

teg

Introduction to TEG

teg

Reception →

Visitor
Parking →

Deliveries ↑



Welcome

Company Background

TEG is an Engineering Product & Services Company supporting the Pharmaceutical, Aviation and Biopharma industries. It was founded in 2003 in Mullingar, Ireland.



Where Are We?

Today TEG is Headquartered in Ireland where all design and manufacturing takes place.

With direct technical Sales and Support Offices in:

- *Ireland*
- *Germany*
- *United Kingdom*
- *France*
- *Greece*
- *Poland*
- *Romania/Hungary*
- *North Africa*
- *USA/China (2015)*



Our Staff

We currently have 90 full time staff working in TEG. Six across Europe and the remainder in Mullingar, Ireland.

Skills include:

- Mechanical Design Engineers.
- Service Engineers.
- Qualified Toolmakers.
- Fitters and Fabricators.
- Trainee Toolmakers.
- Admin & Sales.



What TEG Can Provide

Lean Solutions

Blister Tooling

Spare Parts

Technical Expertise

CNC Machining

Reverse Eng.

Technical Training

Fabrications

Inspection

Full validation support documentation included with all projects

Confidence in TEG's Quality

- EASA Part 21G – European Aviation Standard
- AS9100 – Aviation Production Standard
- ISO 9001:2000 – ISO Quality Management

Benefits of working with TEG

Faster Lead Times

With a full set of tooling typically taking **6 weeks** compared to the OEM lead-times of up to 26weeks.

Tablet Feeding Specialists

With the Acquisition of Electromec in 2007, TEG have built on their 20 years of experience and Invested in R&D, patented products and developed testing facilities to create the best tablet feeding systems on the market. The NG Feeder range are class leading products. TEG also offers technology advancements not offered by OEM including cutting edge mobile Metrology, innovative feeding solutions and multiple product feeders. It's common for an NG feeder to increase **productivity by up to 100%**.

Immediate Service/Response

TEG can support urgent requirements, overnight/weekend machining to get you up and running. Our **24x7 cover** gives our customers peace of mind that TEG will always respond without delay.

Cost Savings

TEG tooling prices are typically **30% lower** than that of the OEM, saving you money as well as time.

Our Customers

MILLMOUNT
HEALTHCARE □□□

AMGEN

Pfizer


DELPHARM
LABORATOIRE PHARMACEUTIQUE

AstraZeneca 

 gsk
GlaxoSmithKline


SANOFI


advance
pharma berlin

 MSD
MERCK SHARP & DOHME


TEVA PHARMACEUTICALS LTD

 FAMAR
HEALTH CARE SERVICES

Lilly


sanofi aventis


Aesica
PHARMACEUTICALS


brecon
growth through excellence

 polpharma


SERVIER

 Bristol-Myers Squibb

Blister Packaging Tooling

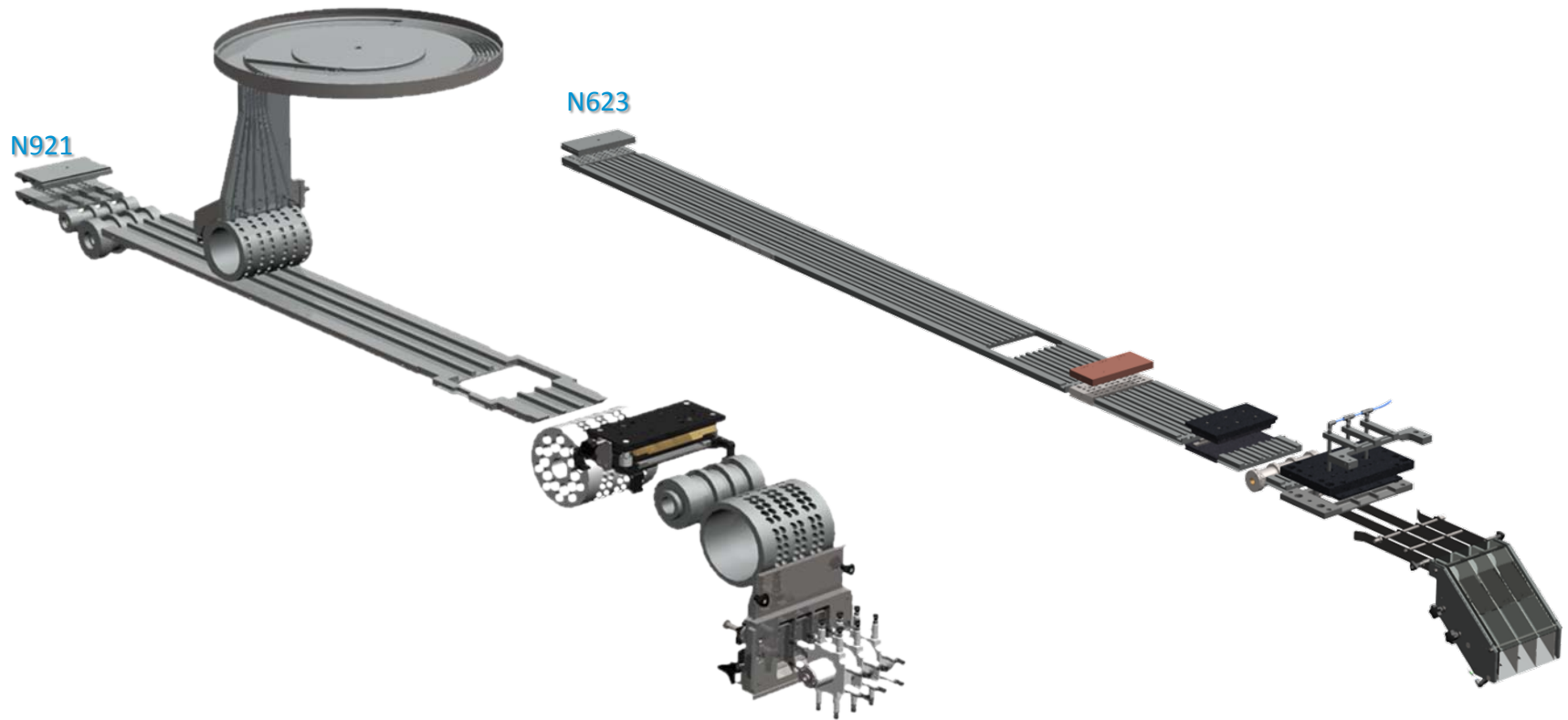
Blister Packaging Tooling

TEG will supply tooling for all blister line machines at very competitive costs and extremely fast deliveries. Typically 6 -8 weeks for a full sets of tooling!



Blister Packaging Tooling

Blister Tooling to suit all lines including: IMA, Uhlmann, Romaco, Mediseal, CAM, Bosch, IWKA, Famar, Ilseemann.

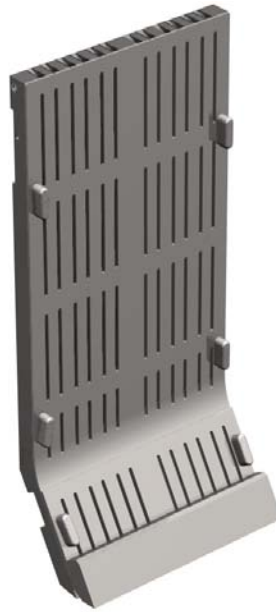


Tablet Feeding Experts

TEG Provides a free consultation service that will recommend the best feeder for your project. Test tubes/tracks and 3D simulations can also be supported.



IWKA



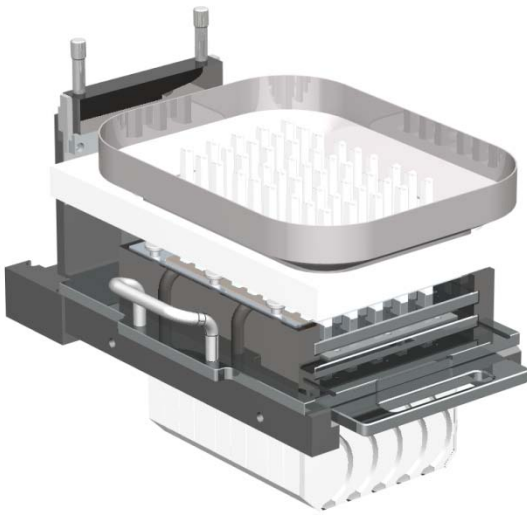
IMA



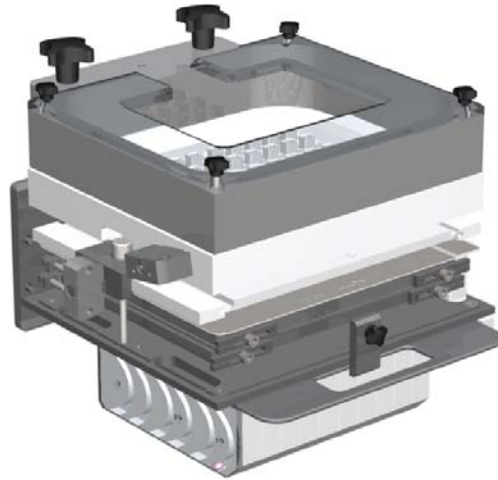
UHLMANN

Tablet Feeding Experts

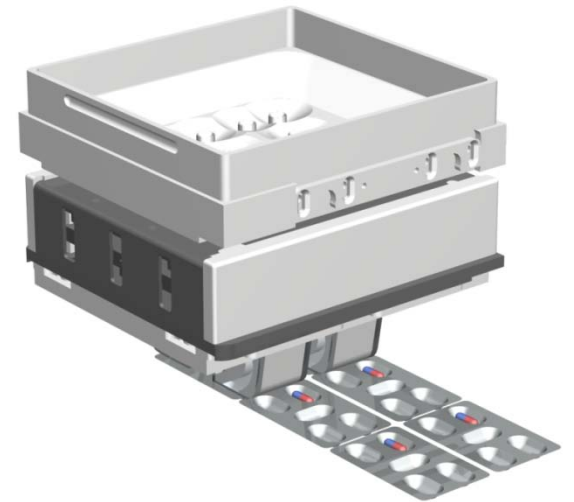
Along with the TEG's NG Feeder System we produce feeders for other equipment such as:



EMF/NG



SIMTAP



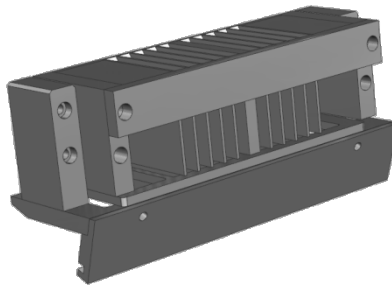
AYLWARD

Tablet Feeding Experts

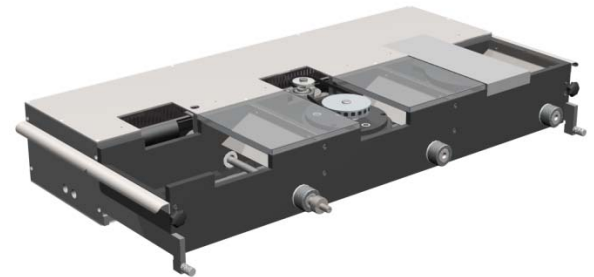
TEG completes full and intensive testing of each feeder before FAT. TEG have onsite test rigs that can accommodate all feeders for testing intermittently or continuous depending on the end users requirements.



Drum Feeder



Vial Feeder



Brushbox

NG Feeding System

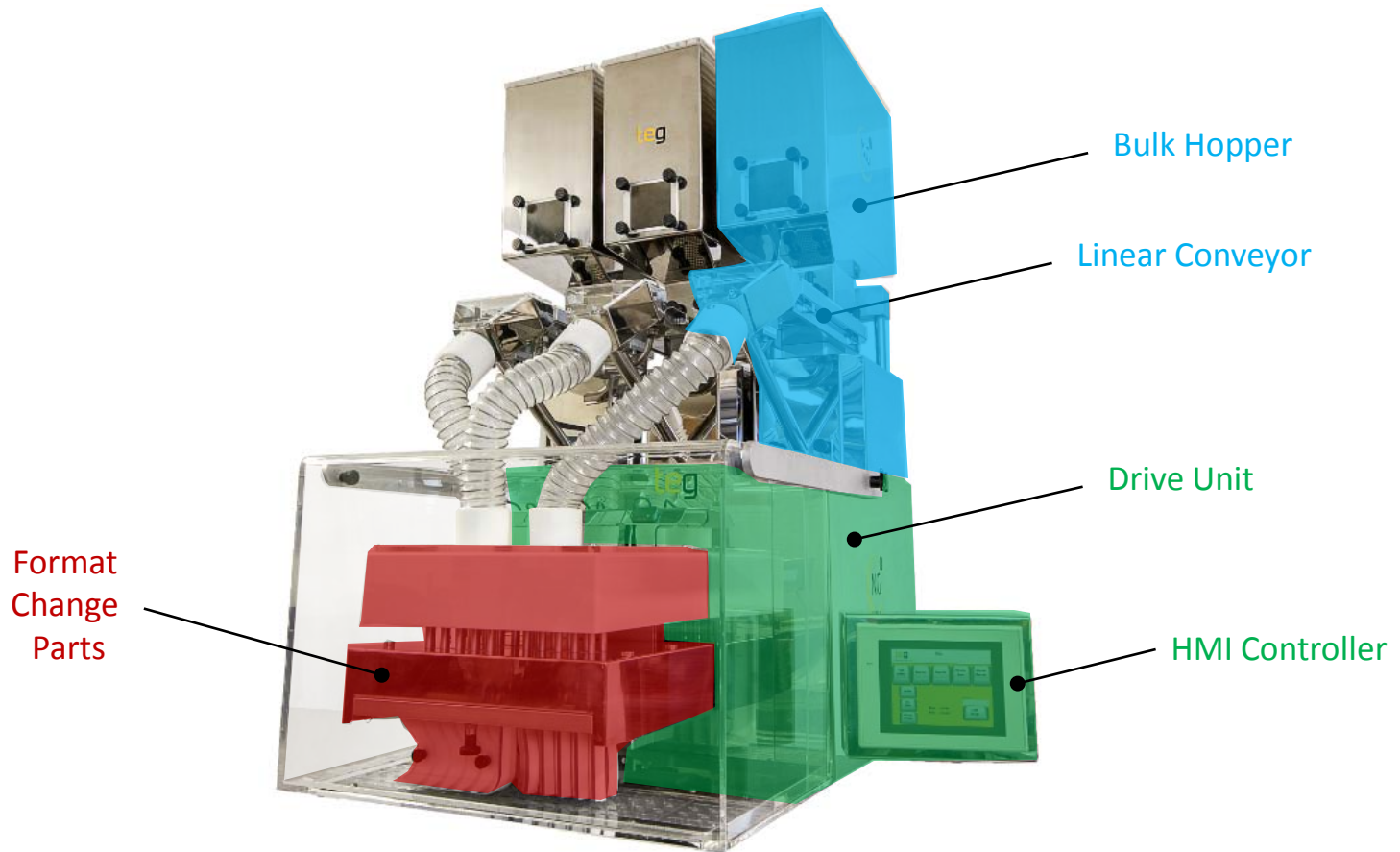
NG Feeder Series - *Continuous*

Using our experience of EMF feeding systems and design capabilities we developed a Next Generation (NG) Feeder System.



NG Feeder Series - *Continuous*

The System includes a Bulk Hopper, Linear Vibrator, Drive Unit & Format change parts.



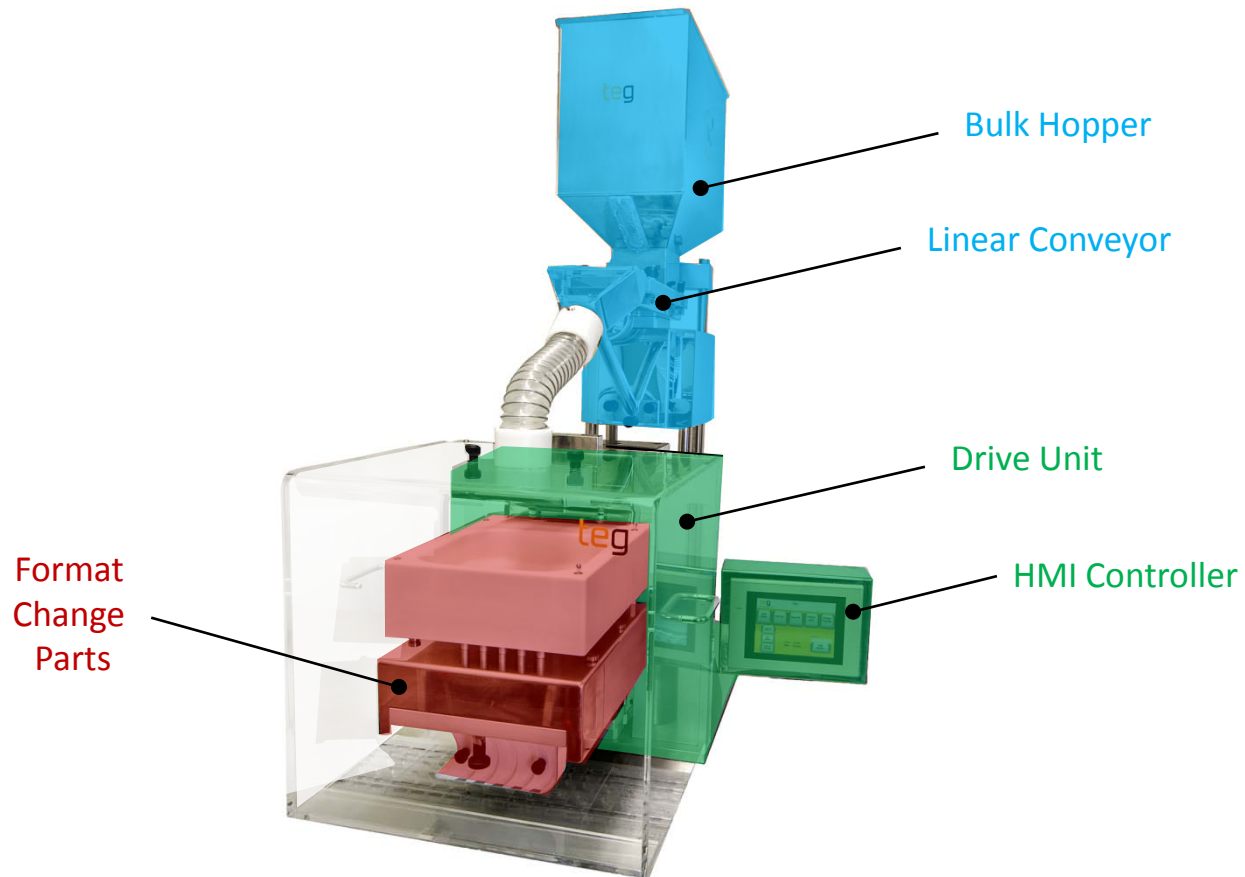
NG Feeder Series - *Intermittent*

The Intermittent NG has a small footprint, recipe saving features and integrates onto all Intermittent lines easily.



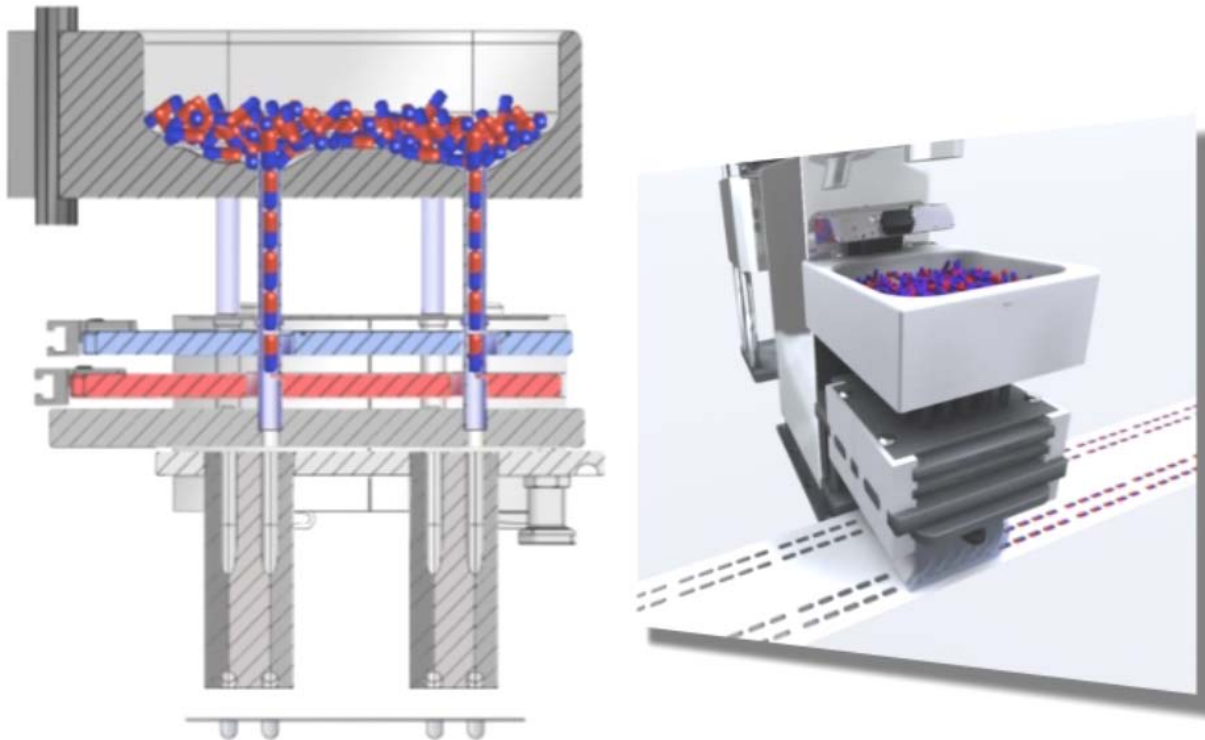
NG Feeder Series - *Intermittent*

Fast changeover times improves your OEE and productivity.



NG Feeder

Using a Patented Gating System arrangement, the NG Feeder dispenses a single product into a blister under full control and at high speed.



NG Feeder

The NG Feeder can feed not just standard but difficult product types too:



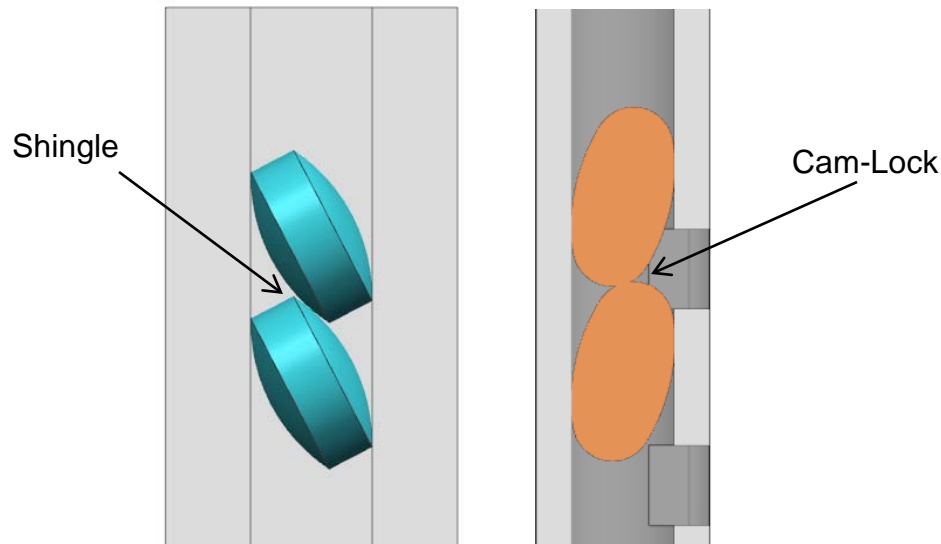
Widely applicable feeder for diverse product shapes

1. Tablet flat
2. Tablet bi-convex
3. Sphere
4. Caplet bi-convex
5. Tablet oval bi-convex
6. Tablet oval bi-convex
7. Octagonal flat
8. Special shape rectangular
9. Rhombus bi-convex
10. Special shape bi-convex
11. Soft gelatine capsule oblong
12. Soft gelatine capsule oval
13. Hard gelatine capsule
14. Hard gelatine capsule

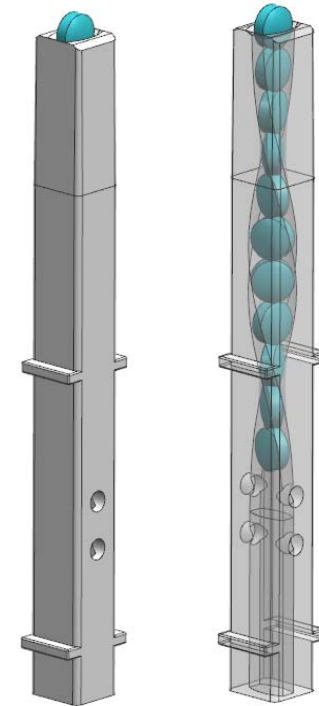
NG Feeder - Innovation

One example of innovation with the NG Feeder is our patented design of our 2-piece Spiral Tubes to prevent certain products from Shingling or Cam locking and dramatically increasing line efficiency.

Some Product shapes/sizes will 'Shingle' or 'Cam-lock' and create a Jam in the feeder.

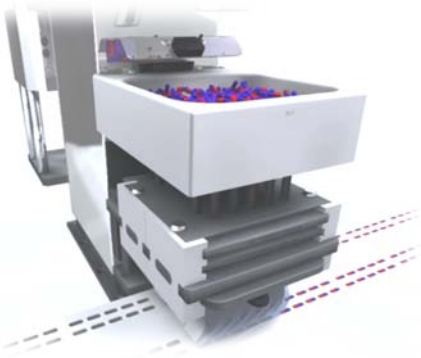


By Spiralling the Tube the Product cannot Shingle.

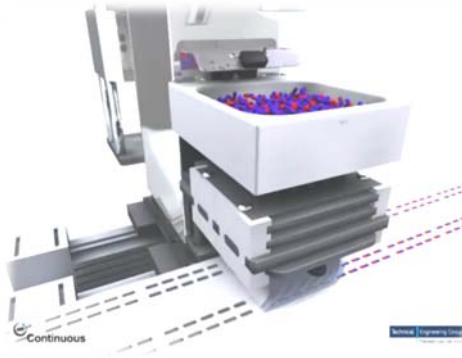


Product Animations available on our Website

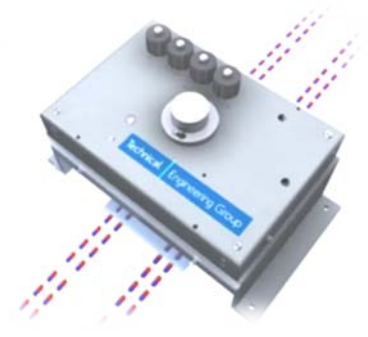
Animations



[Static NG Feeder](#)



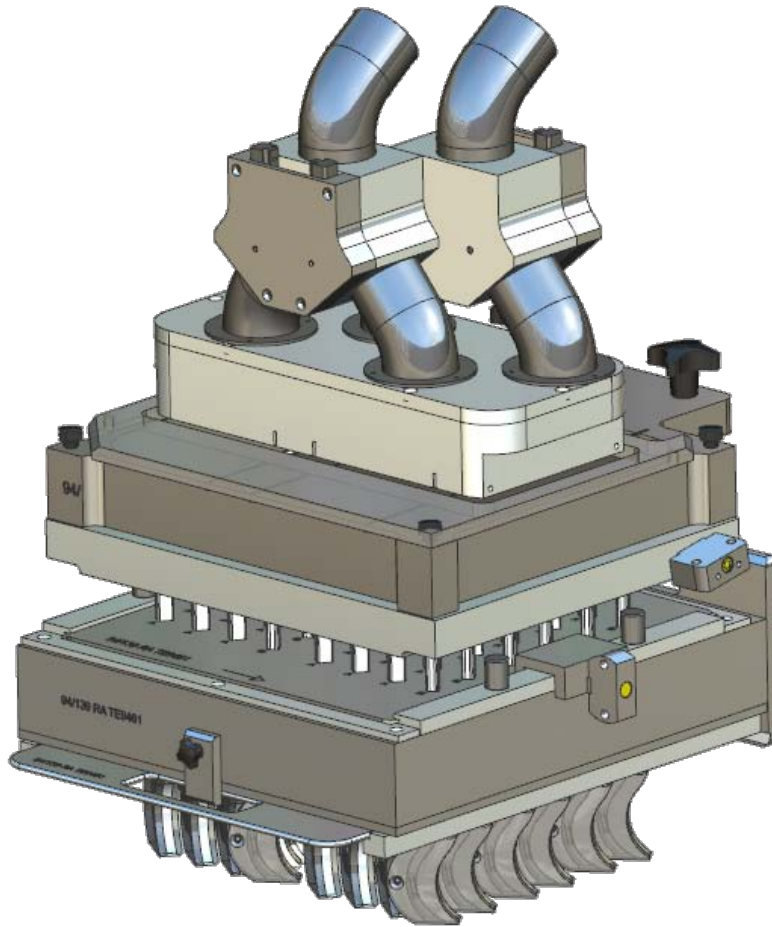
[Continuous NG Feeder](#)



[NG Orbital Brush](#)

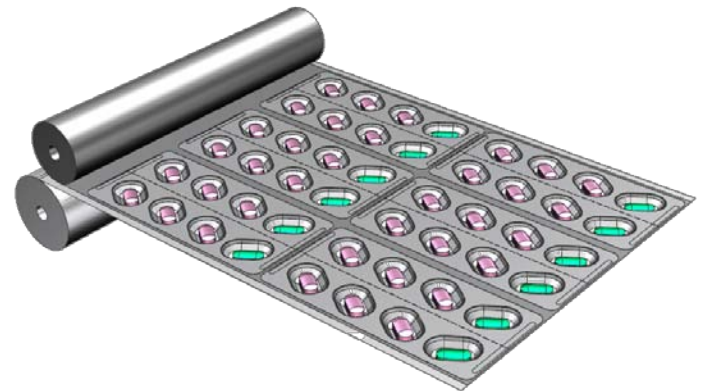
Innovative Feeding Case Study

Dual Product/Double Index Feeding

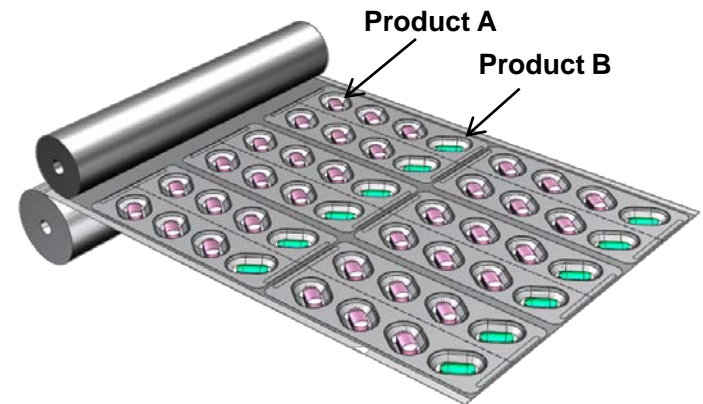
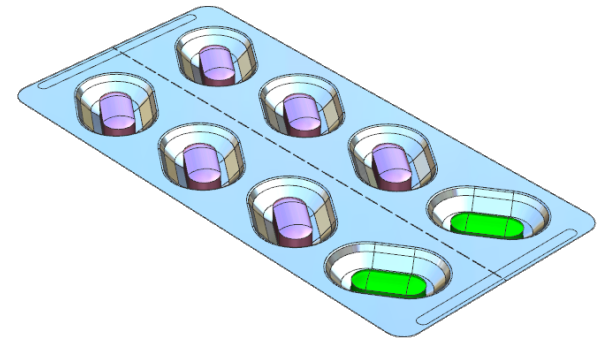
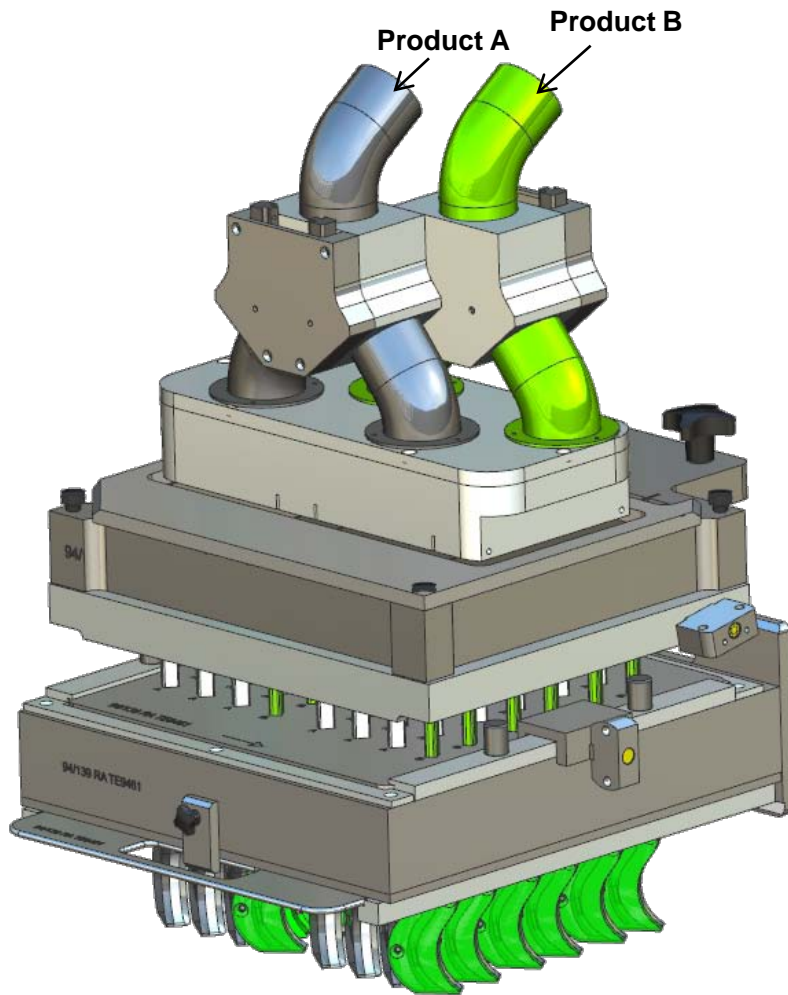


With a Single Feeder TEG developed a unique set of change parts to feed two products into a coldform blister (with angled pockets) at 300bl/min.

An application that Uhlmann refused to look at.



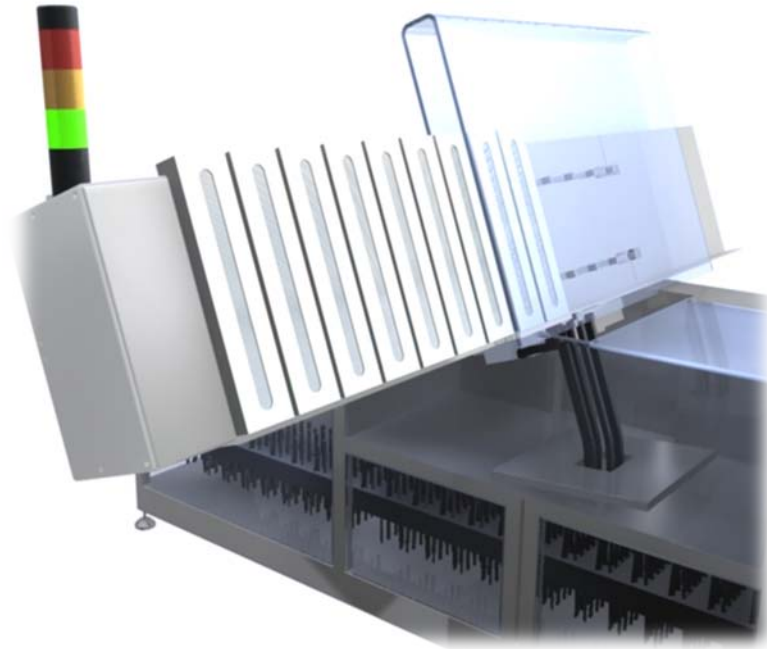
Dual Product/Double Index Feeding



Pharma Automation

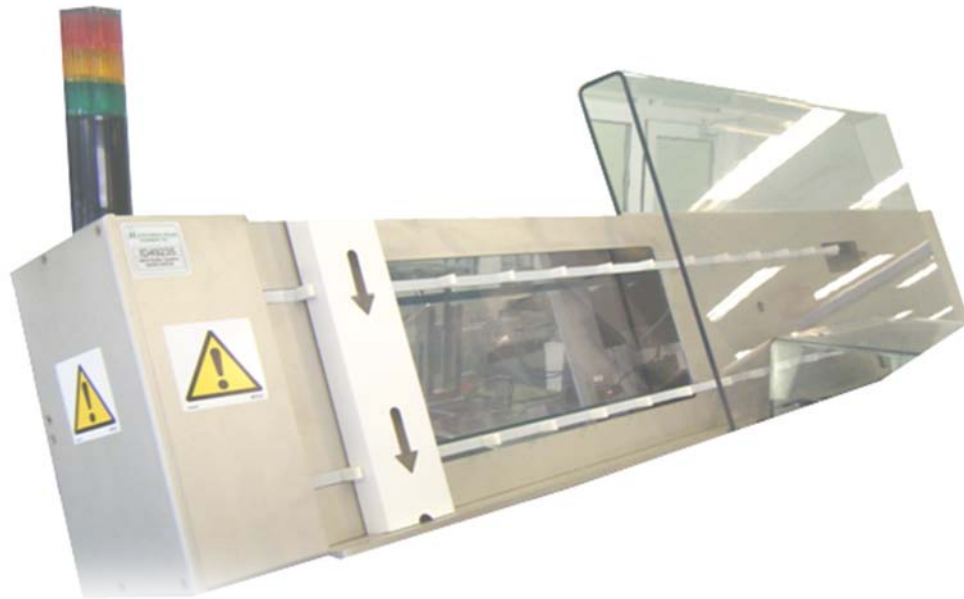
Pharma Automation

TEG have completed many innovative solutions for feeding. The Booklet Feeder below can feed pre-folded leaflets into a cartoning machine. For some customers that manually perform this operation it is a very efficient and affordable system.



Pharma Automation

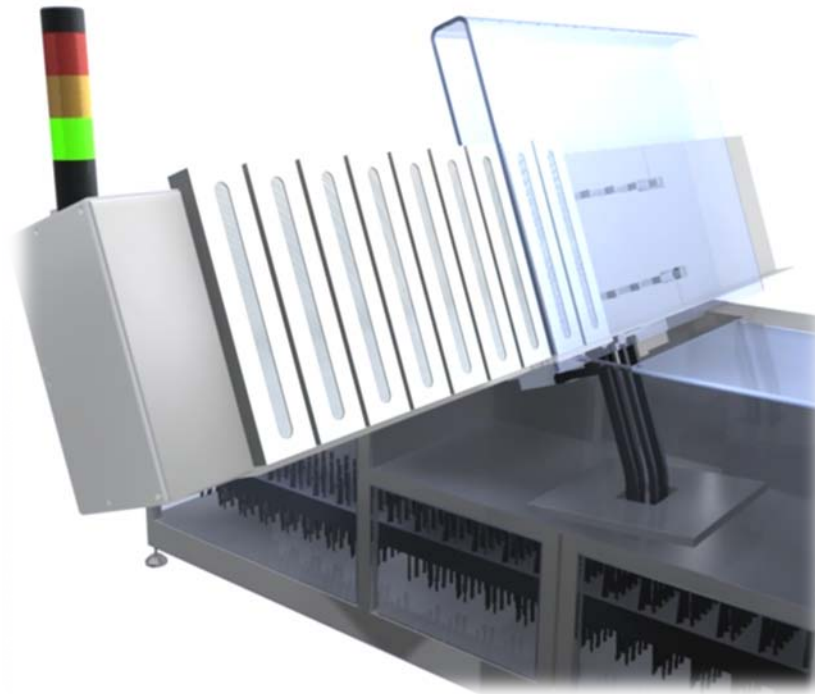
The Booklet Feeder can be Single Carton Size or Variable carton size. Variable Carton Size is achieved with a third adjustable cleated belt.



Pharma Automation

Animation

[\(please visit our website\)](#)



Orbital Brush System

Features

- Orbiting Brush movement to encourage tablets into pockets
- Fully Adjustable Rotation and Brushing speeds
- Synchronised Brushing with Forming
- Fully Adjustable Brush Height
- Fast Brush Change over times
- For use with all Intermittent Lines
- Works with PVC, PP, Aclar, Alu/Alu



Orbital Brush System

Brush:

- FDA Approved Nylon Brush
- Designed for fast changeover
- New Brushes can be supplied from TEG next day



Blister Layout and the Design Process

Blister Layout Design

On Commencing a new blister Packaging Project, our customers fill in the simple Design Spec form and send it to TEG.









S. Form 036, Rev 3, Issue Date 04/01/12

teg Blister Design Specification

Project Information:

Project: _____ (e.g. DPX5000 20's)
Customer: _____ (Your Company Name)
Machine Type: _____ (e.g. Uhlmann 1030 MTI)
Product Name: _____ (e.g. DPX5000 10mg)

Product Type:

Type	Shape	Diameter (D)	Thickness (H)	Wall (S)	Radius (R)	Length (L)	Width (B)
Round Flat							
Round Bi-Convex							
Hard Capsule "Size"							
Soft Capsule							
Caplet Bi-Convex							
Caplet Flat							
Oval Bi-Convex							
Special							

BLISTER Based on Existing Format Number: _____

Products/Blister Cutting Size Pocket Angle °

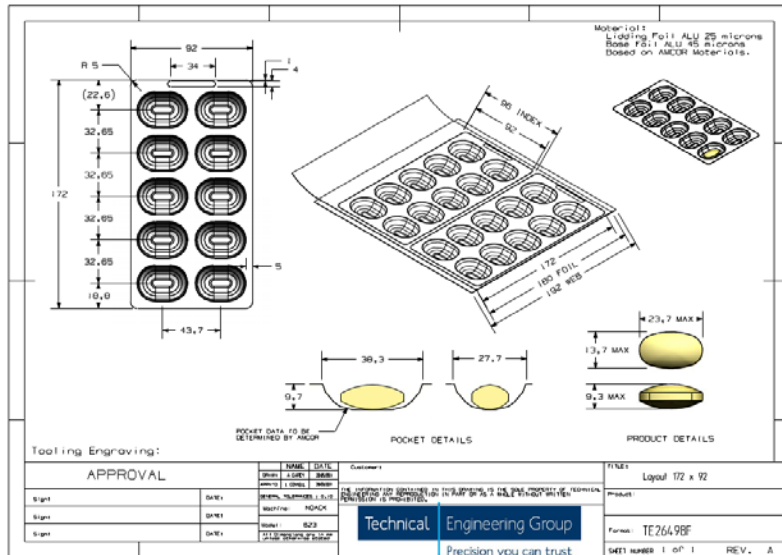
Feeding	Coding	Perforation/Rib	Foil/Film
Manually Feeding <input type="checkbox"/>	Inkjet <input type="checkbox"/>	Lengthwise <input type="checkbox"/>	PVC/ALU <input type="checkbox"/>
NG Feeder <input type="checkbox"/>	One End <input type="checkbox"/>	Across Web <input type="checkbox"/>	PVDC/ALU <input type="checkbox"/>
Vertical Feeder <input type="checkbox"/>	Both End <input type="checkbox"/>	Stiffening Rib <input type="checkbox"/>	ALU/ALU <input type="checkbox"/>
Drum Feeder <input type="checkbox"/>	Short Edge <input type="checkbox"/>		PP/ALU <input type="checkbox"/>
Brushbox Feeder <input type="checkbox"/>	Long Edge <input type="checkbox"/>		PP/PP <input type="checkbox"/>
TEG to Propose <input type="checkbox"/>	No. of Digits <input type="text"/>		Other <input type="text"/>
			Foil Thickness <input type="text"/> µm
			Film Thickness <input type="text"/> µm

Tool Engraving: _____

Comments:

Completed By: _____ Signature: _____

Blister Layout Design



Within 24hours a blister design will be completed and emailed to you for review along with a 3D rotatable pdf of the proposed blister.

TEG have a partnership with Material suppliers such as Amcor and Honeywell to design perfect pocket geometry and get the most from the materials.

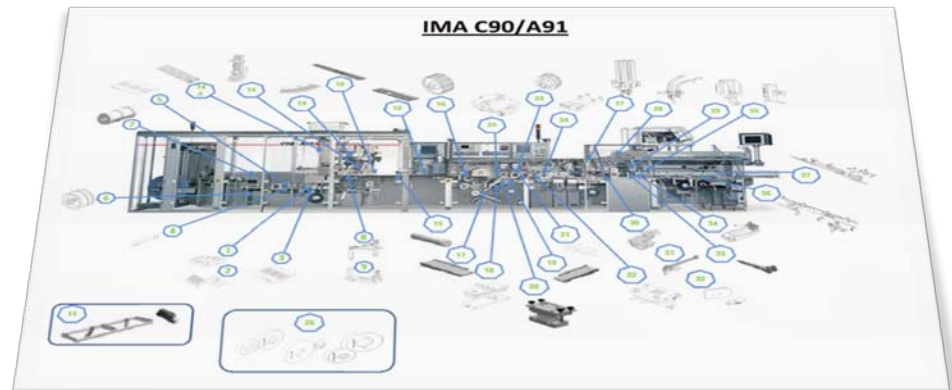


Price lists for all lines supplied

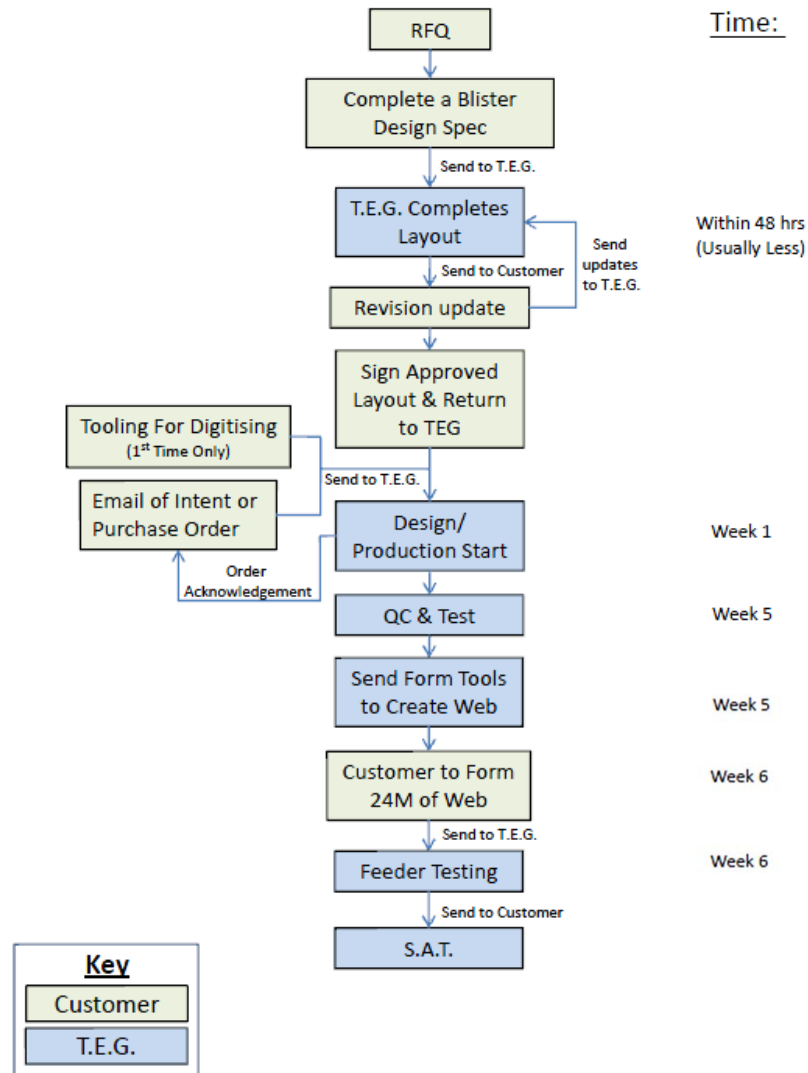
TEG have clear illustrated pricelists prepared for all lines allowing our customers to see at a glance the budget price for a new tool or set of tools, without waiting for formal quotations.

IMA C90/A91

Réfère	Outil	Description	Code	Prix pour format complet(s)
4	Guide avant formage	Pre Forming Guides	C90 003	€373
1	Plaque de Formage Supérieure	Blow Form Tool	C90 001	€1,774
2	Plaque de Formage Supérieure avec Poignons de Formage	Blow Form with Plug Assist	C90 001A	€1,770
3	Plaque de Formage Inférieure	Pattern Form Tool	C90 002	€7,075
5	Guide de refroidissement après formage	Post Forming Guide Rail	C90 004	€711
6	Gras rouleau guide	Guide Roller	C90 005	€1,756
7	Petit rouleau guide	Small Guide Roller	C90 005A	€739
8	Arrêt canaux de descente / Arrêt de comprimés	Product Shutoff	C90 006	€216
9	Bloc de Soutèvement Produit	Product Grip Rising Block	C90 006A	€716
10	Guide Zone Alimentation	Feeding Area Guide Rail	C90 007	€1,115
11	Set de Brosse pour Boîte Universelle	Set of Brushes for Brush Box	C90 Set of Brushes	€1,775
12	Guide Camera	Camera Guide Rail	C90 008	€714
13	Rail d'alimentation comprimés / Secteur pour bol	Feed Bowl Quadrant	C90 009	€1,756
14	Descente de comprimés / Tyre Verticale	Vertical Feed Chute	C90 010	€1,775
14A	Crible	Sieve Plate	C90 010A	€705
15	Brosse	Wet Brush	C90 010/14	€705
16	Rouleau de scotage	Seal Roller	C90 012	€1,287
17	Guide embossage / marquage	Coding Rail	C90 013	€716
18	Outil d'Embossage / Marquage	Coding Tool	C90 014	€1,740
19	Guide Pré-Découpe	Perforation Rail	C90 015	€1,776
20	Bloc de Pré-Découpe	Perforation Tool	C90 Perf	€7,779
21	Guide Découpe	Cutting Tool Guide	C90 016	€1,411
22	Bloc de Découpe	Cutting Tool	C90 017	€7,260
23	Rouleau d'entraînement avant Découpe	Indexing Roller	C90 018	€1,774
24	Dispositif de Renversement Blister	Transfer Arm	C90 019	€1,771
25	Noyau poste embossage/prédecoupe	Code/Perf Mounting Station	C90 021	€1,775



Process Flow Chart



Metrology & Reverse Engineering

Metrology & Reverse Engineering

TEG have invested in the latest Metrology equipment including:

- PMI X-ray Material Identification,
- CMM & Digitizing equipment,
- Mobile CMM with 3D Scanning.
- Hardness Testing Equipment,
- Profilimeter equipment,
- Go No-Go Thread Gauges.



TEG Mobile CMM

The TEG Mobile CMM with 3D Scanning is the very latest in Metrology technology. It is used by Formula 1 teams, Aerospace Design Organisations, Automotive designers and now TEG bring this to the Pharma industry.

Typical Applications Include:

- Machine Calibration,
- Reverse Engineering,
- Inspection,
- Part Comparison,



Thank you!