



Make it better.

Tablet compression



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Tablet compression

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SINGLE ROTARY PRESSES

LEGACY 6100

Find this information on our website:
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LEGACY 6100

To stay ahead of the pharmaceutical markets' quality requirements, you need a robust and versatile machine that can match your production requirements.

ACG's LEGACY 6100 is a single-rotary, fully automated tablet compression machine with wide-ranging features that boost production efficiency and help you respond effectively to rising market demands.



Applications

Compression of pharmaceutical and nutraceutical granules and MUPS into monolayer tablets

Features

Available with specialised kits for Multiple-Unit Particulate Systems (MUPS) and challenging formulations that use ingredients (powder) which are abrasive, corrosive or have poor flow properties

The largest feeder coverage (up to 9 feeders) in its class

Interchangeable turret design

Highest production to Pitch Circle Diameter (PCD) ratio using patented Paramount turret

Precise single sorting, sampling, and rejection of tablets at rated RPMs

Largest available compaction rollers (with a diameter of 290mm)

Benefits

Reduced segregation and crushing of pellets and powders means improved tablet uniformity and dependable dissolution profiles. The specialised kit deals far more effectively with abrasive ingredients

Accurate dosing for reliable high-speed production

Quick, easy changeover means reliable output of tablets of all shapes and sizes

Up to 27% increase in output

Ensures accuracy and repeatability of the required specification criteria (weight, height, thickness) of the tablets being produced

Effective compressions due to increased dwell time

Technical specifications

Punch type	D	B	BB	BBS
Punch stations	37	45	61	67
Output	222,000 tablets/hr	270,000 tablets/hr	366,000 tablets/hr	402,000 tablets/hr
Maximum tablet diameter	25mm	16mm	13mm	11mm

PROTAB™ 300

Find this information on our website:
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 PROTAB 300

PROTAB™ 300 is a single rotary tablet press suitable for R&D, small and medium-batch production, making scalability far easier. With operator-friendliness front of mind, it's loaded with state-of-the-art features that take automatic tablet compression to another level. It helps increase output and secures greater production uptime, and makes routine tablet-compression processes far more intuitive and efficient, thanks to an upgraded user interface and interactive dashboard.

Applications

Compression of pharmaceutical and nutraceutical granules and MUPS into monolayer tablets



Features

Benefits

An R&D turret with combinations for testing different types of formulation and tooling	Easily scalable from R&D batches to pilot, on the same machine
Available with specialised kits for multiple-unit particulate systems (MUPS) and challenging formulations that use ingredients (powder) that are abrasive, corrosive, or have poor flow properties	Reduced segregation and crushing of pellets and powders means improved tablet uniformity and dependable dissolution profiles The specialised kit deals far more effectively with abrasive ingredients
Interchangeable turrets	Flexibility of compressing various tablet sizes at varying speeds
Lightweight and toolless design of assemblies	Mechanical changeover in less than 30 minutes means greater efficiencies in production
InstAmend technology for faulty punch detection and rectification	Eliminates long process interruptions and reduces downtime
Precise single sorting, sampling and rejection of tablets at rated RPMs	Ensures accuracy and repeatability of the required specification criteria (weight, height, thickness) of the tablets being produced
Sophisticated feeder design	Leftover powder (<50g) reduces loss of valuable formulation

Technical specifications

Punch type	D	B	BB	BBS
Punch stations	21	27	34	36
Output	126,000 tablets/hr	162,000 tablet/hr	204,000 tablets/hr	216,000 tablets/hr
Maximum tablet diameter	25mm	16mm (L=19mm)	13mm (L=14mm)	11mm

DOUBLE ROTARY PRESS

PROTAB™ 700

Find this information on our website:
 Machinery > Tablet compression > Double rotary tablet compression >
 PROTAB 700

With PROTAB™ 700, ACG has pushed technological boundaries to simplify tablet compression. From basic functions to advanced processes, this double-rotary tablet-compression machine is all about absolute efficiency – without compromise. It's designed with input from process experts, and is ideal for manufacturing large-scale campaign batches.

Applications

Monolayer and bilayer tablets



Features

Benefits

Retrofittable bilayer kit	Produce bilayer tablets of the highest quality
Equipped with InstAmend technology	Detect and rectify faulty punches immediately, and eliminate long process interruptions and unnecessary downtime
Interchangeable turret design	Flexibility of compressing various tablet sizes at varying speeds
Servo-based automatic weight control	Produce high-quality tablets of consistently precise weight
Sophisticated feeder design that achieves 100g/feeder of leftover powder	Increased yield and reduced loss of valuable formulation
Toolless design of assemblies Faster, simplified batch-to-batch changeover time of 60 minutes	Shorter production time due to faster, simplified batch-to-batch changeover
Individual layer-sampling and rejection of defective bilayer tablets	Easier sampling with no compromise on quality

Technical specifications

Punch type		D	B	BB	BBS
Punch stations		51	63	79	85
Output	Monolayer tablets	489,600 tablets/hr	604,000 tablets/hr	758,000 tablets/hr	816,000 tablets/hr
	Bilayer tablets	153,000 tablets/hr	189,000 tablets/hr	237,000 tablets/hr	255,000 tablets/hr
Maximum tablet diameter		25mm	16mm	13mm	11mm

TABLET TOOLING

Tablet tooling

When it comes to tablet compression, the significance of quality and precision cannot be overstated.

That's why we've extended our six decades of expertise in precision engineering to the design and manufacture of high-end tablet tooling.

Our 23,000 sqm facility dedicated to component manufacturing covers capabilities for conducting metallurgical studies, heat treatment, CNC manufacturing, plating, coating, and testing dies and punches.

Why choose ACG's tablet tooling?

- / High-quality steels and manufacturing standards, as per TSM and EU**
Our punches and dies are designed using the latest industry-benchmarked 3D software, and manufactured with close tolerances commensurate with various OEM tablet press designs – using an array of surface treatments compatible with substrate metallurgy. We source our raw materials only from qualified vendors with rigorous quality assurance systems in place. All of this ensures our punches and dies are durable, efficient, and consistent in their performance.
- / Customisation options**
Our expertise lies in enabling customisations as envisioned in the end-dosage design, and in choosing the base material and coating most suitable for maintaining tablet quality and repeatability of parameters.
- / Fast turnaround times**
We understand time is precious, so we ensure fast turnaround times to ensure your tablet production processes stay on schedule.
- / Superior customer support**
Our team is always available to answer your questions, and we're keen to collaborate with you through design and development, to validation and documentation.

Find this information on our website:
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Our seal of trust and integrity

With stringent adherence to specified tolerance limits, we perform rigorous metallurgical and chemical checks in-house, including:

- a host of NDTs (non-destructive tests) on raw materials before manufacturing
- micro-structure analysis after heat treatment.

We follow the globally recognised TSM and the Euronorm (EU) tooling standards for manufacturing our dies and punches.

Specialised heat-treatment

Tablet tooling quality depends on the composition of the steel grade and its heat-treating, among other factors. The heat-treating process is a critical step in the manufacture of tooling, and gives steel the hardness that determines wear and impact resistance.

ACG performs heat-treatment in-house using a computer-controlled process that secures the desired steel microstructure and guarantees the durability and longevity of our tablet tooling.

Triple tempering - the final step of our heat-treatment cycle - ensures uniform hardness throughout a tooling set.

Our tooling. Your tablets.

Our extensive tablet tooling portfolio covers a wide range of customised tooling, plus specialist options for complex coatings and heat treatment. We also manufacture a wide range of standard tooling, including D, B, BB, and BBS types.

Specialised coatings

To enhance tooling performance, ACG offers a wide range of coatings. Our experience with hundreds of formulations ensures we can address your specific needs for coatings – for example, if you work with corrosive, abrasive or sticky formulations.

Designer tooling

ACG can expertly develop customised punches and dies to suit specific requirements, to support brand differentiation and stand-out, and to introduce or enhance anti-counterfeiting measures.

Multi-tip tooling

Unlike traditional single-tip tooling, a multi-tip tool offers several tips in a single punch. This supports production of multiple tablets per turret rotation, enhancing productivity and saving time and costs. You can also use multi-tip tooling for manufacturing mini tablets (<4.5mm diameter) to be contained in capsules, to facilitate dosage combinations with different release profiles.

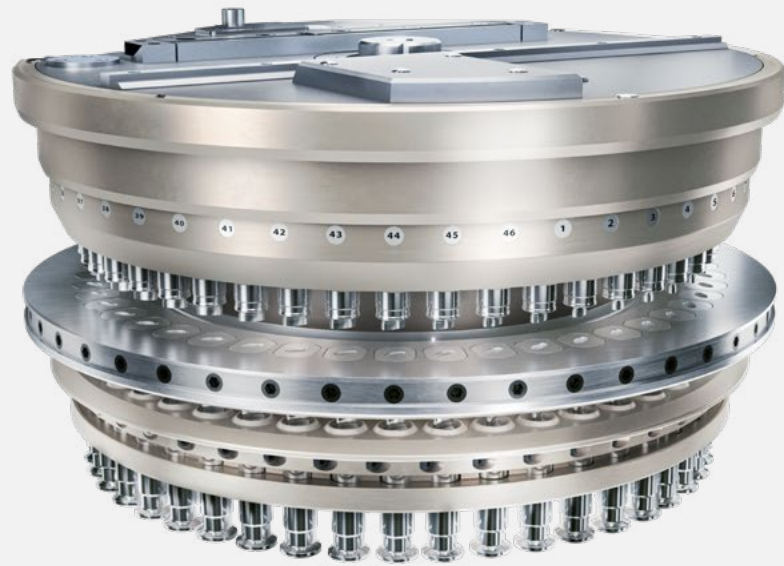


SPECIAL ATTACHMENT

PARAMOUNT turret

Find this information on our website:
 Tablet compression > Single rotary tablet compression > LEGACY 6100 >
 PARAMOUNT turret

Our PARAMOUNT turret containing uniquely designed die pockets, has taken high-speed tablet compression to the next level. With more stations, it ensures higher productivity, a 27% increase in output, and faster batch manufacturing with no additional footprint.



Features

Benefits

Contains more stations (46 D, 57B) compared with standard turrets	High productivity, increasing output by 27%, without compromising on dwell time
Innovatively designed die shells to accommodate more dies	Allows manufacturing of tablets of different shapes and sizes using a single turret
Compatible with our LEGACY 6100 tablet compression machine	Easy installation in existing machine
100% interchangeable punches	Optimised costs and inventories of punches

Technical specifications

Tooling type	D	B
Number of stations	46	57
Rated speed	100 rpm	100 rpm
Output	276,000 tablets/hr	342,000 tablets/hr
Tablet size	25mm	18mm



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