



# Welcome at ARGO-HYTOS

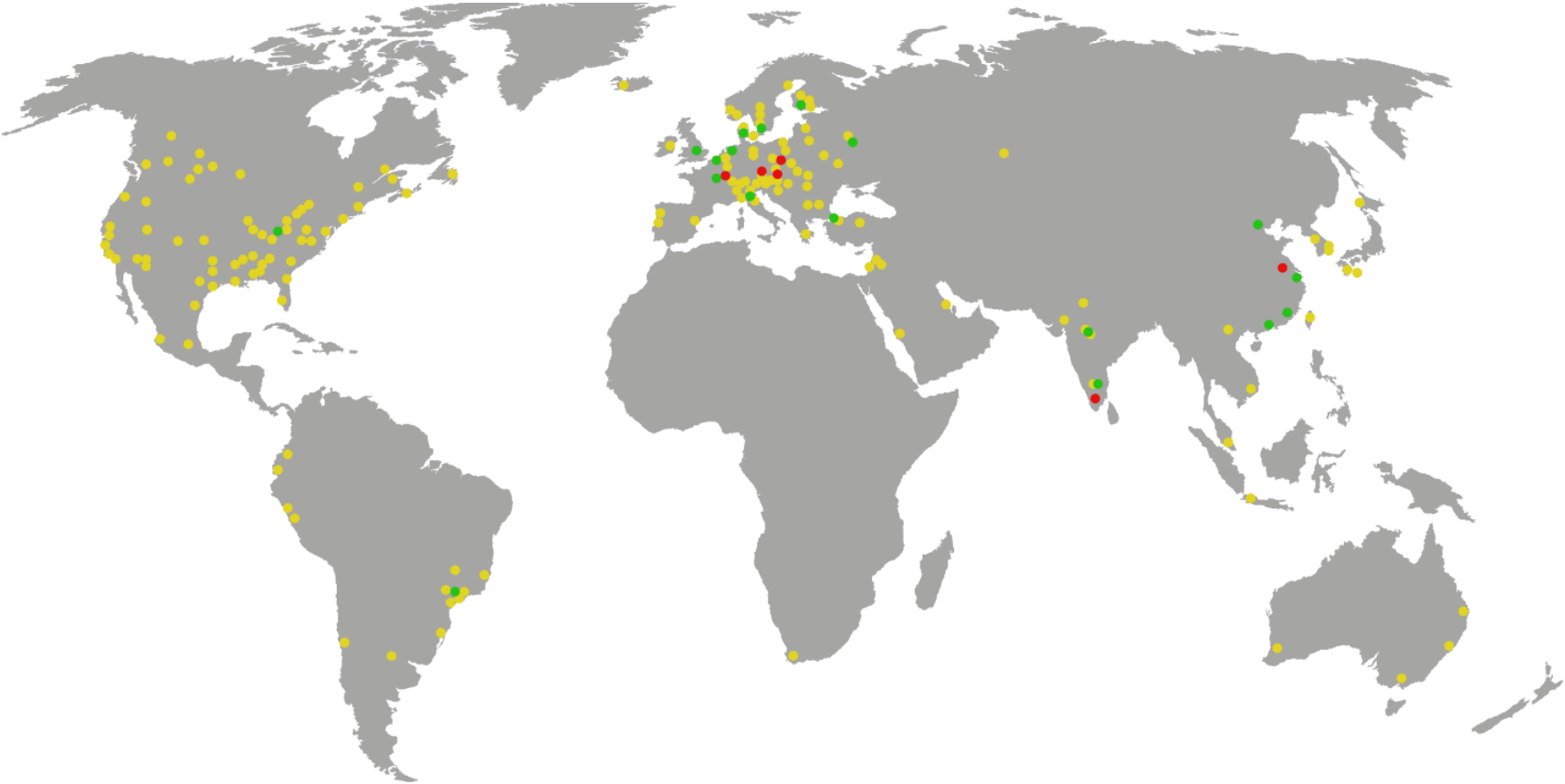
## Company Presentation

01.11.2018

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# ARGO-HYTOS

Worldwide



- Manufacturing and distribution companies
- ARGO-HYTOS distribution companies
- Distribution companies

# Welcome to ARGO-HYTOS Germany

ARGO-HYTOS GMBH – Kraichtal-Menzingen, Germany



**500 Employees**

Manufacturing of filter elements,  
filtration systems, tank solutions

# Welcome to ARGO-HYTOS Germany

Manufacturing – Kraichtal-Menzingen, Germany



**Robotic Automation**



**Filter Element Production**



**Assembly**

# Welcome to ARGO-HYTOS Czech Republic

ARGO-HYTOS s.r.o. - Vrchlabí, Czech Republic

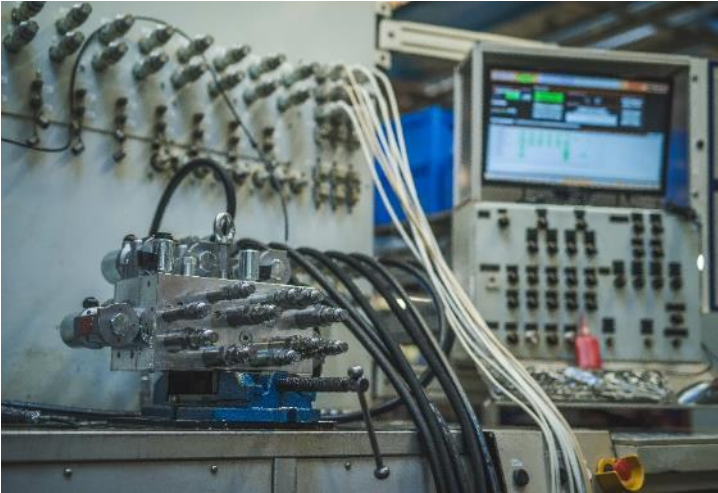


**780 Employees**

Manufacturing of valves,  
power packs, system solutions

# Welcome to ARGO-HYTOS Czech Republic

Manufacturing - Vrchlabí, Czech Republic



**Assembly and Testing**



**Parts Production**



**Quality**

# Welcome to ARGO-HYTOS India

ARGO-HYTOS PVT. LTD. - Coimbatore, India



**100 Employees**

Manufacturing of filter elements,  
filtration systems, manifolds and  
hydraulic solutions

# Welcome to ARGO-HYTOS India

Manufacturing - Coimbatore, India



**Element Production Hall**



**Manifold / Valve Assembly**



**Warehouse & Packaging**



# Welcome to ARGO-HYTOS China

ARGO-HYTOS Yangzhou Ltd. - Yangzhou, China



**60 Employees**

Manufacturing of valves, manifolds,  
filter assemblies, power packs, pumps

# Welcome to ARGO-HYTOS China

ARGO-HYTOS Yangzhou Ltd. - Yangzhou, China



**Lightline Assembly**



**Manifold Machining**



**Pump Testing / Flushing**

# Examples of ARGO-HYTOS Distribution & Light Manufacturing Factories (ALMA)



USA



Poland



Scandinavia



France



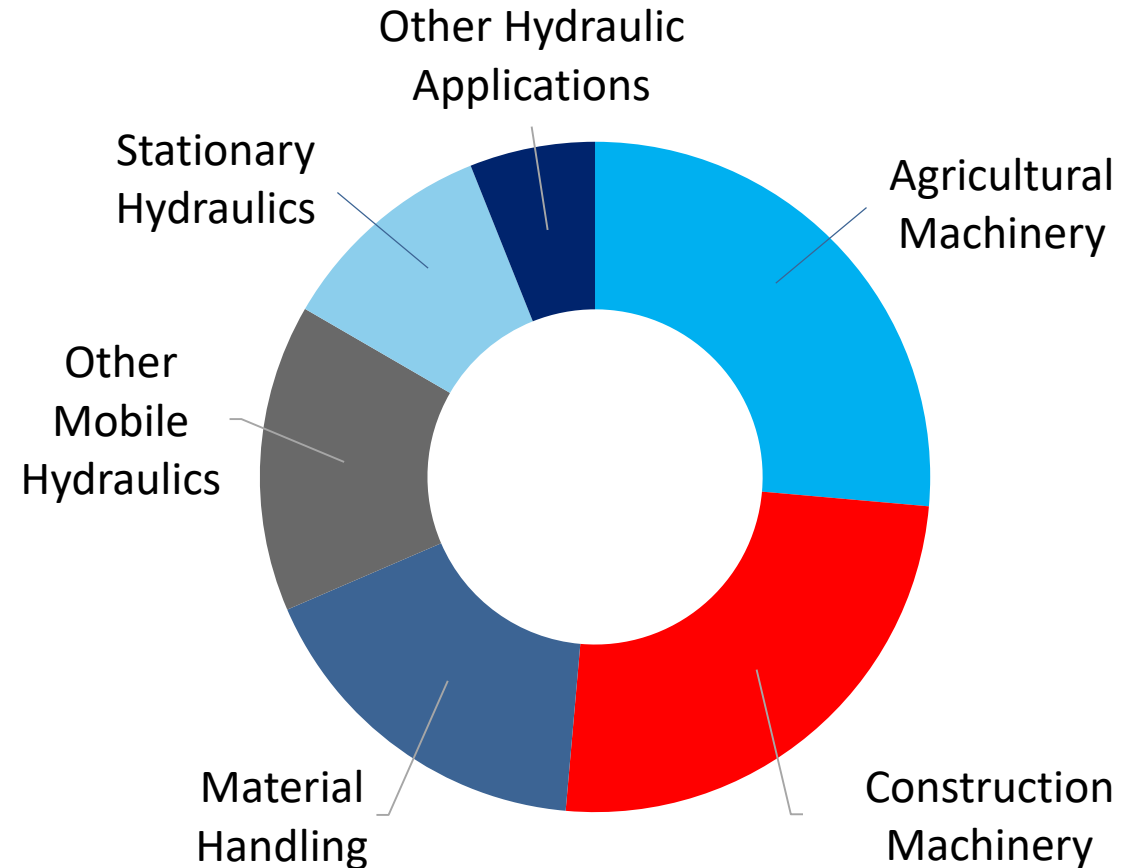
The Netherlands

# Markets

## Industries

**We supply our product portfolio into the following markets**

- Agricultural Machinery 26 %
- Construction Machinery 25 %
- Material Handling 17 %
- Other Mobile Hydraulics 15 %
- Stationary Hydraulics 11 %
- Other Hydraulic Applications 6 %



# Trends in Hydraulics / Mobile Machinery

The Mega Trends: Selected Examples @ ARGO-HYTOS

- **Energy Efficiency**
- Light-Weight Construction
- Comfort Hydraulics
- Condition Monitoring

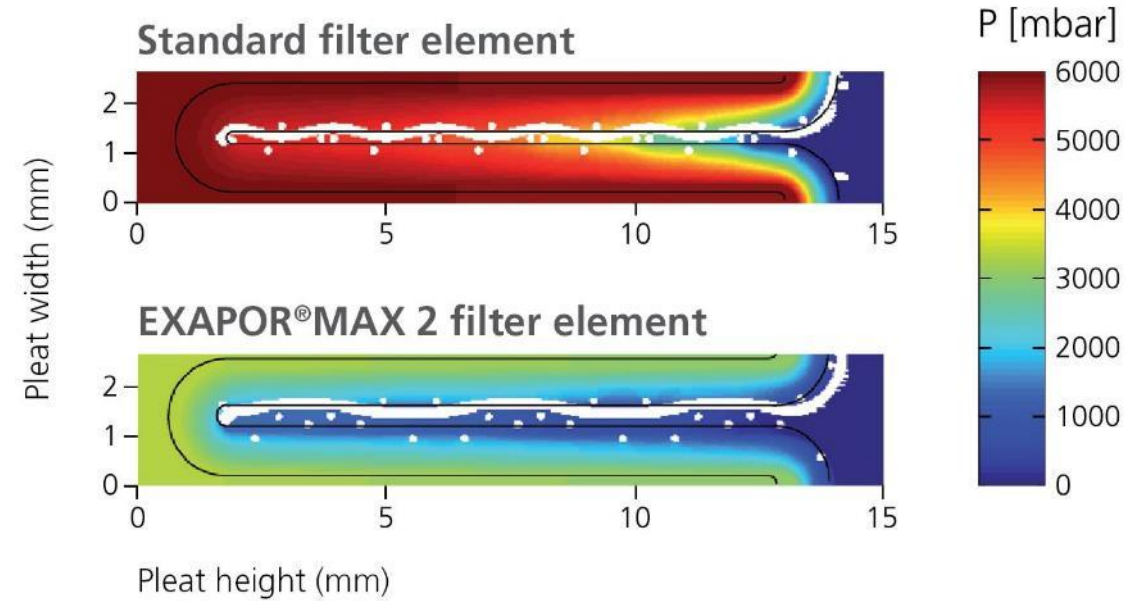
# Energy Efficiency

Example: Exapor<sup>®</sup> Max 2 Filter Elements

## THE solution

**EXAPOR<sup>®</sup>**  
**MAX2**

Innovative hybrid support fabric for optimized power density:  
increased dirt holding capacity in conjunction with  
**reduction in pressure losses up to 50 %**



# Trends in Hydraulics / Mobile Machinery

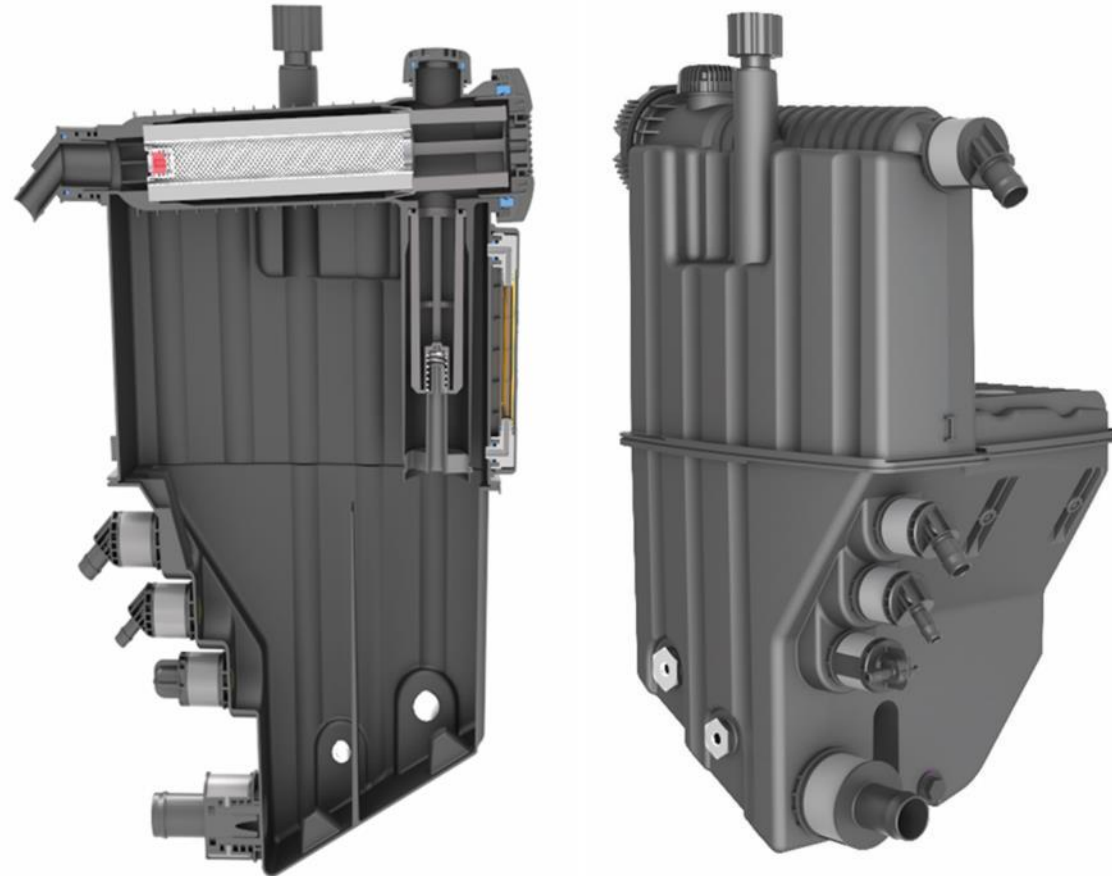
## The Mega Trends: Selected Examples @ ARGO-HYTOS

- Energy Efficiency
- **Light-Weight Construction**
- Comfort Hydraulics
- Condition Monitoring

# Light-Weight Construction

Example: Composite Tank System Solution for Compact Loaders

- **30 l tank capacity**
- **Integration of**
  - Quick-Connect (5 E/A)
  - Return filter
  - Oil level gauge
  - Breather
  - Filling filter
  - Return flow collection chamber





# Trends in Hydraulics / Mobile Machinery

## The Mega Trends: Selected Examples @ ARGO-HYTOS

- Energy Efficiency
- Light-Weight Construction
- **Comfort Hydraulics**
- Condition Monitoring

# Comfort Hydraulics

## Modular Hydro-Pneumatic Suspension - MHPS

### Enhanced driving comfort

- Variable setting of the undercarriage parameters

### Reduced exposure of the driver to vibration

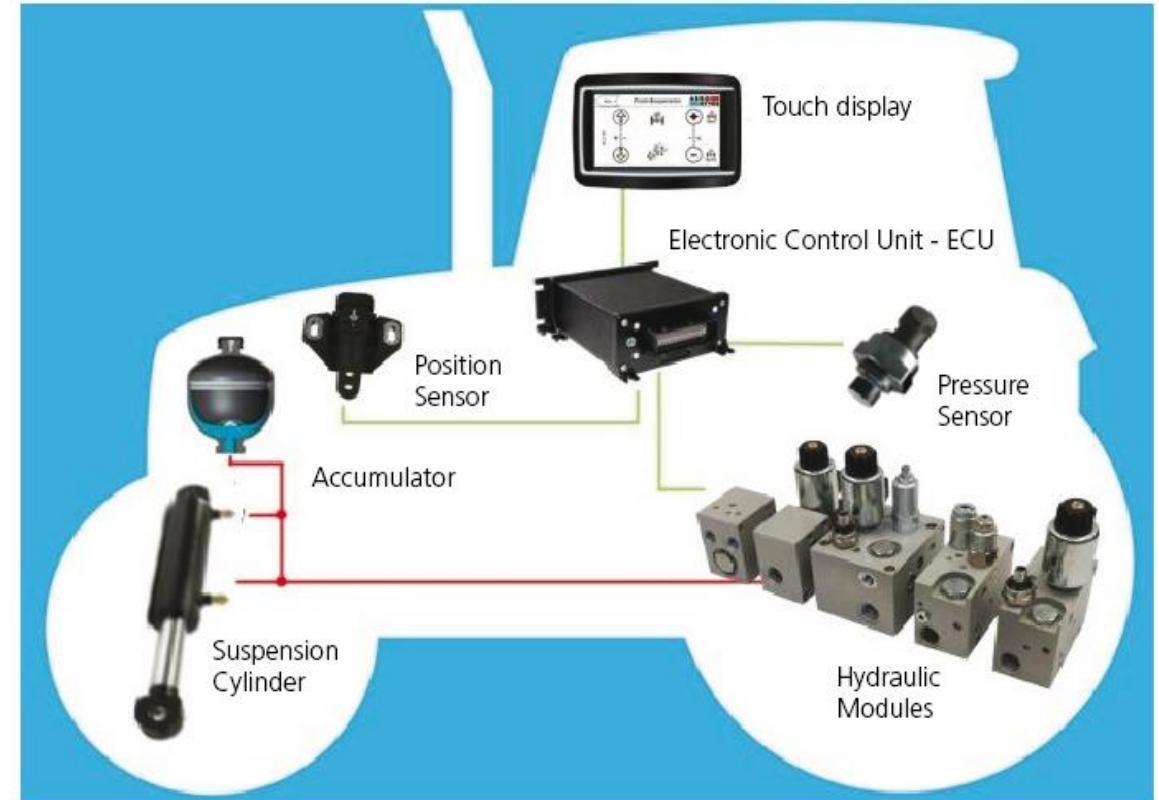
- Reflecting EU guideline 2002/44/EG

### Protection of machine and payload

- Increased machine uptime

### Modular Concept

- Functional prototypes on short notice
- Minimized customizing costs



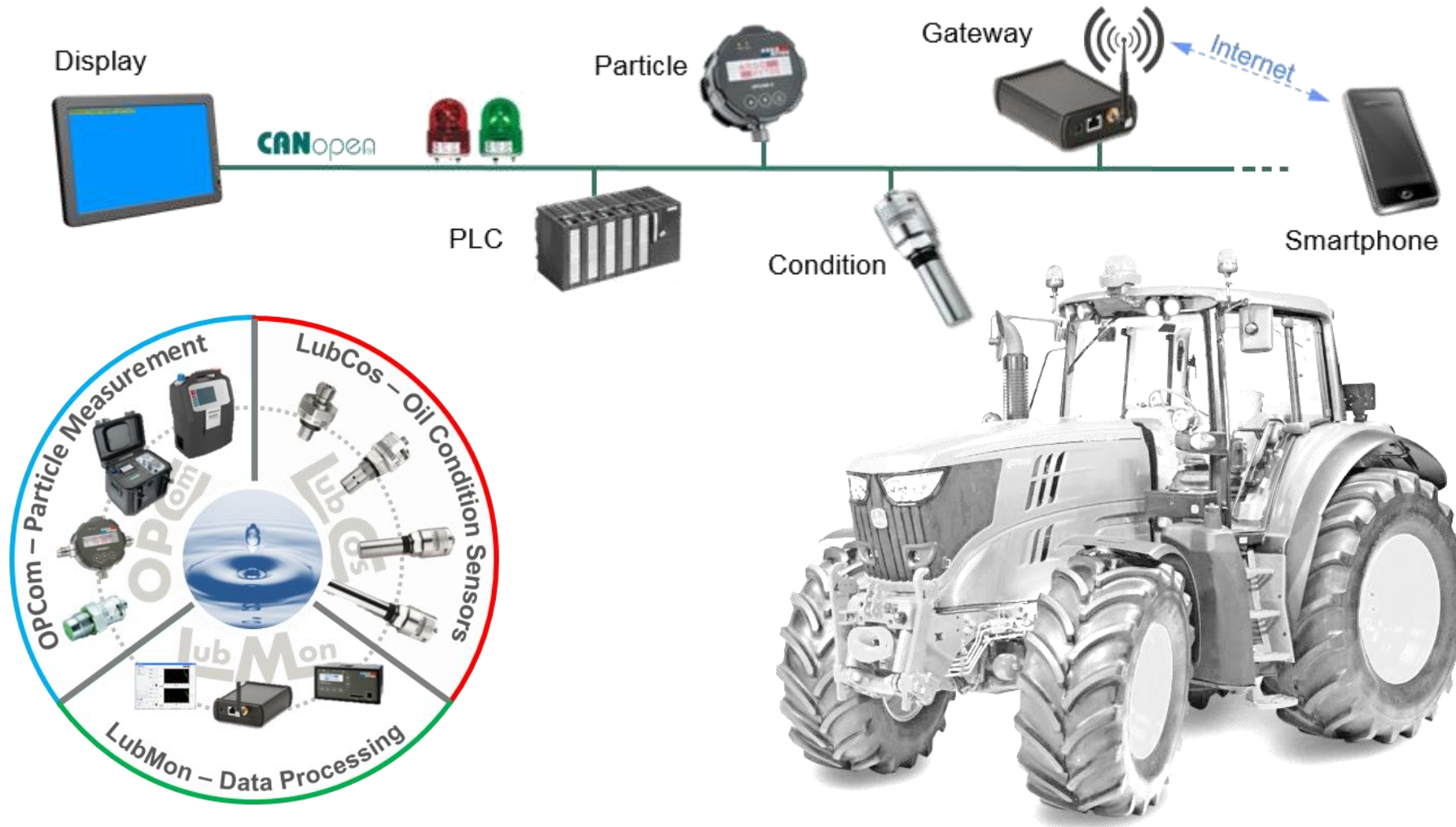
# Trends in Hydraulics / Mobile Machinery

## The Mega Trends: Selected Examples @ ARGO-HYTOS

- Energy Efficiency
- Light-Weight Construction
- Comfort Hydraulics
- **Condition Monitoring**

# Condition Monitoring

Concept for Installation and Online Data Transfer



# ARGO-HYTOS Standard Product Portfolio

## Standard Products – System Filters & Tank Solutions



Suction Filters



Return Filters &  
Return-Suction Filters



Filter Cooling Systems



Pressure Filters &  
High Pressure Filters



Stainless Steel  
High Pressure Filters



Filling &  
Ventilating Filters



Accessories



Oil Level Gauges &  
Dipsticks



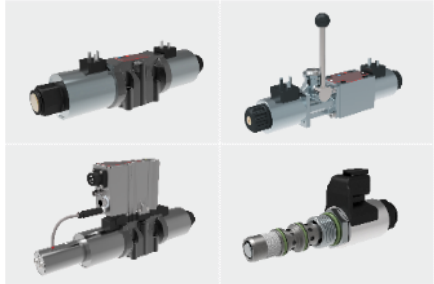
Filter Elements



Tank Solutions

# ARGO-HYTOS Standard Product Portfolio

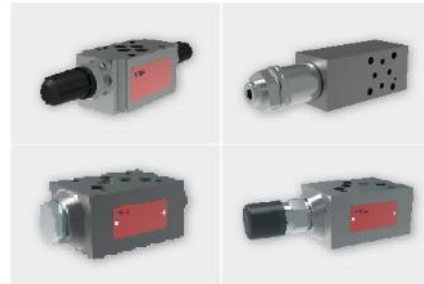
## Standard Products – Valves and Power Packs



**Directional Control & Proportional Valves**



**Valves in Sandwich Plate Design**



**Modular Valves: CETOP**



**Pressure, Flow, Check, Motion Control Valves**



**Explosion Proof Valves**



**Hydraulic Integrated Circuits**



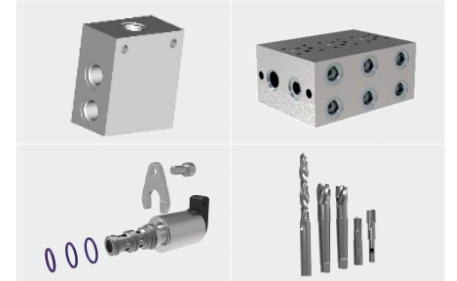
**Hydraulic Power Units**



**Application Solutions with Controls**



**Hydraulic Drives**



**Connecting Plates, Manifolds, Accessories**

# ARGO-HYTOS Standard Product Portfolio

## Standard Products – Predictive Maintenance



**Portable Particle Counters**



**Stationary Particle Monitors**



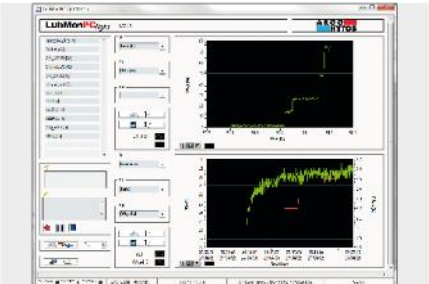
**Lubrication Condition Sensors**



**Signal Generator for Valve Control**



**Data Handling**



**Software**



**Service**

# ARGO-HYTOS Standard Product Portfolio

## Standard Products – Fluid Management



**Off-line Filters**



**Off-line Filter Units**



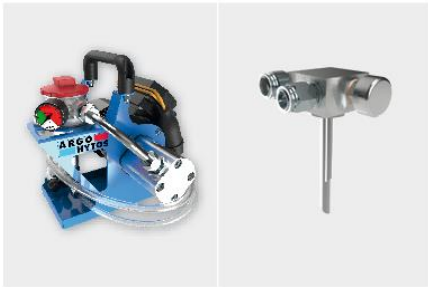
**Filter Cooling Systems**



**Oil Service Units**



**Dewatering Units**



**Compact Filter Pack  
CFP 03**



**Service**



# Introduction of Segments

## Fluid Management

### Oil Service and Filtration

- Dehydration units
- Mobile and stationary off-line filtration units

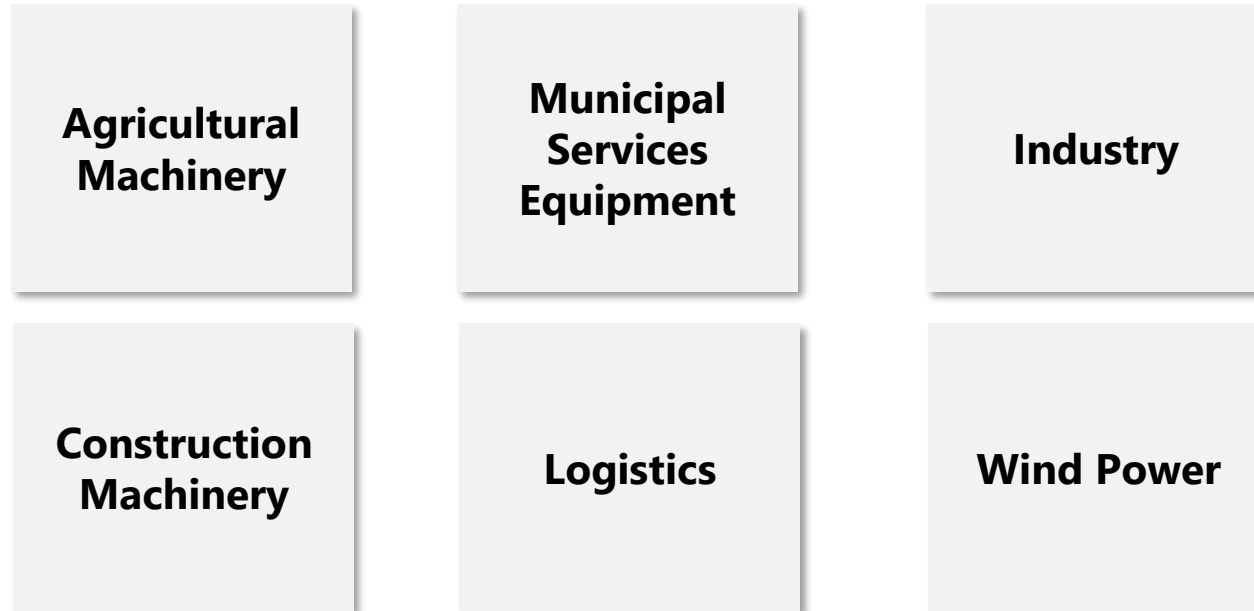
### Benefit

- Maintenance and service for hydraulic machines
- Filtration of contamination and wear particles
- Increased machine availability and productivity
- Extended machine service life
- Unnecessary oil changes are avoided, saving time and money



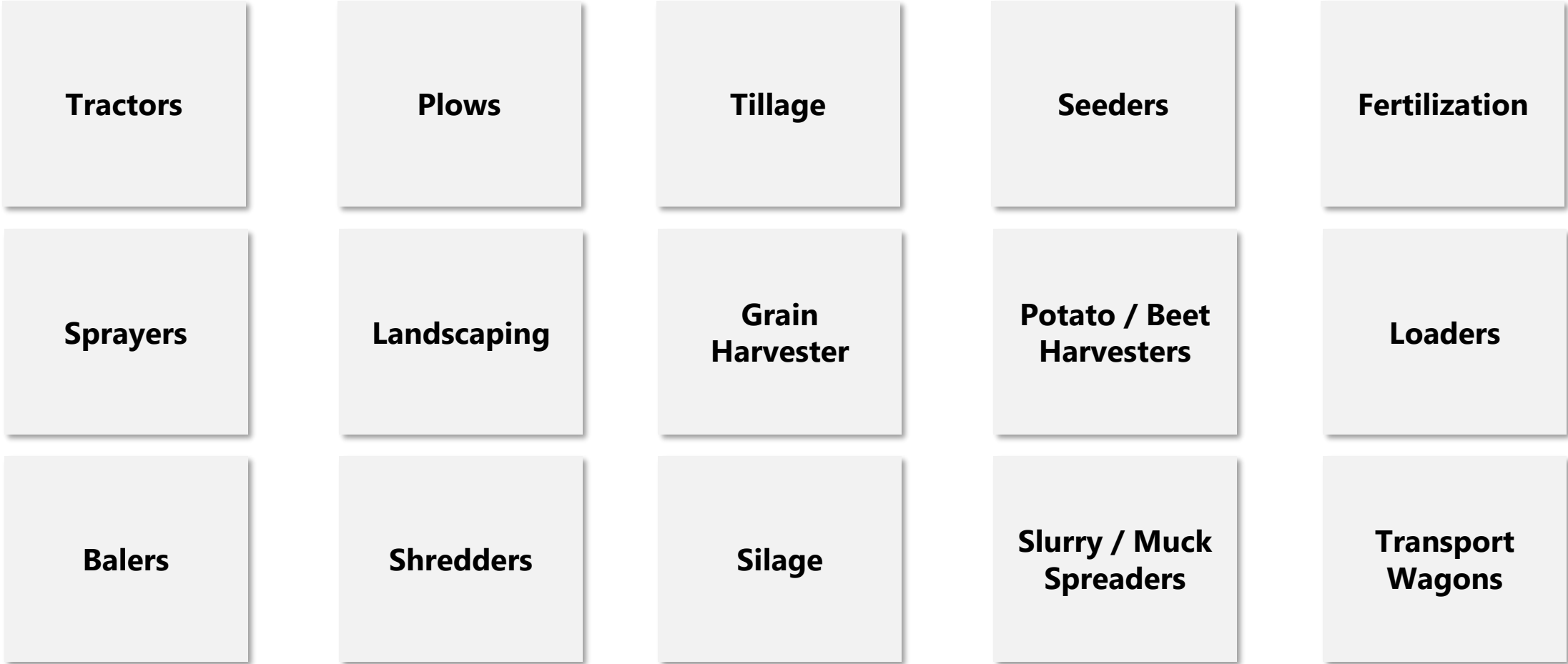
# Applications

## Overview



# Applications – Agricultural Machinery

## Overview



# Applications – Agricultural Machinery

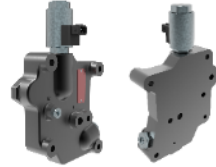
## Tractors



**Front hitch**



**Functional end plates**



**MHPS - Hydraulic suspension system with control electronics**



**Brakes cooling**



**Front / rear axle functions**



**Suction filters**



**Return filters built-in set**



**Return and suction filters**



**High pressure safety filters**



**Ventilating filters**



# Applications – Agricultural Machinery

## Sprayers



**Boom control**



**General functions**



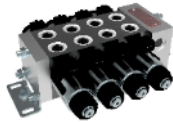
**MHPS - Hydraulic suspension system with control electronics**



**Steering**



**Auxiliary functions**



**Suction filters**



**Return-suction filters**



**High-pressure filters**

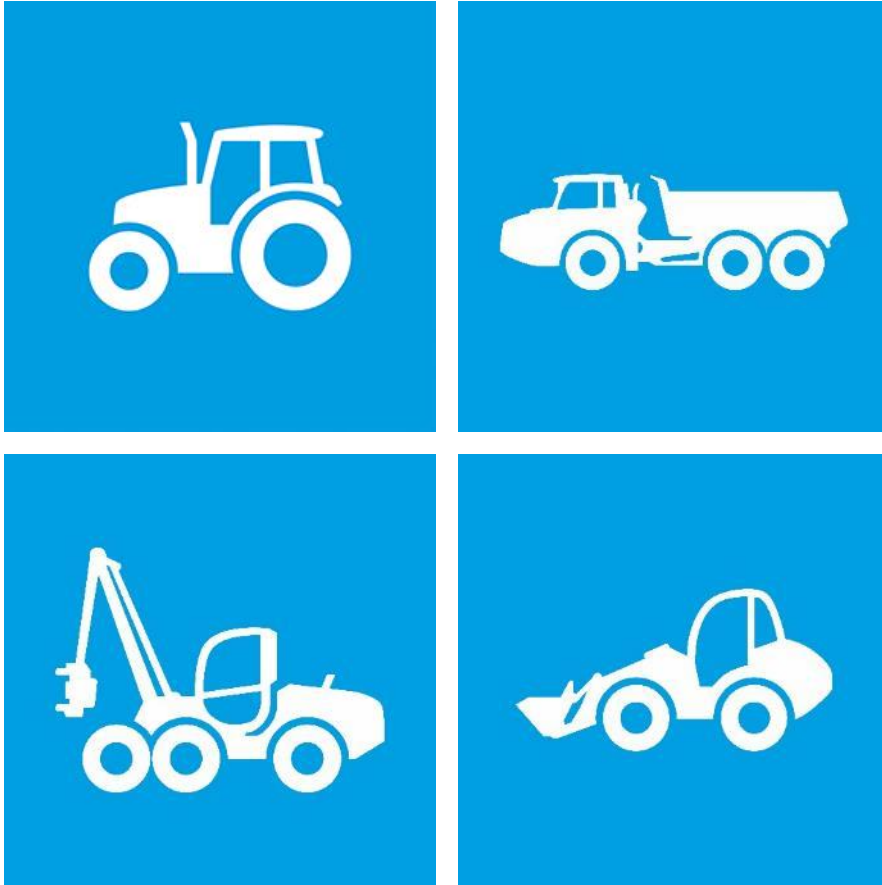


**Breathers**

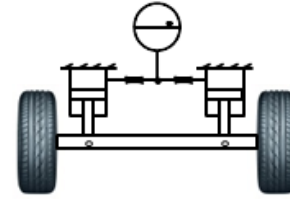


# Applications – Agricultural Machinery

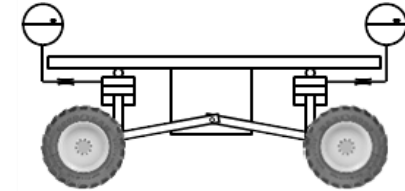
## Modular Hydro-Pneumatic Suspension - MHPS



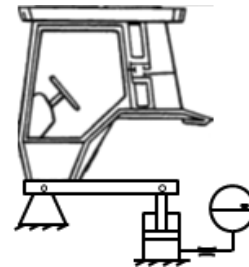
**Axle suspension**



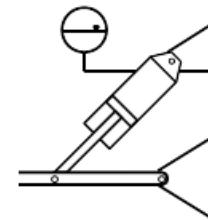
**All wheel suspension**



**Cab suspension**



**Drawbar suspensions  
+ payload**



# Applications – Construction Machinery

## Overview



# Applications – Construction Machinery

## Road Milling Machines



**Drum door**



**Drum functions**



**Leveling, prop.**



**Water sprayer**



**Conveyor  
adjustment**



**Suction strainers**



**Return filters**



**Return-suction  
filters**



**Pressure filters**



**Ventilating filters**





# Applications – Construction Machinery

## Pavers



**Auger,  
height adjustment**



**Hopper  
left / right**



**Vibration /  
tamper**



**Screed ext. /  
lift / lower**



**Crown  
adjustment**



**Suction strainers**



**Return filters  
in-line mounting**



**Return-suction  
filters**



**High pressure  
filters**

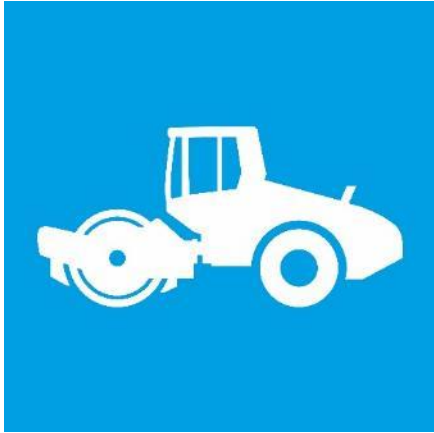


**Ventilating filters**



# Applications – Construction Machinery

## Compactors



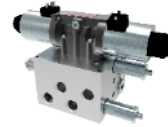
**Prop. steering**



**Parking brake release**



**Vibration control**



**Edge cutting device**



**Tamper**



**Grit spreader**



**Suction strainers**



**Return-suction filters in-tank mounting**



**Pressure filters in-line mounting**



**High pressure filters**



**Ventilating filters**



# Applications – Construction Machinery

## Wheel Loaders



**Cab suspension  
MHPS**



**Boom suspension**



**Proportional  
pilot manifold**



**Fan drive**



**Additional  
functions**



**Suction strainers**



**Return filters**



**Return-suction  
filters**



**High pressure  
filters**

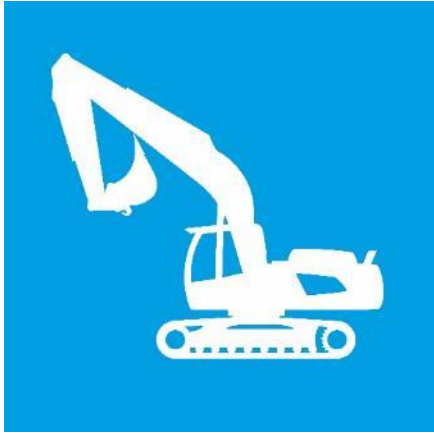


**Ventilating filters**

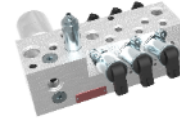


# Applications – Construction Machinery

Excavators / Backhoe Loaders



**Proportional pilot manifold**



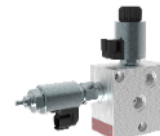
**Prop. tilt rotator**



**Tool clamping**



**Prop. fan drive**



**Cab suspension MHPS**



**Return filters tank-mounted**



**Return-suction filters in-tank mounting**



**Pressure filters in-line mounting**



**High pressure filters**



**Ventilating filters**

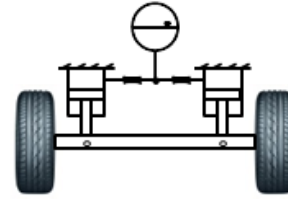


# Applications – Construction Machinery

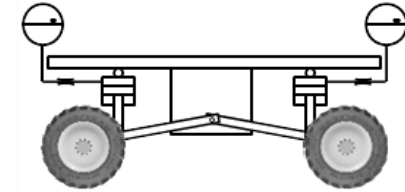
## Modular Hydro-Pneumatic Suspension - MHPS



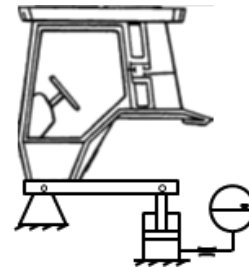
**Axle suspension**



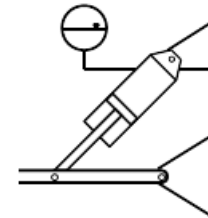
**All wheel suspension**



**Cab suspension**

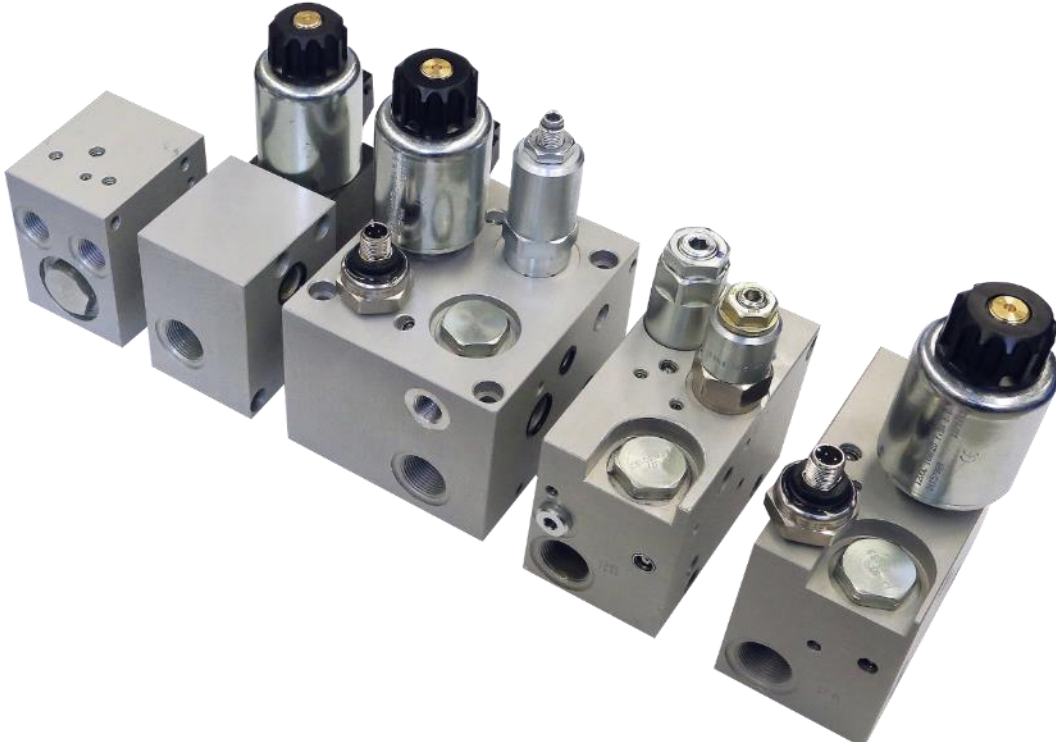


**Drawbar suspensions  
+ payload**



# Applications – Construction Machinery

## Modular Hydro-Pneumatic Suspension - MHPS



**Cab suspension**

**Damping control**

**Axle suspension**

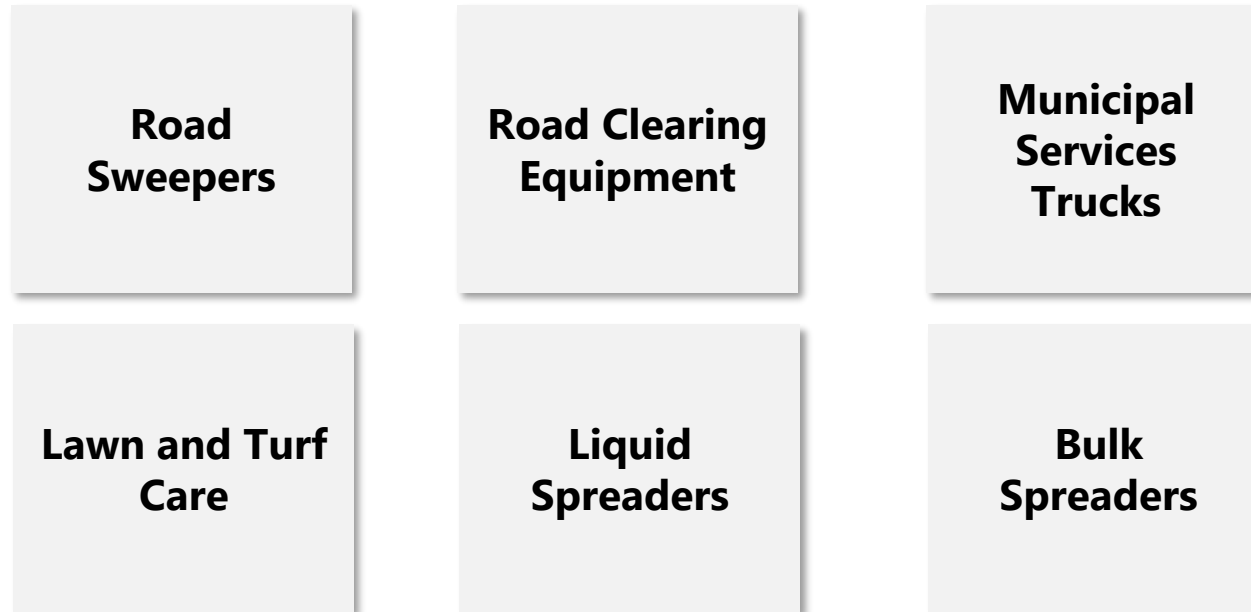
**Level control**

**All-wheel suspension**

**Preload control**

# Applications – Municipal Services Equipment

## Overview



# Applications – Municipal Services Equipment

## Road Sweepers



**Main manifold**



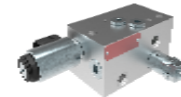
**Vacuum cleaner control**



**Water pump control**



**Tank water release**



**Attachments**



**Suction filter  
in-line mounting**



**Return-suction filter  
tank-top mounting**



**Pressure filters  
in-line mounting**



**High pressure filter  
in-line mounting**



**Filling & ventilating  
filters**





# Applications – Logistics

## Overview

**Dock  
Levelers**

**Forklift  
Trucks**

**Mobile  
Cranes**

**Straddle  
Carrier**

# Applications – Logistics

## Forklift Trucks



**Customized manifold  
additional function**



**Tank module**



**Suction filter  
in-line mounting**



**Return filter**



**Pressure filter  
in-line mounting**



**High pressure filter  
in-line mounting**

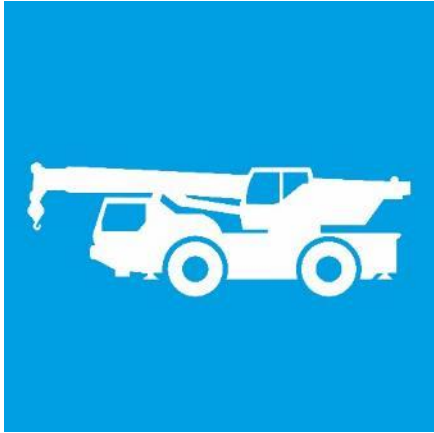


**Filling & ventilating  
filters**



# Applications – Logistics

## Mobile Cranes



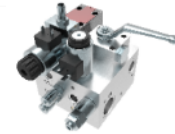
**Crane supports**



**Ballasting**



**Pressure supply undercarriage**



**Auxiliary functions**



**Lubrication condition sensors**



**Axle suspension MHPS**



**Suction strainers**



**Return-suction filters in-tank mounting**



**Pressure filters in-line mounting**



**High pressure filters**



**Ventilating filters**



# Applications – Logistics

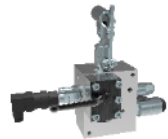
## Straddle Carriers



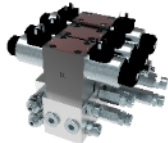
**Tank unit**



**Parking brake release**



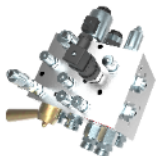
**Priority manifold**



**Spreader**



**Winch brake unit**



**Suction filter  
in-line mounting**



**Return filters**



**Pressure filter  
in-line mounting**



**High pressure filter  
in-line mounting**

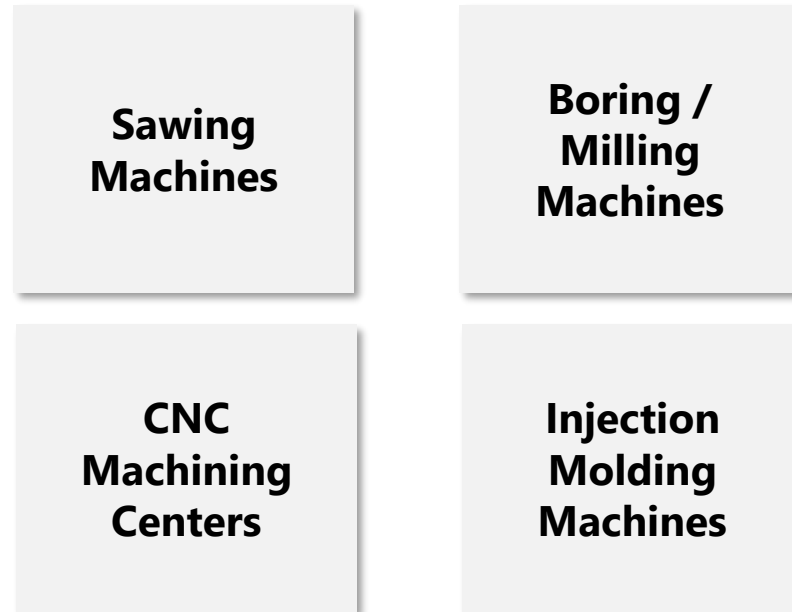


**Condition  
monitoring**



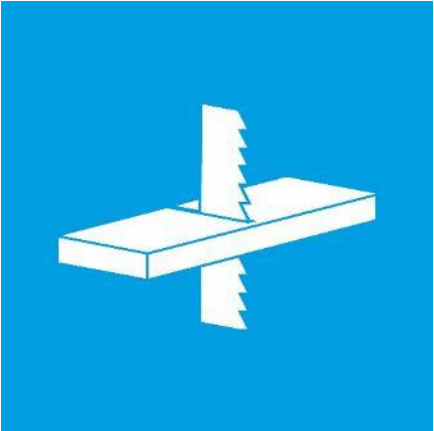
# Applications – Industry

## Overview



# Applications – Industry

## Sawing Machines



**Customized HPUs**



**Customized manifolds**



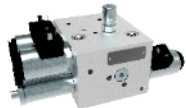
**Band tensioning**



**Clamping pressure reduction device**



**Vice retraction, hydr. bundle-cutting attachment (top clamp)**



**Suction filters**



**Return and ventilating filters**



**High pressure filters**

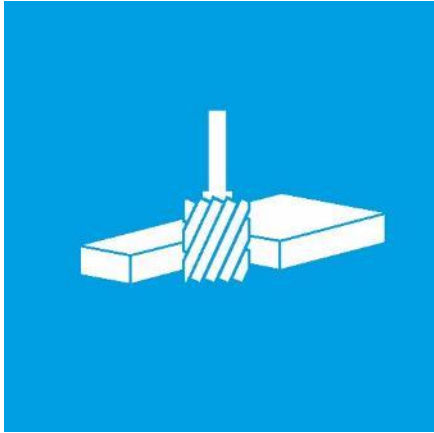


**Filling & ventilating filters**



# Applications – Industry

## Boring / Milling Machines



**Customized HPU**



**Customized manifolds**



**HPU – e.g. clamping functions, lubrication**



**HPU – e.g. lifting / lowering device**



**Suction filters**



**Return and ventilating filters**



**High pressure filters**



**Filling & ventilating filters**



# Applications – Wind Power

## Overview

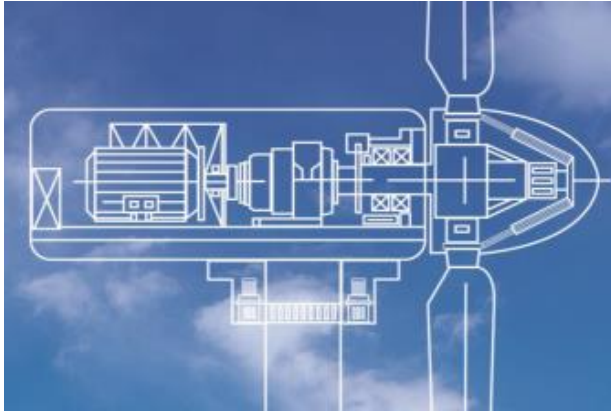
**Pitch-Control  
&  
Hydraulic  
Brakes**

**Lubrication  
Systems of  
Main  
Gearboxes**



# Applications – Wind Power

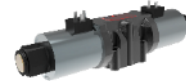
## Components for Pitch-Control and Hydraulic Brakes



**Manifolds**



**Switching & proportional valves**



**Oil service units, portable & stationary**



**Condition monitoring**



**Suction filters  
suction strainers**



**Return filters**



**Pressure filters**



**High pressure filters**

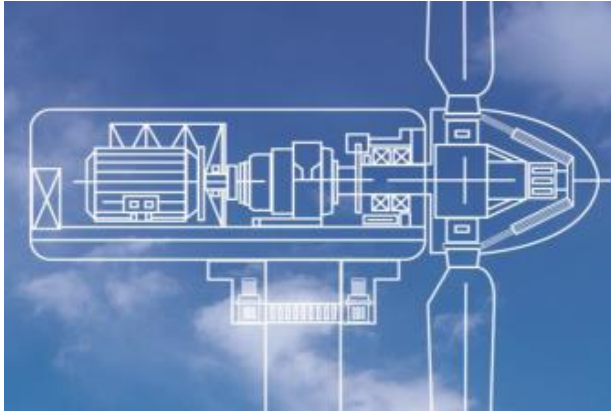


**Clogging indicators**



# Applications – Wind Power

## Components for Lubrication Systems of Main Gearboxes



**Transmission oil filtration systems**



**Condition monitoring**



**Oil service units, portable & stationary**



**Complete filter solutions**



**Off-line filter units**



**Filter elements**



**Pressure filters**



**Desiccant breathers**



Thank you for your attention!

