

HL Pharm Tech Capsule Filling Machine HLF Series



The **HL Pharm Tech Capsule Filling Machine** is designed for fully automatic filling of hard gelatine capsules with powder, granulate and pellets in the pharmaceutical and food additive area. The production output of the HLF series range from 40.000 to 130.000 capsules per hour.

The machines of the HLF series can be standard equipped with the tool sizes from #00 to #4. The machines are conform to GMP standards and CE certificated.

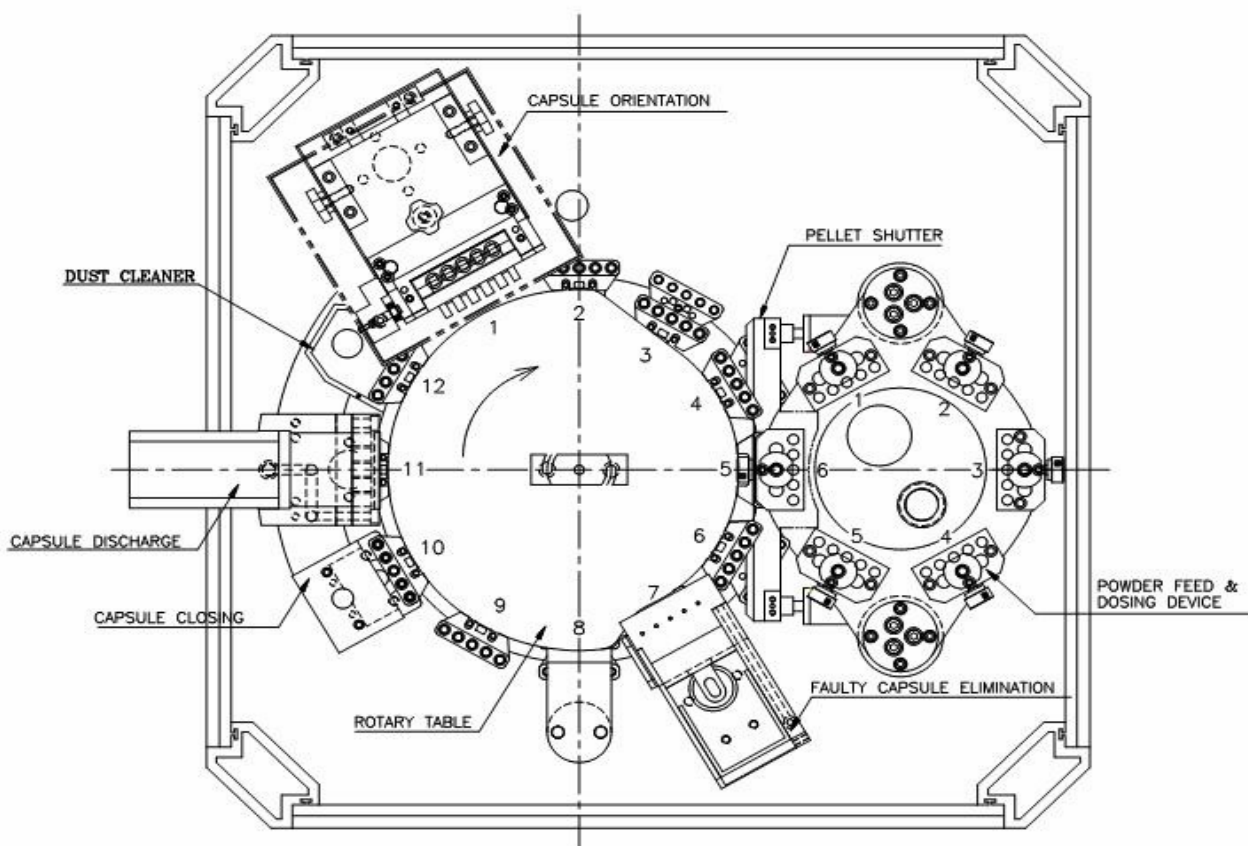
Machine Process:

Filling of the machine with product (powder, granulate and pellets),
Opening of hard gelatine capsules,
Filling of the capsules with products,
Closing of the capsules and
Discharge of the finished capsules.

Internal Space



Internal Construction



The Function Of The Capsule Filling Machine

The empty capsules are randomly filled into the hopper. The capsule feeding system sorts and turns the capsules with every lift and leads them to the storage. Out of the storage the lower segments are filled with the capsules.

The filled lower segments are closed with the upper segments and the capsules are separated with vacuum. After the separation the segment disk turns to the capsule filling system.

The capsule filling system is supplied with a powder by the hopper (Niveau controlled). The powder is dosed by the dosing disk and the dosing punches into the 5 stations and brought to the measured weight. On the 6th station the dosed amount of the powder is put with the filling punches into the lower part of the capsules.

The capsules are closed in the capsule closing system. At this step the upper segments with the upper capsule halves go over the lower segments and the capsules are closed with the closing punches.

After closing of the capsule the upper segments return into the basic position. Now the capsules are blown out of the lower segments into the collector tank and from there to the discharge chute.

After discharge of the capsules the lower segments are cleaned with a compressed air. At the same time the remaining powder is removed with the dust collector. (Capsule discharge and segment cleaning is at the same position).

Format Parts

The format parts can be delivered in the capsule sizes #00-#4

A format set consists of:

Upper segments, lower segments, capsule feeder, dosing disk, filling punches

Delivery includes one format set on the instruction of a customer.



Thickn.	Capsule size & Filling volume (g)									
	#00		#0		#1		#2		#3	#4
24,0	0,944									
23,5	0,925									
22,5	0,905									
22,0	0,885									
21,5	0,846		0,670							
21,0	0,826		0,654							
20,0	0,787		0,623		0,492					
19,0	0,748		0,592		0,468					
18,5	0,728		0,576		0,455		0,378			
17,0	0,669		0,530		0,418		0,347			
16,5	0,649		0,514		0,406		0,337		0,274	
15,0	0,590		0,467		0,369		0,306		0,249	0,198
14,5	0,570		0,452		0,357		0,296		0,249	0,191
14,0	0,551		0,436		0,345		0,286		0,233	0,185
13,5	0,531		0,421		0,332		0,276		0,224	0,178
12,0	0,472		0,374		0,295		0,245		0,199	0,158
11,0	0,433		0,343		0,271		0,225		0,183	0,145
10,0	0,393		0,312		0,246		0,204		0,166	0,132
8,0	0,315		0,249		0,197		0,163		0,133	0,106

Capsule Filling Machine and the Options



Capsule Polishing Machine

Powder Loading System

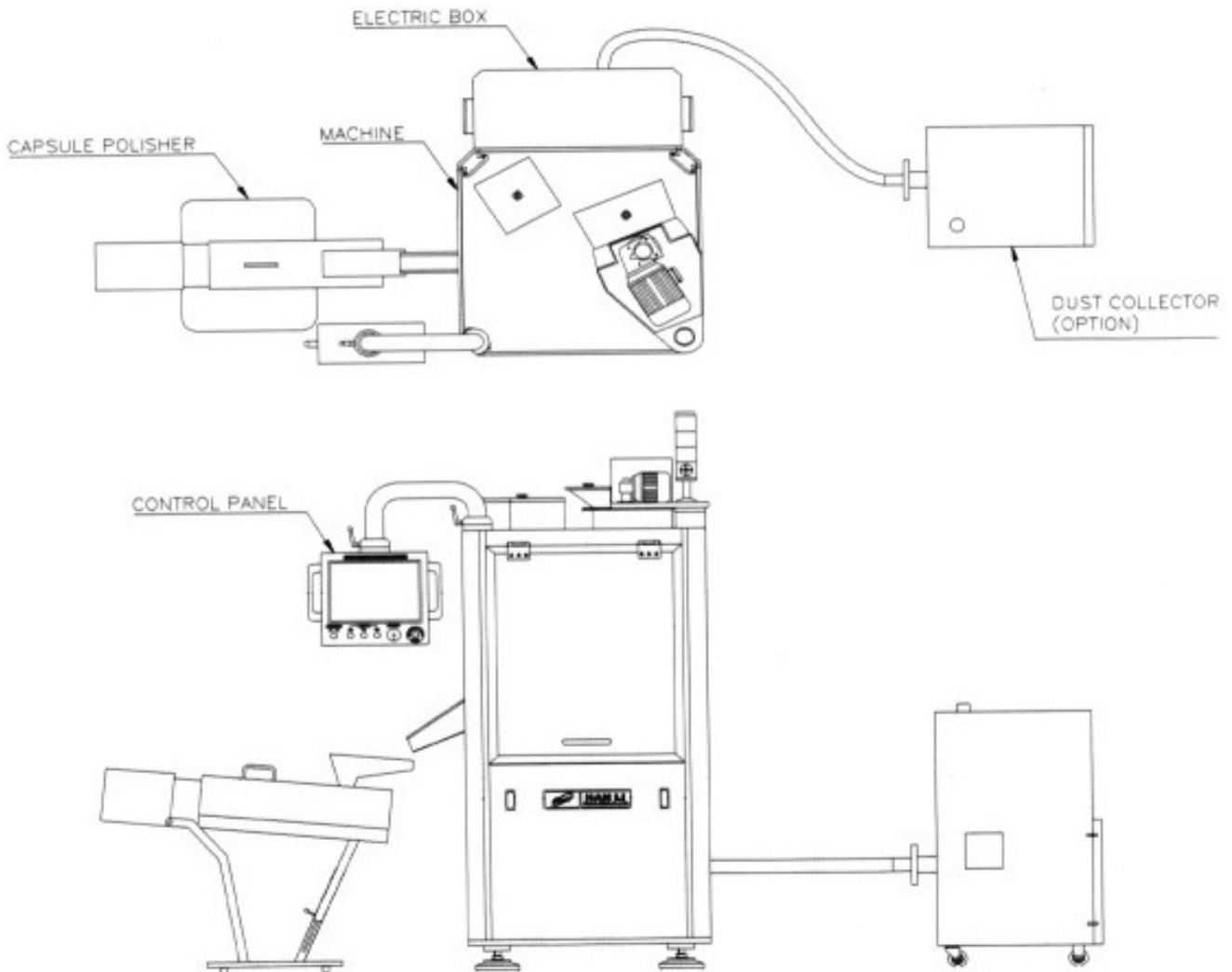
Dust Collector

The advantage of the **HL Pharm Tech Capsule Polishing Machine** is that the capsules are dedusted and polished in one working step. The remaining dust is removed from the capsules and at the same time polished by a rotating brush. The capsule polishing machine is conform to GMP standards.

The **HL Pharm Tech Powder Loading System** supplies the hopper with a powder/granulate. This procedure guarantees a continuing production. The loading system functions as follows: the vacuum pump sucks in the powder/granulate and fills the hopper with it. The system is controlled by a level sensor.

The **HL Pharm Tech Dust Collector** is used to clean the machine from dust particles and granulate deposits. The dust collector can also be connected to the tablet press machine, the capsule polishing machine and the tablet deduster.

Machine Layout



Technical Data

No.	Description		HLF-SERIES		
			HLF-45	HLF-95	HLF-135
1.	Number of capsule holder per segment	ST	5	12	18
2.	Max. Capsule output/hour	ST/h	40.000	90.000	130.000
3.	Max. Machine table speed	U/min	132	132	125
4.	Format size	Gr.	#00-#4	#00-#4	#00-#4
5.	Dosing disk	ST	1 SET	1 SET	1 SET
6.	Main motor	kW	1	1,5	2,2
7.	Dosing motor in the product hopper	kW	0,75	0,75	0,75
8.	Dust collector	kW	1,5	1,5	2,2
9.	Machine covers SUS & AL & ACRYL	ST	4 Wände	4 Wände	4 Wände
10.	Pressured air	bar	6-10	6-10	6-10
11.	Space consumption (Width x Depth)	mm	1825 x	2100 x	2200 x
			2.085	2.330	2.620
12.	Machine width	mm	825	1.100	1.200
13.	Machine depth	mm	1.085	1.330	1.620
14.	Machine height	mm	2.120	2.162	2.220
15.	Machine weight	kg	ca.1.000	ca.1.800	ca.3.000

Technical specification are subject to change.