

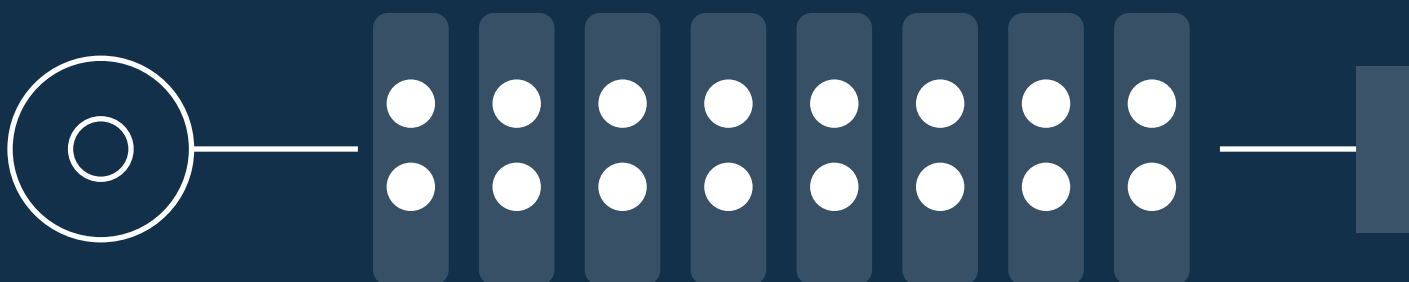
WIEPOFAMA SA • POZNAN

TECHNICAL DATASHEET

ROLL FORMING LINE

PWP-01 No. 6

Prepared from the operation and maintenance documentation



Condensed version • parameters, design, utilities, safety and maintenance

1. Identification and intended use

PWP-01 No. 6 to kompletna linia do ciągłego kształtowania na zimno taśmy stalowej w profile specjalne. Proces obejmuje odwijanie kręgu, osiowe prowadzenie taśmy, stopniowe profilowanie w 15 kłatkach, kalibrację, pomiar długości, cięcie nadążne i odbiór detalu.



3 mm

maximum strip thickness

320 mm

maximum strip width

40 m/min

maximum uncoiling speed

15 + 1

forming stands +
calibration stand

Key line parameters

Parameter	Value	Parameter	Value
Overall dimensions	23 000 x 3 500 x 2 200 mm	Installed power	81 kW
Input material	Carbon structural steel, Rm up to 470 MPa	Control voltage	24 V DC
Compressed air demand	2 m ³ /min	Air pressure	0,4-0,6 MPa
Main roll-former drive	75 kW przy 1500 min ⁻¹	Profile centreline height	ok. 1000 mm

APPLICATION

Production of special profiles by bending and drawing strip without reducing its thickness. Rolling the strip is not permitted.

2. Machine architecture

Assembly	Function	Key data
Uncoiler	Feeds strip from the coil, controls the loop and hydraulically expands the jaws	Coil up to 5,000 kg; width up to 900 mm; outside Ø up to 1,500 mm; 4 kW drive; ratio 76.875
Guides and intermediate rollers	Aligns the strip and guides it between stands	Intermediate roller spacing 120-300 mm
Roll former	Progressive profile forming	15 stands; Ø150 mm spindles; 320 mm working length; 500 mm stand spacing
Calibration stand	Final shaping and straightening	Head rotation $\pm 90^\circ$; roller centre spacing 150-210 mm
Travel measurement	Measures length and speed and triggers cutting	SENDIX/KÜBLER encoder; documentation states 2,000 increments/revolution
Cut-off unit	Flying cut synchronized with profile travel	Transverse adjustment ± 50 mm; vertical ± 25 mm; flying stroke 2,600 mm
Run-out table	Supports and automatically discharges the cut profile	3 segments; 30° tilt; height adjustment -40/+15 mm

Roll-former drive and adjustment

The main motor transmits power through ROBA-D couplings, worm gearboxes and Cardan shafts to the upper and lower spindles of every stand. The spindles are vertically adjustable, while 13 stands provide ± 5 mm axial adjustment. The lower spindle can be shifted vertically by ± 20 mm; vertical spacing between spindle pairs is 150-270 mm.

CRITICAL GEOMETRY

Spindle parallelism and a tool gap no smaller than the nominal strip thickness are essential for correct operation and overload prevention.

3. Uncoiler i parametry wsadu

5000 kg

maximum coil mass

1500 mm

maximum outside
diameter

**500-520
mm**

recommended inside
diameter

900 mm

maximum strip width

Feature	Value / rozwiązanie
Installed power odwijaka	4,13 kW; spindle motor 4,0 kW, 1435 min ⁻¹
Coil clamping	Spindle with three hydraulically expanding jaws
Jaw range without inserts	Ø 440-540 mm
Jaw range with h=40 inserts	Ø 520-620 mm
Loop control	Roller arm with analog transducer; speed controlled by frequency converter
Braking	DC disc brake, 50 W, 6 daNm torque; parking and emergency locking
Dimensions / mass	ok. 1600 x 1750 x 2400 mm / 5000 kg

Coil preparation sequence

1. Load by forklift or overhead crane without loading the free end of the spindle. 2. Position the coil as close to the support as possible. 3. Hydraulically expand the jaws. 4. Secure the coil with retaining arms. 5. Press the strip with the hold-down rollers. 6. Use manual mode and minimum speed while threading the strip.

AREA GUARDING

Uncoiler wymaga stałego parkanu bezpieczeństwa o wysokości ok. 1900 mm, kotwionego do podłoża i nadzorowanego mikrołącznikiem.

4. Cutting, utilities and systems

The circular cut-off saw is mounted in a pivoting body. Two hydraulic vices stabilize the profile, while a hydraulic cylinder provides the cutting feed. Cutting should be performed with coolant.

Circular cut-off saw	Value
Maximum profile section	80 x 75 mm
Saw motor	4 kW; 3000 min ⁻¹
Saw diameter	350 mm; otwór 40 mm
Cutting speed	100 m/min
Vice clamping force	110-500 daN
Nominal body angle	30°

System	Parametry i medium
Hydraulic	160 dm ³ tank; 29 dm ³ /min pump; 6.0 MPa working pressure; 4 kW motor; 24 V DC coils
Cooling	Two 400 dm ³ tanks; 3COA10-27-P1 electric pump; 350 W motor; 15% SGZ/K3 emulsion / Castrol solution specified in the documentation
Pneumatic	FESTO equipment; 0.4-0.6 MPa supply; total line demand 2 m ³ /min
Electrical	L1/L2/L3/N/PE connection or four-wire variant per documentation; 70 mm ² cable; 24 V DC control

OPERATING NOTE

Set the vice force so that it does not deform the profile. Determine the cutting feed experimentally within the available flying stroke.

5. Installation and operating conditions

10-30°C

ambient temperature

±5°C

maximum variation during operation

≤80%

relative humidity

**0,1
mm/m**

levelling accuracy

Requirement	Recommendation
Foundation	Level and rigid; the documentation states a load capacity of 50 kN/m, but the unit must be verified against the foundation drawing
Alignment	Align all assemblies with the forming axis; tighten the mounting bolts evenly after levelling
Environment	No corrosive or chemically active agents; dust and vibration must comply with site requirements and applicable regulations
Service access	Provide unrestricted access to adjustments, guards, the control cabinet and terminal boxes
Control cabinet	At least 150 mm clearance behind; approximately 1,000 mm clear space in front; permanently fastened to the floor
Personnel	Trained operators wearing close-fitting protective clothing and the required personal protective equipment

Minimum start-up sequence

1. Check installation, protective earthing and guards. 2. Review the documentation and lubricate the line. 3. Check motor rotation directions. 4. Switch on the main isolator and test indicator lamps. 5. Enable control power, hydraulics and pneumatics. 6. Perform manual tests at minimum speed. 7. Zero the counter, set the required length and select automatic mode.

EMERGENCY STOP

W razie zagrożenia należy użyć przycisku EMERGENCY STOP lub linki STOP biegnącej wzdłuż profilarki. Nie wolno omijać blokad osłon.

6. Safety and maintenance

Area	Key requirements
Guards and access	Automatic operation only with all guards installed and no personnel inside the fixed-fence area
Tooling work	Replacement, adjustment, manual measurement, cleaning and fault removal only after isolating all energy sources
Manual mode	For setup and threading new strip; reduced speed; exercise particular caution
Electrical protection	Connect every protective terminal to the protective circuit and verify phase sequence
Electrical inspections	At least every three months: equipment, flexible cables, interlocks and protection effectiveness
Mechanical inspections	No-load and loaded tests, profile accuracy, play, guides, screws, bearings, leaks and safety devices

Lubrication and replacement plan

Point	Lubricant	Interval per documentation
Uncoiler bearings / gearing	ISOFLEX NBU 15 lub NCA 15	Top up as required
Forming-stand bearings	Special grease specified in the documentation table	Replenish after 4,000 h
Gearboxes (15 units)	LAN 46 machine oil, 3 dm ³ /unit	Replace after 4,000 h
Screw mechanisms	ŁT-43 grease	Continuously, as required
Pneumatic lubricator	LAN 22 machine oil	According to operating intensity
System hydrauliczny	The source documentation contains conflicting oil specifications and intervals	Verify before servicing

LOTO

Before servicing away from the operator station, isolate electrical, hydraulic and pneumatic power, release residual energy and secure against restart.

7. Quality notes and verification points

The source documentation contains OCR errors, conflicting values for some parameters and ambiguous units. Verify the items below against original drawings, nameplates and component manuals before using this datasheet for procurement, modernization or service settings.

Item	Discrepancy / ambiguity	Recommendation
Run-out table	Table: 6,500 mm for three segments; description: 3 x 2,500 mm	Measure the machine / check drawing 0700000000/00
Hydraulic oil	160 dm ³ LHL46/LHL48; lubrication table: 200 dm ³ and HL46/HL68; intervals 200/5,000 h or 900/4,000 h	Identify the hydraulic power unit and follow its manufacturer instructions
Cooling	The entry "2 x 400 dm ³ /min" appears to contain an incorrect unit; the description indicates two tank capacities	Confirm capacity from tank markings
Encoder	"2,000 rpm" in the increments row probably means 2,000 pulses/increments per revolution	Check the SENDIX 5000 nameplate
Foundation load capacity	50 kN/m may be an incomplete unit entry	Check the foundation drawing
Cut-off system	The narrative mentions a guillotine although the specification describes a circular cut-off saw	Confirm the actual No. 6 configuration

Document scope and status

Niniejsza karta jest opracowaniem syntetycznym na podstawie udostępnionej DTR linii PWP-01 No. 6. Nie zastępuje instrukcji obsługi, schematów elektrycznych, hydraulicznych i pneumatycznych, oceny ryzyka, instrukcji stanowiskowej BHP ani dokumentacji modernizacji. Parametry krytyczne należy potwierdzić na maszynie.

Manufacturer	WIEPOFAMA SA, Poznan
Type	PWP-01 No. 6
Source document	Technical documentation, file "opis techniczny.pdf"
Document	Technical datasheet, condensed version