

KIS SMART TABLET PRESS

Type Designation : **KP4**

- ✓ **Accurate Auto Tableting Control**
- ✓ **Achieving High Yield**
- ✓ **Single Tablet Rejection up to 100 RPM**
- ✓ **Single Tablet Sampling**



Solidity Design

KIS KP4, a single rotary high-speed smart tablet press is built for consistently delivering good quality tablets.

The KP4 smart tablet press is designed to meet your quality and regulatory needs and has the flexibility to adapt to the stringent requirements of a demanding and dynamic pharmaceutical market.

A tablet press with cGMP features, better accessibility to the compression zone, virtually tool free changeover and improved revenue optimization

Feature

Single Rotary Press

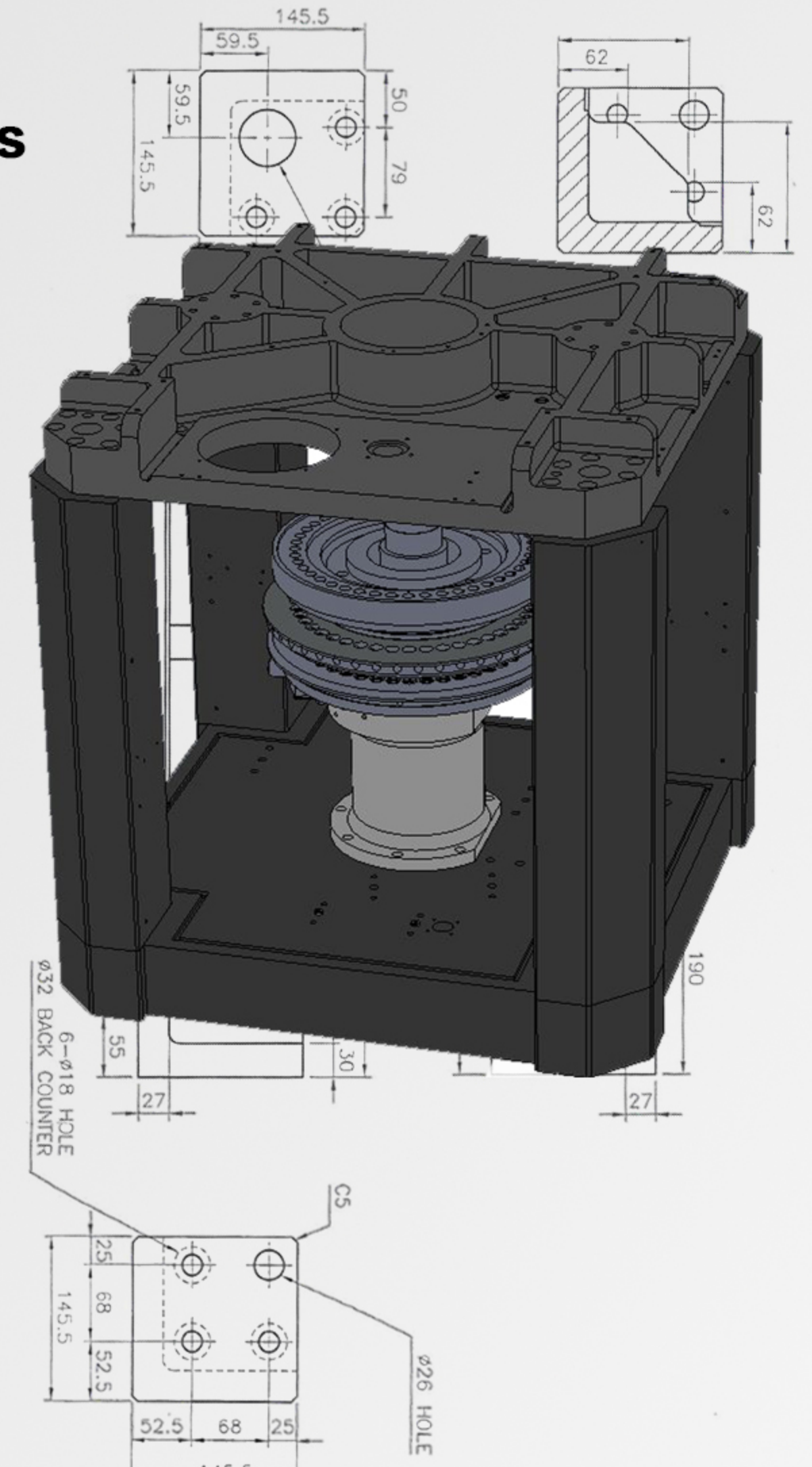
Box Type solid cast-iron frame structure

Fully automatic TCS® tableting control system

single tablet Rejection capability at 100 RPM

Unique design for versatile processing

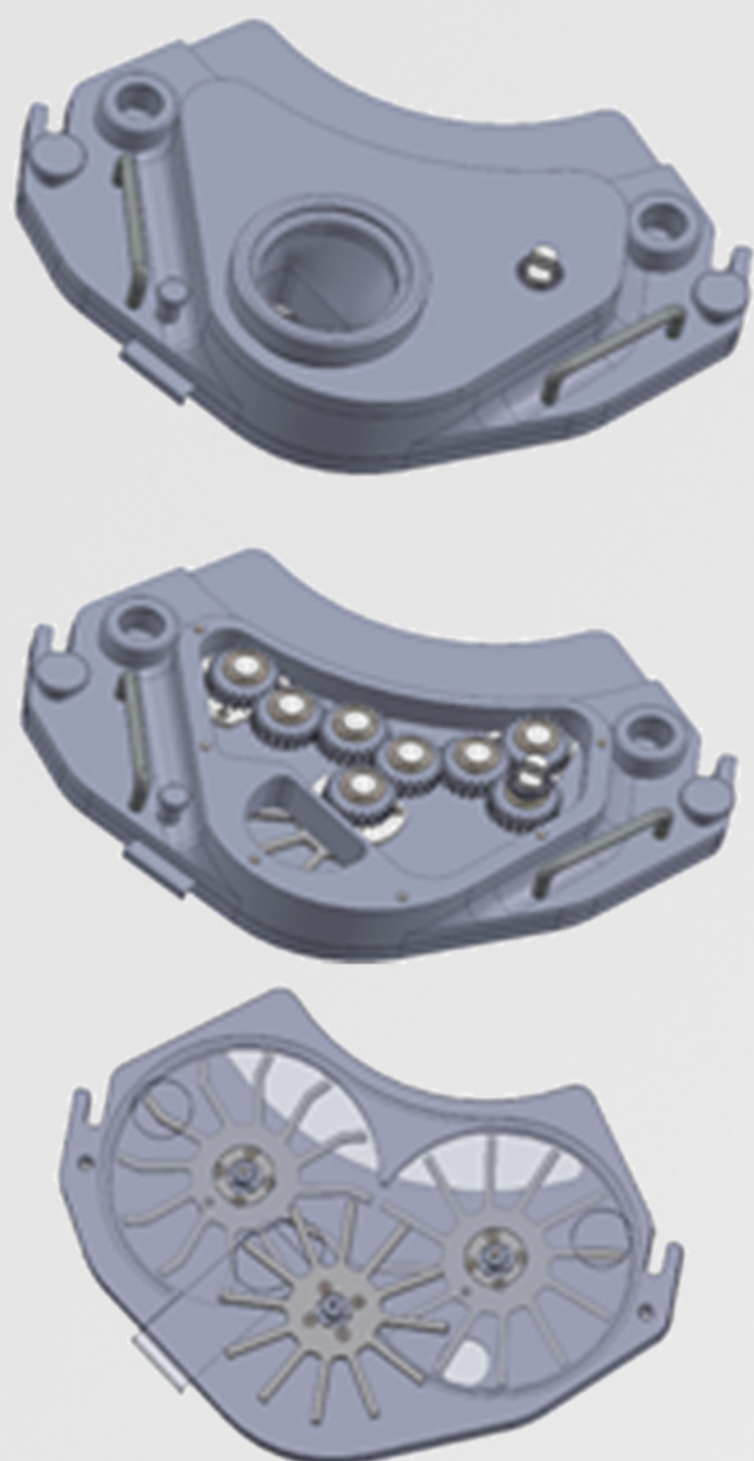
Parameters control by IPC



High Speed Fully Automated Operations

The KP4 brings high speed, fully automated operations, providing cost effective solutions to the pharmaceutical industry. With 21 CFR Part 11 and audit trail compliance, it fulfills all the requirements prevailing in regulated markets.

The KP4 is conceived by world-class designers and crafted with high-quality precision engineering to deliver you with better value through innovation.



3-chamber mechanical feeder

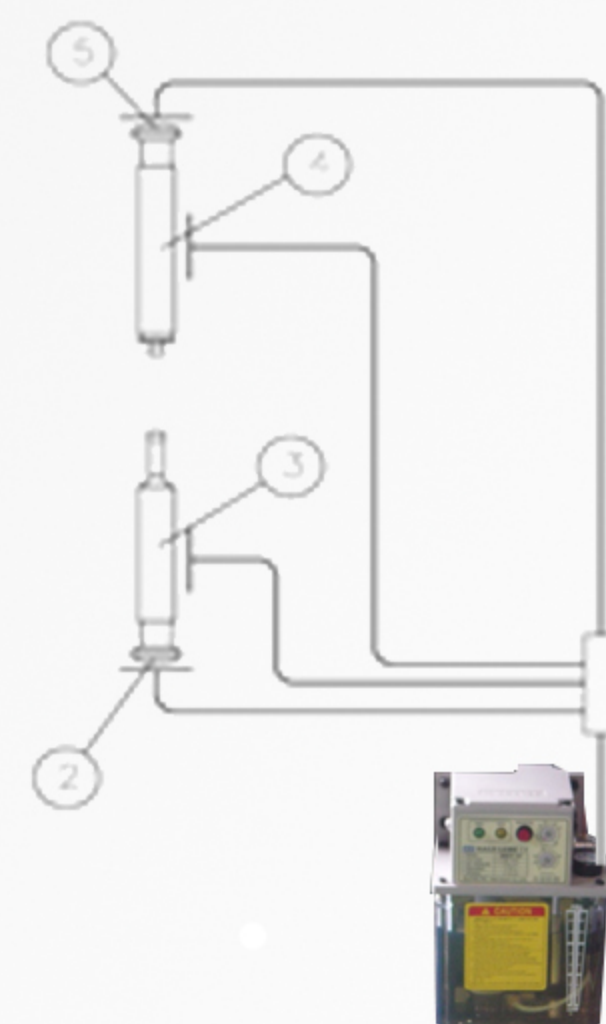
The shut-off valve of hopper, control the feeding powder amount to the mechanical feeder,

Even contained powder inside of hopper can be assembly & disassembly the hopper.

The 3-chamber mechanical feeder improved the filling effect, the mechanical feeder & pedal transmission shaft also assembly & disassembly without any other tools

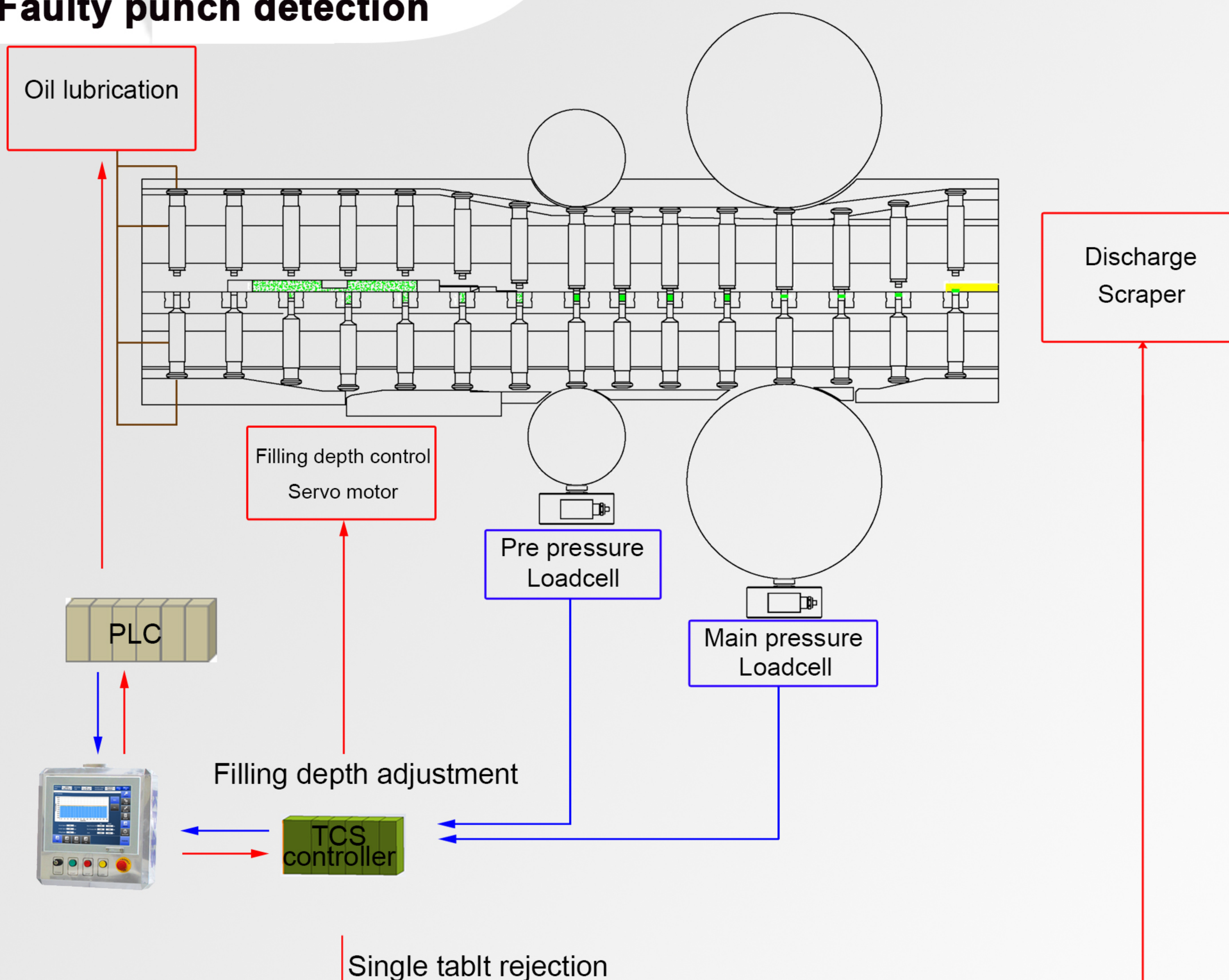
Automatic Oil lubrication system

Automatic lubrication systems do to supply oil to upper punch, lower punch and cam automatically



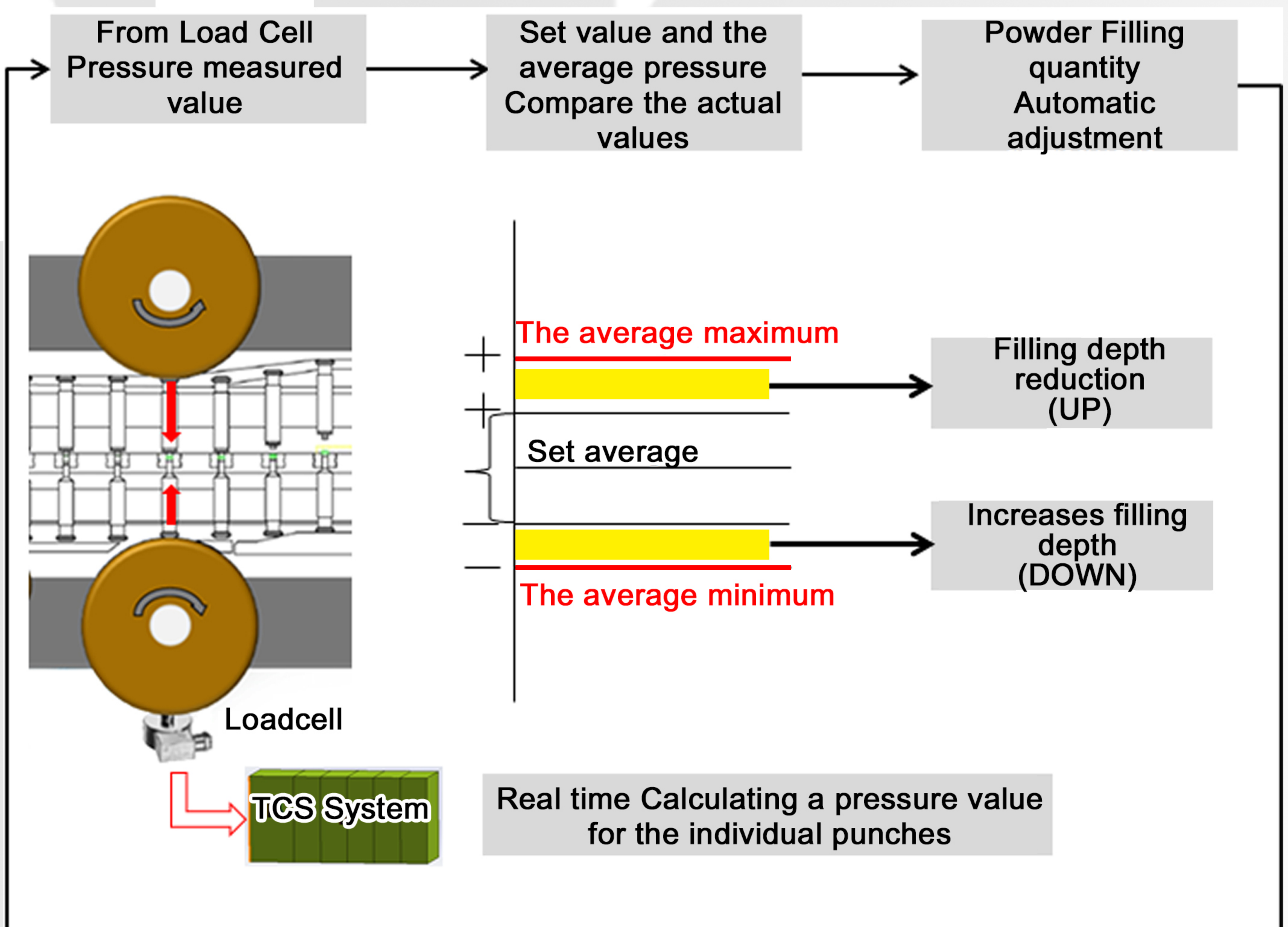
TCS®(Tabletting control systems)

- High technology Fully automatic TCS® tabletting control systems gives good QA and maximize yield
- Automatic weight correction is fully compliant and validated
 - ▶ Force monitoring through load cells
 - ▶ High speed data acquisition system
 - ▶ PLC analysis and feedback
 - ▶ Fill depth control
- Single tablet rejection up to 100 RPM
 - ▶ Achieving High Output
- Single tablet sampling
 - ▶ Gives good QA
- Software alarms increase quality compliance and operator awareness
 - ▶ Weight variation alert
 - ▶ machine stop
 - ▶ Faulty punch detection



Automatic Weight Control & Feedback Systems

- Real time Calculation a pressure value for the individual punches
 - ▶ Force measurement Parameter □□.□□ - Actual
 - ▶ Force measurement Parameter □□.□□ set and Actual
 - ▶ Auto weight correction
 - ▶ Repeat Cycle



Electronic Features overview

Hardware

- ▶ HMI is integrated
- ▶ TFT-LCD: 15" Color touch screen
- ▶ Windows Embedded Standard 7
- ▶ CPU: Intel Core i3 3.3Ghz Dual Core
- ▶ Memory: 4GB
- ▶ HDD: 120GB SATA SSD
- ▶ 2 x USD 3.0 port, 4 x USB 2.0 port
- ▶ 1 x Gigabit Ethernet

Set up Mode

Can enter the parameters necessary for the machine operation

on the touch screen in this mode, each of the variable value is displayed during the production.

- ▶ Production rate
- ▶ Turret speed
- ▶ Feeder speed
- ▶ Filling cam number
- ▶ Filling depth
- ▶ Main pressure Tablet thickness
- ▶ Pre pressure Tablet thickness
- ▶ Upper punch penetration depth
- ▶ Average pre and main pressure force

TCS Mode

TCS set the following parameters:

- ▶ Main pressure force mean value
- ▶ Main pressure force mean value upper limits
- ▶ Main pressure force mean value lower limits
- ▶ Main pressure force individual value upper limits
- ▶ Main pressure force individual value lower limits
- ▶ TCS® control value
- ▶ Main pressure force individual value lower and upper maximum limits
- ▶ Relative standard deviation of main pressure force
- ▶ Relative standard deviation of main pressure force upper limits
- ▶ Number of tablets for mean value
- ▶ Waiting average Time
- ▶ Permitted reject tablets
- ▶ Permitted reject same punch
- ▶ Permitted number of tablets
- ▶ Memory cycle

Recipe list

In this mode, the user can call up and use the typical recipe for the product so that you can enter only the minimum necessary parameters for operation of the machine. Also it may store the new recipe. A recipe is stored in the following parameters:

- ▶ Turret speed
- ▶ Feeder speed
- ▶ Filling cam number
- ▶ Filling depth
- ▶ Main pressure tablet thickness
- ▶ Pre pressure tablet thickness
- ▶ Upper punch penetration depth
- ▶ Average pre and main pressure force

Batch

Entry product information including product name, product code, product description etc.

- ▶ Batch no.
- ▶ Product name
- ▶ Target Counts
- ▶ Multiple Punchq
- ▶ Missing punch

Grapic Mode

The following data are displayed on the screen with the numerical value in a bar graph form.

- ▶ Individual Punch's Main Pressure Value & Pre Pressure Value shall be showing on the real time TCS® Graphic
- ▶ Trend Graphic showing the Main Pressure Value & Pre Pressure Value right after machine start up & set "Memory Cycle".
- ▶ Single Graphic will showing individual Punch's pressure value to Graphic. Can select Main Pressure or Pre Pressure freely



Parameter

Series		KP-Series		
Model Number		KP4-S		
Numbers of Station		45	36	30
Output/hour	Max	270,000	216,000	135,000
Punch type		EU 19 (IPT 19)	EU 19 (IPT 19)	EU 1" (IPT 1")
Numbers of Rotation		rpm 100		
Max. Tablet Diameter	Round (mm)	13	16	25
	Shaped (mm)	14	19	25
Max. Tablet Thickness	mm	8.5		
Max. Filling Depth	mm	18		
Upper Punch Penetration	mm	1~6		
Max. Pre-compression Force	ton	2	2	3
Max. Main Compression Force	ton	8	8	10
Pitch circle diameter	mm	420		
Diameter of Die	mm	24	30.16	38.1
Height of Die	mm	22.22	22.22	23.8
shaft Diameter	mm	19	19	25.4
Length of Punch	mm	133.6 (133.5)		
Feeder Type		Mechanical Type		
Dimensions(including hopper)	mm	1,080 mm(L)×1,350 mm(W)×2,040 mm(H)		
Input Power	AC	380V, 3Phase, 50Hz,		
Power consumption	kW	8		
Net Weight	kg	Approx. 3,800		

Factory view



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