



Capsule Transfer Systems

For the gentle and automated loading and unloading of capsule filling machines.
Suitable for all standard empty and filled hard-shell capsule applications.



Loading and unloading capsule filling machines does not have to be labour intensive and slow. The CapsuJet will automatically keep pace with capsule filling machines, ensuring a constant supply of empty capsules.

Capsules are gently conveyed on a cushion of air through anti-static pipework, eliminating the risk of the capsule halves separating or the shells being damaged in transit.

Product Overview

The Hanningfield CapsuJet capsule transfer system is a proven method for the gentle conveying of hard-shelled gelatin capsules. Designed to overcome the problems of conventional mechanical systems, the CapsuJet is ideal for the automatic loading and unloading of capsule filling machines.

The CapsuJet C20 capsule transfer system is designed for the loading of empty capsules from ground level into the capsule filling machine. The C20 is capable of loading up to 300,000 capsules per hour.

The CapsuJet FCC capsule transfer system is designed for the unloading of capsule filling machines, transferring filled capsules to a downstream container or process. The FCC can transfer up to 200,000 capsules per hour.

As standard, both capsule transfer system models are constructed with all contact parts manufactured from 316L stainless steel (180 grit), with FDA compliant seals, gaskets etc. Non-contact parts such as frames, motor covers and control panels are manufactured from 304 stainless steel (150 grit). All standard materials of construction and surface finishes can be upgraded or downgraded upon request. All equipment can be fully customised to satisfy specific application requirements and can be supplied with full validation documents (FS/DS, FAT, SAT, IQ/OQ) and mill certificates to EN10204 (3.1).

Features:

- Stainless steel construction with FDA compliant seals
- Optional level control in filling machine hopper for automating loading process
- Hopper can be customised to accommodate extra capsules
- Very low noise levels

Benefits:

- Eliminates manual handling and ensures filling machine never 'runs dry'
- Gentle convey with virtually zero capsule damage
- Suitable for all sizes of hard shell capsule

Models

CapsuJet C20 (Empty Capsules)

Empty capsules are manually loaded into a large diameter, low-height capsule storage-hopper. The 200-litre storage-hopper has been designed to accommodate a full, standard sized box of capsules. When in operation, a tangentially discharged airflow from a multistage fan is forced through a patented venturi. The empty capsules in the storage hopper are gradually picked up by the suction created by the venturi and gently conveyed in a low-pressure, high-volume airflow through the conveying pipe work to the receiving hopper on the capsule-filling machine. A fully adjustable optical sensor controls the level of capsules in the receiving hopper on the capsule filling machine, by automatically starting and stopping the convey cycle.



CapsuJet FCC (Filled Capsules)

The FCC features a compact design enabling it to be located adjacent to the capsule filling machine within the process room. This allows the feed chute on the FCC to be positioned directly beneath the outlet of the capsule filler or capsule polisher. From here, filled capsules are gravity fed into the system, where the specially designed venturi creates a cushioning airstream in the pipe-work, to gently transport the capsules downstream to a bulk container (or similar).

The system uses an easy-clean design, primarily assembled using Tri-Clover clamps; this allows the system to be quickly dismantled without the need for special tooling.



Data Table

Criteria	Unit	CapsuJet C20	CapsuJet FCC
Application Type	–	Transfer of Empty Capsules	Transfer of Filled Capsules
Transfer Rate	capsules/hr	300,000 *	200,000 *
Max. Vertical Convey Distance	m	10m	5m
	ft	33ft	16ft
Max. Horizontal Convey Distance	m	5m	2.5m
	ft	16ft	8ft
Standard Hopper Size	litres	200L	No hopper required
	capsules	100,000 size "0" capsules	No hopper required
Approx. Dimensions	mm	(H) 1180 x (W) 760 x (L) 1215	(H) 1150 x (W) 500 x (L) 885
	in	(H) 46 x (W) 30 x (L) 48	(H) 45 x (W) 20 x (L) 35
Approx. Weight	kgs	150	100
	lbs	330	220
Contact Parts	AISI 316L stainless steel (1.4404)		
Non-Contact Parts	AISI 304 stainless steel (1.4301)		
Country of Design and Manufacture	United Kingdom		

* Note: based upon tests with size '3' Posilok capsules and sizes #5-0 Capsugel capsules

Optional Upgrade Features



Diffuser

Disperses air at the end of convey pipe run (minimal disturbance to encapsulation feed hopper)



Hopper

Extended hopper size for increased capacity



Beacon Alarm

Low level alarms (audible or visible) to alert the operator when the CapsuJet hopper is low on capsules



Level Control

A level sensor is mounted to the capsule filling machine to control the on/off flow of capsules

Typical Applications

Loading Empty Capsules into Encapsulation Machine

The CapsuJet C20 loads empty capsules up into the capsule filling machine from the hopper at ground level.



Transferring Capsules After Filling

The CapsuJet FCC transfers filled capsules from an encapsulation machine to a downstream container or other process machine.





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