

PHARMA SOLID KNOWLEDGE REPORT

# GKF dosing module and format change.

High efficiency is more than safe capsule handling and reliable product dosing.

The smaller the batch the more important it becomes to control the residual waste and non-productive time slots like dosing module- and format part changeover and cleaning.

Changeover needs to be fast, simple and easy, cleaning needs to be reproducible, ideally using automated systems.

The Syntegon capsule filling machine range are designed and executed to fully comply with these requirements and stand for long machine life, dosing accuracy, yield and OEE.

## Efficiency in size changeover and dosing system changeover

- ❑ Run empty mode of dosing systems ✓
- ❑ Minimized product loss during production to minimize cleaning sequences and efforts ✓
- ❑ Exchange of empty capsule and product hoppers without the need to use a ladder or steps ✓
- ❑ Solid built parts for long life ✓
- ❑ Light weight parts for one operator handling. ✓
- ❑ Good access and handling ✓
- ❑ Only one person required ✓
- ❑ Parts designed for automated washing using hot water ✓



## GKF dosing module change

### Exchange of pellet dosing system / tablet dosing system

Pellet as well as tablet station show very short exchange, cleaning and set-up times through plug and play design. The toolless exchange of formats as well as the light weight product and capsule hoppers do complete the concept.



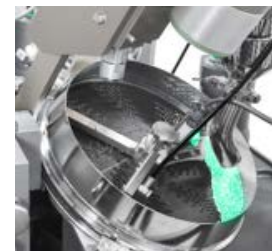
### Exchange of pellet dosing chamber / pellet format

- ❑ Identical design and build of the pellet station as the GKF 702/ 720/ 1400/ 2500/ 2600
- ❑ Easy assembly, small number of robust built parts, designed for operation in full nominal machine speed
- ❑ Very short time required only for one person to disassemble / re-assemble a pellet station
- ❑ Gentle pellet handling by spacing gap slider
- ❑ Variable adjustable vibration movement of the pellet pusher by servo drive to increase product flow if required
- ❑ Optional: Automated feedback-loop with gravimetric Syntegon KKE checkweigher



### Exchange of tablet station /tablet format

- ❑ Fast tablet station set-up by plug and play design through only one person
- ❑ Easy setup due to reference point setup by servo drive
- ❑ Fast and toolless exchange of format disc by plug and play design through only one person
- ❑ Light weight handling of dosing disc, good access, all parts < 5kg
- ❑ Each count can be dosed using same disc by servo drive



### Tablet dosing

- ❑ Gentle feeding of tablets
- ❑ High quality surfaces to minimize product friction
- ❑ No doubles (twins) and no mechanical stress due to air-knife
- ❑ Easy access and ideal visual approach



# Capsule segments – “plug and play” exchange



## New design plug and play capsule segments

- One tool only solution
- Upper and lower segments aligned by ready installed pins
- Short delivery time from stock

## Advantages

- Fast and simple exchange
- Exact positioning by the two alignment pins and simple fixation by one screw only
- No adjustment required
- Segments can be fixed on each station without inching the machine
- All segments made from stainless steel only, very solid and long lasting
- Simple and efficient cleaning, designed for daily use and automated high temperature washing



## Conclusion

- GKF dosing stations and format parts designed for fast and simple exchange and automated cleaning
- Plug and play design for dosing stations as well as for format parts
- Light weight parts for toolless one operator handling
- Product loss minimized due to small size design and run-empty-mode
- Identical design covering all GKF models for simple product transfer and upscale
- Perfect equipment for best in class dosing accuracy, yield and OEE

## Please contact us!

You have processes for optimization?

Please contact us. Our "Engineering Pharmaceutical Service" team will be available with all our experience of over 50 years:

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