

# THE INNOVATOR IN PHARMACEUTICAL MACHINERY

## Complete Line of Solid Dose Machinery

Stylish design, robust structures and the state-of-the-art performance of our rotary tablet press models, auto capsule filling machines, coating machines, high shear mixers and fluid bed systems are our key products for the pharmaceutical sector and food industries.







# THE INNOVATOR IN PHARMACEUTICAL MACHINERY

Complete Line of Solid Dose Machinery

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# A Trusted Pharmaceutical Manufacturer



For more than a decade PTK have served the Pharmaceutical and Nutraceutical industries of Europe and Worldwide. All PTK machinery is manufactured with world renowned, branded components and ingenious design, in their modern purpose built manufacturing and design facility. Being situated in one of the globes tiger economies, PTK are able to deliver an unrivalled combination of quality, performance and price.

As a ISO:9001 certified company, machinery is closely controlled during manufacture by the in house Quality Control Department, and all machinery is independently CE certified. PTK machines are validated, and situated around the world, so meeting global regulatory demands are a prerequisite. For bespoke projects, the Design Team are on hand at the project management stage to integrate the machines seamlessly to site systems or automation. PTK's facility is the hub for its network of local distributors.





# **OUR CREDO**

"We demonstrate honesty and sound ethical behavior in all business transactions and personal integrity in all dealings with others."

## Harmonized Happiness

We believe in sharing happiness. In the process of growing PTK, we work together with our colleagues, our contractors, our partners and our customers. When we pass through a dark tunnel, we share hope to overcome fear, sadness and frustration. When we get out of the darkness, we share the joy. No matter where you are, this is the journey together in the pursuit of happiness. This is our history we are building together. We are very happy because you are with us together on this journey.

All PTK lab series machines have our in-house software with advanced levels of functionality and traceability.





Based on experience gained from our successful production equipment, PTK now offer a complete line of solid dose laboratory machinery. PTK's new laboratory tablet press has the ability to produce single layer, double layer and triple layer tablets. All PTK lab series machines have our in-house software with advanced levels of functionality and traceability.

### Tablet Press PR-LM Series Economical Model



The PTK PR-LM economical model is a compact rotary tablet press for producing small batches in R&D and short run production environments.

Tooling	D	В	BB		
Number of Stations	8	10	12		
Max. Main Compression Force (kN)	50	40	40		
Max. Pre Compression Force (kN)	3	2	2		
Max. Output (tabs/h)	16,800	24,000	28,800		
Max. Filling Depth (mm)		18			
Max. Tablet Thickness (mm)		8.5			
Upper Punch Insertion (mm)		1-4			
Pitch Circle Diameter (mm)		150			
Turret Speed ( rpm)	5-35	5-40	5-40		
Max. Tablet Diameter (round) (mm)	25	16	13		
Max. Tablet Dimension (shape) (mm)	25	19	14		
Dimension, Machine (mm)	576 x 851 x 1,460 (1,553 including hopper)				
Weight, Machine (kg)	800				
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz				
Control Power	24Vdc				

<sup>\*</sup> Specifications are subject to change without notice.

### Tablet Press **PR-LM Series**



The PR-LM series is a compact, ergonomic press designed in accordance with cGMP guidelines and incorporates many of the features found on the larger PTK tablet presses.

Tooling	D	В	BB		
Number of Stations	8	10	12		
Max. Main Compression Force (kN)	50	40	40		
Max. Pre Compression Force (kN)	3	2	2		
Max. Output (tabs/h)	16,800	24,000	28,800		
Max. Filling Depth (mm)		18			
Max. Tablet Thickness (mm)		8.5			
Upper Punch Insertion (mm)		1-4			
Pitch Circle Diameter (mm)		150			
Turret Speed ( rpm)	5-35	5-40	5-40		
Max. Tablet Diameter (round) (mm)	25	16	13		
Max. Tablet Dimension (shape) (mm)	25	19	14		
Dimension, Machine (mm)	576 x 571	x 1,460 (1,553 including	g hopper)		
Dimension, Controls (mm)	500 x 550 x 1382				
Weight, Machine (kg)	700				
Weight, Controls (kg)	90				
Power Supply Data	220/380/40	0/415/440/460 Vac 3P	h 50/60Hz		
Control Power		24Vdc			

### Tablet Press **PR-LD Series**



The PR-LD series is a tablet press capable of producing single or double layer tablets. It is the ideal system for R&D.

Tooling	D	В	В	BBS	
Number of Stations	22	27	32	34	
Double layer tablet					
Max. 1st Compression Force (kN)	20	20	20	20	
Upper Punch Penetration Depth (mm)	1-8	1-8	1-8	1-8	
Turret Speed (rpm)	5-30	5-30	5-30	5-30	
Max. Output (tabs/h)	39,600	48,600	57,600	61,200	
Single layer tablet					
Max. Main Compression Force (kN)	80	70	70	70	
Max. Pre Compression Force (kN)	20	20	20	20	
Max. Output (tabs/h)	92,400	113,400	134,400	142,800	
Max. Filling Depth (mm)			18		
Max. Tablet Thickness (mm)		8	3.5		
Upper Punch Insertion (mm)			-4		
Pitch Circle Diameter (mm)		3	315		
Turret Speed ( rpm)	5-70	5-70	5-70	5-70	
Max. Tablet Diameter (round) (mm)	25	16	13	11	
Max. Tablet Dimension (shape) (mm)	25	19	14	12	
Dimension, Machine (mm)		850 x 1,0	000 x 1,735		
Dimension, Controls (mm)		700 x 65	50 x 1,700		
Weight, Machine (kg)	2,700				
Weight, Controls (kg)		1	20		
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz				
Control Power		24	Vdc		

### Tablet Press **PR-LT Series**



The PR-LT series is a tablet press capable of producing multi-layered tablets (single, double and triple layer). The PR-LT is ideal for laboratory use. The sequence feeder system makes it possible to produce sample tablets with minimal powder.

Tooling	В	D	B/D	D	В	BB	BBS
Number of Stations	7	7	16(8+8)	20	24	29	31
Max. Main Compression Force (kN)	80	100	80	100	80	80	80
Max. Pre Compression Force (kN)	80	100	80	100	80	80	80
Max. Filling Depth (mm)				18			
Max. Tablet Thickness (mm)				8.5			
Upper Punch Insertion (mm)				1 - 6			
Pitch Circle Diameter (mm)	285						
Turret Speed ( sec/rev)				2 - 10			
Tablet Output			1 tab	let/3 rota	ation		
Max. Tablet Diameter (round) (mm)	16	25	16/25	25	16	13	11
Max. Tablet Dimension (shape) (mm)	19	25	19/25	25	19	14	12
Dimension, Machine (mm)	1,138 x 1,700 x 1,850 (Control Cabinet Included.)						
Weight, Machine (kg)	2,500						
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz						
Control Power				24Vdc			

### Tablet Coater PC-L Series



The PTK tablet coating machine model, PC-L series is a self-contained, laboratory scale tablet coater featuring a built-in air handling system for inlet air filtration, heating and dust collection.

Model	PC-L300				
Drum Diameter (mm)	320	430	450		
Drum Opening Diameter (mm)	170	230	230		
Drum Working Volume ( $\ell$ )	0.8 - 2.2	2 - 4.5	4 - 5.5		
Output Capacity (kg) *	0.6 - 1.5	1.4 - 3.2	2.8 - 3.9		
Spray Gun		1			
Drive Power (kW)	0.4				
Weight, Machine (kg)		1,000			
Dimension, Machine (mm)	1,200 x 1,230 x 1,980				
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60 Hz				
Control Power					

<sup>\*</sup> Specific Gravity 0.7

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## High Shear Mixer PM-C Series



With its interchangeable bowl system, the PTK PM-C series is the best fit for laboratory use, with excellent performance and design.

Model	PM-C001	PM-C003	PM-C005		
Vessel Volume ( $\ell$ )	2.4	5.7	10.1		
Working Volume ( $\ell$ )	0.65 - 1.1	1.7 - 3	3.8 - 6.6		
Output Capacity (kg) *	0.45 - 0.77	1.2 - 2.1	2.7 - 4.6		
Agitator Drive Motor (kW)		0.75			
Agitator Max. Speed (rpm)	300				
Chopper Drive Motor (kW)	0.75				
Chopper Max. Speed (rpm)	3,000				
Dimension (mm)	1,190 x 555 x 1,450				
Weight (kg)	550				
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz				
Control Power					

<sup>\*</sup> Specific Gravity 0.7

## Fluid Bed System **PFB-L Series**



The PFB-L series is a lab-scale R&D fluid bed system capable of performing, granulating, drying and coating processes in a single unit. The PFB-L laboratory scale fluid bed system features a built-in air handling system for heating and dust collection. After the process, rotation of the product chamber enables easy powder discharge.

Product container volume ( $\ell$ )	18
Working capacity : Drying (kg)*	3.5
Working capacity : Granulating (kg) *	2.8
Working capacity : Coating (kg) *	2
Expansion chamber diameter (mm)	Ø 320
Fan air volume (CMH)	200
Fan differential pressure (mmAq)	1,120
Fan power (kW)	2.2
Heating capacity (kW)	7
Heating capacity (kcal/h)	6,020
Compressed air pressure (bar)	6
Machine dimension (mm)	1,400 x 930 x 1,975
Machine weight (kg)	1,000
Operating voltage (Hz)	220/380/400/415/440/460 Vac 3Ph 50/60Hz

<sup>\*</sup> Specific Gravity 0.5

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# simple and special one stop solution



**B&D Turret** 

Uses standard D, B and BB tooling types.

Or with the option of a B & D Combination Turret. With this option a cam change is enough to make a single turret compatible with B and D Tooling.



Wide Range of Filling Cams

With a range of various filling cams (0.5 to 18mm), it is possible to meet the customer's various needs.
This critical point reduces powder loss, and replicates production models.



### **Direct Drive Motor**

PTK's Torque Drive Motor replaces the conventional belt driven motor and gearbox assembly. Therefore reducing heat and noise. Heat is reduced further by selecting the water-cooled motor with an intermittent water supply.

For optimum cool running use PTK's PISCon software to set the Interval time & supply time at the touch screen control panel.

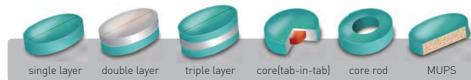
# All-in-One R&D Function PR-LT Series

Every type of tablet research available

The PTK PR-LT Series is capable of producing single, double and triple layer tablets. With a quick part change, it also produces core rod tablets and core tablets (tab-in-tab). The PR-LT Series is the only tablet press for laboratory use which can produce MUPS (Multiple Unit Pellet System) tablets. Only a change of powder hopper is needed.

The strength of the PR-LT series is that it collects multiple data points, based on an individual station, recorded on a production size turret. Therefore, testing on this machine bridges the gap of upscale uncertainties and gives true life results on 1 single compression or continuously.

The PR-LT Series provides the best solution for laboratory unit as all kind of types of tablet production is available. And PR-LT is designed to be available with scaling up to pilot with lower cost.





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# have some of the largest pharmaceutical companies in the world decided to purchase PTK machines?

Prior to purchasing PTK, all of our tablet presses were sourced from European manufacturers. Our decision to buy from PTK was based on our findings that PTK machines offered the best performance/value ratio when compared to the competition. The PTK machines gave very good performance in terms of production speed, tablet quality, regulatory compliance and reliability. The machines were easy to operate and the interface was an outstanding training tool for the operators to understand the more subtle parts of tablet compression.

The PTK 3000 double sided press performed as advertized for bi-layer tablets both small and large, and achived tremendous throughput for single layer tablets. The support from the PTK factory and Management was actually far superior to that received from European vendors including those that had full offices in the US. I can and did call them any time I had a question. They utilized the remote monitoring occasionally just to monitor the machine performance.

Based on my experience with the design, quality and outstanding customer service from PTK we have ordered a High Shear Granulator/Dryer type PM-1060 for installation at my new company.

- One of our customer in USA





# **OUR CREDO**

"We demonstrate honesty and sound ethical behavior in all business transactions and personal integrity in all dealings with others."

## Innovation

Our corporate culture and people are the bedrock of our success. Our culture promotes risk taking to find true innovation. During machine development our R&D team are encouraged to 'fail quickly' and move on. Failure should not be wasted, but accepted as the fair cost of travelling the path to true innovation. Our designers feel motivated and liberated by this supportive approach, it leaves open the door to an open mind and true innovation.

The system's flexibility allows it to be used for both laboratory and production purposes.





- GMP compliant Full Granulation Suite
- Final validation before full-scale production available
- Easy maintenance, assembly and disassembly

PTK pilot line suites for small batch production. The system's flexibility allows it to be used for both laboratory and production purposes. With compact design and Full Production features, our pilot line is a new industry option.

\* Specifications are subject to change without notice.

### Tablet Press PR-1000 Series



The PTK PR-1000 series is an economical, compact, single-sided rotary tablet press with pre-compression designed in accordance with cGMP guidelines.

Tooling	D	В	BB	BBS	
Number of Stations	16	19	23	25	
Max. Main Compression Force (kN)	70	60	60	60	
Max. Pre Compression Force (kN)	30	20	20	20	
Max. Output (tabs/h)	96,000	136,800	165,600	180,000	
Max. Filling Depth (mm)			18		
Max. Tablet Thickness (mm)			8.5		
Upper Punch Insertion (mm)	1-4				
Pitch Circle Diameter (mm)			225		
Turret Speed ( rpm)	15-100	15-120	15-120	15-120	
Max. Tablet Diameter (round) (mm)	25	16	13	11	
Max. Tablet Dimension (shape) (mm)	25	19	14	12	
Dimension, Machine (mm)		900 x 7	750 x 1,640		
Dimension, Controls (mm)		700 x 6	50 x 1,802		
Weight, Machine (kg)	1,900				
Weight, Contols (kg)	120				
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz				
Control Power		2	4Vdc		

# Capsule Filler **PF-1000 Series**



The PTK PF-1000 series, automatic capsuling machines are designed to automatically fill powders, pellets or tablets into two-piece capsules.

Number of holes / segment	1	3	5		
Max. Speed, powder (rpm)	135				
Max. Speed, pellet (rpm)		80			
Max. Output, powder (caps/h)					
Max. Output, pellet (caps/h)	4,800	14,400	24,000		
Power of Main Motor (kW)	0.75				
Air Consumption (liter/min)	650				
Compressed Air (bar)	6				
Dimension, Machine (mm)	950 x 850 x 1,750 / 2,160				
Dimension, Controls (mm)	700 x 650 x 1,500				
Weight, Machine (kg)		1,360			
Weight, Controls (kg)	120				
Capsule Size	#00, #0, #1, #2, #3, #4				
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz				
Control Power					

## Tablet Coater **PC-C Series**



PTK's tablet coaters precisely apply a spray of a liquid tablet coating system onto the tablets. A directed flow of drying air is drawn through the bed of tablets as they are gently agitated inside the rotating pan.

Model		PC-C	
Drum Diameter (mm)	500	635	660
Drum Opening Diameter (mm)	230	300	300
Drum Working Volume ( $\ell$ )	4.5 - 8	8 - 15	12 - 24
Output Capacity (kg) *	3.2 - 5.6	5.6 - 10.5	8.4 - 16.8
Spray Gun		1	
Drive Power (kW)		0.75	
Weight, Machine (kg)	500	600	650
Weight, Controls (kg)		80	
Dimension, Machine (mm)		998 x 1,181 x 1,353	
Dimension, Controls (mm)		800 x 550 x 1,160	
Power Supply Data	220/380/4	400/415/440/460 Vac 3Ph	50/60Hz
Control Power		24Vdc	

<sup>\*</sup> Specific Gravity 0.7

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## High Shear Mixer PM-1005 ~ PM-1060



The PTK PM-1005, 1015, 1030, 1060 are ideal for laboratory, scale-up or small batch production. User friendly operation and easy maintenance makes for a highly productive addition to all production environments.

Model	PM-1005	PM-1015	PM-1030	PM-1060	
Vessel Volume ( $\ell$ )	14	33	90	130	
Working Volume ( $\ell$ )	3.8 - 6	10.7 - 18	20.6 - 50	44.4 - 75	
Output Capacity (kg) *	2.7 - 4.2	7.5 - 13	14.4 - 35	31 - 53	
Agitator Drive Motor (kW)	0.75	1	1.5	2	
Agitator Max. Speed (rpm)	300	300	200	150	
Chopper Drive Motor (kW)	0.75	1.5	2.2	3.7	
Chopper Max. Speed (rpm)	3,400	3,400	3,400	3,400	
Dimension (mm)	1,420 x 555 x 1,470	1,640 x 650 x 1,630	1,250 x 1,240 x 1,810	1,500 x 1,450 x 1,930	
Weight (kg)	650	700	800	950	
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz				
Control Power	24Vdc				

<sup>\*</sup> Specific Gravity 0.7

## Fluid Bed System **PFB-P10 Series**



Optimized for R&D and scale-up. The PTK PFB-P10 series is capable of performing, granulating, drying and coating processes in a single unit.

Model	PFB-P10
Product container volume ( $\ell$ )	40
Working capacity : Drying (kg) *	16
Working capacity : Granulating (kg) *	13
Working capacity : Coating (kg) *	10
Expansion chamber diameter (mm)	Ø 440
Fan air volume (CMH)	600 CMH (10 CMM)
Fan power (kW)	6.3 Kw
Heating capacity (kW)	15 Kw
Heating capacity (kcal/h)	12,900 kcal/h
Compressed air pressure (bar)	6 bar
Machine dimension (mm)	1,550 x 850 x 1,800
Machine weight (kg)	1,500
Operating voltage (Hz)	220/380/400/415/440/460 Vac 3Ph 50/60Hz

<sup>\*</sup> Specific Gravity 0.5

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# **OUR CREDO**

"We demonstrate honesty and sound ethical behavior in all business transactions and personal integrity in all dealings with others."

# Standardization

We customize to meet market demands. We standardize our procedures for the best quality result. The critical point is that we are capable of making the balance between customization and standardization. Development, Production, Quality Assurance, Marketing and Sales share this philosophy. Our united foundation is the implementation of this common standardized platform, from which we are all rewarded with value and efficiency.

# **Production Units**

PTK Co.,Ltd have been developing a reputation for robust, technical and cost effective solid dose production machinery for drug or food supplement manufactures.





# Production Units

Stylish design, robust structures and the state-of-the-art performance of our rotary tablet press models, auto capsule filling machines, coating machines, high shear mixers and fluid bed systems are our key products for the pharmaceutical sector and food industries.

\* Specifications are subject to change without notice.

### Tablet Press PR-1500 Series



The PTK PR-1500 series is a modern, single-sided rotary tablet press designed especially for unattended operation in cGMP environments.

Tooling	D	В	BB	BBS		
Number of Stations	20	24	29	31		
Max. Main Compression Force (kN)	100	80	80	80		
Max. Pre Compression Force (kN)	100	80	80	80		
Max. Output (tabs/h)	120,000	172,800	208,800	223,200		
Max. Filling Depth (mm)			18			
Max. Tablet Thickness (mm)		{	3.5			
Upper Punch Insertion (mm)		, and the second	1-4			
Pitch Circle Diameter (mm)		2	285			
Turret Speed (rpm)	15-100	15-120	15-120	15-120		
Max. Tablet Diameter (round) (mm)	25	16	13	11		
Max. Tablet Dimension (shape) (mm)	25	19	14	12		
Dimension, Machine (mm)		1,000 x 8	350 x 1,800			
Dimension, Controls (mm)		650 x 60	00 x 1,510			
Weight, Machine (kg)		2,	500			
Weight, Controls (kg)	120					
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz					
Control Power		24	Vdc			

Production Units

Production Units

### Tablet Press PR-1500A Series



The PTK PR-1500A, tablet press model is designed for small batch production. The PR-1500A series is the new design standard for functionality and performance with improved user friendliness. A detachable control module provides greater space efficiency. Light and simple twin paddle impeller design allows for easy cleaning and maintenance.

Tooling	D	В	BB	BBS		
Number of Stations	20	24	29	31		
Max. Main Compression Force (kN)	100	80	80	80		
Max. Pre Compression Force (kN)	100	80	80	80		
Max. Output (tabs/h)	120,000	172,800	208,800	223,200		
Max. Filling Depth (mm)		1	8			
Max. Tablet Thickness (mm)		8	.5			
Upper Punch Insertion (mm)		1	-4			
Pitch Circle Diameter (mm)		28	85			
Turret Speed ( rpm)	15-100	15-120	15-120	15-120		
Max. Tablet Diameter (round) (mm)	25	16	13	11		
Max. Tablet Dimension (shape) (mm)	25	19	14	12		
Dimension, Machine (mm)	1,138	x 1,700 x 1,850 (Cd	ontrol Cabinet Incl	uded.)		
Weight, Machine (kg)	2,500					
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz					
Control Power		24	Vdc			

### Tablet Press PR-2000 Series



The PTK PR-2000 series is a state-of-the-art computer controlled, single-sided rotary tablet press designed especially for unattended operation in cGMP environments.

Tooling	D	В	BB	BBS		
Number of Stations	29	36	43	47		
Max. Main Compression Force (kN)	100	100	100	100		
Max. Pre Compression Force (kN)	100	100	100	100		
Max. Output (tabs/h)	174,000	216,000	258,000	282,000		
Max. Filling Depth (mm)		1	8			
Max. Tablet Thickness (mm)		8	.5			
Upper Punch Insertion (mm)		1	-4			
Pitch Circle Diameter (mm)		4	15			
Turret Speed (rpm)	15-100	15-100	15-100	15-100		
Max. Tablet Diameter (round) (mm)	25	16	13	11		
Max. Tablet Dimension (shape) (mm)	25	19	14	12		
Dimension, Machine (mm)		1,190 x 9	85 x 1,860			
Dimension, Controls (mm)		650 x 60	0 x 1,510			
Weight, Machine (kg)	3,300					
Weight, Controls (kg)	120					
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz					
Control Power		24'	Vdc			

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Production Units

Production Units

## Tablet Press PR-2100 Series



The PTK PR-2100 series featuring WIP (Wash-In-Place), is designed to protect the operators from hazardous or toxic products.

Tooling	D	В	BB	BBS		
Number of Stations	35	43	51	55		
Max. Main Compression Force (kN)	100	100	100	100		
Max. Pre Compression Force (kN)	100	100	100	100		
Max. Output (tabs/h)	168,000	258,000	306,000	330,000		
Max. Filling Depth (mm)		1	8			
Max. Tablet Thickness (mm)		8	.5			
Upper Punch Insertioin (mm)		1	-4			
Pitch Circle Diameter (mm)		4	95			
Turret Speed (rpm)	15-80	15-100	15-100	15-100		
Max. Tablet Diameter (round) (mm)	25	16	13	11		
Max. Tablet Dimension (shape) (mm)	25	19	14	12		
Dimension, Machine (mm)		1,119 x 1,2	236 x 1,830			
Dimension, Controls (mm)		650 x 60	0 x 1,510			
Weight, Machine (kg)		4,5	500			
Weight, Controls (kg)	120					
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz					
Control Power		24	Vdc			

## Tablet Press PR-3000 Series



The PTK PR-3000 series is a double sided press capable of efficient, high speed production of single layer or double layer tablets.

Tooling	D	В	BB	BBS		
Number of Stations	43	52	63	68		
Max. Main Compression Force (kN)	100	100	100	100		
Max. Pre Compression Force (kN)	100	100	100	100		
Max. Output (tabs/h)	309,600	436,800	529,200	571,200		
Max. Filling Depth (mm)		18	}			
Max. Tablet Thickness (mm)		8.5	)			
Upper Punch Insertion (mm)	1-4 (1-8 double layer)					
Pitch Circle Diameter (mm)	615					
Turret Speed ( rpm)	5-60	5-70	5-70	5-70		
Max. Tablet Diameter (round) (mm)	25	16	13	11		
Max. Tablet Dimension (shape) (mm)	25	19	14	12		
Dimension, Machine (mm)		1,550 x 1,20	00 x 1,967			
Dimension, Controls (mm)		730 x 630	x 1,610			
Weight, Machine (kg)		5,70	00			
Weight, Controls (kg)		140	)			
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz					
Control Power	24Vdc					
Double Layer Max. Output (tabs/h)	103,200	156,000	189,000	204,000		

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Production Units Tablet Press

### Tablet Press PR-3500 Series



The PTK PR-3500 series is a triple compaction tablet press capable of producing single, double and triple layer tablets. PR-3500 is designed for today's current cGMP pharmaceutical manufacturing environments.

Tooling	D	В		BB	BBS
Number of Stations	43	52		63	68
Max. Main Compression Force (kN)	100	100		100	100
Max. 1st Pre Compression Force (kN)	30	30		30	30
Max. 2nd Pre Compression Force (kN)	30	30		30	30
Max. Output, Single Layer (tabs/h)	90,300	124,80	00 1	51,200	163,200
Max. Output, Double Layer (tabs/h)	77,400	109,20	00 1:	32,300	142,800
Max. Output, Triple Layer (tabs/h)	64,500	93,60	10	13,400	122,400
Max. Filling Depth (mm)		2-6 (1st)	3.5-10 (2nd)	5-14 (3rd)	
Max. Tablet Thickness (mm)	9				
Upper Punch Insertion (mm)	2.5-6 (1st, 2nd), 1-4 (3rd)				
Pitch Circle Diameter (mm)			615		
Turret Speed, Single Layer ( rpm)	5-35	5-40	)	5-40	5-40
Turret Speed, Double Layer ( rpm)	5-30	5-35	)	5-35	5-35
Turret Speed, Triple Layer ( rpm)	5-25	5-30	)	5-30	5-30
Max. Tablet Diameter (round) (mm)	25	16		13	11
Max. Tablet Dimension (shape) (mm)	25	19		14	12
Dimension, Machine (mm)		1,6	697 x 1,469 x 1,	966	
Dimension, Controls (mm)		r	730 x 630 x 1,61	10	
Weight, Machine (kg)			5,000		
Weight, Controls (kg)	140				
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz				
Control Power			24Vdc		

# high speed and high pressure technology



Down Force Ram

Powerful air cylinders are equipped on the top of the machine to secure the turret for stable operation with high compression force.



Soft Start

To combat punch overloading when accelerating or decelerating to and from high speed, the machine rapidly high precision tool makes the relieves pressure until full operating turret possible to run at the highest speed is achieved.

The machine will only accept good tablets and controls variations on machine start and stop.

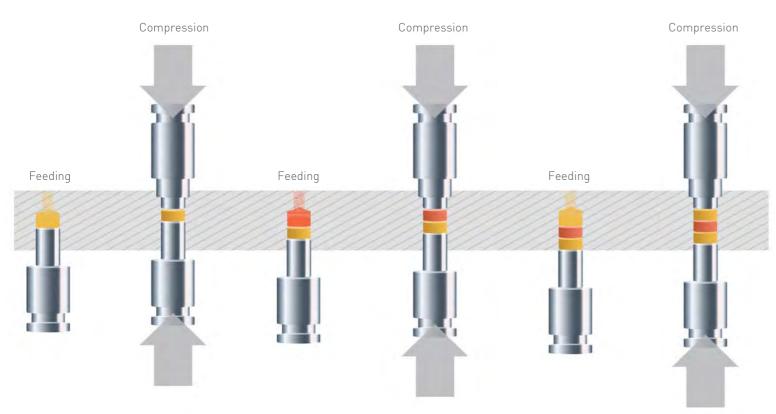
This function is selectable so only used when necessary.



**Precision Cam Track** 

The upper and lower rail manufactured with a specialized speed and reduce the noises.

Tablet Press Tablet Press



Triple Layer Production - PR3500 Series

# maximized customization with multi-layer tablet



Scraping

Before 2nd level feeding, a precision PEEK scraper is equipped to avoid powder contamination.

With air purge and suction capability it prevents powder contamination effectively.



First Layer Sampling

When the press is configured for double layered tablets the machine is capable of setting and monitoring the first layer weight by ingeniously discharging the initial layer only.

cylinder lifting the rail forcing first layer ejection.

The second layer is then recognized as being underweight and ejected in due course.



Double layer & Single layer

The press can be configured with one or two output chutes. Conventional tablets can be manufactured with double sided pre and main compression for highest outputs, or for double layer This is done by means of a pneumatic tablets by single tablet output.

> The change-over process is easily possible by the user with the most basic of training.

# product change-over now even faster



30 Minute Change-over

PTK tablet presses now contain both upper and lower punches on turret change, driving down turret change times even lower with complete machine change over achievable in 30 minutes. Change over times can be optimised using additional change parts with spare turrets pre-tooled to include the lower tooling. Easy to remove lower cams, quick release dust extraction and removable turret, means access for cleaning is made very easy.



**Curvic Coupler** 

A hardened precision coupling is used to connect the machine to each turret. Ensures repeatable turret re-location to hundredths of a millimetre.

Eliminates wear and vibration due to direct opposing lock of turret to machine.

Allows complete accuracy of the turret's rotary position at all times.



Servo Motor

Position control with high accuracy is possible by the use of servo motors. These control the upper and lower roller, dosing cam and feeder drive. With a displayed range of 100th mm, the actual position range is 1000th mm.

Encoder feedback gives position information and allows for perfect

changeover repeatability.



### Removable Turret System benefits:

- Faster product to product change-over
- Easier production planning and preparation as machine turrets can be made ready in advance
- The ability to clean to a higher standard and offline
- Configure the machine to maximise output through optimum tooling to product size selection
- Keep the initial investment down by buying the option, and add different turret sizes at a later date.

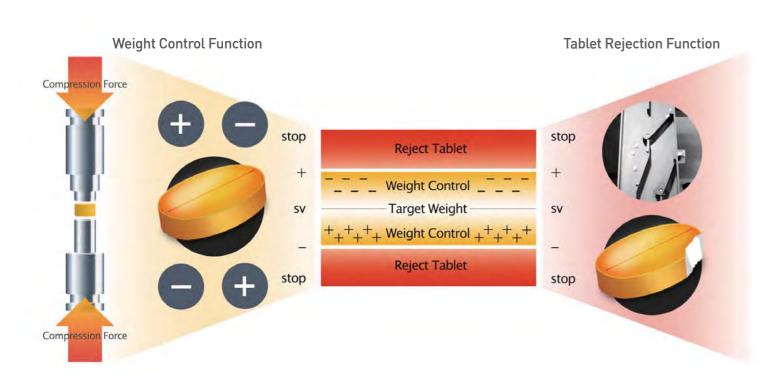
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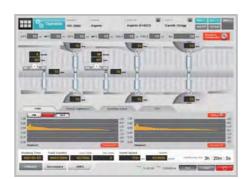
# maximized customization with inhouse program



### **Automatic Weight Regulation**

Automatic Weight Regulation monitors and regulates tablet weights within a specified range. The 3 channel system manages Good, Reject and Sample tablets. Automated with the weight regulation system to ensure 100% of tablets entering the good stream are monitored.





### Inhouse Program

With our inhouse programed software, PTK provides maximized customization of the software. This makes for a fast, light and stable program with intuitive interface. If the movement of the upper and Opened protocol means it is possible to connect OEE system which shows real time productivity, availability and quality.



**Punch Tightness Monitoring** 

The punch tightness of the upper and lower punches can be monitored and any excessive pressure (tightness) can be detected. lower punch in the upper disk hole is not smooth, the load-cell on this rail detects it and stops the machine. The tightness limit is to be set in PISCon. If the tightness level goes beyond the limit, the machine will activate an alarm.



**Data Collection** 

The control systems available are dependent upon the customer's specified level of system control and the sophistication level of data collection and analysis to be performed by the control system. An unlimited number of data storage also guarantees maximized traceability.



#### **Tablet Deduster**

Vibratory type, available in upward or downward spiral. Feature air blast nozzles for stubborn dust. Built-in vacuum nozzle for dust removal.



### Powder Loader Hopper

The built in powder loader, operates in the same way as the standard powder loader, by using the vacuum transfer method. This option features installation of the control valving inside the upper structure of the tablet press frame.



### Initial Reject & Sampling Gates

Features automatic timer settings for opening intervals and duration to reject tablets on start-up and shut-down and for automatic tablet sampling in production.



#### **Dust Collector**

This device extracts dust from the machine's working parts and creates a negative pressure inside the enclosure so airborne dust is contained.



### Open Feeder

For good flowing materials or applications where a mechanical feeder is not suitable i.e. segregation problems, special matrices or short runs.



### **WIP Rack**

Programmable WIP system features pumps, detergent dispensers, spray nozzles, temperature and flow controls for WIP operations.



### IFH

IFH is useful for where powders require additional agitation prior to entering the powder feed tube.



### **Metal Detector**

The majority of pharmaceutical tablets and capsules can be inspected in a MET 30+ with an Aperture Size of 95mm W x 38mm H.



#### Powder Loader

Vacuum transfer system supplies the powder automatically to the main hopper on the tablet press from floor level.



### Turret Table

Allows for the safe handling and easy transport of removable turrets for installation, removal or maintenance.



#### Load Cell Calibration Kit

Optional kit allows for calibration of the load cells on PTK tablet presses.



### **Direct Drive motor**

Reduces heat emissions through a water cooled, jacketed motor system.



### UTS (Sampling Checker)

The flexible and modular Kraemer Tablet Testing System UTS fully automatically measures weight, thickness, diameter and hardness.



#### Chute Sensor

Detects jams and blockages in the discharge chute. Programmable alarm feature alerts operators and shuts down the press.



### Magnesium Spray Device

The Magnesium spray device is useful for sticky products, particularly when this causes weight variation, or high ejection forces

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Production Units

Production Units

## Tablet Coater PC Series



The coating pans of these machines are designed with focused airflow to provide more efficient drying, minimizing air usage.

Model	PC-G800	PC-1000	PC-1300	PC-1500	PC-1700	PC-1700i	PC-1700t
Drum Diameter (mm)	850	1,050	1,300	1,500	1,700	1,700	1,700
Drum Opening Diameter (mm)	380	420	500	578	600	600	600
Drum Working Volume ( $\ell$ )	30 - 54	57 - 100	100 - 180	160 - 280	250 - 440	340 - 600	450 - 800
Output Capacity (kg) *	21 - 38	40 - 70	70 - 126	112 - 196	175 - 308	238 - 420	315 - 560
Spray Gun	2	2	2	3	4	4	5
Drive Power (kW)	2.2	2.2	4	5.5	7.5	7.5	11
Weight, Machine (kg)	1,450	1,650	1,850	2,000	2,250	2,400	3,000
Weight, Controls (kg)	90	90	90	90	90	90	90
Dimension, Machine (mm)	1,300x1,661x1,650	1,500x1,661x1,835	1,750x1,835x1,998	2,050x1,963x2,210	2,250x2,056x2,250	2,250x2,306x2,250	2,250x2,706x2,250
Dimension, Controls (mm)			68	0 x 660 x 1,2	280		
Power Supply Data		220/3	380/400/415	/440/460 Va	c 3Ph 50/	/60Hz	
Control Power				24Vdc			

<sup>\*</sup> Specific Gravity 0.7

# Tablet Coater **PC Series** Chamber Type



Chamber type features the coating pan inside of a hexagonal chamber allowing easy operator access for cleaning and maintenance.

Model	PC-G810	PC-1010	PC-1310	PC-1510	PC-1710	PC-1710i	PC-1710t		
Drum Diameter (mm)	850	1,050	1,300	1,500	1,700	1,700	1,700		
Drum Opening Diameter (mm)	380	420	500	578	600	600	600		
Drum Working Volume ( $\ell$ )	30 - 54	57 - 100	100 - 180	160 - 280	250 - 440	340 - 600	450 - 800		
Output Capacity (kg) *	21 - 38	40 - 70	70 - 126	112 - 196	175 - 308	238 - 420	315 - 560		
Spray Gun	2	2	2	3	4	4	5		
Drive Power (kW)	2.2	2.2	4	5.5	7.5	7.5	11		
Weight, Machine (kg)	1,450	1,650	1,850	2,000	2,250	2,400	3,000		
Weight, Controls (kg)	90	90	90	90	90	90	90		
Dimension, Machine (mm)	1,300x1,661x1,650	1,500x1,661x1,835	1,768x1,779x2,110	1,968x1,897x2,280	2,250x2,056x2,250	2,168x2,229x2,490	2,168x2,609x2,490		
Dimension, Controls (mm)		680 x 660 x 1,280							
Power Supply Data		220/3	380/400/415	/440/460 Va	c 3Ph 50/	/60Hz			
Control Power				24Vdc					

<sup>\*</sup> Specific Gravity 0.7

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Tablet Coater

# Chamber Type Coater

Coating time saved by our closed design

Solution line change-over time saved with the manifold design

Cleaning time saved with a simplified open type duct

'Heat efficiency' and 'Maintenance' are both critical factors for the performance of a coating system. Industry had the alternatives of the closed type machine for high heat efficiency and the open type for easy maintenance. However, this chamber type has both these advantages, so makes possible a shortened coating time as with a closed system, with quick and easy cleaning to fully comply with cGMP.



# our coating technology



Spray gun swivel arm

The spray guns together with the compressed air lines are smoothly taken out of the coating pan through a swivel arm block for easy mainte -nance and cleaning.



Spray Gun

The gun sprays the solution liquid on to the tablet bed. One line for the solution liquid and two lines for compressed air (Cylinder air & atomizing air) are connecting to the gun.

The angle of spray and distance are controlled by adjusting the atomizing air pressure and the air flow.

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# maximized customization with inhouse program

The coating process can be easily automated and configured for the optimal production environment, which guarantees exceptional product quality. The user friendly touch screen controls make for a highly efficient production environment. Batch report and data analysis functions are available with Tablet Coater, Hige Speed Mixer and Fluid Bed System.









Cycle

WIP

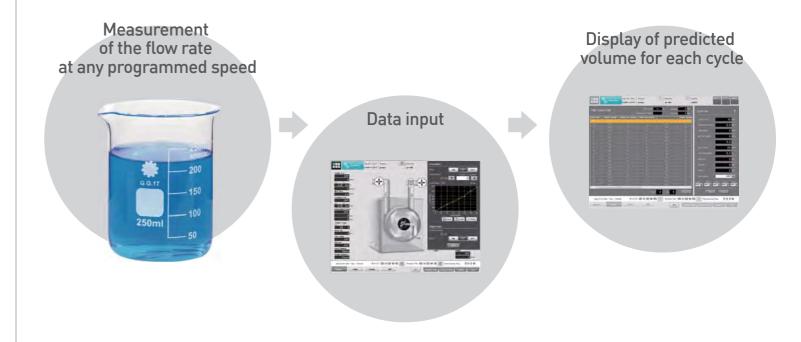
Batch Report



# **Liquid Volume Prediction System**

The Liquid Volume Prediction System (LVPS) calculates the Coating Solution supply rate, and therefore also, the total usage per batch. This is set based on an accumulation of initial sample data based on flow rates for specific sample speeds.

The system therefore accurately calculates the total liquid for one whole batch to enable consistent planned consumption of liquid solution (minimized loss) and process repeatability. The HMI option includes this system without any extra cost. Now, the key functions of a flow meter are all available within PTK's HMI in-house software. So free from any cleaning and maintenance.



**\**56



### Heat Exchanger (Inlet Air Handling Unit)

Inlet process air is heated inside this unit prior to introduction to the coating pan.



### Dehumidifier

Dehumidifier dehumidifies the hot air that is channeled into the coating pan, it has its own HEPA filter so it can supply clean air.



### Hepa Filter

Hepa filter is equipped on the heat exchanger or dust collector, and the air is filtered to 99.99% (EN 1882 H13).



## Dust Collector - Cone Type (Outlet Air Handling Unit)

The cone type dust collector is designed for high performance. It provides easy maintenance and reduces cleaning frequency with a large and convenient dust collection bin.



### Dust Collector (Outlet Air Handling Unit)

Dust is extracted from the coater via this device which makes for a clean production environment.



### WIP Rack & Nozzle

WIP (Wash-In-Place) system automatically cleans each part of the coater.



## Liquid Tank (Solution Tank) Agitator Impeller, Magnetic Impeller

The (Liquid) solution is contained in this tank and transferred to the spray guns by the pump.



### Coating Pan Rack

The coating pan rack is for PC-L series. This is for storage of coating pans and plenums.



### **Auto Damper**

A compressed air controlled rotary actuator precisely regulates the airflow to the coater by modulation of the flap position.

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# **OUR CREDO**

"We demonstrate honesty and sound ethical behavior in all business transactions and personal integrity in all dealings with others."

## Respect

Employees are your internal customers and need a regular dose of appreciation. Thank them and find ways to let them know how important they are. Treat your employees with respect and chances are they will have a higher regard for customers. Appreciation stems from the top. Treating customers and employees well is equally important.

Production Units
High Shear Mixer

## High Shear Mixer PM-1100 ~ PM-1600

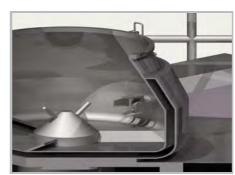


For a fast and efficient mixing system, the PTK PM-1100  $\sim$  PM-1600 will exceed all expectations with its user friendly design.

Model	PM-1100	PM-1200	PM-1300	PM-1400	PM-1500	PM-1600			
Vessel Volume ( $\ell$ )	248	440	635	830	1,100	1,270			
Working Volume ( $\ell$ )	85 - 135	142 - 238	172 - 318	254 - 412	330 - 550	390 - 640			
Output Capacity (kg) *	60 - 95	99 - 167	120 - 223	178 - 288	231 - 385	273 - 448			
Agitator Drive Motor (kW)	11	15	22	30	37	45			
Agitator Max. Speed (rpm)	120	110	100	90	80	75			
Chopper Drive Motor (kW)	5.5	7.5	11	11	11	15			
Chopper Max. Speed (rpm)	3,400	3,400	3,400	3,400	3,400	3,400			
Dimension (mm)	2,450 x 1,550 x 2,600	2,830 x 1,660 x 2,600	2,590 x 1,960 x 2,520	2,980 x 1,900 x 2,550	3,300 x 2,200 x 2,550	3,430 x 2,100 x 2,550			
Weight (kg)	1,950	2,500	2,600	2,750	3,000	3,500			
Power Supply Data		220/380/400/415/440/460 Vac 3Ph 50/60Hz							
Control Power	24Vdc								

<sup>\*</sup> Specific Gravity 0.7

# simple and special one stop solution



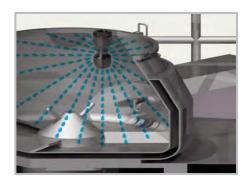
Jacketed Vessel

The vessel is jacketed type. Water or steam is supplied to the wall cavity to control the vessel temperature.



**Vessel Lid Opening** 

The vessel lid is automatically lifted by an air cylinder at the touch of a button. According to room height, slide type or vertical type is available on requests.



Cleaning - WIP

High pressure water is sprayed through purposefully placed nozzles to clean the inside of the vessel. The nozzles can be easily removed and reassembled. The agitator impeller lifting device makes easy cleaning and maintenance.

### Wet Granulation from R&D to Production capacity

Since wet granulation is a batch process, the amount of material that can be processed in a given batch is dependent on the size of the mixing bowl. Our line of PTK mixer granulators come in a wide range of sizes, from an R&D unit with small bowl with a 1.2 liter working capacity to production granulators with a working bowl volume of approximately 640 liters (approx. 450 Kg capacity.) Product contact parts on all our granulators are constructed of type 316 stainless steel with a mirror finish as standard. Non-product contact exterior surfaces are of brushed type 304 stainless steel.





be of mixing Impeller lifting device

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High Shear Mixer

# maximized customization with inhouse program

The PISCon of the ConPid mixer is designed for easy manipulation of the control system.

The mixing process is automated and configured to the optimal production environment, which guarantees exceptional product stability. The user-friendly touch screen display and the well-organized production parameter monitoring screen will provide a most satisfactory working environment. Batch report and data analysis functions are available with Tablet Coater, Hige Speed Mixer and Fluid Bed System.









Overview

Recipe

WIP

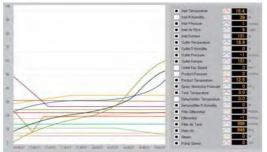
**Batch Report** 

### Data Analysis

With the manual cycle graph, users can check all the real-time parameter graphs in a single table. The figure of every selected parameter shows by percentage for equalized visual graphics, the user can find operational discrepancies easily and deal with in time. This results in synthetic analysis of cause and effect.

This data acquisition affords the ability to learn more about a product's characteristics. If you utilize this data, even heavy processing tasks can be optimized and automated.





## Milling System

# **PCM Series**

This wet mill which grinds and agglomerates powder after mixing and as a dry mill does the same work after fluidization. Various sizes and shapes of sieve and impeller are available upon request.

The system is offered as a built-in or independent system.



various sized square and round type





### Binder Spray System

The liquid binder is contained separately in its own tank and transferred to the spray nozzle.



#### WIP Rack & Nozzle

High pressure water is sprayed through strategically placed nozzles to clean the inside of the vessel.



### Integrated Conical Mill

Wet milling of agglomerates after mixing or the calibration of dry granules after fluid bed drying can be done using the same mill. Various sieve sizes and geometries are available. The conical mill is available as an integrated system or a stand-alone type.



### Vessel Lid Opening by Air Cylinder

The vessel lid is automatically raised by an air cylinder at the touch of a button.



#### Double Jacket

The vessel is double-jacketed. Water or steam is supplied to the wall cavity to control the vessel temperature.



### Agitator Impeller Lifting Device

After the WIP process, an air cylinder lifts the impeller to aid cleaning.

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### Why They Choose PTK, Again

Many of our customers are recurring customers. It reaches 57%. Even though our history is shorter than other competitors. It was enough to prove our competitiveness.



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### **CS Support Network**

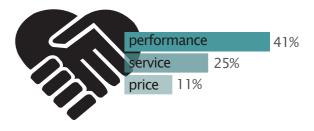
For our customers, we are available 24 hours per day. Recently, various communication technology like romote control, messenger, video conference made the average response time much shorter.



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### **Our Customers Answered**

Why they chose PTK is firstly machine performance, secondly reliable service and lastly reasonable price.



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**Production Units** Fluid Bed System

### Fluid Bed System **PFB Series**



- Explosion Safety: 12 bar pressure-shock resistance, explosion isolation valve (QASV)
- Containment System (dust free): Loading and Discharging
- WIP (Wash In Place)
- Inflatable air seal
- Separate air handling for inlet and outlet process air
- Liquid Tank (with temperature controlled jacket)
- Pump Rack for Binder Spray
- Bag type filters with pulsed compressed air cleaning

The PTK PFB Series have complete range of fluid bed system. from R&D to high production. Top spray and bottom spray are both available.

Model	PFB-30	PFB-60	PFB-90	PFB-120	PFB-150	PFB-200	PFB-300
Container Volume ( $\ell$ )	125	250	375	500	625	825	1,250
Working Capacity, Drying (kg) *	50	100	150	200	250	330	500
Working Capacity, Granulating (kg)	* 40	80	120	160	200	265	400
Working Capacity, Coating (kg) *	30	60	90	120	150	200	300
Fan Unit, Air Volume (CMM)	30	50	65	75	85	100	130
Fan Unit, Diff Pressure (mbar)				122.6			
Fan Unit, Power (Kw)	15	18.5	22	30	37.5	45	55
Steam Consumption (kg/h)	95.6	147.1	166.8	235.4	264.8	353.1	490.5
Steam Pressure (bar)				3			
Power Supply Data		220/38	30/400/415	/440/460 Va	ac 3Ph 50	0/60Hz	
Control Power				24Vdc			

<sup>\*</sup> Specific Gravity 0.5

# flexible and stable multi process



Drying

Drying is a simple and basic principle. This process makes granulates

Powder is contained in the lower vessel and heated air is passed through a fine mesh and into the container for the circulation of the targeted powder. Heated air passes through the powder, aerating it to promote rapid drying.

The expelled air is then passed through an internal filter, and discharged to the outlet duct by the dust collector. Fluid bed drying quarantees short drying time.



Granulating (Top Spray)

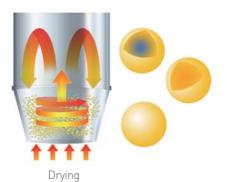
by spraying various type of liquids onto powder. Spraying is done from the top, the opposite side to fluidization. are possible with one machine. The multi head nozzle makes it convenient and easy to clean. Due to variance of the volume of the product or the size of the nozzle, the height of the Spray gun is adjustable.

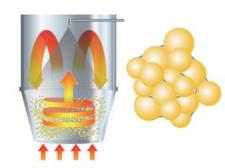


Coating (Bottom Spray)

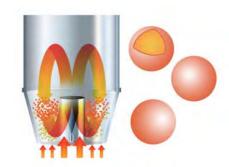
PFB provides multi process with a single machine. The Drying, Granulating and Coating process The coating option includes granulating. Spraying is done from the bottom, With the same method as fluidization. It is best for fine coating.

The partition in the container guides the flow of product, from the center to the direction of fluidization. Conversion from top spray to bottom spray systems is possible with product container and spray change, only.





Granulating (Top Spray)



Coating (Bottom Spray)

# safe environment and smart maintenance



**Explosion Safety** 

PFB series is designed for 12 Bar pressure resistance to protect the user in case of explosion.

The explosion isolation valve (QASV) is also installed on the inlet and outlet Washable cartridge filters of high ducts. It provides a safe environment even with an explosion flame and pressure.



Filter Maintenance

The fabric filter is antistatic. Even during the process, automatic cleaning by compressed air is possible.

filtration efficiency are equipped in the Dust collector. Furthermore the filters are easily replaced without any special tools being required.

The automated pneumatic shaking system removes even very fine dust from the filter surface. With position sensor, filter change is easily controlled by HMI.



**WIP** 

4 WIP Nozzles are installed. It makes it possible that minimize contamination of product from dust.

PTK's HMI control software enables batch recording/recall complies with 21 CFR Part 11 requirements. The WIP process is totally automated and can be configured for optimal, repeatable results by using the storage and retrieval functions of the control software.



Inflatable Seal

The pneumatic inflatable seal provides a perfect closed system. The container sealing is easily operated by HMI and it helps easy and stable filter change.

### Inlet Receptacle

The Inlet Receptacle is designed to air flow in a swirl by the stator. It helps with end product quality and aid's side discharging.



Fluid Bed System

# value focused engineering



### Loading/Unloading

Powder is loaded by a dust collector and unloaded by an isolated vacuum conveyor. Finished material is trans -ferred through antistatic hose to a vacuum conveyor (optional item). Antistatic hose minimizes sticking inside the hose wall so it can reduce the time to transfer the power and safely eliminates the risk of electrical static discharge.



**Product Temperature Sensor** 

A sensor for product temperature makes it possible to monitor temperature of products in real time. With high grade stainless steel (316L) and an IP 68 graded sensor guarantees water and dust-free operation. Additionally, a sanitary clamp makes assembly and disassembly easy.



Sampling

Anytime during the process, user can take sample and monitor the product. With continuous feedback, the user can control all the parameters required by the HMI system. This reduces the risk of product failure and guarantees high quality.

### Side discharge

After processing, powder is discharged by a vacuum conveyor. Once the dust collector makes fluidization of the powder, the vacuum conveyor carries the powder.

This closed system gives a dust-free and safe environment even with hazardous products.

An optional swing out product container is available.



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Fluid Bed System Fluid Bed System

# maximized customization with inhouse program



### Through-The-Wall System

The HMI display can be wall mounted in mechanical rooms which allows for monitoring and setting for mechanical equipment. Separated electronic part provides safe and easy-to-clean environment.



### Inhouse Program

With our inhouse programed software, PTK provides maximized customization of the software. This makes for a fast, light and stable program with intuitive interface. The batch report is available in both Opened protocol means it is possible to connect OEE system which shows real time productivity, availability and quality.



**Batch Report** 

After each batch, the user can get the report of a batch including all main process parameters, events and logs.

auto and manual mode. With this report, data acquisition (input and output) and analysis it is easily possible to optimize the process for greater efficiency.



**Data Collection** 

The control systems available are dependent upon the customer's specified level of system control and the sophistication level of data collection and analysis to be performed by the control system. An unlimited number of data storage also guarantees maximized traceability.

Production Units

Production Units

# Capsule Filler **PF-2000 Series**



The PTK PF-2000 series is an ideal solution for environments with moderate production requirements.

Number of holes / segment	10	12	14			
Max. Speed, powder (rpm)		125				
Max. Speed, pellet (rpm)		75				
Max. Output, powder (caps/h)	75,000	90,000	105,000			
Max. Output, pellet (caps/h)	45,000	54,000	63,000			
Power of Main Motor (kW)		1.5				
Air Consumption (liter/min)						
Compressed Air (bar)	6					
Dimension, Machine (mm)	1,200 x 1,	250 x 1,750 (2,370 hopper	included)			
Dimension, Controls (mm)		650 x 600 x 1,500				
Weight, Machine (kg)		1,950				
Weight, Controls (kg)		120				
Capsule Size	#00, #0, #1, #2, #3, #4					
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz					
Control Power		24Vdc				

# Capsule Filler **PF-3000 Series**



The PTK PF-3000 series is especially suited for production environments where maximum throughput and high capacity is required.

Number of holes / segment	16	18	20
Max. Speed, powder (rpm)		125	
Max. Speed, pellet (rpm)		75	
Max. Output, powder (caps/h)	120,000	135,000	150,000
Max. Output, pellet (caps/h)	72,000	81,000	90,000
Power of Main Motor (kW)	2.2		
Air Consumption (liter/min)	1,050		
Compressed Air (bar)	6		
Dimension, Machine (mm)	1,374 x 1,450 x 1,855 (2,500 hopper included)		
Dimension, Controls (mm)	650 x 600 x 1,500		
Weight, Machine (kg)	2,300		
Weight, Controls (kg)	120		
Capsule Size	#00, #0, #1, #2, #3, #4		
Power Supply Data	220/380/400/415/440/460 Vac 3Ph 50/60Hz		
Control Power			

75

# our encapsulation technology



### De-jamming device

The de jamming device is equipped behind the feeder assembly. If separated or damaged capsules block the raceway, the de jamming device blows air to remove the faulty capsules from the feeding aperture.

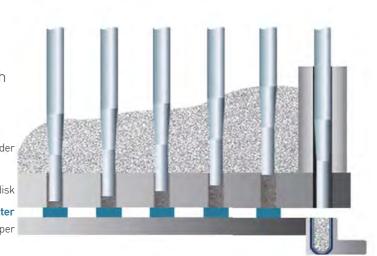


### **TAS**

The TAS monitors and regulates powder weight in process with real time pressure monitoring and automatic correction.

### Synchronic shutter system

With a revolutionary dosing disk, the synchro shutter system minimizes the gap between the shutter and the ring scraper. This minimizes powder loss through powder burst at the initial compaction causing sifting, holding true perfect accuracy right through each tamping stage. It provides an optimized solution for powder hard-to-press, or sticky product by containing the dose, eliminating friction on the product and dosing disk maintaining clean component parts within the machine. ring scraper



# **Tablet Filling Device**

The tablet filling device makes various filling combinations possible.

This device is for supplying tablets into the capsule. The tablet filling device is located before powder tamping so combinations of tablet and powder are also possible. The tablets are lined up into the feeder automatically, with sensors in place to monitor the tablet level.











tablet+powder+tablet tablet+pellet+tablet

tablet+tablet+tablet



# maximized customization with inhouse program

The operation of the PF Series is a fine example of user friendly design. The software ensures the optimum capsule quality with its production data management and automation control. The product data settings can be stored and re-called to aid uniform production.









Overview

Setting

Recipe





### Pellet Filling Device

The pellet device is for filling pellets into hard gelatin capsules. It is designed to minimize weight deviation.



### **Tablet Filling Device**

The tablet filling device uses innovative orientation and separation technology to accurately dispense tablets into Hard Gelatin Capsules. Encapsulation of lone or multiple tablets as well as combinations of tablet/powder/granule are made possible by the addition of this precision device.



#### **Dust Collector**

This device extracts dust from the machine's working parts and creates a negative pressure inside the enclosure so airborne dust is contained.



### Change Parts

The machine can be configured for all capsule sizes with a range of change parts available.



#### Capsule Loader

Designed to gently elevate the capsules to prevent capsule separation and crushed capsules during loading.



#### Powder Loader

Vacuum transfer system supplies the powder automatically to the main powder hopper of the machine.



#### Capsule Polisher

Removes external dust from the finished capsules and transports them upward for discharge into the product container.



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