

# **TECHNICAL PRODUCT LINE**

# For Consumer & Technical Products





# Innovations Made in Berlin Since 1919

Specialization is the key. Since 1919, KORSCH has focused on our core competency of tablet compression technology.

This focus and resulting experience base is the foundation for the broadest and most innovative product line for tablet compression equipment.

For more than 40 years, KORSCH has developed new technology for the technical markets, including large formats, multi-layer, ringed pellets, and special shapes – all designed to operate in harsh, 24/7 environments.

KORSCH Technical Presses are used successfully all over the world and are supported by a global network or sales and service specialists.

www.korsch.com

#### **Large Formats**



**Bi-/Tri-Layer** 



**Four-/Five-Layer** 



**Toxic Materials** 



**Core Rod / Ringed Formats** 



**Special Shapes** 



## **KORSCH Technical Line – Superior Performance**

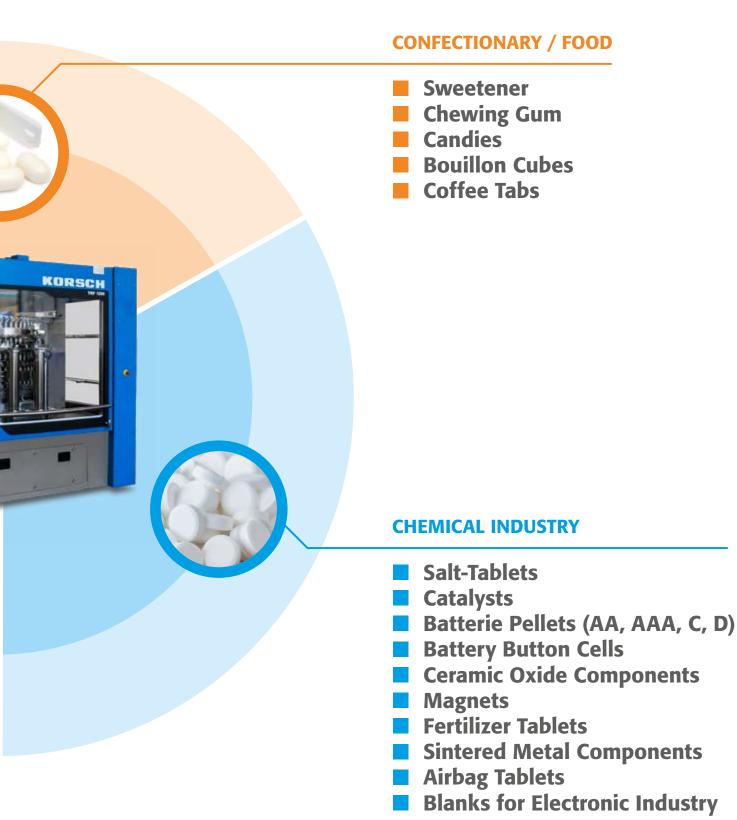
Technical rotary presses must be workhorses – in the most demanding environments, they must be productive, efficient and extremely reliable. They are frequently used to process aggressive or abrasive materials, and very large formats. The products they are used to manufacture include salt and detergent tabs, ceramic rings for catalysts, effervescent tablets, fertilizer tablets, or alkaline battery pellets, as well as some specialty consumer products. The technical line permits each machine to be configured to meet specific customer needs.



#### DETERGENT INDUSTRY

- Dishwasher Tablets
- Laundry Detergent Tablets
- Multi-Layer Detergent Tablets
- **■** Cleaning Tablets
- **■** Multi-Layer Dishwasher Tablets
- **■** Decalcification Tablets
- Industrial and Home Cleaning Products

### for Every Application





## A Special Solution for each Application

- Large formats up to 64 mm diameter
- Roller guided press tools facilitate deep fill and insertion depth capability and high ejection forces
- Mushroom head guided tools for standard applications
- Effective handling of press material with gravity feeder and power feeder options
- Rotary star valve for product flow regulation
- Optimal feeding with bypass in material feed tube
- Low tamping force measurement and control capability for multi-layer formats
- On-demand layer sampling at production speeds
- Absolute separation of layers closed feeder design
- Dust extraction to prevent cross contamination
- Safe compression of toxic materials
- Avoiding the emission of hazardous dusts
- Complementary Wash-in-Place solutions
- Available with a center pin in the lower punch for production of ring and multi-hole tablets
- Innovative center pin design avoids powder migration in the cams
- Punch and center pin fracture monitoring

# **The Technical Line The Benefits at a Glance**



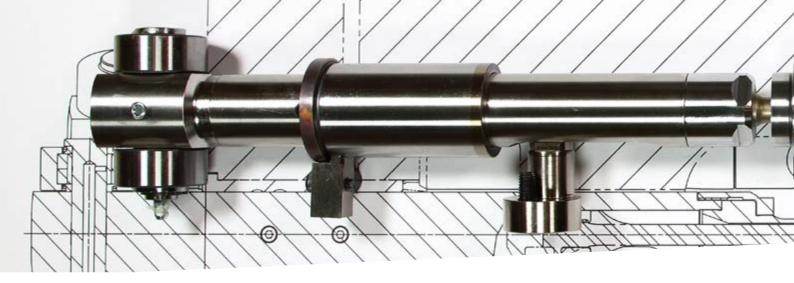






- A Special Solution for Each Application
- All Requirements of Technical Products Addressed
- Intuitive Controls with Smart-Touch HMI





## **Designed to Perform**

#### **Robust Design**

KORSCH Technical Presses are built to operate in the most demanding production environments, with maximum efficiency and uptime. The robust design and meticulous selection of materials and surface treatments, ensure extended run durations in any 24/7 production setting.

#### **Press Tools**

Roller guided or standard mushroom head press tools are available depending on machine model. Punch holders with rollers offer guidance on both sides and shafts with patented heavy duty profile heads permiting extremely high loads and eliminating wear on press tools and compression rollers.

#### **Heavy Tonnage**

Industrial Rotary Presses from KORSCH offer up to 120 kN compression force capability depending on the model.

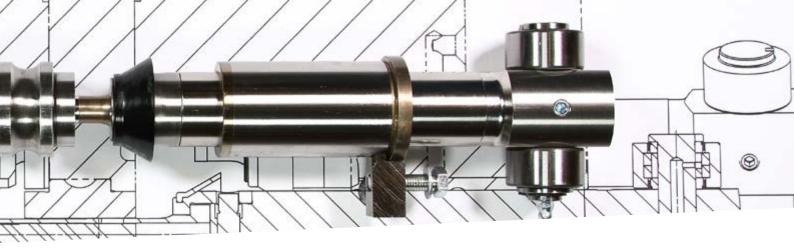
■ XT 600: up to 100 kN

■ XT 600 HD: up to 120 kN

■ TRP 700: up to 120 kN

■ TRP 1200: up to 100 kN





#### **High Output Capability**

KORSCH Technical Presses are built to run a top speed, with precision cam tracks, long filling lengths, and robust pre, main, and ejection stations. KORSCH is expert in the discharge handling and can deliver tablets to any downstream equipment line.

#### **Large Formats, Deep Filling**

Technical applications require often very large tablet sizes in diameter as well as in thickness that cannot be produced with standard tablet presses. The KORSCH Technical Line offers up to 64 mm tablet diameter and up to 60 mm filling depth depending on the model. Machines are customized to the product. Special solutions for material feed and tablet discharge are available.

#### **Superior Wear Resistance**

KORSCH Technical Presses are designed to stand up to the most abrasive products – with advanced surface treatments on the turret, die table, and press interior. Hardened steel guide bushings and cam track dramatically extend the life of the turrets and press tools.

- Shafts with roller guidance on both sides
- Ejection cams for high ejection forces
- Shaft tightness control
- Main bearing with temperature monitoring





#### **Intuitive Controls with Smart-Touch HMI**

KORSCH Technical Presses are offered with both a Siemens PLC and Allen-Bradley PLC platform. A common, user friendly HMI presents an intuitive and graphical view of key process parameters. With login security, a product recipe capability, automatic weight control with tablet rejection, and a range of electronic audit trails to track alarms, events, and rejects, the KORSCH control system offers a simple yet powerful interface.

KORSCH offers seamless integration to upstream and downstream equipment, and the ability to pass process parameters to a central SCADA system. The integrated help capability permits immediate access to machine manuals, drawings, schematics and supportive videos at a touch of a button.



#### **Integrated Help Capability**

The Smart-Touch HMI sets a new standard for integrated help, and offers an extensive library of support documents to simplify, streamline, and supplement the operation of the machine, within the HMI.

- Direct link to support documents, including manuals, drawings, and schematics
- Multi-media support files (videos, pictures) to support equipment procedures (when available, machine changeover, calibration, etc.)
- Access to an electronic spare parts catalog
- Troubleshooting and diagnostic support

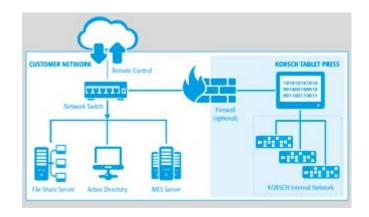




#### **Network and SCADA Integration**

The control system may be fully integrated to a central client network or SCADA system to permit real-time monitoring and acquisition of critical process parameters, centralized login, centralized product recipe management, and centralized batch data storage using a standard OPC server.

- Transfer of process parameters via OPC server
- Central login, recipe, and batch data administration
- Remote monitoring from a central control room



#### **Press Force Control System**

An advanced system to permit automatic weight regulation, the KORSCH press force control system uses an advanced algorithm to provide precise feedback to the dosing cam, based on the individual measurement of compression force. The result is a system that reacts with both speed and accuracy to maintain the process in control, and reject any tablets which are outside of established tolerances.

- Press force monitoring and regulation for precise tablet weight control
- Single tablet rejection across the full speed range (optional)





#### **TRP 1200**



# **Triple Sided Technical Rotary Press for Large Formats and Deep Filling Depths**

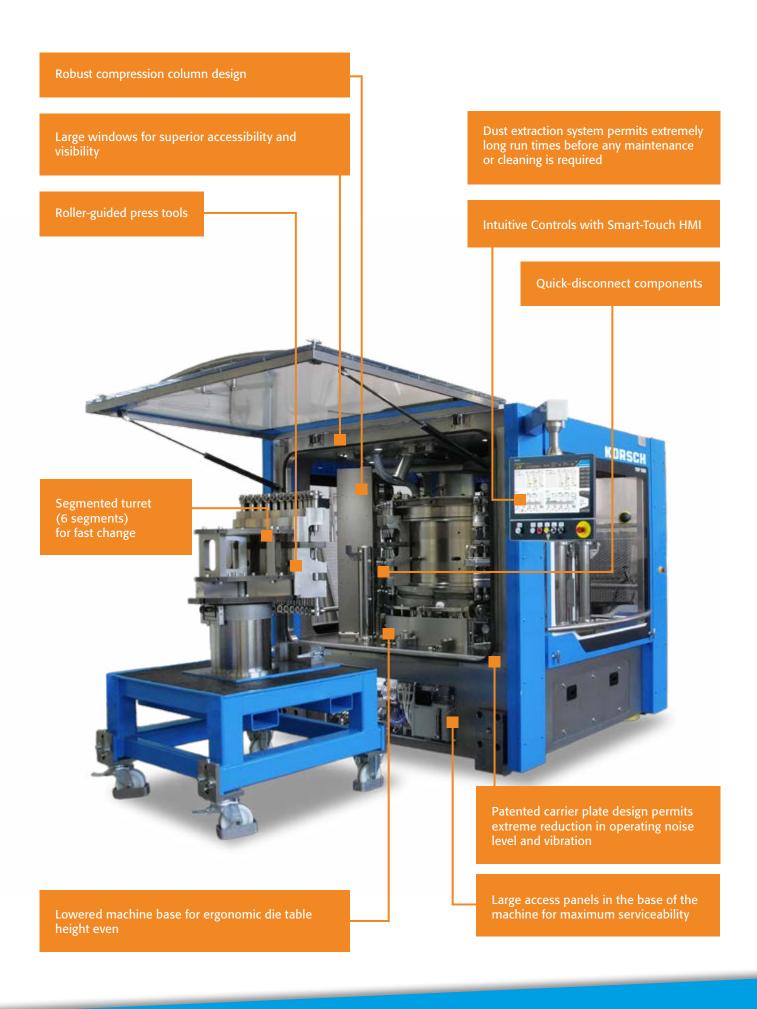
The KORSCH flagship for technical applications, the TRP 1200 offers a rugged, flexible, and advanced design that supports single-layer, bi-layer, tri-layer, and ringed formats. A patented turret segment changeover permits a full tool replacement in less than 2 hours, which offers an unprecedented level of

efficiency and uptime. Heavy tonnage compression columns, and a unique carrier plate design isolate vibration to ensure the lowest operating noise levels. The long feeder lengths and deep fill depth permit large formats with precise tablet weight control.



#### **Special Applications**

- Single-layer, bi-layer or tri-layer formats
- Ring and multi-hole tablets: turret including center pin holder
- Dishwashing tablets: star wheel tablet discharge and conveyor belt
- Ceramics and sintered metals





#### **XT 600 HD**



# **Double-Sided Rotary Press for Large Formats and High Compression Forces**

The double rotary press XT 600 HD permits the production of single-layer or bi-layer tablets. The XT 600 HD offers a 60 kN pre and 120 kN main compression capability. A minimum of components in the compression zone combined with smooth, easy-to-reach surfaces lay the foundation for quick and easy cleaning. The robust XT 600 HD with

the new, easily accessible compression columns, meets all the requirements of a modern rotary press. The robust and versatile XT 600 HD is best suited for the production of salt tablets, catalysts, dish washer tabs, fertilizers as well as industrial and homecare cleansers.



#### **Special Applications**

- Bi-layer tablets: bi-layer conversion kit
- Ring or multi-hole tablets: turret including center pin holder
- Effervescent tablets: powder or liquid spraying to avoid sticking
- Containment OEB 3 execution for a higher level of operator safety



#### **TRP 700**



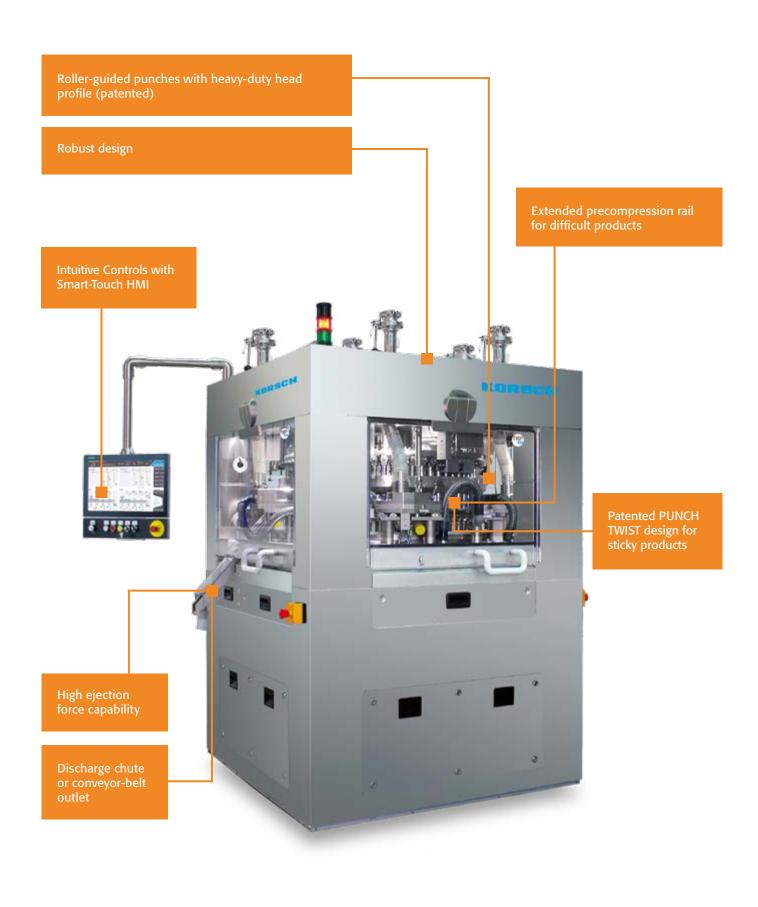
## Double-Sided Technical Rotary Press for Large Format, Heavy Tonnage, and Deep Filling Depths

With a press force capability up to 120 kN the TRP 700 offers a rugged, flexible and advanced design that supports singlelayer, multi-layer, and ringed formats. The tool holders with double guide rollers, ensure smooth punch travel and no wear on the punch heads or cams. Build for continuous 24/7 operation, the TRP 700 has proven to be effective across a wide range of formats and applications, delivering excellent product quality and unparalleled uptimes.



#### **Special Applications**

- Single and multi-layer executions (up to 5-layers)
- AA, AAA, C, and D-size batteries: turret including center pin holder
- Picking and sticking products: upper and lower punch are twisted in opposite directions (TWIST option)
- The TRP 700 can be delivered as a single rotary press for R&D
- Dishwashing tablets: star wheel tablet discharge and conveyor belt



# **KORSCH Global Service Network**



#### **OUR SERVICE HELPLINE IN YOUR REGION:**

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- O Southern Asia Phone: +91 98 19004298 service@korschindia.com