

Rhein-Nadel Automation GmbH
Zuführtechnik für die Industrieautomatisierung



RNA PHARMACY CLASSIFICATIONS

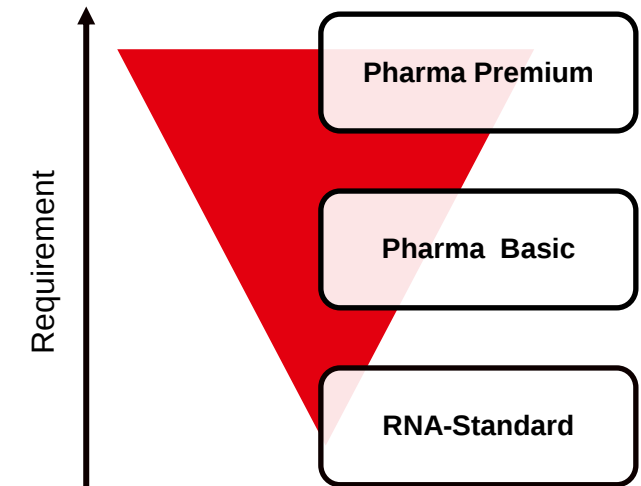
BASICS PHARMACY CLASSIFICATIONS

The pharmaceutical industry can only guarantee a consistently high quality of medicinal products for the end consumer due to a high number of regulations and classifications. These regulations run through the entire production chain, from the first injection moulding to filling.

The RNA pharmaceutical classifications were created in order to fulfil these high requirements in feeding technology as well. The pharmaceutical classes describe the categorisation of systems according to their design quality.

A distinction is made between two classes:

- Pharma Basic
- Pharma Premium



EXECUTION PHARMACY BASIC



- Mid demands on feeding systems
- Minor changes on RNA standardized execution
- RNA standardized components remain untouched
- Materials in contact with the product are FDA compliant
- Easy cleaning

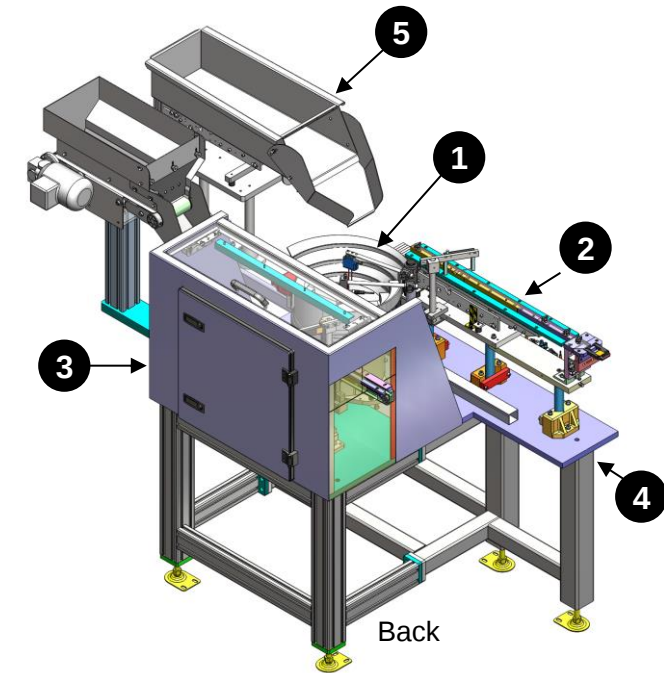
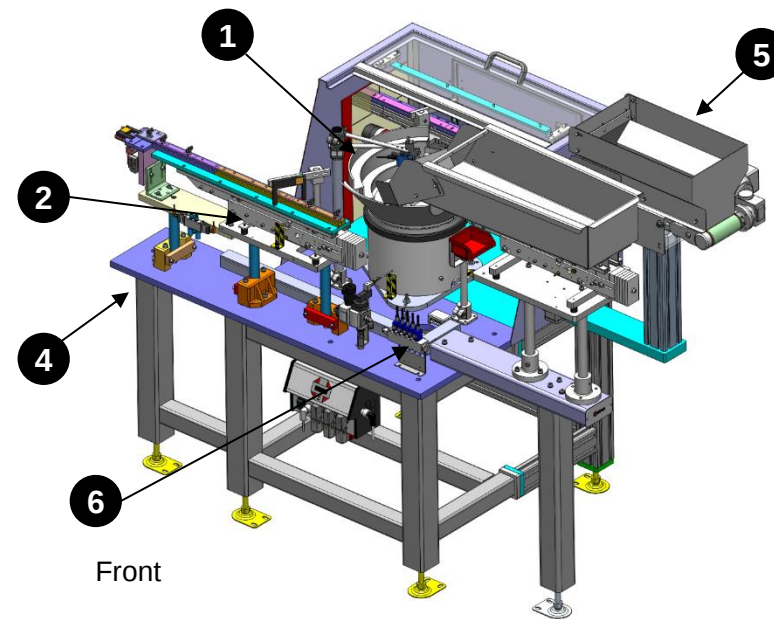
EXAMPLE EXECUTION PHARMACY PREMIUM



- High demands on feeding systems like customized RNA components, sensor brackets, substructures, housings
- All materials/assy groups are FDA compliant
- Housing of drives
- High pharmacy execution

OVERVIEW RNA STANDARD COMPONENTS

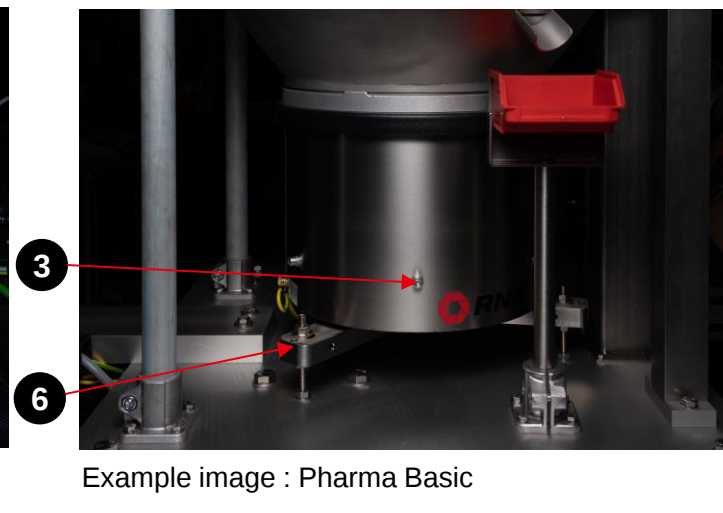
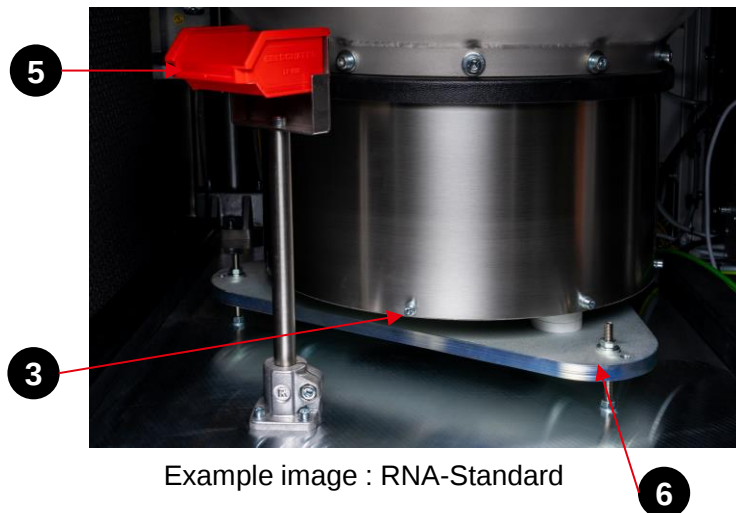
No.	module
1	Bowl
2	Linear feeder
3	Noise Cover
4	Base plate and substructure
5	Hopper
6	Pneumatic



1. SORTING BOWL WITH DRIVE

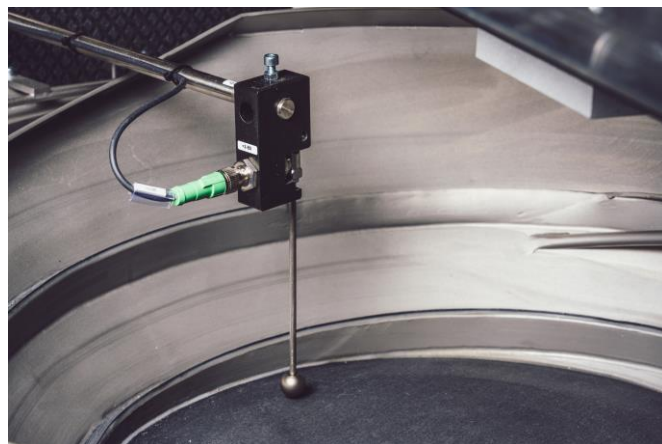
Nr.	Article	RNA-Standard	Pharma Basic	Pharma Premium
1	Sorting Bowl	Standard	Pharmacy Blank	Welded through spiral
2	Execution Welds	Non grinded	Internally grinded	Internally/externally grinded
3	Screws	Cylindrical head Galvanised	Cylindrical head stainless steel	Hex stainless steel
4	Covering center screw	none	POM	POM
5	Particle Ejection	Red box	Red box	Milled POM
6	Base	USJ Galvanised	SRJ stainless steel	SRJ Galvanised Covered
7	Housing	Stainless steel	Stainless steel	Stainless steel closing to baseplate
8	Level Sensor	See 1.2	See 1.2	See 1.2

USJ: Adjustable underframe vibratory conveyor
SRJ: Adjustable star base round conveyor



1.2 LEVEL SENSOR

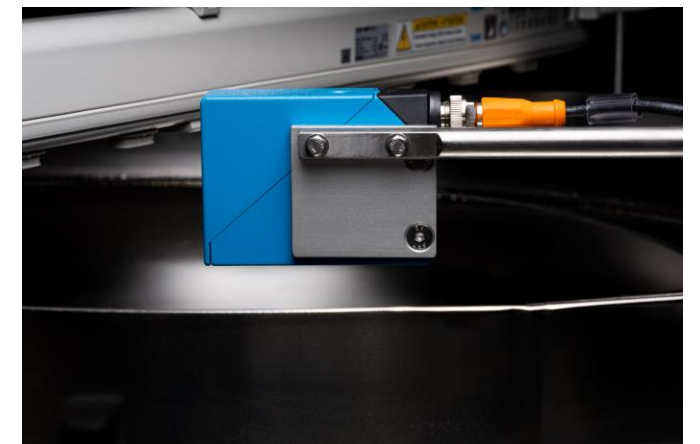
Nr.	Article	RNA-Standard	Pharma Basic	Pharma Premium
1	Stand	Galvanised	Stainless steel	Stainless steel
2	Arm	Anodised aluminium	Pharmacy anodised aluminium	Pharmacy anodised aluminium
3	Sensor	Pendulum	Contactless	Contactless
4	Bracket	Diecast aluminium	Diecast aluminium nickel plated	Stainless steel tube



Example image: RNA-Standard



Example image: Pharma Basic

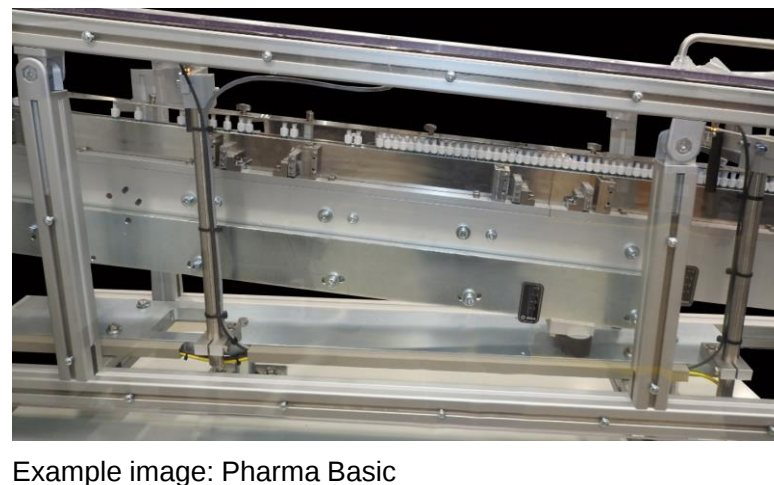
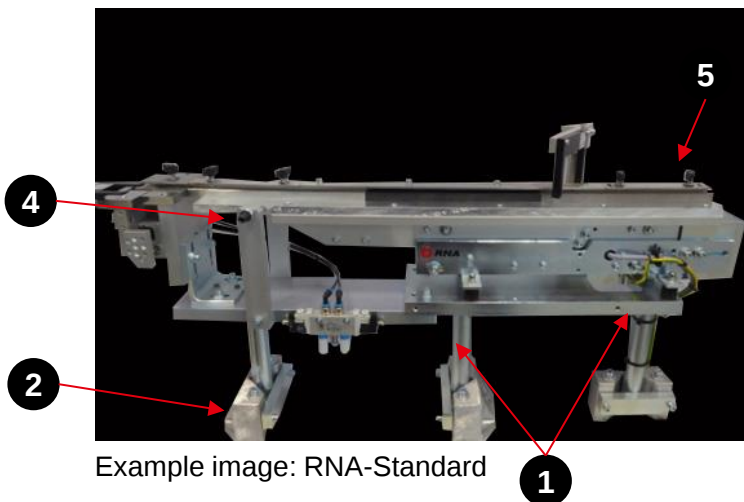


Example image: Pharma Premium

2. LINEAR FEEDER

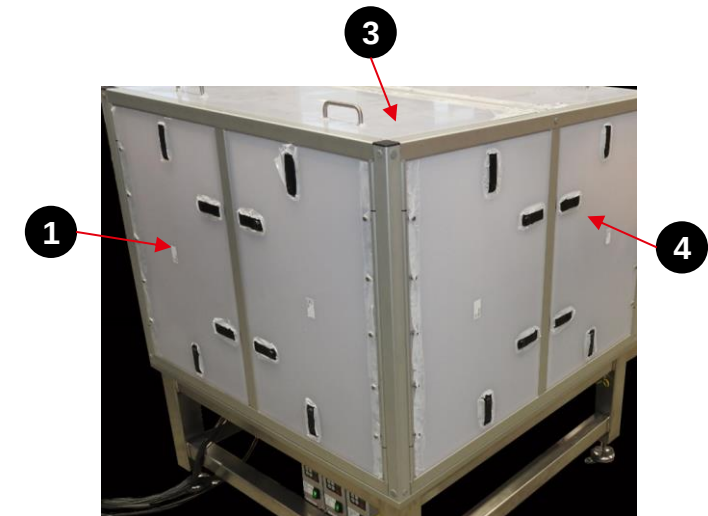
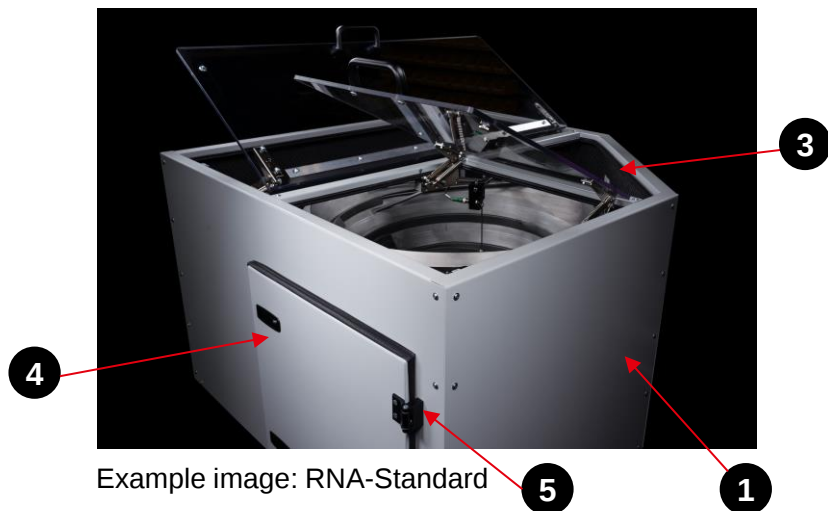
Nr.	Article	RNA-Standard	Pharma Basic	Pharma Premium
1	Substructure	ULJ Galvanised	ULJ Galvanised	ULJ stainless steel
2	Stand	ULJ-2 Galvanised bracket	ULJ-2 nickel plated bracket	Stainless steel
3	Housing Drive	None	None	Stainless steel (Accumulation section only drive / Flex type M clad up to the base plate)
4	Vibration limitation	Burnished pressure screw	Pressure screw stainless steel	Pressure screw stainless steel
5	Fixation Height Cover Screws	Plastic wing screws	Wing screw stainless steel	Wing screw stainless steel
6	Fixation Height Cover	Plastic	Stainless steel	Stainless steel

ULJ: Adjustable linear feeder substructure



3. NOISE COVER

Nr.	Article	RNA-Standard	Pharma Basic	Pharma Premium
1	Outer Surface/Doors	Painted steel	FDA compliant powder coated or stainless steel	PETG
2	Insulation	See. 3.2	See. 3.2	See 3.2
3	Windows	Polycarbonate (Makrolon)	PETG	PETG
4	Handles	Standard Aluminium Black	Standard Aluminium Black	Stainless steel or anodised aluminium
5	Hinges	Standard Aluminium Black	Standard Aluminium Black	Stainless steel or anodised aluminium

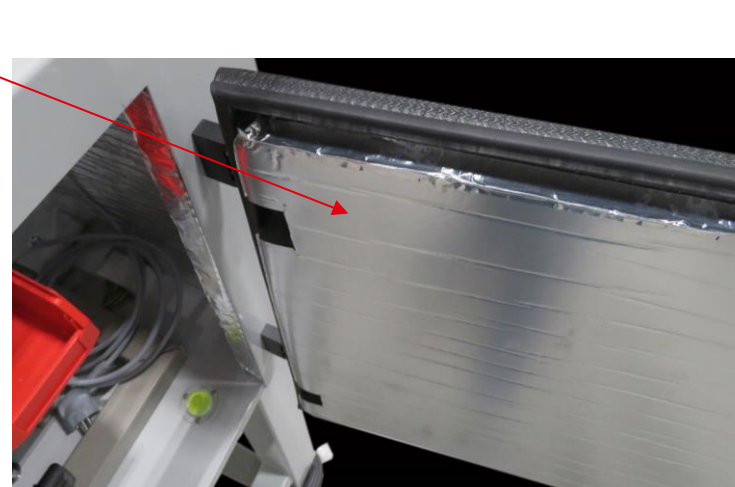


3.2 INSULATION

Nr.	Article	RNA-Standard	Pharma Basic	Pharma Premium
1	Insulation	Standard (15 mm)	Caldic	PETG with sealing strips



Example image: RNA-Standard



Example image: Pharma Basic

4. BASE PLATE AND SUBSTRUCTURE

Nr.	Article	RNA-Standard	Pharma Basic	Pharma Premium	Option
1	Base Plate	Painted Steel	Aluminium Anodised 20 mm	Aluminium Anodised 20 mm	Stainless Steel Covered
2	Substructure	Painted Steel	Painted FDA-compliant or stainless steel	Stainless Steel	
3	Housing Substructure	None	None	Stainless Steel Screwed	Customer Execution
4	Brackets	Diecast Aluminium	Nickel plated	Stainless Steel	
5	Machine Base	Steel Galvanised	Stainless Steel	Stainless Steel Absorbing	



Example image: RNA-Standard



Example image: Pharma Basic



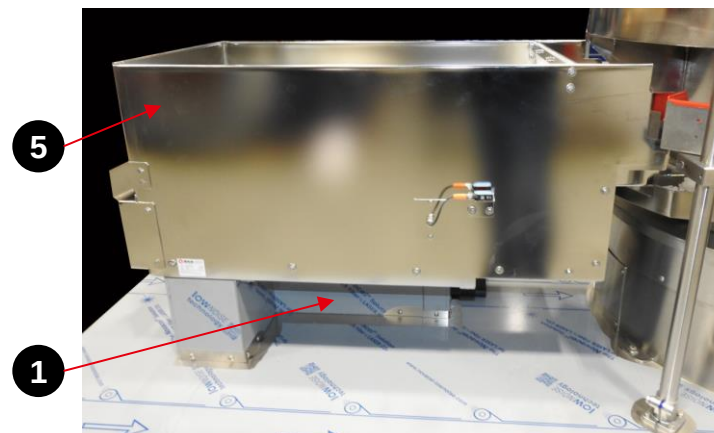
Example image: Pharma Premium

5. HOPPER

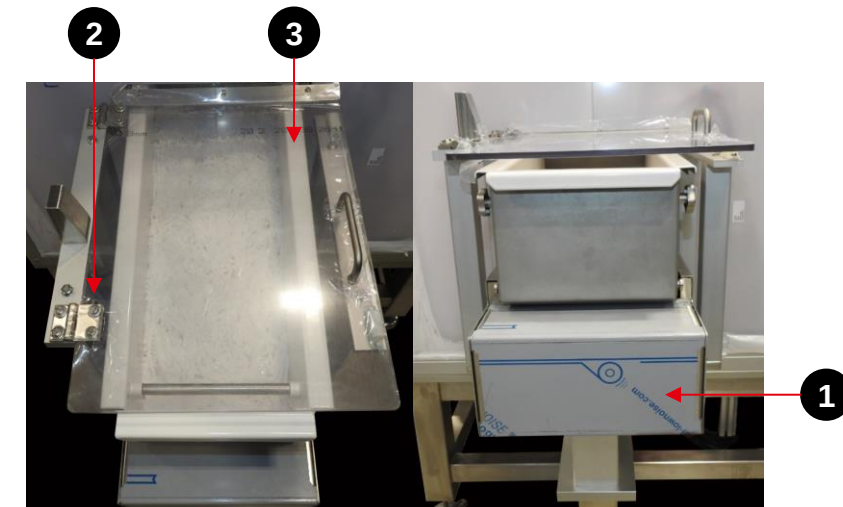
Nr.	Article	RNA-Standard	Pharma Basic	Pharma Premium
1	Drive	No Housing	No Housing	Stainless Steel
2	Hinges	Standard Aluminium	Stainless Steel	Stainless Steel
3	Lid	Polycarbonate	PETG	PETG
4	Substructure	Painted Steel	Stainless Steel	Stainless Steel
5	Hopper Housing	None	Covered Stainless Steel Tub	Covered Stainless Steel Tub
6	Conveyor Belt	Standard	FDA Compliant	FDA Compliant optionally one (1) coloured stud



Example image: Pharma Premium
(Inclined conveyor Z-design)



Example image: Pharma Premium SLC-Bunker



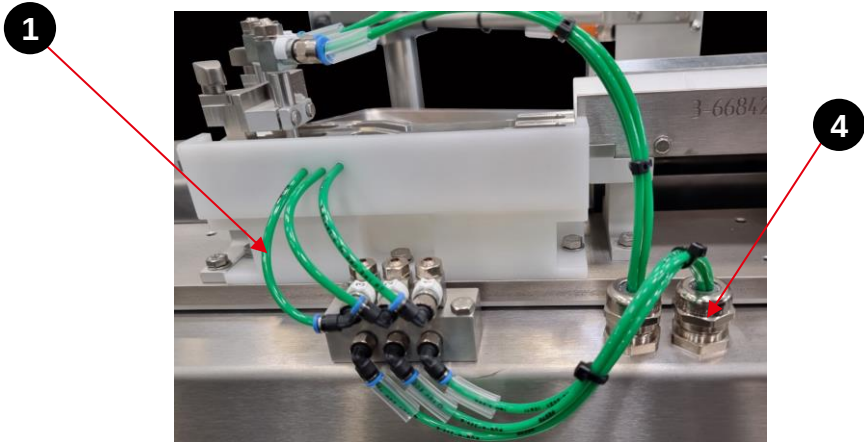
Example image: Pharma Premium BVL-Bunker

6. PNEUMATIC

Nr.	Article	RNA-Standard	Pharma Basic	Pharma Premium
1	Tubes	Festo-PUNH	Festo-PUNH	Festo-PUNH
2	Air Return	None	None	Optional collected
3	Sorting Air	Unfiltered	Unfiltered	Optional filtered
4	Cable/Tube installation	Cable Duct Plastic on base plate (pneumatic/electric together)	Cable Duct Plastic on base plate (pneumatic/electric together)	Cable Duct Plastic on base plate (pneumatic/electric together)



Example image: Pharma Premium



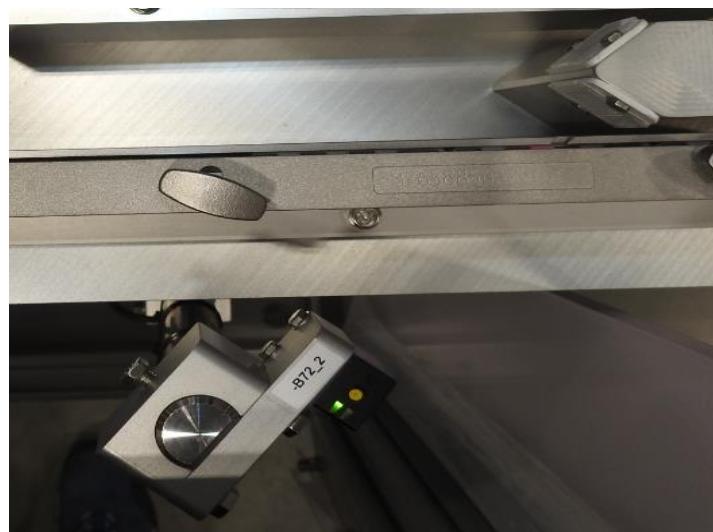
Example image: Pharma Premium

7. GENERAL EXECUTION

Nr.	Article	RNA-Standard	Pharma Basic	Pharma Premium
1	Cable Feed-Through	Cavity in Base Plate	Cavity in Base Plate	Feed-Through-Housing
2	Compliance	None	FDA Compliant in contact with product	FDA Compliant in contact with product
3	Surface Treatment Aluminium	None	Anodised	Anodised or Hard-Coated
4	Type of Screws	Galvanised Cylindrical Head	Stainless Steel Cylindrical Head	Stainless Steel Hex Head Screw Stainless Steel Pan Head Screw
5	Type Aluminium Profile	ITEM –open grooves	ITEM –Closed with plastic strips	Item 4n
6	Cable Ducts	Plastic	Plastic or Stainless Steel	Mainly “hidden” installation
7	Grounding	On Base Plate	On Base Plate	Under Base Plate / Coordination with customer



Example image to Nr. 1: Pharma Premium



Example image to Nr. 3: Pharma Premium



Example image to Nr. 6: Pharma Premium



Still having questions?

Do not hesitate to contact us!

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Check-list for Inquiry Design and Configuration Clarification

Project Number

Project Designation

Date

Substructure

Component	Standard	Basic	Premium	Option
Base frame	Painted steel	FDA powder coating V2A	V2A	
Base frame enclosure	None	None	V2A, bolted	Special
Baseplate	Painted steel	Anodized aluminium, 20mm	Anodized aluminium, 30mm	V2A cover
Clamping system	Die-cast aluminium	Chemically nickel-plated	V2A	
Machine Feet	Galvanized steel	V2A	V2A, with damping	

Vibratory Feeder

Component	Standard	Basic	Premium
Feed bowl	Standard	Pharmaceutical-grade blank	Pharmaceutical-grade blank + continuous-weld spiral
Weld seam processing	Not finished	Finished on inside	Finished on inside/outside
Fastening screw cover	None	POM centre cover	POM centre cover
Small-fragment separation	Open-front storage bin	Open-front storage bin	Milled from POM
Substructure	USJ galvanized	SRJ V2A	SRJ galvanized (inside protective enclosure)
Vibratory feeder enclosure	Enclosure, V2A	Enclosure, V2A	Guard enclosure + pinch guard V2A

Level

Component	Standard	Basic	Premium
Level tube	Galvanized	V2A	V2A
Sensor cantilever arm/mounting plate	Aluminium	Anodized aluminium	Anodized aluminium
Sensor	Pendulum V2A	Non-contacting	Non-contacting
Cross-clamp	Die-cast aluminium	Chemically nickel-plated	V2A with cable gland

Linear Feeder

Component	Standard	Basic	Premium
Substructure/column	ULJ galvanized	ULJ galvanized	ULJ V2A
Stand foot	ULJ-2 stand foot with galv. clamping bracket	ULJ-2 stand foot, chemically nickel-plated	V2A material
Linear feeder enclosure	None	None	V2A drive unit enclosure
Vibration limiter	Thrust screw, black-finished steel	Thrust screw, V2A	Thrust screw, V2A
Top cover fastening (screws)	Wing screws Plastic	V2A wing screws	V2A wing screws
Top cover fastening (clamping levers)	Plastic	V2A	V2A

Soundproofing Enclosure

Component	Standard	Basic	Premium
Frame/doors	Painted steel	FDA powder coating V2A	PETG mit Rahmen
Insulation material	Insulation blanket	Acoustic blanket, laminated aluminium	PETG with sealing strips
Windows	Makrolon®	PETG	PETG
Handles	Standard - black aluminium	Standard - black aluminium	V2A
Hinges	Standard - black aluminium	Standard - black aluminium	V2A

Hopper

Component	Standard	Basic	Premium
Drive	Not enclosed	Not enclosed	Fully encased, V2A
Lid	Makrolon® (optional)	PETG (optional)	PETG (optional)
Hinges/stops	Standard aluminium	V2A	V2A
Substructure	Painted steel	V2A	V2A
Hopper enclosure	Closed V2A tray	Closed V2A tray	Closed V2A tray
Belt conveyor	Standard	FDA-approved	FDA-approved

General Design

Component	Standard	Basic	Premium
Cable feedthrough	Opening in baseplate	Opening in baseplate	Cable feedthrough through enclosure
Material conformities	Makrolon® (optional)	PETG (optional)	PETG (optional)
Aluminium surface	No treatment	anodized	Anodized or hard-coated
screws	Socket-head, galv.	Socket-head, V2A	Hex.-head, V2A Button-head, V2A
Aluminium section	ITEM open	ITEM closed	ITEM 4n
Cable ducts	Plastic	Plastic V2A	Primarily invisible installation
Equipotential bonding/earth cables	On baseplate	On baseplate	Underneath baseplate/to be agreed with customer

Pneumatic System

Component	Standard	Basic	Premium
Pneumatic tubing	Festo - PUNH	Festo - PUNH	Festo - PUNH
Collective air return	Not applicable	Not applicable	Collective optional
Orienting air	Unfiltered	Unfiltered	Optionally filtered
Utility routing	Plastic cable duct on baseplate (pneumatic lines/electrical wiring together)	Plastic cable duct on baseplate (pneumatic lines/electrical wiring together)	Routing of pneumatic lines/electrical wiring through the feedthrough to underneath the baseplate