



## DRIVE SYSTEMS

type **PZS and TZS**



Individual solutions conformable  
to Your needs  
up to 800kW

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## **Drive systems – PZS and TZS type**

These are drive systems, built into metal cabinet, equipped with frequency converters or thyristor rectifiers and industrial automatic devices (contactors, relays, switches, push-buttons, protections, light signalling and programmable logic controllers (PLC).

### **Drive systems – PZS type**

The use of frequency converters allows smooth adjustment and control of AC motors speed and torque.

Built-in PLC control functions and the possibility of direct coupling with industrial PLC controllers allows creating of user-developed advanced control systems.

Systems are mostly used in:

- complex paper and paperboard manufacturing lines: Ryza – Toruń (Poland), Tektura Opakowania Papier S.A. – Tychy (Poland), Welmax Paper Sp. z o.o. – Wohyń (Poland), Filar – Zaryń (Poland), Parpap S.C. – Parczew (Poland), Fabryka Papieru i Tektury BESKIDY – Wadowice (Poland), Apis – Česká Kamenice (Czech Republic), Miropol Paper Factory – Miropol (Ukraine), Zhytomyr's Paper Factory – Zhytomyr (Ukraine),
- plastic manufacturing lines: Gruplast – Kołbiel (Poland), Institute for Engineering of Polymer Materials and Dyes – Toruń (Poland), Novaplast – Toruń (Poland), Anwis – Włocławek (Poland), Mavilex – Wąbrzeźno (Poland), Rekopack – Konin (Poland), GBX Elektronik – Przemyśl (Poland), Superplast – Grudziądz (Poland),
- sugar factories: Ropczyce (Poland), Nakło (Poland), Żnin (Poland), Kruszwica (Poland), Krzemieniec (Ukraine), Dubno (Ukraine), Radiechow (Ukraine), Szepietówka (Ukraine),
- sewage-treatment plants and thermal centers: Wodokanał – Lviv (Ukraine), Wodokanał – Smolensk (Russia), Wodokanał – St. Petersburg (Russia), Elektrobudowa S.A. – Konin (Poland), Energa Elektrociepłownia – Kalisz (Poland), Przedsiębiorstwo Wodociągów i Kanalizacji Spółka z o.o. – Wodzisław Śląski (Poland),
- wood industry: Barlinek S.A – Barlinek (Poland), Andrewex – Cierpice (Poland),
- food industry: Develey – Warsaw (Poland), Kotlin – Kotlin (Poland), Pek-Mont – Bielsk (Poland), Bonduelle – Gniewkowo (Poland), OLEWNIK-BIS – Drobin (Poland), Madej&Wróbel – Ruda Śląska (Poland), Sokołów-Service – Sokołów Podlaski, TARCZYŃSKI – Trzebnica (Poland),
- petroleum extractive industry: Baszsibneft – Russia, Pieczeranieftgaz – Russia, Iżewskij Radiozawod – Russia, Jukos – Russia, Tatarnieft – Russia, Naftgaz – Wołomin (Poland),
- railway industry: PESA – Bydgoszcz (Poland), Russian Railways RŽD – Russia,
- metal industry: Profil S.A. Rolling Mill – Kraków (Poland), Odlewnia Źeliwa Śrem S.A. – Śrem (Poland), Leszno Pump Factory, Ltd. – Leszno (Poland), Philips Lighting Poland – Cracow (Poland), Manuli Hydraulics Poland – Mysłowice (Poland), ZUGiL – Wieluń (Poland), Federal-Mogul Bimet S.A. – Gdańsk (Poland), Fiat Auto Poland S.A. – Tychy (Poland), Electropoli-Galwanotechnika Sp. z o.o. – Bielsko-Biała (Poland), BMB Sp. z o.o. – Lublin (Poland), de facto – Odolanów (Poland), Harvest Machinery Factory – Płock (Poland), Delphi Poland S.A. – Krosno (Poland), Winkelmann Sp. z o.o. – Legnica (Poland), Pronar Sp. z o.o. – Narew (Poland), PL Europainting Sp. z o.o. – Tychy (Poland), SIPMA S.A. – Lublin (Poland).

**AcR (Active Rectifier) regenerative converters**, which allows braking energy recovery and returning to grid also in continuous generation mode, are used, among others, in:

- hydroelectric power in Nysa (Poland), power: 2 x 90 kW,
- hydroelectric power in Kacice (Poland), power: 37 kW,
- wind power station at the Technical University of Częstochowa (Poland), power: 10 kW.

### **Drive systems – TZS type**

TZS are drive systems equipped with one, two or three phase thyristor rectifiers TZP type and industrial automatic elements (contactors, relays, switches, push-buttons, protections, light signalling and programmable logic controllers).

TZS systems are dedicated to manufacturing process control in automated lines, through smooth control and speed stabilization of separately excited DC motors. Simple solutions tested in long time operating guarantee reliability of the product. Possible defects can be easily repaired even by preliminary trained personnel.

Main application:

- paper and paperboard lines: PRIMET – Lubicz (Poland), Bumažnyj Zmiej – Sankt Petersburg (Russia), Lwówkartonoplast – Lviv (Ukraine), APIS – Ceska Kamienica (Czech Republic),
- plastic industry: Metalbud – Grudziądz (Poland), Dekofilm – Warszawa (Poland), Conkret – Wielkie Rycnowo (Poland).

**We provide professional assistance** in selecting appropriate drives for PZS and TZS systems, industrial automatic elements and control rules according to individual drives technological requirements. We also make remote control stands for TZP and PZS systems.



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**INNOWACYJNA  
GOSPODARKA**  
NARODOWA STRATEGIA SPÓŁNOŚCI

Grants for innovation. The project is co-financed from European Union within Regional Development Fund.



UNIA EUROPEJSKA  
EUROPEJSKI FUNDUSZ  
ROZWOJU REGIONALNEGO

