



**Vanguard**

COMPAGNIA ITALIANA LUBRIFICANTI

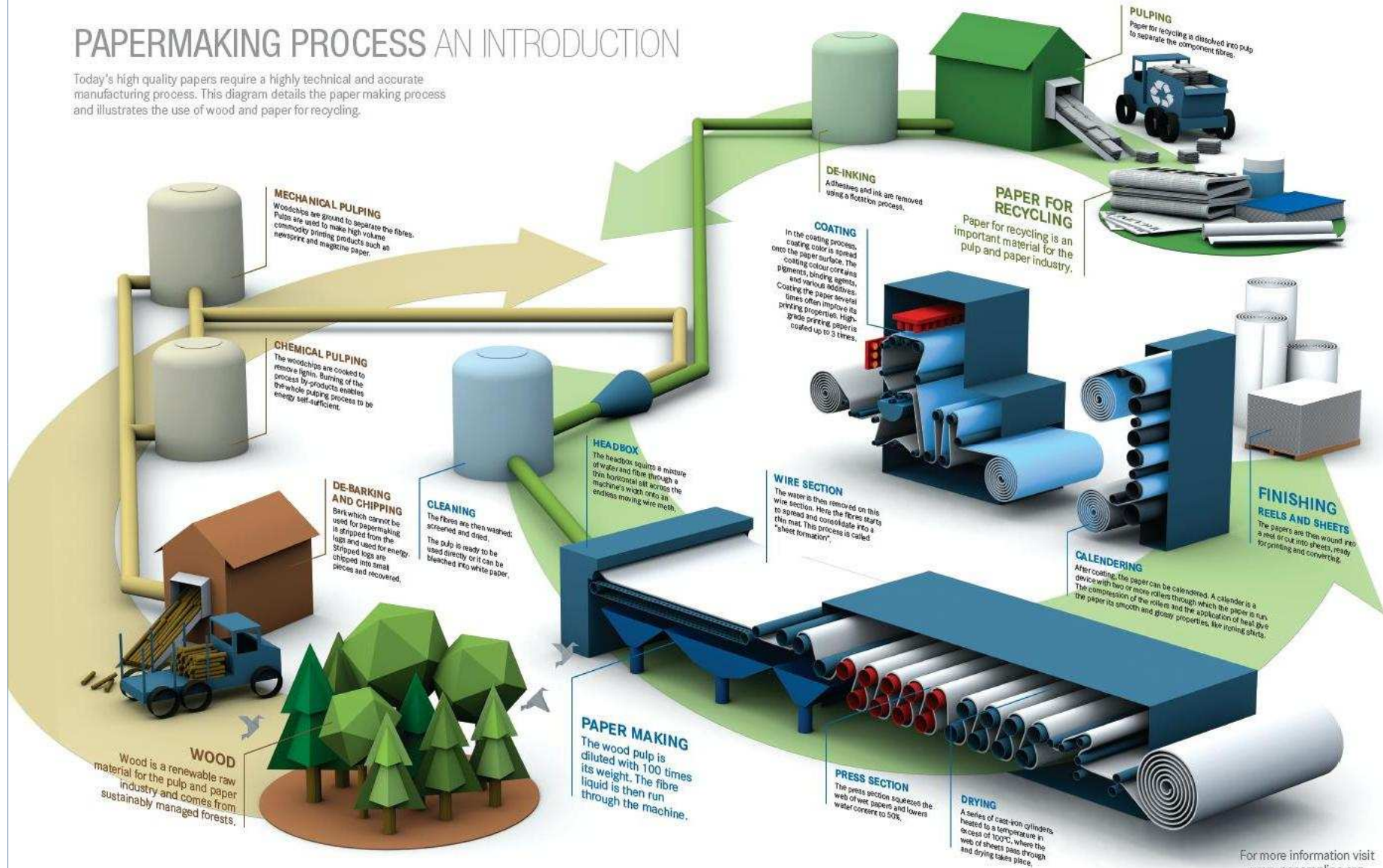
**MOLYguard**



# PAPER INDUSTRY

## PAPERMAKING PROCESS AN INTRODUCTION

Today's high quality papers require a highly technical and accurate manufacturing process. This diagram details the paper making process and illustrates the use of wood and paper for recycling.



# WOOD AND CHIPPING



## CHIPPER

**Bearings**  
**Couplings**

MOLYguard GS COMPLEX  
MOLYguard GS ROLLER DR 1/2

## REFINER

**Bearings**  
**Crowned Teeth**

MOLYgurad GS COMPLEX  
MOLYguard GS ROLLER DR 1/2



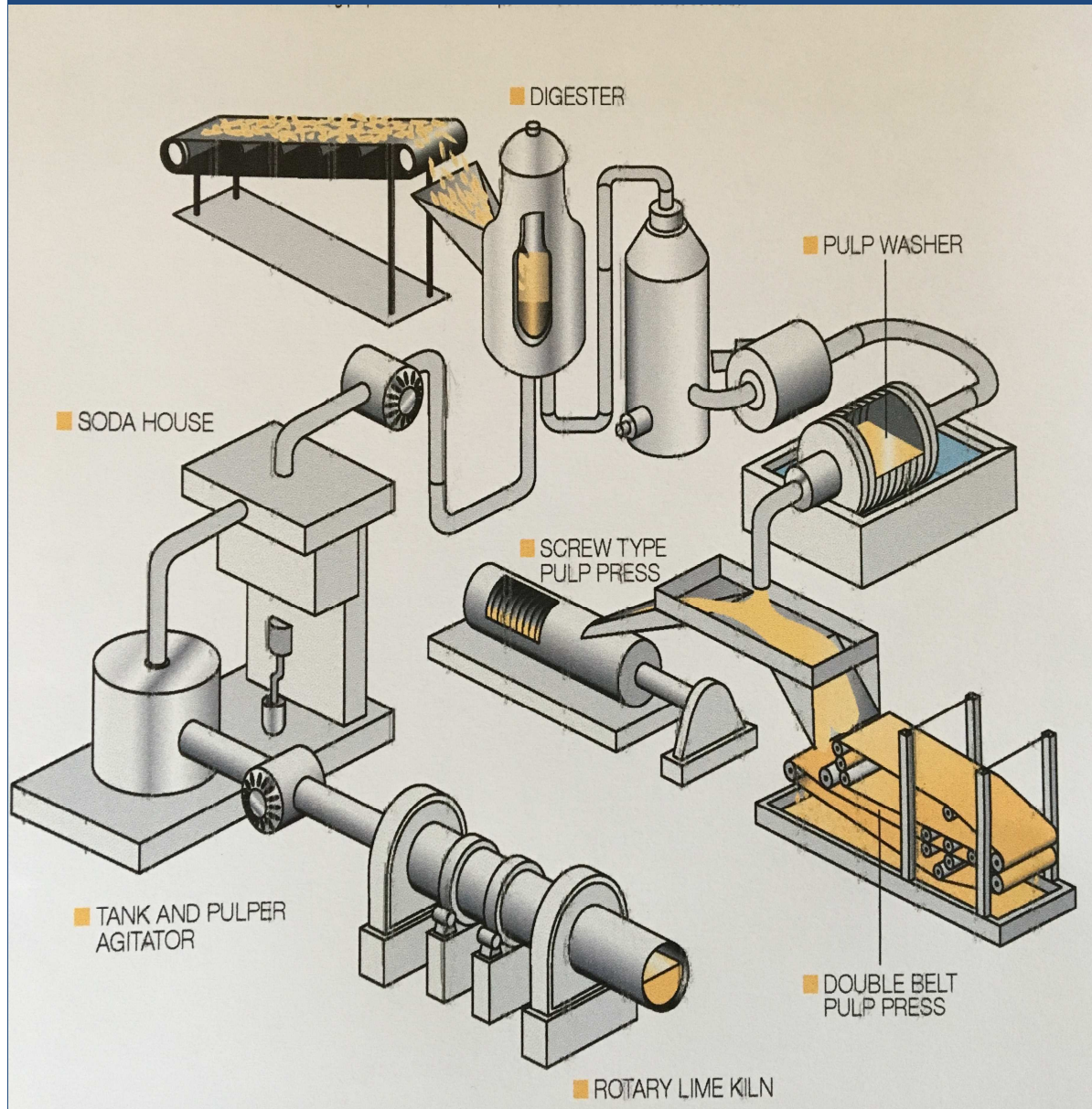
## GRINDER

**Chain**  
**Slide rail**

MOLYguard GS ROLLER DR 1/2  
MOLYguard MOLYGREASE BS 2



# CHEMICAL PULP PRODUCTION



## SODA HOUSE

*Induced draft fan*

MOLYguard GS 5110-A

*Flue fan gas* MOLYguard GS 5110-A

## DIGESTER

*Bearings*

MOLYguard GS ROLLE DR 1/2

*Gears*

MOLYguard GEAR SINT EP

## TANK AND PULP AGITATOR

*Bearings*

MOLYguard GS COMPLEX

*Gears*

MOLYguard GEAR SINT EP

# CHEMICAL PULP PRODUCTION

## ROTARY LIME KILN

*Open gear drive*

MOLYguard I.SCO/10

*Bearings*

MOLYguard GS ROLLER DR 1/2

## PULP WASHER

*Bearings*

MOLYguard BLU GREASE

*Bearings with oil lubrication*

MOLYguard GEAR SINT EP

## SCREW TYPE

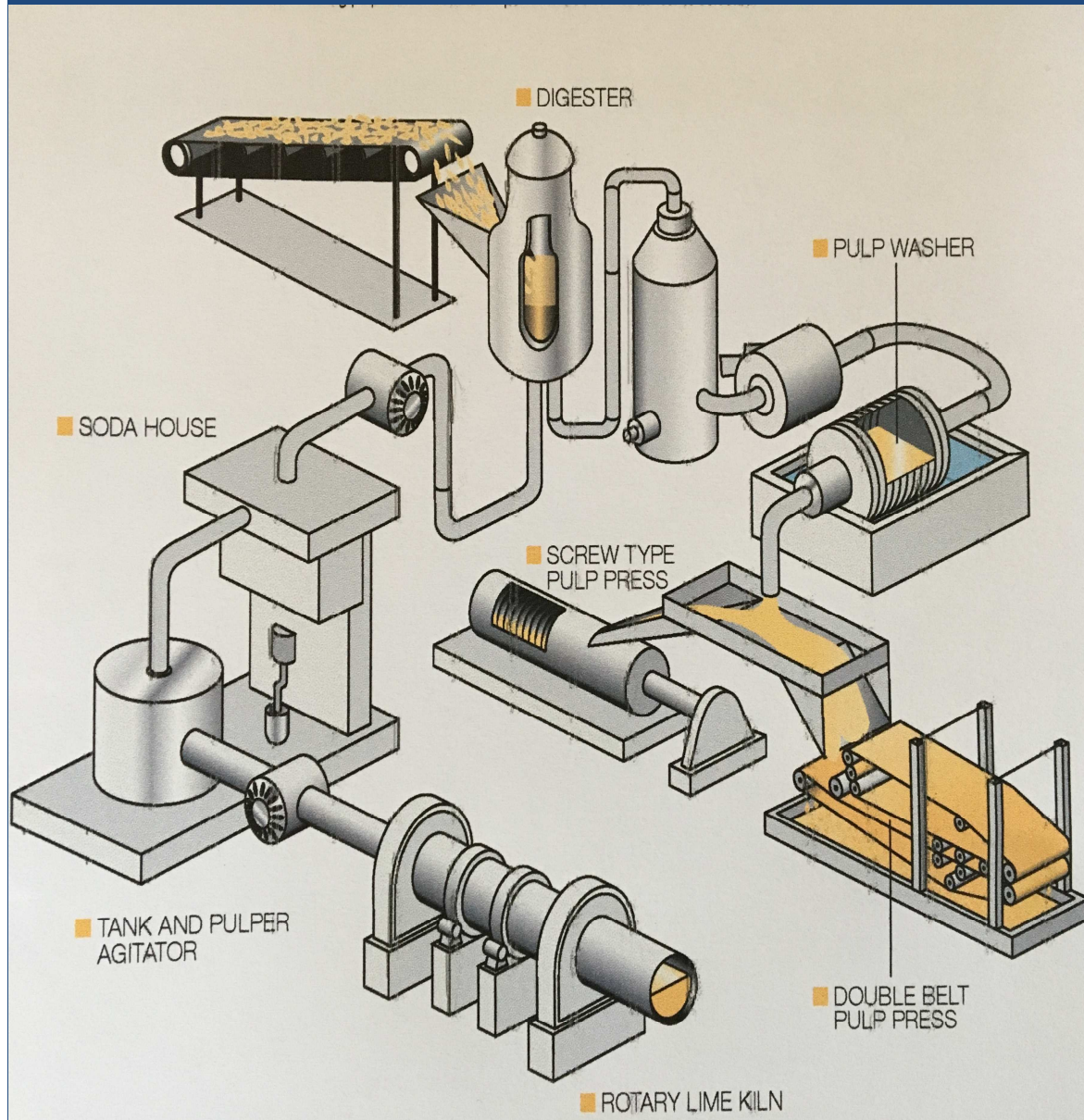
*Bearings*

MOLYguard GS ROLLER DR 1/2

## DOUBLE BELT

*Bearings*

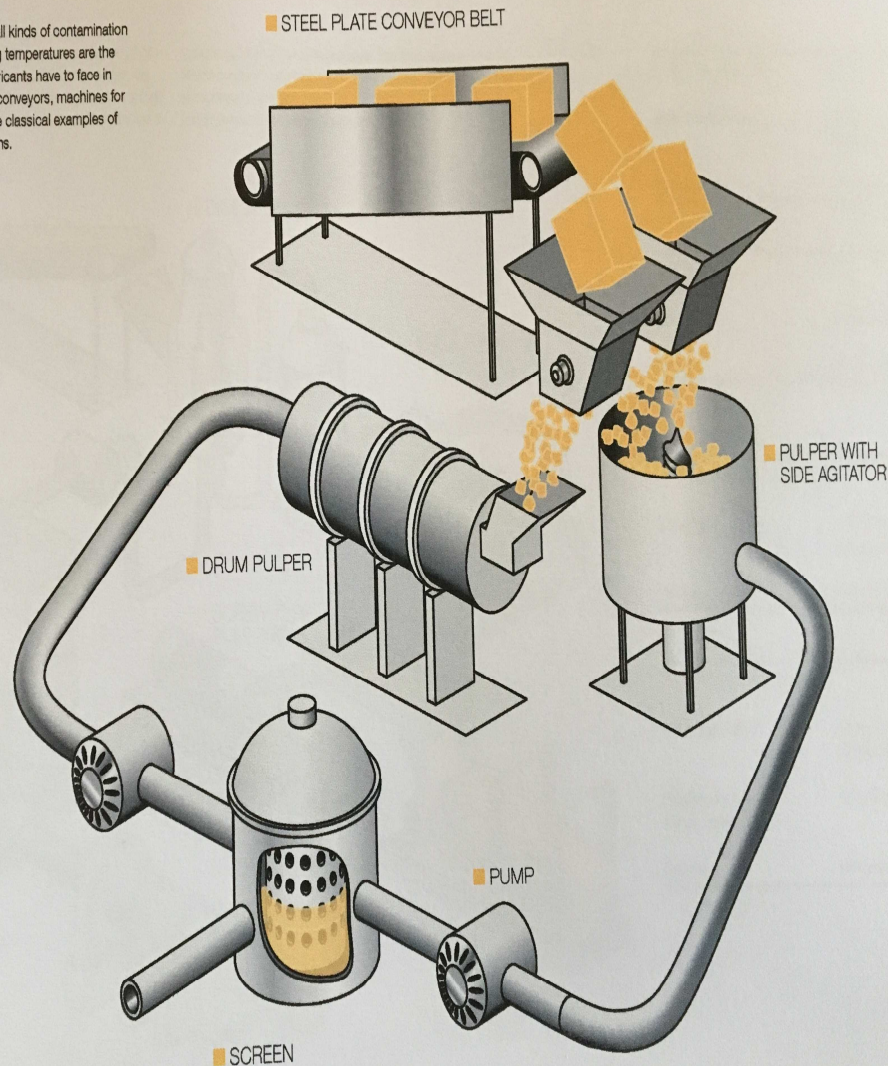
MOLYguard GS ROLLER DR 1/2





# PAPER RECYCLING AND TRANSPORT

Severe moisture effects, high loads, all kinds of contamination from the recovered paper and varying temperatures are the particular requirements specialty lubricants have to face in this process. Alongside pulpers and conveyors, machines for transporting and suspending pulp are classical examples of high-performance lubricant applications.



## STEEL PLATE CONVEYOR BELT

### *Roller chains*

MOLYguard GEAR SINT EP 32

## DRUM PULPER

### *Open gear drive*

MOLYguard I.SCO/ 10

### *Bearings*

MOLYguard GS ROLLER DR 1/2

## PULPER WITHSIDE AGITATOR

### *Bearings*

MOLYguard GS HTK

## PUMP

### *Oil pump bearings*

MOLYguard GEAR SINT EP

### *Coupling*

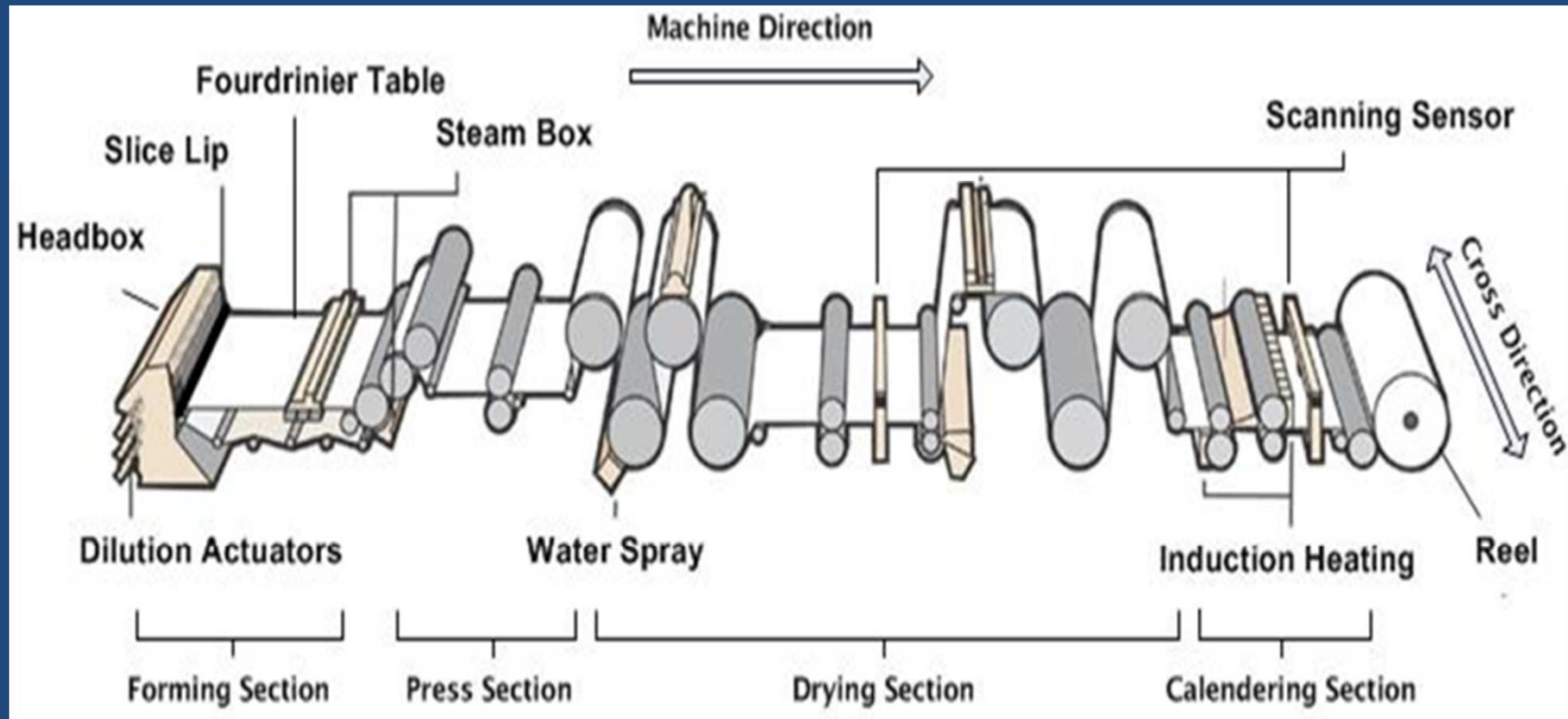
MOLYguard GS ROLLER DR 1/2

## SCREEN

### *Screen bearings and Coupling*

MOLYguard GS ROLLER DR 1/2

# PAPER & CARDBOARD MACHINERY



## DRYING

<i>Paper machine oil</i>	MOLYguard GEAR SINT EP
<i>Spread rolls</i>	MOLYguard GS LT2
<i>Felt carrying rolls</i>	MOLYguard GS 5110-A
<i>Steam head bearings</i>	MOLYguard GS 5110-A
<i>Steam head setting</i>	MOLYguard DMP/PTFE

## CALENDERING

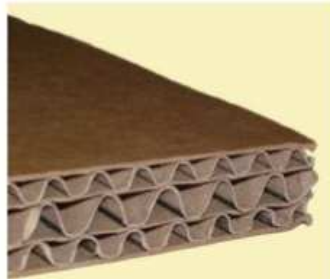
<i>Bearings</i>	MOLYguard GS ARTIC
<i>Bearing with oil</i>	MOLYguard GEAR SINT

# CORRUGATOR PROCESS

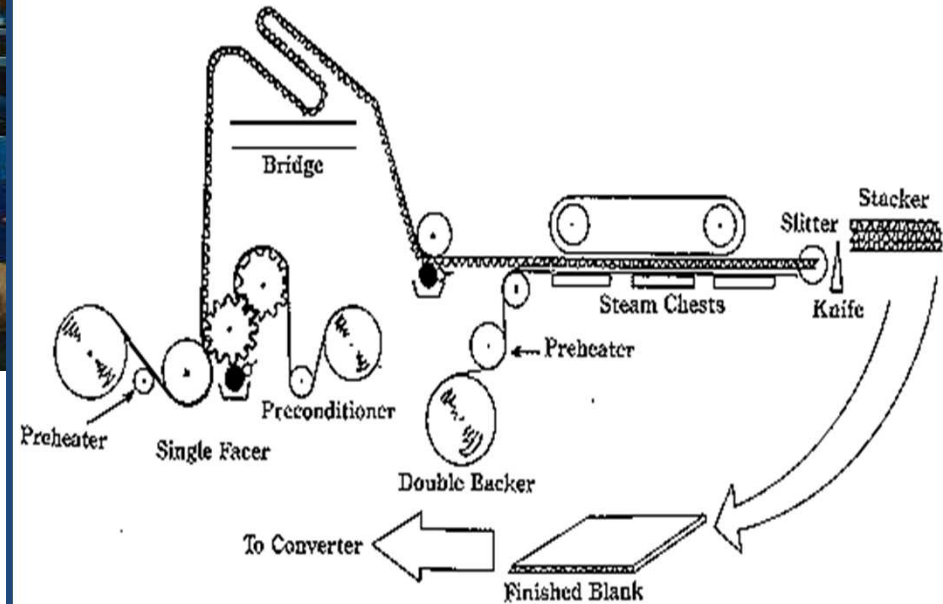


## Flutes in Corrugation

- ▶ Corrugating is defined as the imparting of wave-like shape to a paper. Kraft paper or fluting media paper is passed through heated corrugated rolls to obtain continuous rolling, wave-like shape. These are called flutes.
- ▶ When we look at the edge of Corrugated Paper Board, we will see a row of air columns. The air acts as cushion, while the paper columns make the material strong.



## Corrugating Process



## CORRUGATOR

*Bearing* MOLYguard GS 5110-A

*Cleaning for corrugator roller*  
MOLYguard HYDRO SINT



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# MOLYguard

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