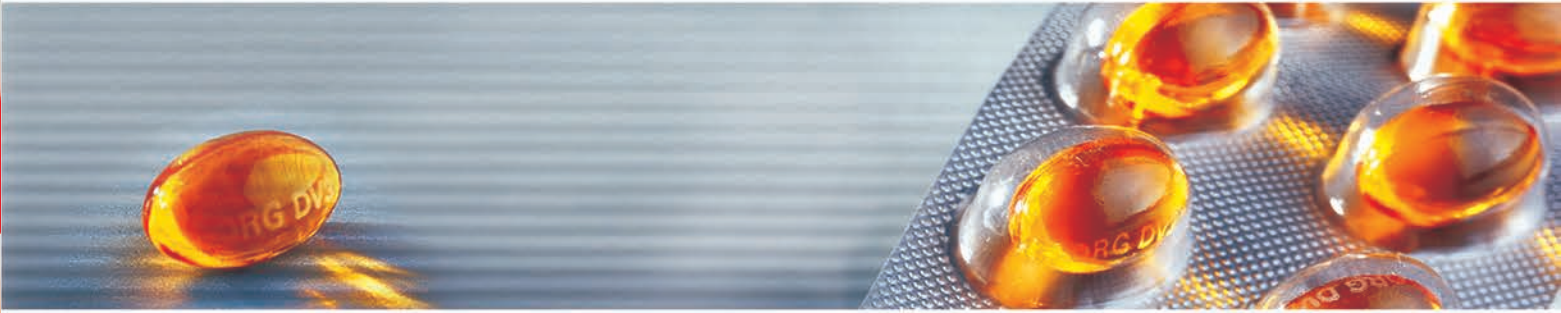
Barex

High clarity films with exceptional gas barrier properties. This calender grade film is an impact-modified, acrylonitrile methyl acrylate copolymer. Furthermore, this material may be thermoformed or converted into blisters without any modification to existing thermoforming equipment or tooling used for PVC.

ACG-Pharmapack is a quality-driven organization with PhD-level innovative groups. There is a full-fledged research and development centre that includes the latest lab-scale manufacturing equipment and test protocols on site. Our innovation group helps customers develop packaging films in whichever combination of films or properties to meet specific requirements.

ACG PHARMAPACK INNOVATIONS

PVC/Aclar (Honeywell)



ACLAR comes from Honeywell USA and is brought to you by ACG Pharmapack. ACLAR locks out moisture by providing up to 10 times the barrier protection of other transparent packaging films such as PVC and polypropylene. The film is flex-crack-resistant, bio-chemically inert, plasticizer and stabilizer-free, and can be sterilized using an autoclave or other sterilization methods. ACLAR is available in three gauges, spanning a range of application requirements.

ACLAR can also help strengthen branding by displaying unique colors, appearance and form.

Ultrasafe (Ultra High Barrier NextGen UHB PVdC Films)

ULTRASAFE is a high-barrier blister film coated with special PVdC. ULTRASAFE gives high barrier protection against moisture and oxygen.

ULTRASAFE gives the user a choice of using a transparent blister film when their products require protection from moisture beyond that given by conventional PVdC blister films.



Y-Cop (Yield - Cost Optimization Program)



Saving or cost optimizing is an important need in the pharmaceutical industry today, and pharmaceutical companies seek to deliver better value to end users.

Y-COP is in the area of barrier packaging for capsule and tablet blisters. In order to benefit, in terms of deriving a great marketing advantage for pharmaceutical companies, we have introduced the Y-COP. Remember, there is one easy way to fire a 'triple salvo' at your competition.

RM Grade films (Fully compliant barrier films for regulatory markets)



United States, Europe, Canada, China, Brazil

For your brand to successfully navigate the regulatory landscape, it requires a guarantee from ACG Pharmapack. At ACG Pharmapack, we have combined global expertise and understanding of regulation complexities to provide you RM range of barrier films that deliver quality and full compliance with US FDA / European Pharmacopoeia and SFDA (China) requirements.



Protocol

DIES & PUNCHES
STORAGE CABINETS
POLISHING KITS
INSPECTION KITS

The Art of Precision Tablet Tooling... Perfected with Technology.

For over five decades, ACG has been designing, developing and offering products that are precise, robust, and helps you address and overcome process challenges, reduce downtime and maintenance costs. This expertise in precision engineering extends to the design and manufacture of high-end tablet tooling for all types of tabletting machines.

ACG manufactures a wide range of tooling including B, D, BB, BBS, as well as the non-standard types, and a host of other European and Asian compression machines. Irrespective of the tablet and the machine, ACG's range of tablet tooling (dies and punches) aid in enhancing productivity with superior accuracy and durability.

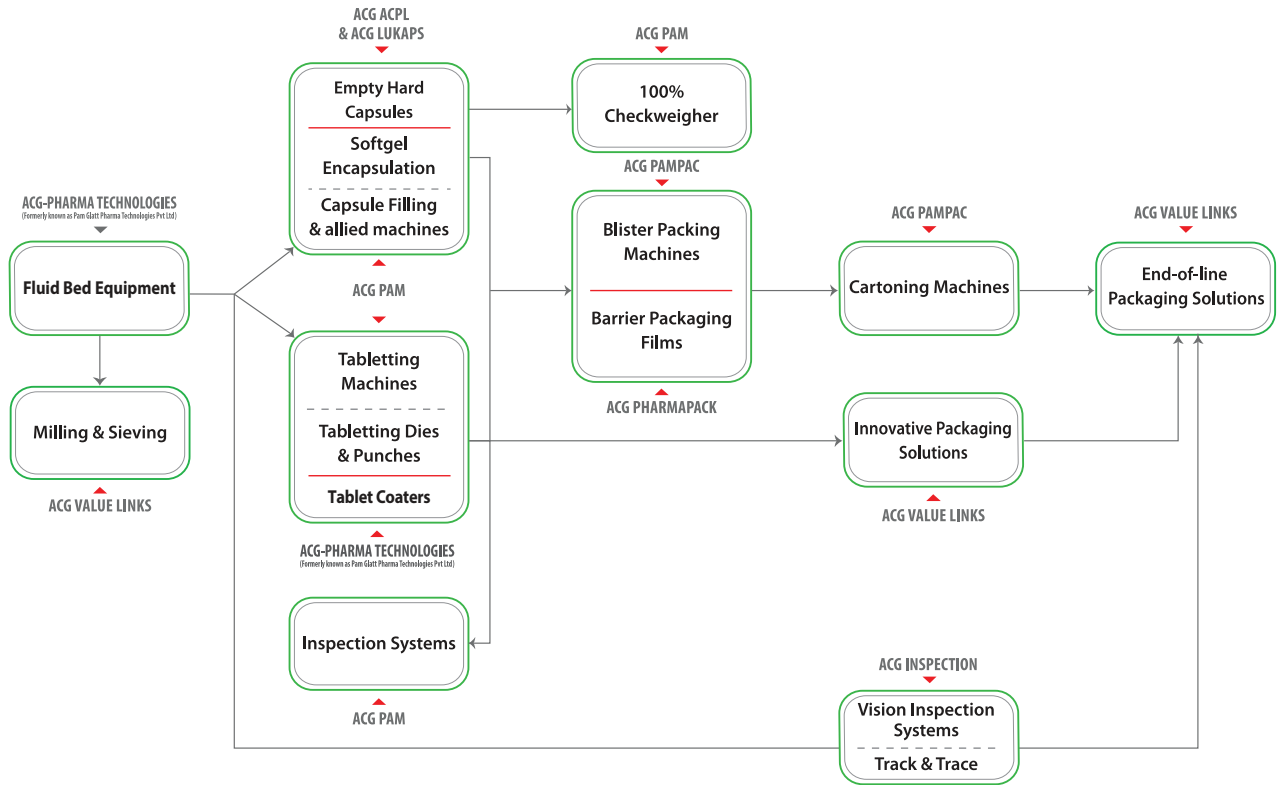
To compliment our range of tablet tooling, we also have a range of maintenance and storage products as well as validation equipment to provide you with the highest quality of after-care possible. The products include:

Storage Cabinet: This is used for storing tools when not in use. It is tailor-made product, made of GMP stainless steel. It is based on the number of sets to be stored, the type of tools and the space available.

Polishing Kit: This is a portable unit that is easy to handle and carry in the compression area, storage area, inspection area etc. It comprises various type of polishing paste, brushes and a high-speed motor. It is most useful during a sticking/picking tooling issue.

Inspection Kit: The inspection kit includes digital micrometer, punch holding gauges and a dial stand, with various pointers, for measuring working length. It is a portable unit that is easy to handle and carry in the compression area, storage area, inspection area, etc.

Partnering you at every step



Biotech Solutions: Lyophilizers | cGMP Pharma Washers | Prefilled Syringe Lines | Ampoule & Vial Filling Lines

OUR GROUP COMPANIES

Synergy at Work

ACG Pharma Technologies
(Formerly known as Pam Glatt Pharma Technologies Pvt Ltd)

ACG-Associated Capsules

ACG-LUKAPS
Croatia

ACG-pam

ACG-pharmapack
INNOVATION

ACG-pampac

ACG-Inspection

ACG Value Links

Our Global Presence

• BRAZIL • CHINA • EUROPE • INDIA • INDONESIA • NORTH AMERICA

OUR GLOBAL PARTNERS

Honeywell
USA

THEEGARTEN **PACTEC**
Germany

PRODITEC
France

autopack

FREWITT

EFFYTEC
Packaging
Spain

Telstar
Instruments for solutions

alpha phoenix

INEVER

TRUKING TECHNOLOGY LIMITED

TGM
AUTOMATIC TUBE FILLING MACHINES

pharmagel engineering

PFM
the packaging experience

Para
Pharmaceutical Packaging

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ACG-Associated Capsules

ACG-LUKNPS
Croatia

ACG-pharmapack
I N N O V A T I O N

ACG-pam

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