inspired by technology



→ pester pharma_case packing

GLOBAL FLEXIBILITY_ We are a dynamic company with a global presence and operate as a network of specialists from various cultures and nations. With this global philosophy we have a unique insight into the latest trends and practices in pharmaceutical packaging. We have learned to think in pharmaceutical dimensions and adapt ourselves to your needs in the diverse world-wide markets. BRIGHT EYES_We are characterized by the unique quality of relationships we have with our customers. Be inspired by an open and creative corporate culture. Our highly motivated people make all the difference. POWERED BY PARTNERSHIP AND NETWORKING_ The technological perfection of our machines is one thing. We develop long-term partnerships with our customers. This results in turn-key solutions.

pester pac automation gmbH Germany

Hauptstraße 50 87787 Wolfertschwenden Phone +49 (0) 83 34/607-0 Fax +49 (0) 83 34/607-200 info@pester.com www.pester.com

pester ag

Schweiz
Konstanzerstrasse 37
8274 Tägerwilen
Switzerland
Phone +41(0)71 667 09 76
Fax +41(0)71 669 16 66
pester-ch@pester.com
www.pester.com

pester pac automation

110 Commerce Drive Allendale, NJ 074 01, USA Phone +1 (201) 327 7009 Fax +1 (201) 327 7824 pester-usa@pester.com www.pester.com

pester pac automation Benelux

Haringvlietplantsoen 7 NL-2105 ZD Heemstede Phone +31 (0) 23 547 94 24 Fax +31 (0) 23 547 94 13 pester-benelux@pester.com www.pester.com

pester pac automation

France 40 Rue Alfred Lefèvre 14320 Saint André Sur Orne France

Phone +33 (0) 2 31 83 75 89 Fax +33 (0) 2 31 83 79 02 pester-france@pester.com www.pester.com

pester pac automation Asia

1000/56 PB Tower, 14th Floor, Wattana, Bangkok, 10110 Phone +66(0)2713 0411 Fax +66(0)2382 2058 bruno-baumann@pester.com www.pester.com

pester pac automation

Unit 10 Sunfield Business Park New Mill Road, Finchampstead WOKINGHAM, RG40 4QT

United Kingdom
Phone +44 (0) 1189 731 811
Fax +44 (0) 1189 735 085
pester-uk@pester.com
www.pester.com

pester pac automation China

Building 7B, Lane 195 Qianpu Road Song Jiang District 201611 Shanghai, P.R. China Phone +86 (0) 21 5780 52 50 Fax +86 (0) 21 5780 52 37 pester-china@pester.com www.pester.com pester pac automation/pharma case packing/04.2013





→ pester pharma_case packing







INSPIRED BY TECHNOLOGY_ Our strength is innovation. We set trends in pharmaceutical end-of-line packaging. From ampoules or tablets to vials, we package the entire range of products from the pharmaceutical sector. For film and case packaging we invented the balcony construction principle. This provides machinery with intelligent technology, the highest levels of performance and more operating comfort, making the packaging of pharmaceutical products easier and more efficient throughout the world. PASSION FOR DESIGN AND QUALITY_ Clearly set out, functional and easy to clean - experience modern machine design which satisfies all aspects of your pharmaceutical production. Each Pester machine represents the highest in quality, ranging from the adaptable construction to the hardware and software, up to the simplest operator guidance. Convincing machine technology with top performance and low lifecycle costs. EASY TO BUY FROM_ We have been active in the world of pharmaceuticals for many years – we understand your requirements and speak your language. Our project managers and a world-wide network of pharmaceutical experts accompany you through the entire process. You benefit from competent advice, short project times and targeted implementation.





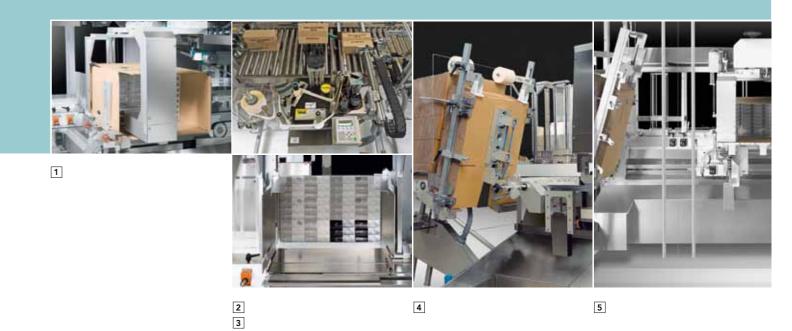




PEW0-form UVP

The Original – The world's first case packer in a cantilever design – one of the most important features for pharmaceutical production according to GMP standards. The PEWO-form UVP was developed to its present state of excellence by customers' experience and hundreds of pharmaceutical installations. As a true universal side loader, this all-rounder provides impressive operating advantages for American Cases, Wrap Arounds and Trays. From the case magazine for reliable handling, to the operator-friendly adhesive station, this case packer demonstrates ultimate performance at up to 500 cartons per minute.

TECHNICAL DATA ON PAGE 12





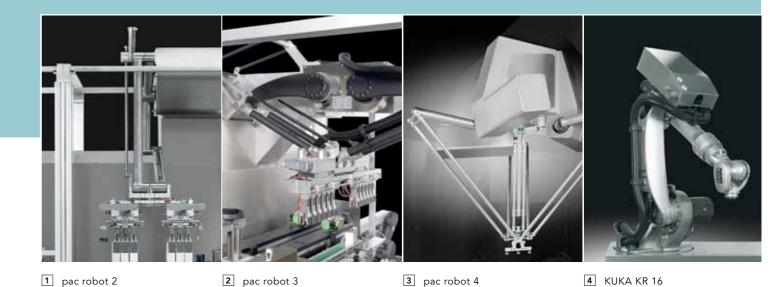


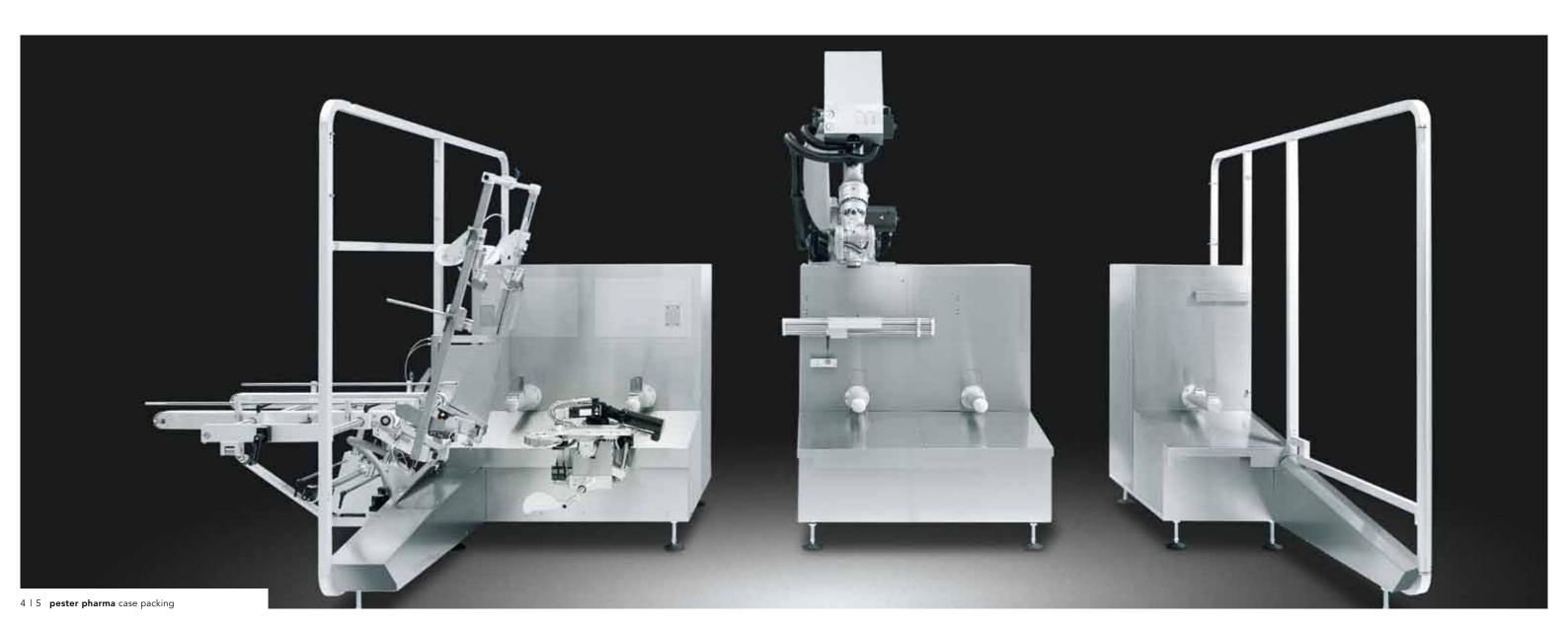
PEWO-form TLC TOP LOADING CONCEPT

TLC stands for Top Loading Concept. It is more than a classic pharmaceutical case packer. This machine concept designed to GMP standards is well equipped for future developments in pharmaceutical production. Due to its unique modular construction it can easily be extended to accommodate new packaging requirements at any time. The "Unified Operating Concept", presented by an intuitive HMI (Human Machine Interface) facilitates adaptation, maintenance, and service. Consistent communication with the entire packaging line is also ensured.

Cutting-edge robotic technology combined with a modular control concept provides for the highest level of artificial intelligence and flexibility. The use of tried and tested technology ensures low operating costs over the entire productive life of the machine.

▶ TECHNICAL DATA ON PAGE 12











PEWO-form TLC for American Cases

Designed to meet the highest pharmaceutical demands. The TLC reliably handles tablet bottles, cartons, and combination packs with inserts. Highly flexible! With a large variety of feed systems and a wide range of formats, the TLC masters the ever changing requirements of modern pharmaceutical production. As a result, it is fully adaptable to new product configurations and through-put requirements.

Transparency throughout! Ingenious camera and monitoring systems as well as the transparent GMP machine design contribute to the highest degree of performance and reliability to the pharmaceutical industry. Details make the difference! High standard specification, low-maintenance applications and easily accessible components guarantee optimum machine availability, and minimum maintenance costs.

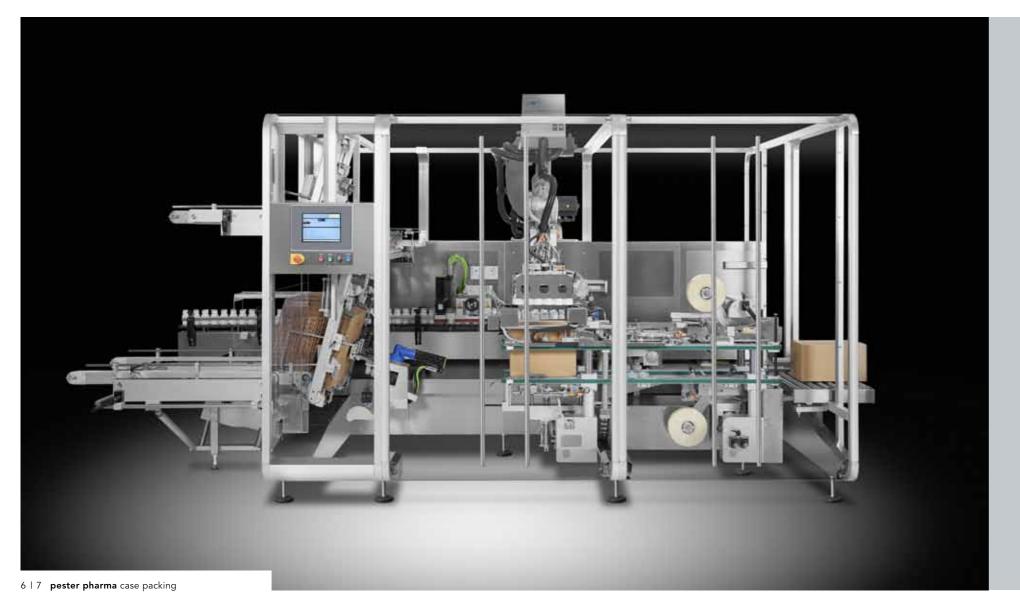
TECHNICAL DATA ON PAGE 12







COLLATING



GRIPPER TOOL/ SUCTION PAD











TRANSPORT TOOTH-BELT





CLOSING WITH HOT MELT

CLOSING WITH ADHESIVE TAPE

















PEWO-form TLC for Trays with optional lids

A flexible Tray Loader for small pharmaceutical packaging units, the PEWO-form TLC demonstrates reliable handling of pharmaceutical bottles, cartons, inhalers and vials, and even "Shelf Ready Packaging" solutions. The modular system can be extended for future developments in pharmaceutical production. Through highly flexible robot technology, positive product control for each processing stage, and transparent machine design, the TLC achieves the highest levels of performance at up to 60 cycles per minute.

TECHNICAL DATA ON PAGE 12

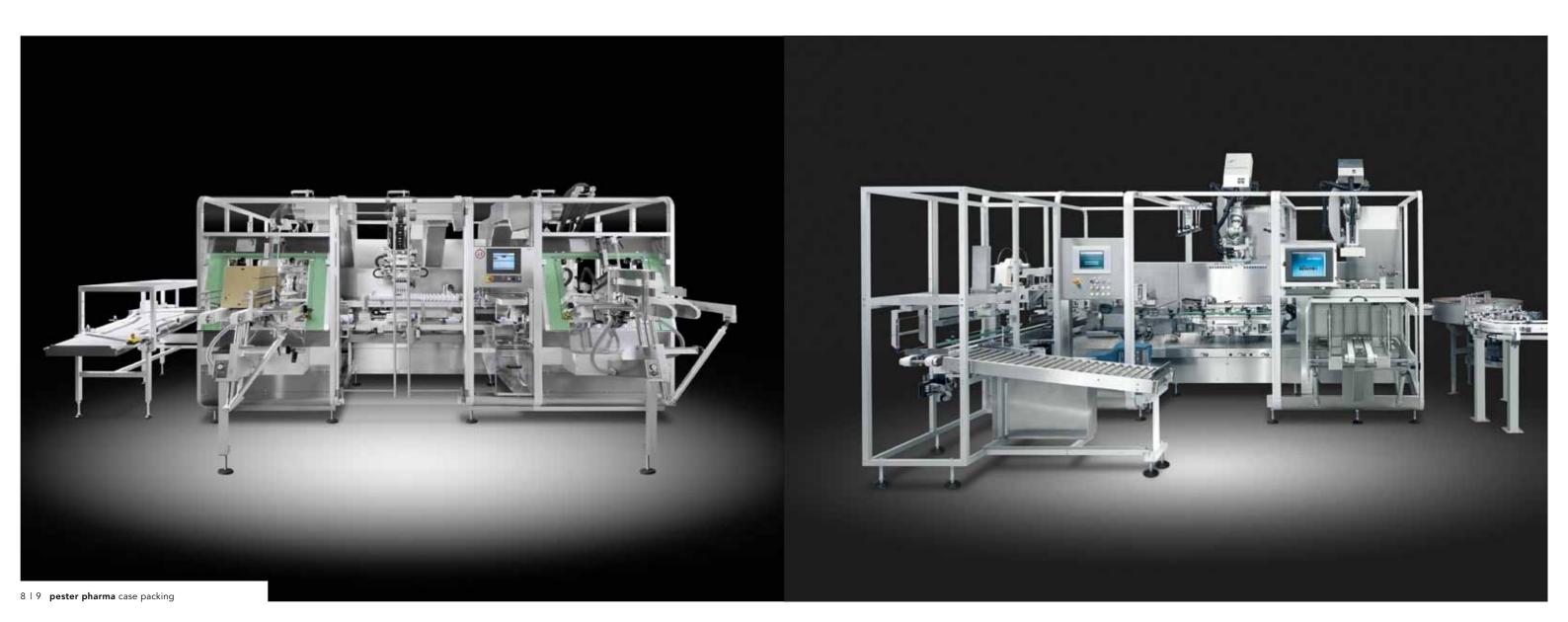
PEWO-form TLC for Wrap Arounds



An economical packaging solution for the highest pharmaceutical demands, the Top Loader offers high-precision handling of pharmaceutical bottles, cartons, vials or inhalers, up to complete point of sale packaging with inserts or inlays. An all-rounder capable of up to 40 cycles per minute.

Tried and tested camera and control systems guarantee the highest level of pharmaceutical reliability throughout the entire packaging process. The integration of inkjet, laser, or labeling technology ensures precise coding and identification. Impressively flexible, the TLC can process various closing systems for different carton designs according to customers' requirements.

▶ TECHNICAL DATA ON PAGE 12



INDIVIDUAL SERVICE PERFORMANCE

▶ Experience the benefits of a long-term partnership. We accompany our customers from the initial idea to the fully automated packaging process. Our experts provide the right packaging solution, with complete service, for each phase – all from one source. With individual and personal attention over the whole lifetime of our machines we ensure highest productivity and maximum availability for your Pester machine. Our service network makes the professional know-how of our technical specialists available to you throughout the world. You can decide upon the level of service convenience you require:













□ 24-HOUR TELEPHONE SERVICE

Whenever you need help quickly, we can be reached through our 24-hour service numeven on Sundays and public holidays. Our service specialists are fully prepared and

□ ONLINE-SERVICE

With remote diagnostics we ensure that

FORMAT PARTS BUSINESS your maintenance costs.

□ SPARE PARTS MANAGEMENT

We support your spare parts logistics and ensure the highest efficiency of your machine through the use of original spare parts. Try our preventive spare parts package, or use our Express Service. Spare parts depots throughout the world guarantee highest levels of availability and rapid dispatch.

□ ELECTRONIC SPARE PARTS CATALOGUE

ber, around the clock, seven days a week, correct spare part and can generate queries machinery up to date with the latest stateor orders from the system. This user-friendly of-the-art technology. and clear spare parts administration packhave direct access to your machinery data. age with 3-D visualization is also available

PROJECT MANAGEMENT on CD-ROM.

deliver the correct format parts for the new handling of your project through to the requirements. Each tool is unique. Within delivery, installation and start-up of your a very short space of time you receive the machine - right on schedule. You receive format part required, wherever you need it. all-round service from a single source with If you wish, our experts can carry out the in- a fixed contact partner for the entire period stallation, start-up on site, and also provide of the project. production support.

□ INDIVIDUAL

MAINTENANCE PACKAGES

you need, and choose the right service ment of specifications and capacity studies package, adapted to your production con- - these are only a few of our fields of compeditions: Service-Basic, Service Plus, or Sertence. Our pharmaceutical consulting team vice-Individual. One thing is certain - your is your partner for highly effective producmachinery will give reliable production at tion performance. the highest level, just as on the very first day of installation.

□ ON-SITE SERVICE

Whether in an emergency, just-in-time, or at an agreed date, our service specialists offer you flexible and efficient support. Our world-wide service network of qualified technicians ensures a rapid solution for you.

□ MACHINE UPGRADES

Optimize the efficiency of your lines. With With a single mouse-click you can find the our machine upgrades we bring your Pester

Your requirements in experienced hands. Our project managers, who have a wide range of pharmaceutical experience, acyou have short reaction times and optimize You change your range of products - we company you from the coordination and

□ PHARMACEUTICAL CONSULTING

What will tomorrow's optimum packaging process look like? External project support, Here, you can decide how much service line-integration, line functionality, develop-

Maintenance **SERVICE** BASIC Spare Parts Telephone Service Training

□ VALIDATION - QUALIFICATION

We show you what we are capable of. Our validation experts provide you with a comprehensive package of services for the qualification of your processes. We provide consistent implementation ranging from risk analysis of DQ, IQ, OQ up to FAT /SAT always up to date, because we know that every day counts.

□ DOCUMENTATION

We pass our knowledge on to you and speak your language. Whether operating instructions, parts lists or circuit diagrams, our documentation is attractively designed and clear. And should you want more than the standard - we also write special documentation according to your exact require-

☐ GMP, GAMP, 21 CFR Part 11, PAT...

Always a step ahead in order to stay in the lead. Our experts are constantly at the leading edge and expand their know-how about the latest regulations, requirements and developments in the world of pharmaceuticals on a daily basis. We speak your language and implement your pharmaceutical packaging needs of tomorrow, today.

□ TRAINING

Top machine performance with top personnel. Our training for operators, technicians and specialists provides every-one with exactly what they need. Whether training from our program or individual training, whether in the Pester Training Center or at documents. The knowledge of our staff is your site - you benefit from the practical know-how of our experts.

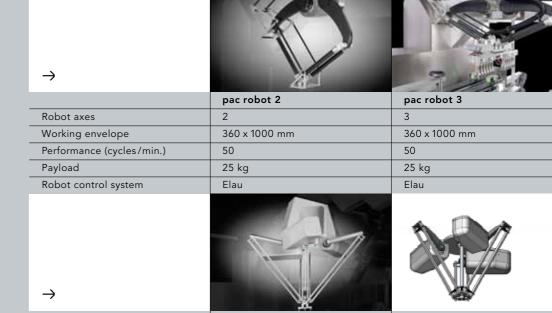
> Maintenance SERVICE + Spare Parts for Spare Parts Telephone Service Training

THE TECHNICAL OVERVIEW

	PEWO-form UVP 1	PEWO-form UVP 2	PEWO-form UVP 3
Length	4.620 mm	2.640 mm	2.640 mm
Width	2.540 mm	1.670 mm	1.970 mm
Height	2.050 mm	2.050 mm	2.050 mm
Max. format range	450 x 400 x 500 mm (LxWxH)	450 x 320 x 320 mm (LxWxH)	600 x 400 x 400 mm (LxWxH)
Min. format range – adh. tape	150 x 120 x 120 mm (LxWxH)	150 x 120 x 105 mm (LxWxH)	150 x 120 x 105 mm (LxWxH)
Max. performance (cases/min.)	40	20	12
Kind of case	American Cases, Trays, Wrap Arou	ınds	
Control	Elau, Allen Bradley		
Kind of closure	Hot melt	Tape oder Hot melt	Tape oder Hot melt
		PEWO-form TLC 2	PEWO-form TLC 3
Length		3.300 mm	3.300 mm
Width		2.450 mm	2.450 mm
Height		2.250 mm	2.250 mm
Max. format range		450 x 350 x 350 mm (LxWxH)	600 x 400 x 400 mm (LxWxH)
Min. format range		200 x 120 x 100 mm (LxWxH)	200 x 120 x 100 mm (LxWxH)
Max. performance (cases/min.)		20	12
Kind of case		American Cases, Trays, Wrap Arounds	
Control		Elau, Allen Bradley	
Kind of closure		Tape oder Hotmelt	Tape oder Hotmelt
	PEWO-form TLC Top Loading Concept Modul 1	PEWO-form TLC Top Loading Concept Modul 2	
Modul 1 Modul 2			
Length	1.320 mm	660 mm	
Width	2.450 mm	2.450 mm	

2.250 mm

ROBOT SYSTEMS



	pac robot 4	pac robot 4 HS
Robot axes	4	4
Working envelope	300 x 1100 x 150 mm	Ø 800 x 200 mm
Performance (cycles/min.)	100	130
Payload	0,8 kg	1 kg
Robot control system	Elau	Elau



 \rightarrow

Payload

Working envelope max. reach Performance (cycles/min.)

Robot controlsystem Machine control system

KUKA KR 16	KUKA KR 16	KUKA KR 30
5	6	5
1.610 mm	1.610 mm	2.030 mm
20	20	15
16 kg	16 kg	30 kg
KUKA KRC	KUKA KRC	KUKA KRC
Elau, Allen Bradley	Elau, Allen Bradley	Elau, Allen Bradley

2.250 mm

Height