



Capsule Polisher KCP Series



Capsule Polishing, Conveying and Distributing Technology

Krämer History

A long tradition



The Swiss headquarter of Krämer AG (located 10 min from Zurich Airport)



- 1927 Krämer AG was founded
- 1975 First Tablet Deduster worldwide was launched by Krämer AG
- 1992 Launch of first upward conveying Tablet Deduster
- 2000 Launch of wash in place Tablet Deduster (WIP) and revolutionary counterweight technology
- 2008 Introduction of the first Tablet Deduster with automatic resonance control. Change of ownership: Take over of Krämer by Mr. Meyer and Mr. Rogger
- 2011 Simultaneous launch of two new Deduster lines, KD60 Series and KD70 Series
- 2012 Introduction of for high capacity Deduster in the KD70 line, the deduster KD7030/KD7035
- 2014 Launch of new WIP deduster KD7070 /KD7075
- 2015 Launch of Krämer Capsule Polisher

Working Principle

Why dedust/polish and capsule polishers?



Function	Benefit
Dedusting/ Polishing	<p>Safety: lower contamination of surrounding area and esp. workforce => better protection through lower OEL</p> <p>Less problems with down-stream processes (coating, blister packaging)</p> <p>Improved aesthetics, better optical appearance => higher acceptance by patient, lower refusal rate</p>
Conveying	<p>Height gain mandatory for additional functions: metal detection and handling of tablets and capsules (automatic diversion in various bins/containers)</p> <p>Pre-requisite for quality assurance/GMP</p>



Working Principle

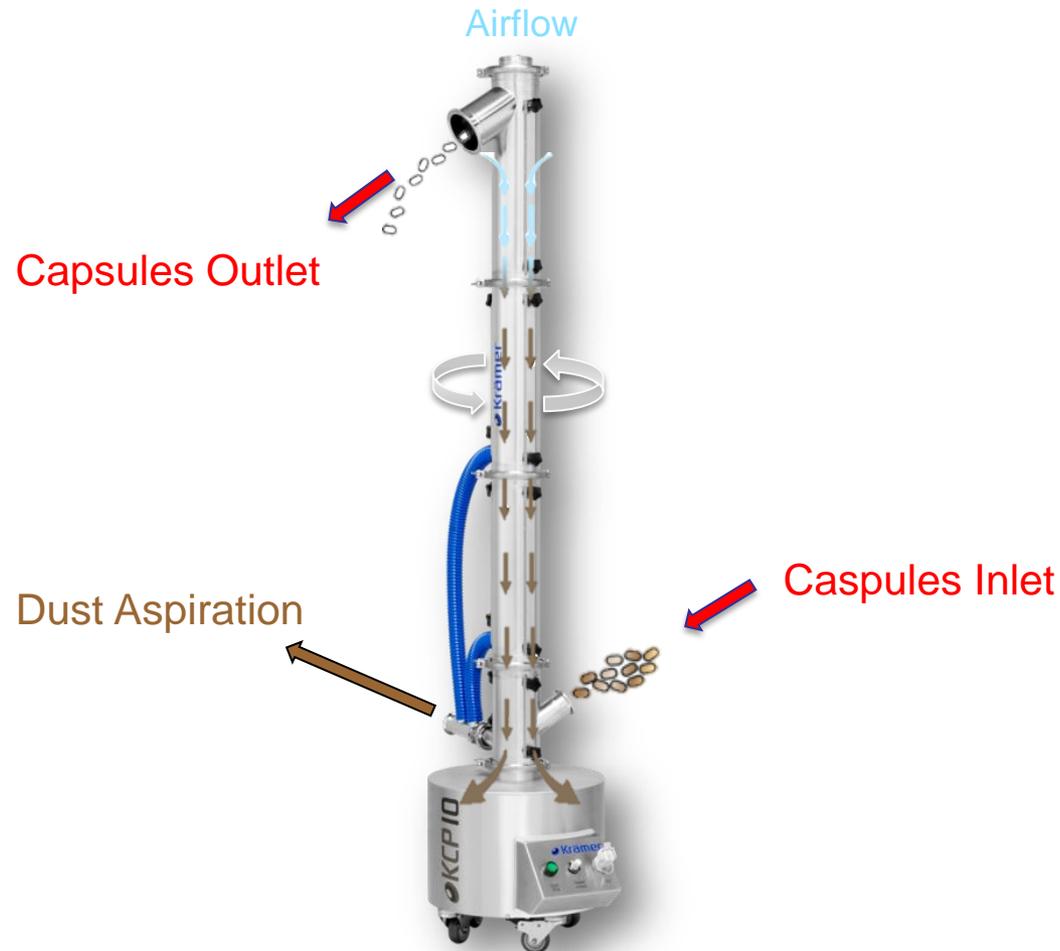
Why dedust/polish and use capsule polishers?

 Krämer



Working Principle

Function of a Krämer Polisher



Capsule Polisher

Product Selection Helper



Process	Dedusting and deburring					Polishing and dedusting
	Upward conveying					Upward conveying
	Capability for combination with metal detector					Capability for combination with metal detector
	Capability for combination with diverter					Capability for combination with diverter
	Dust-tight window					Dust-tight
	Wash-in-Place					
Performance	High 6'300'000 tablets / hour (Round Ø 4.8 x 2.3 mm)		Medium 3'500'000 tablets / hour (Round Ø 4.8 x 2.3 mm)		Low 3'000'000 tablets / hour (Round Ø 5 x 2 mm)	High 300'000 capsules / hour (Capsule Nr. 4 - 3 - 2 - 1)
	140'000 tablets / hour (Round Ø 23.4 x 5.7 mm)		103'000 tablets / hour (Round Ø 23.4 x 5.7 mm)		80'000 tablets / hour (Round Ø 23.4 x 5.7 mm)	250'000 capsules / hour (Capsule Nr. 0 - 00)
Conveying heights	400 / 800 / 1200 / 1600 mm		250 / 500 / 750 / 1250 / 1500 mm	250 / 500 mm	None	800 / 1200 / 1600 / 2000 mm
	Modular helix concept		Standard helices	Standard helix		Modular brush concept
Products	Tablets of all shapes from Ø 3 to 35 mm or equivalent High potential agents Explosive materials	Tablets of all shapes from Ø 3 to 35 mm or equivalent	Tablets of all shapes from Ø 3 to 25 mm or equivalent	Tablets of all shapes from Ø 3 to 25 mm or equivalent	Tablets of all shapes from Ø 5 to 25 mm or equivalent	Capsules of all sizes from Nr. 4 to 00 or equivalent
Features	Stainless steel cylinder Dust tight cylinder OEES Wash nozzles WIP (Wash in Place) Atex Cert. II 3/-D 140 ^o	Stainless steel cylinder Dust tight window Atex Cert. II 3/-D 140 ^o	Stainless steel cylinder Dust tight window Atex Cert. II 3/-D 140 ^o	Stainless steel cylinder	Acrylic glass cylinder	Modular Brush System 400mm Dust tight connections
Deduster/Polisher	KD707x	KD703x	KD701x	KD601x	E80-N	KCP1X

Capsule Polisher

KCP Series



Coming
soon

KCP10

KCP15

- Eco Solution, in four conveying heights from **800** up to **2000** mm
- Available with **SAFELINE** Tablex 2, **CEIA** THS/PH21E, **LOCK** Insight **ECONO**
- Capsule Sizes from Nr. **4** to **000**
- Product development pursuits one goal:

SAVE COSTS AND TIME TO INCREASE OVERALL EQUIPMENT EFFICIENCY

Capsule Polisher

KCP Series

 Krämer



Rotational spiral brush designed specifically for capsule applications



Featuring fully dust-tight connections and central dust extraction



Optional empty capsule sorter for removing empty or broken capsules



Easy to use controller with variable speed adjustment and remote integration

Capsule Polisher

KCP Series



Features – USP

- Integration of capsule polisher, metal detector and diverter/empty capsule sorter in **one base** → Easier handling, higher comfort level, compact integration, better ergonomics
- Dust-tight** TC - connections → Higher operator safety through lower OEL
- Quiet** operation < 68 dB → Higher operator safety and comfort
- Easy disassembly and assembly thanks to **modular structure of 400 mm** → More flexibility for cleaning purposes
- The rotational spiral brush designed specifically for capsule applications **polishes gently** and removes excess dust → „I only believe what I see!“
- Easy **adjustment**, full 360° freedom of rotation at capsule inlet → „Do as you please!“
- Vibration-free** housing → Less servicing needed; lower costs
- Compact** design, minimum footprint → Space means costs!
- Easy **assembly** and **disassembly**, no tools are needed → You only need your hands ...
- Easy to **clean** → Smooth surfaces, minimal gaps ...



Peripheral Equipment

Diverter



KV2010/2020

- Automatic or Manual filling of two batches, alternating
- Process controlling by tablet press or capsule filling machine
- attachment to deduster KD70 Series
- Jam monitoring or switch bin using two capacitive proximity switch at the inlet
- WIP available as option



V4000/V5000

- Number of positions (max. 12) and discharge sequence can be defined as needed
- Jam monitoring using a capacitive proximity switch at the inlet
- Random definition of every position as sample collector
- Controlled by KC7070 controller, or optionally by tablet press
- WIP available as option

Thank you for your attention!



With greetings from Switzerland