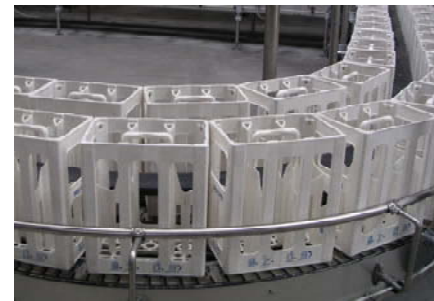


Conveyor Dry Lubrication DLS-5000 Product line for plastic slat conveyors



Overview

- **The following is no utopia anymore**
- **Technology : Innovative and Simple to operate**
- **Extreme low lubricant consumption**
- **Economies : Reduce operating costs up to 90%**
- **References**
- **Global service**



Conveyor Dry Lubrication

DLS-5000 Product line for plastic slat conveyors



The following is no utopia anymore

- **0 % water**
 - No consumption of fresh water
 - No effluent treatment costs
 - Full dry working environment
 - Less corrosion of exposed conveyor equipment parts
- **No bacterial growth**
 - No regular conveyor cleaning requirements to eliminate fungal growth
 - No anti-bacteria products to be added to the lubricant
 - No regular flushing of the lubricant supply lines required
- **No maintenance costs**
 - CHP and her distributors offer a **5 year guarantee** on delivery of spare parts
 - **No regular maintenance of lubrication equipment** (no use of brushes nor spraying devices)
 - **Full automatic operation without monitoring costs**
 - Low cost regular service agreements
- **Guaranteed minimal lubricant consumption cost**
 - **Micro lubrication of topside** (between belt and package) and **bottom side** (between belt and wear strip)
 - **Specially designed lubricant DLT-333[®]** offering an optimal lubricating efficiency
- **Highest line efficiency**
 - Lowest and controllable friction per individual chain, so **less falling and/or damaged packages**
 - The controllable friction ensures an **optimal operation of the in line machinery equipment**
 - **Bottom lubrication** creates supplementary package stability
 - **No potential danger to find traces of lubricant on side of the package or in the package**
 - Important reduction or even **elimination of critical “friction” zones** alongside the conveyor track



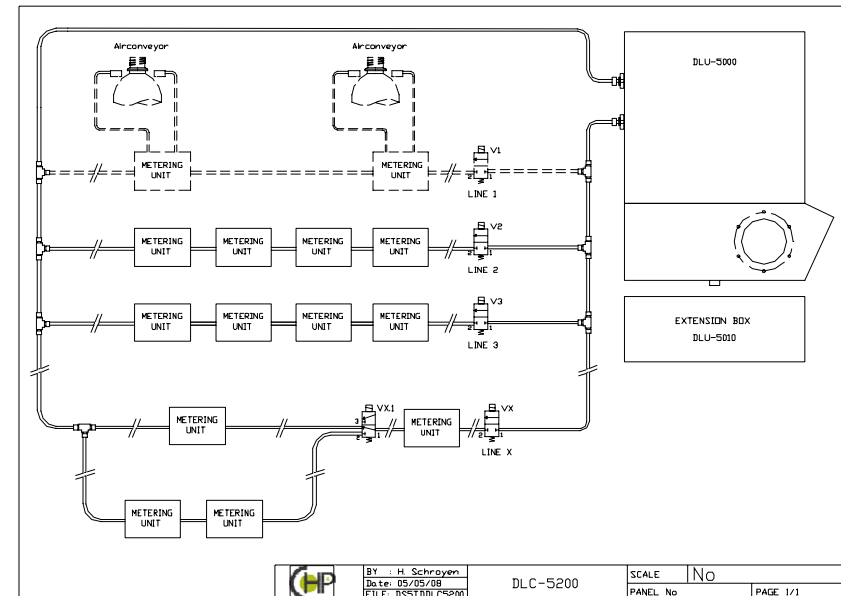
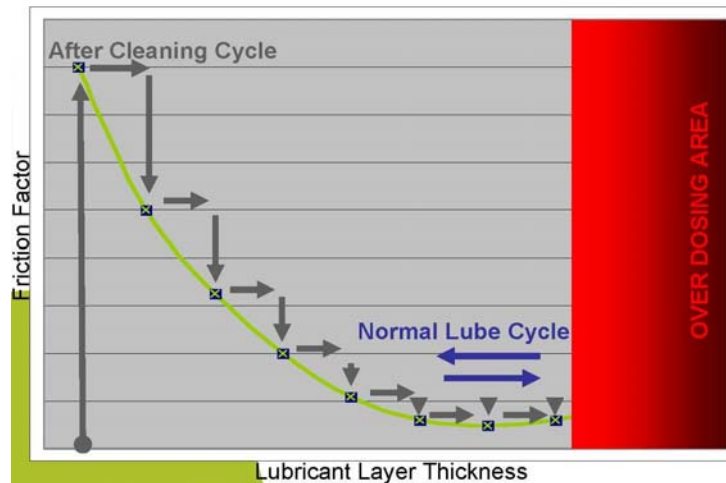
Conveyor Dry Lubrication

DLS-5000 Product line for plastic slat conveyors

Technology : Innovative and Simple to operate

- Direct contact principle

- chain dedicated top- and bottom injection points connected to PDI metering units create a microscopic thin lubricant layer and ensure an **optimised friction factor between all friction surfaces of the belt (between package/chain and chain/wear strip)**
- so **no brushes** which cause relative high maintenance costs, show lower lubrication efficiency and tend to grease
- so **no spraying devices** which demand regular cleaning, cause environmental load and can result in product contamination on the side of the package and/or through migration of sprayed lubricant in the open package
- by CHP **guaranteed reported minimal lubricant consumption**
- **full dry working environment**



- Bottom lubrication

- **reduces the wear** between chain and wear strip and consequently **increases the life time of the chain**
- **prevents stick-slip** phenomena which cause package instability particularly at high conveyor loads
- **reduces the noise level**

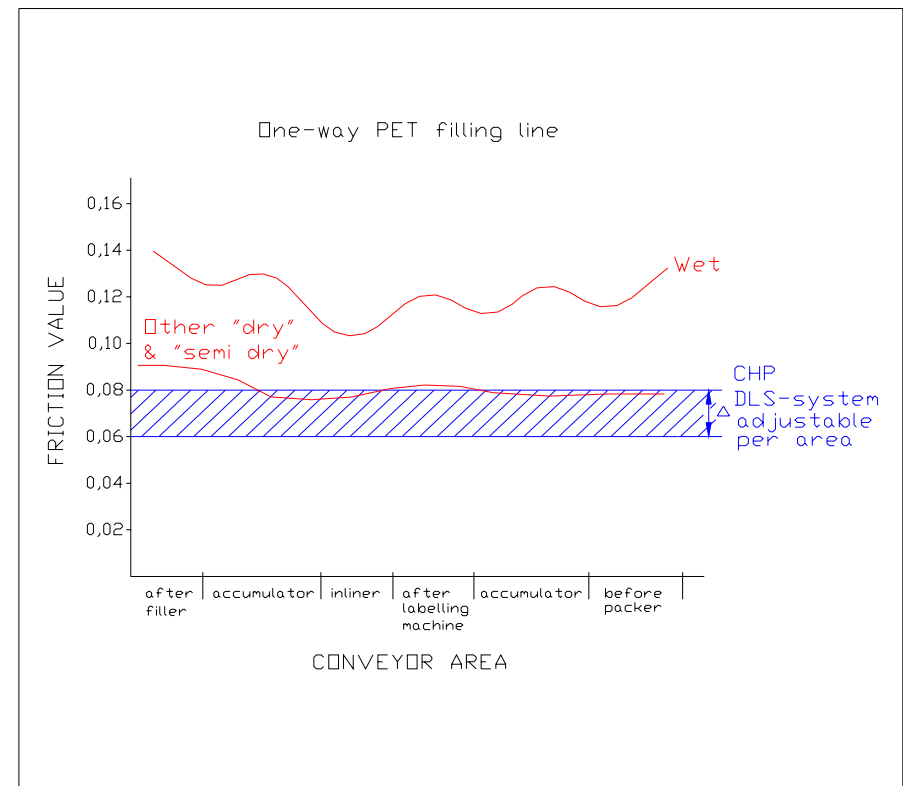
Conveyor Dry Lubrication DLS-5000 Product line for plastic slat conveyors



Technology : Innovative and Simple to operate

- Full automatic operating central control unit DLU-5000

- possesses a **synoptic and secured control and signalisation panel**
- because of the extreme low hydraulic losses one unit can serve **till 750 lubrication points of various and different filling lines**
- the system remains filled with lubricant and is **only pressurised during the short lasting lubrication cycle**
- output availability for connection to **centralised monitoring process computers**
- with the multi user software (DLU-5010) the unit can serve a **global packaging/bottling plant** with various and different fillers and packages
- recommended by OEM partners for **high speed lines**
- for **small scale applications** we developed the **DLU-5100** control unit



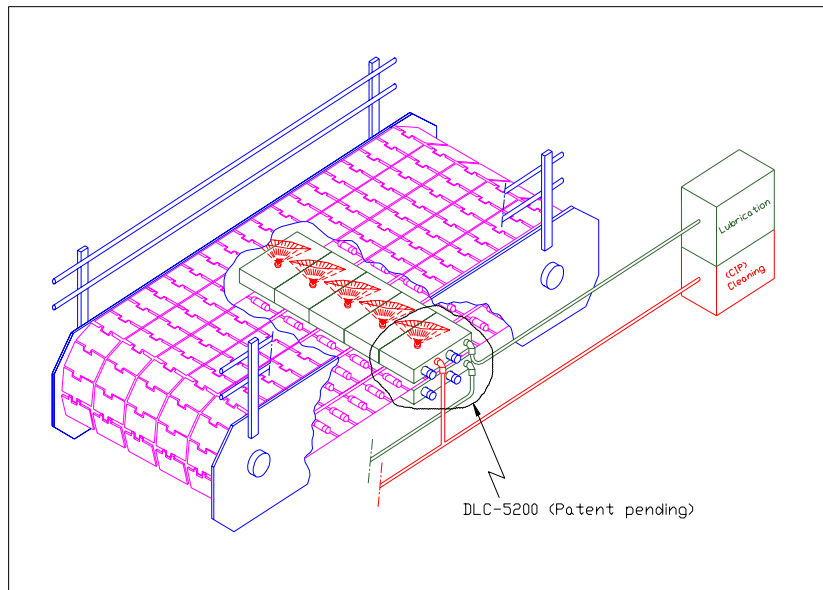
Conveyor Dry Lubrication

DLS-5000 Product line for plastic slat conveyors

Technology : Innovative and Simple to operate

- Next generation “all-in-one” lubrication and CIP distribution units (DLC-5200)

- **Top lubrication, bottom lubrication and CIP** integrated in individual distributors
- **Modular construction** makes it fit for single and multiple conveyors
- **PDI units integrated** in the distributors which makes equipment very compact
- The installation works at site are minimised if distribution units are **pre-assembled at conveyor manufacturer**
- **EP 2061711**



Conveyor Dry Lubrication DLS-5000 Product line for plastic slat conveyors



Extreme low lubricant consumption

As a **rule of thumb** :

- for 10 bottle/can conveyors (5 belts/conveyor): 5,0 - 8,5 cc/hr
- for 10 single cardboard conveyors : 2,0 - 3,5 cc/hr

- Example : - **1 conventional PET or canning line** : +/- **10 liters/month** ! (full time operation)
 - **1 conventional cardboard line** : +/- **3 liters/month** ! (full time operation)

Economies : Reduce operating costs up to 90%

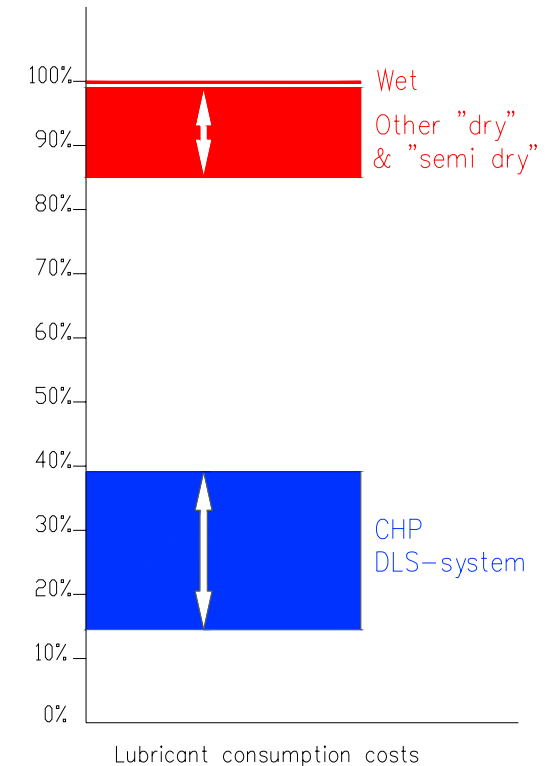
CHP has **10 years of experience** in Dry Lubrication and a **worldwide installed base on more than 1 000 packaging lines**

Different case studies at our key accounts show **important savings** versus “wet” and “semi dry” systems :

- | | | |
|-----------------|--|--------------|
| Major savings : | - Lubricant consumption cost | till 90 % ! |
| | - Maintenance of lubrication equipment | 100 % ! |
| | - Disinfection of lubrication equipment | 100 % ! |
| | - Safety en Environment related costs | till 100 % ! |
| | - Effluent disposal costs | till 90 % ! |
| | - Less broken packages | till 90 % ! |

- | | | |
|-----------------|--------------------------------------|-----------|
| Other savings : | - Replacement costs of chains | till 50 % |
| | - Energy costs | till 30 % |
| | - Cleaning frequencies | till 30 % |
| | - Less accidents and injuries | till 90 % |

Line efficiency : till + 2,5 % !



Conveyor Dry Lubrication DLS-5000 Product line for plastic slat conveyors



References

CHP and her partners already equipped over 1 000 filling lines ; to our “**end user**” **customer** base belong local bottling or packaging companies as well as internationally operating key accounts such as :

- Nestlé Waters
 - Coca Cola
 - Danone
 - Friesland Foods
 - Campina
 - Nestlé
 - Spa Monopole
 - Procter & Gamble
 - Bestfoods
 - Campbell
 - Refresco
 - Arla Foods
 - Alpro
 - Inbev

We are familiar with various types of conveyors supplied by the main OEM companies as :

- Tetra Pak, SIG Combibloc, Elopak
- Krones, KHS, Sidel

Conveyor Dry Lubrication DLS-5000 Product line for plastic slat conveyors



Global service

CHP and her worldwide distributorship offer following services :

- **Global basic study** for retrofits, plant changes, revamps or brand new conveyor equipment
- **Pre-assembly** of lubrication parts at our or at conveyor manufacturer's workshop
- **Installation on site**

- **5 Year warrantee** for delivery of replacement parts
- **General inspection agreement**
- **Repair on request**
- **Cleaning instructions**

- **Supply of food industry approved lubricant DLT-333®**



Global service agreements can be closed but have in many occasions shown not to be necessary.

Would you like to know more about this very reliable, high performing and low operating cost “state of the art” full dry lubrication system ?

Would you like **more facts and figures** ?

Are you interested in a **test or trial** ?

We invite you to contact us or our local partner !