2022

70 YEARS ANNIVERSARY 1952-2022

PRODUCTION CATALOGUE 2022

Weingrill®

weingrill.com

Member of CISQ Federation

RINA CERTIFIED MANAGEMENT SYSTEM ISO 9001

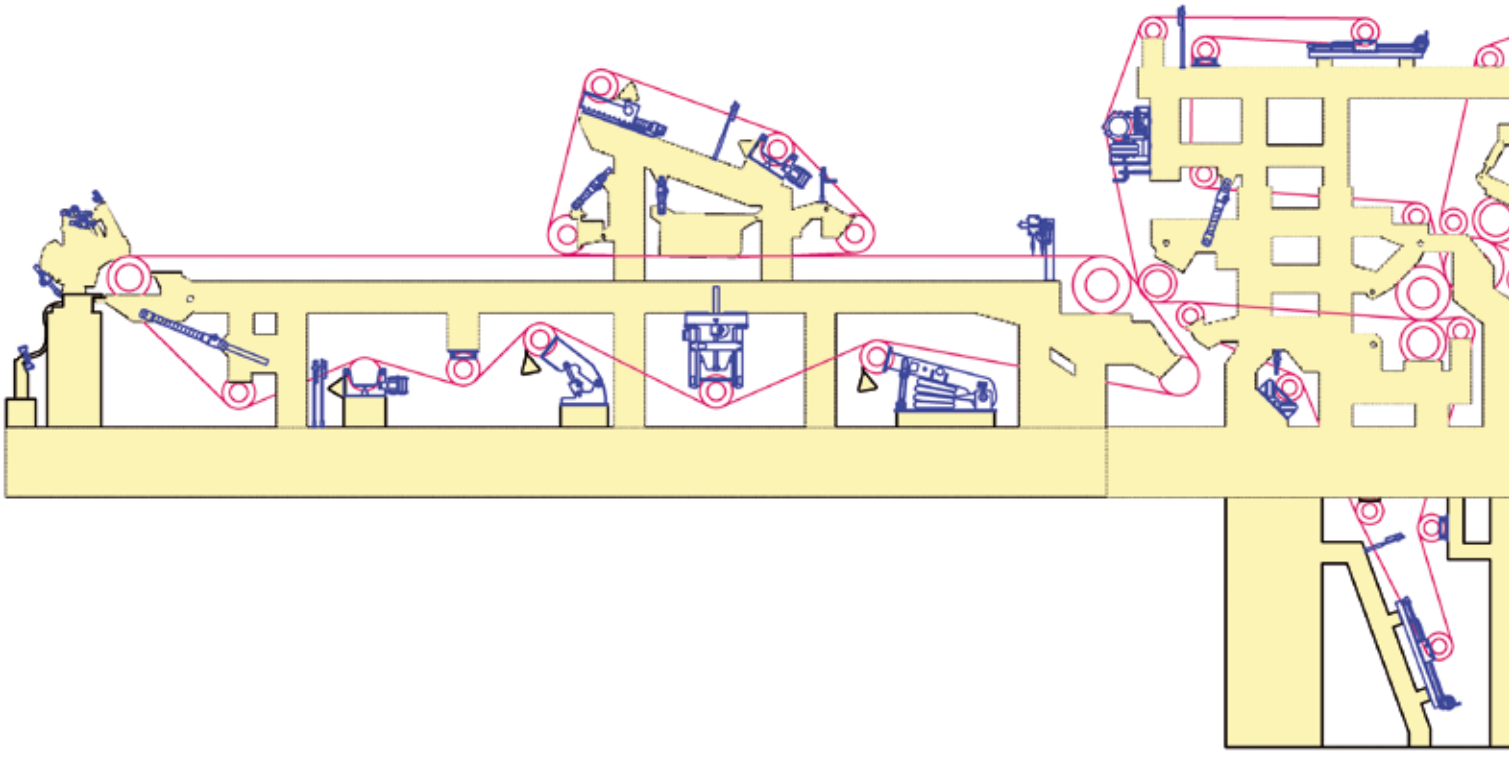

Weingrill®

SINCE 1952

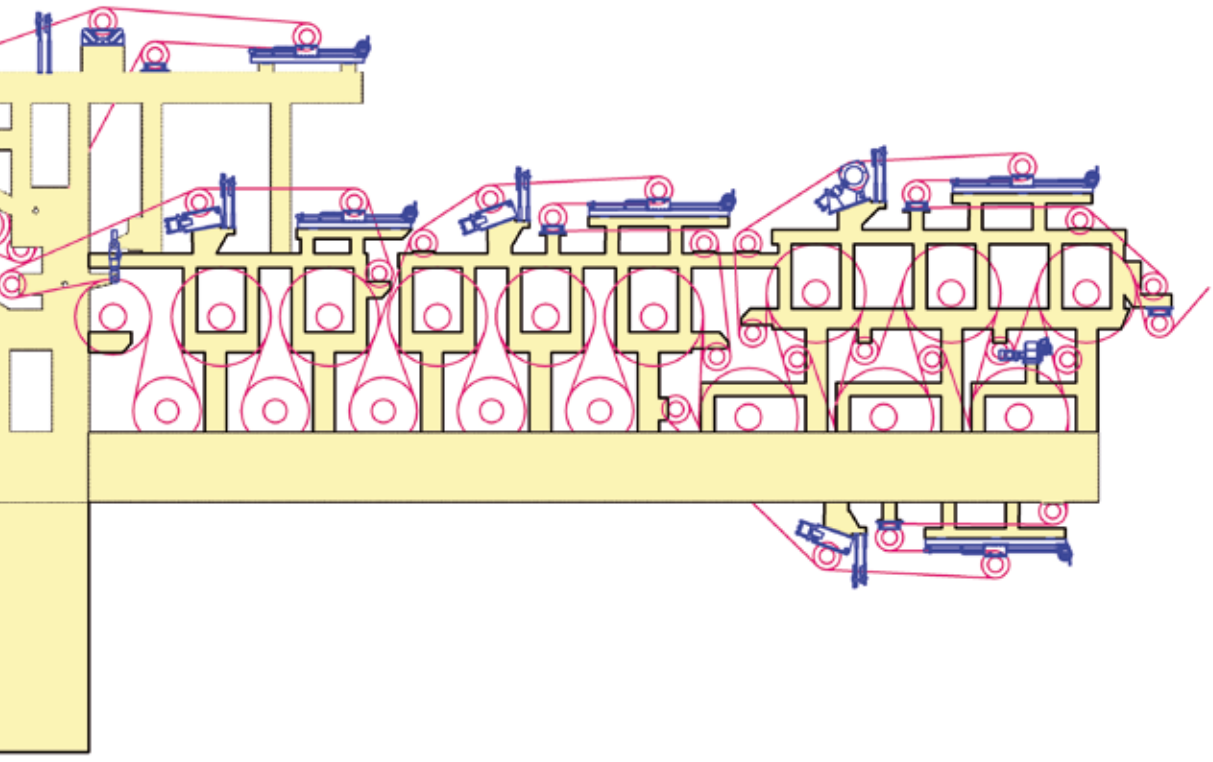
COSTRUZIONI MECCANICHE WEINGRILL Ing. ZENO s.r.l.

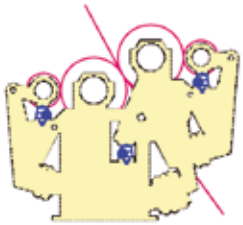
PRODUCTION CATALOGUE 2022

COSTRUZIONI MECCANICHE WEINGRILL Ing. ZENO s.r.l.



INNOVATION-EFFICIENCY-QUALITY





HISTORY

YESTERDAY...

Costruzioni Meccaniche Weingrill Ing. Zeno S.r.l. was established in 1952 by Zeno Weingrill. The start of operations was marked by the production of electro-mechanical equipment employed in many sectors, the paper industry in particular.

During the sixties, Zeno Weingrill began making mechanical jacks, reciprocating motors, special valves, air shutters, felt and wire guides, forced lubrication systems, increasingly gaining specialization in the paper industry.

After the death of its founder, in 1986, the company, still family owned, maintained the organization based on quality and effective efficiency focusing on total customer satisfaction.

HISTORY

...TODAY

From 1989 to today an entrepreneurial spirit, focused on innovation, has driven constant investments in modern systems of production and planning, resulting in an increase in productivity and quality of the services provided to customers.

Costruzioni Meccaniche Weingrill Ing. Zeno S.r.l. has been certified ISO 9001 since September 1997.

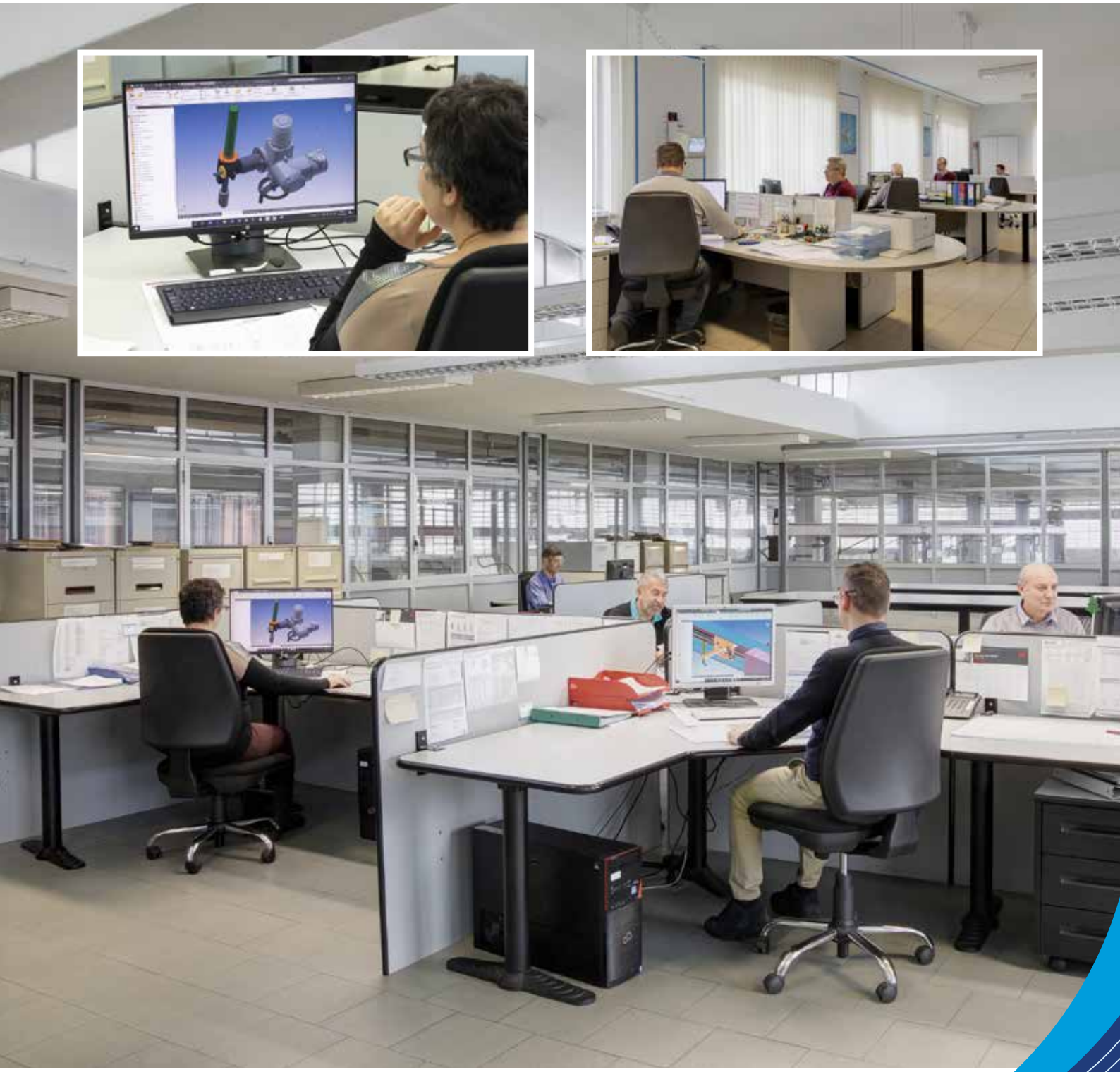
Member of CISQ Federation
RINA
CERTIFIED MANAGEMENT SYSTEM
ISO 9001

At present the company premises comprise 10.000 square meters, operating from its own recently built plant.

With a capillary sale network the products with the Weingrill brand name are present worldwide.

WORKSHOP

OFFICES



INDEX

9 Stretching systems
10 Wire arm stretcher W-TA
11 Linear stretcher W-TS
12 Compensated stretcher W-TSC
13 Load cell hosuing W-LC, Bearing Seats W-S

14 Guiding systems
15 Parallelogram guide W-GP
16 Pivoting guide W-GO
17 Linear guide W-GL
18 Vertical guide W-GV, Bearing Seats W-S
19 W-Palm valves
20 Palm valves W-25600 and W-17800, Alarm palm

21 Tail cutting systems
22 Wet end tail cutter W-TCU-1
23 Wet end tail cutter W-TCU-2
24 Dry end tail cutter rotating blade W-TCS
25 Dry end tail cutter Water Jet W-WJ
26 Tail cutter control, Wet end trim squirts W-TB

27 Mechanical screw jacks W-SJ, Micro screw jacks W-MSJ
28 Motorized valve W-ACT
29 Pneumatic oscillator W-OP
30 Automatic reciprocating air motors W-MP
31 Bearings for axial movements W-CRO
32 Radial bearings with eccentric W-EC
33 Pneumatic and hydraulic cylinders W-CIL
34 Rope stretcher W-RS
35 Dry end tail breaker W-SHARK

STRETCHING SYSTEMS

GENERAL OVERVIEW

Stretching system (Stretcher) provides the necessary tension to Fabric with a controlled movement of a roll called tension roll.

Keeping constant tension means:
✓ paper quality optimization;
✓ sheet break reduction;
✓ increased Fabric life;
✓ avoid fabric overstretching;
✓ avoid drive roll slippage.

Stretcher is also in charge of long stroke roll displacement during fabric change operations.

WIRE ARMS STRETCHERS, with rotational movement: tension roll moves through arms operated by air rides or pneumatic cylinders. Wire tension is proportional to air pressure. Pneumatic system allows continuous tension compensation.

FELT STRETCHER FOR PRESS OR DRY END, with linear movement of tension roll support carriages. We can propose different stretcher designs: SCREW JACK STRETCHER, where carriages move driven by a rotating screw jack system; PNEUMATIC COMPENSATED SCREW JACK STRETCHER where a couple of air cylinders keep constant tension. Tension roll stroke is adapted to wire or felt length and to available room.

Models with electric, hydraulic or pneumatic motor available.

WIRE ARM STRETCHER W-TA-M

TENSION CONTROL

The simplest way to control the tension is the manual system. The operator decides the tension and stretch or slack of the Fabric by acting on the pushbutton (in the case of motor) or adjusting the air pressure (in the case of air rides or pneumatic cylinders). Operator is then requested to measure the tension. Stretcher can be associated with a LOAD CELL, mounted on a fixed roll, which continuously detects a signal, transforms it in actual tension and sends it to a display. In the automatic control system, the Load Cell sends the signal to a regulator which adjusts roll position to match pre-set tension value.

LINEAR STRETCHER W-TS

STRETCHING SYSTEMS

WIRE ARM STRETCHER W-TA

✓ Compact and reliable assembly.
✓ Low maintenance.
✓ Suitable for humid environment.

•Air rides, pneumatic cylinders or screw jacks.

- Stainless steel executions.
- Fully enclosed drive system.
- Inner or outer wire roll systems.
- Air ride stretchers together with torsion cross shaft allow the automatic tension control and are easy to install and use.
- Screw jack stretchers, passing or rotating screw, and cross shaft, make sure of position repeatability. System can be associated with a Load Cell and stroke control by means of electric limit switch.
- Built-in or bolted roll supports.
- Models with electric, hydraulic or pneumatic motor.
- Wire tension and wire roll movement systems are designed and executed in different models. Weingrill is available to tailor the design according to your needs.
- Accessories:
- roll support bearing housings.

WIRE ARM STRETCHER WITH CYLINDERS W-TA-C

WIRE ARM STRETCHER WITH SCREW JACKS W-TA-J

WIRE ARM STRETCHER WITH AIR BELLOWS W-TA-M

WIRE ARM STRETCHER WITH SCREW JACKS W-TA-J

STRETCHING SYSTEMS

LINEAR STRETCHER W-TS

✓ Compact and reliable assembly.
✓ Low maintenance.
✓ Seam adjustment.
✓ Suitable for humid and dry environments.

- Stainless steel or painted mild steel executions.
- Fully enclosed drive system.
- The motor drives the cross shaft and a couple of rotating screw jacks two nuts move the trolleys carrying the tension roll supports.
- The system has stroke control by means of electrical limit switches.
- Seam line can be adjusted with a manual clutch.
- With work screw cleaning device.
- With dust-proof protections (optional).
- Models with thin beams or self-supporting beams.
- Standard model with electric motor. Hydraulic or pneumatic motor are available on request.
- Can be associated with a Load Cell.
- Accessories:

- roll support bearing housing.

SIZE	MAX TOTAL STRETCH
W-TS-05	50 kN
W-TS-10	100 kN
W-TS-15	150 kN
W-TS-20	200 kN

LINEAR STRETCHER W-TS

LINEAR STRETCHER W-TSB

W-TSB WITH DUST PROOF PROTECTIONS

STRETCHING SYSTEMS

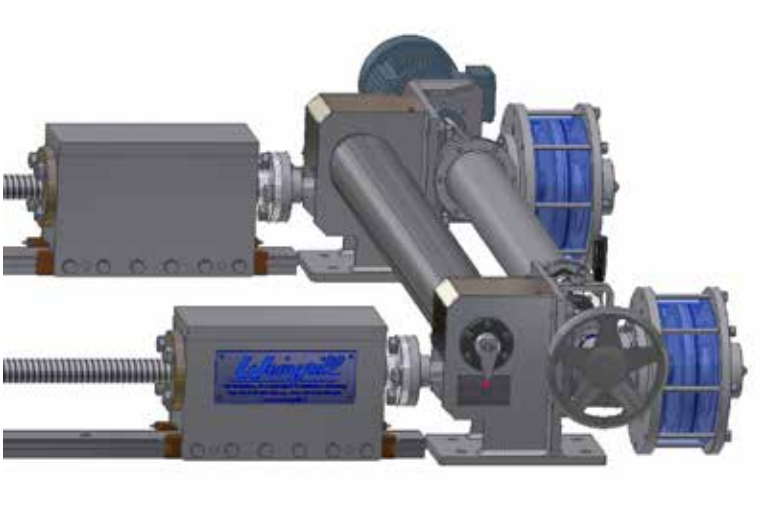
COMPENSATED STRETCHER W-TSC

✓ Compact and reliable assembly.
✓ Low maintenance.
✓ Tension compensation.
✓ Seam adjustment.
✓ Suitable for humid and dry environments.

- Fully enclosed drive system.
- Stainless steel or painted mild steel executions.
- The motor drives the cross shaft and a couple of rotating screw jacks, two nuts drive the trolleys carrying the tension roll supports.
- A couple of pneumatic cylinders keep tension constant when fabric length varies.
- The synchronization shaft ensures uniform and coherent movement on both sides.
- The system has stroke control by means of electrical limit switches. Seam line can be adjusted with a manual clutch.
- Standard model with electric motor. Hydraulic or pneumatic motor are available on request.
- Can be associated with a Load Cell used as tension display.
- Accessories:

- roll support bearing housing.

COMPENSATED STRETCHER W-TSC



W-TSC

SIZE	MAX TOTAL STRETCH
W-TSC05 - 160	20 kN at 5 Bar
W-TSC05 - 240	45 kN at 5 Bar
W-TSC10 - 270	57 kN at 5 Bar
W-TSC15 -270	57 kN at 5 Bar

STRETCHING SYSTEMS

LOAD CELL HOUSING W-LC

✓ Simple and reliable system.
✓ Installation on any machine position.
✓ Suitable for humid and dry environments.

- Stainless steel or painted mild steel executions.
- Fabric tension evaluation function of load on a fixed roll support (T = resulting tension, LC = measured force).
- The support is designed according to the selected Load Cell.
- Models with Load Cell integrated into the roll support.
- External stainless steel cover.
- Dimensions and drilling adaptable to existing roll support.
- Mounting: horizontal, vertical or inclined.
- Typical Load Cell data: accuracy <0.5%, power 10 Vdc, protection IP67, cable 10 m.
- Execution:

E - up to 40 °C, in stainless steel;
F - up to 130 °C, in stainless steel.

- Accessories:
  - Load Cell power and transmitter unit;
  - tension display;
  - tension regulator and display;
  - roll support bearing housing.

LOAD CELL W-LC

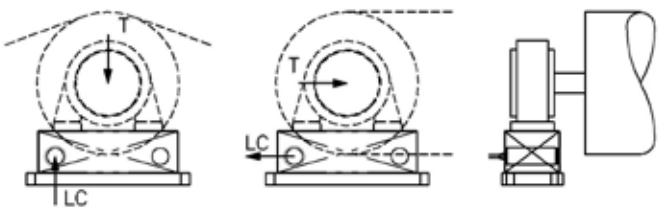
LOAD CELL W-LC

BEARING SEATS W-S

✓ Easy roll removal.
✓ Suitable for humid and dry environments.

- Stainless steel or painted cast iron execution.
- Model W - S -110
  - Cylindrical seat: diameters from 80 to 110 mm.
  - Spherical seat: diameters from 90 to 110 mm.
- Model W-S-160
  - Cylindrical seat: diameters from 110 to 160 mm.
  - Spherical seat: diameters from 120 to 160 mm.
- Model W-S-200
  - Cylindrical seat: diameters from 170 to 200 mm.
  - Spherical seat: diameters from 180 to 200 mm.
- Other sizes are available in electro-welded version.

SEAT W-S



GUIDING SYSTEMS

GENERAL OVERVIEW

Guiding system scope is to minimize fabric oscillation with a controlled movement of a roll called Guide Roll.

Keeping constant fabric position means:
✓ avoid fabric run-out;
✓ reduce edge wear;
✓ increase fabric life;
✓ optimize machine productivity.

Guiding system is designed to keep fabric running in the center of the roll on which it travels. Moving one end of the guide roll in the proper direction corrects the fabric run.

Guiding is based upon the principle that the fabric will always leave the guide roll perpendicular to its rotational axis; in this manner, the fabric will always travel toward the end of the roll it encounters first.

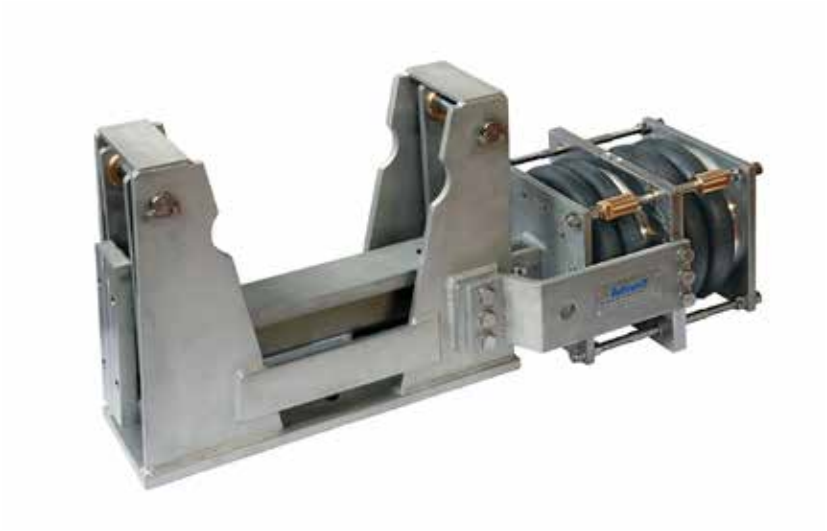
Weingrill offers different guiding system models actuated by air rides or pneumatic cylinders.

CONTROL AND ALARM

Fabric control and guide activation are done through a palm valve (PRESSURE BALANCE VALVE or PROPORTIONAL BLEED VALVE) where a paddle feels the fabric edge position. The valve controls the air flow to the air rides.

The security of the guiding system is increased using the ALARM PALM, where electric sensors alarm the operator when excessive fabric run-out occurs.

PARALLELOGRAM GUIDE W-GP



PIVOTING GUIDE W-GO

GUIDING SYSTEMS

PARALLELOGRAM GUIDE W-GP

✓ Compact and reliable assembly.
✓ Low and simple maintenance.
✓ Roll support linear displacement.
✓ Suitable for humid and dry environments.

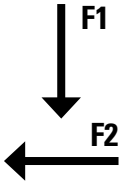
• Execution in stainless steel or painted mild steel.

• Horizontal or inclined mounting design.

• Options:
- models in stainless steel and air rides are designed for wet and aggressive environments;
- models in steel and pneumatic cylinders are designed for high temperature environments.

• Accessories:
- system for manual positioning;
- roll support bearing housings;
- pressure balance palm valve;
- proportional bleed palm valve;
- alarm palm.

SIZE	F1 (daN@0.4 MPa)	F2 (daN@0.4 MPa)	AUTOMATIC STROKE (mm)
W-GP1	980	245	±50
W-GP2	3000	650	±50
W-GP3	3700	1700	±50
W-GP4	9000	2500	±50



PARALLELOGRAM GUIDE W-GP

PARALLELOGRAM GUIDE W-GP

PARALLELOGRAM GUIDE W-GPC

PARALLELOGRAM GUIDE W-GPC

GUIDING SYSTEMS

PIVOTING GUIDE W-GO

✓ Compact and reliable assembly.
✓ Low and simple maintenance.
✓ Suitable for humid and dry environments.

- Execution in stainless steel or painted mild steel.
- Horizontal, vertical, inclined or reversed mounting design.
- Stroke limited with mechanical stops.
- Roll support pivoting displacement.
- Options:
  - models in stainless steel and air rides are designed for wet and aggressive environments;
  - models in steel and pneumatic cylinders are designed for high temperature environments.
- Accessories:
  - system for manual positioning CM;
  - roll support bearing housings;
  - pressure balance palm valve;
  - proportional bleed palm valve.
- For inclined versions contact Weingrill.

F1

F2

SIZE	F1, F2 in daN@0.4 MPa	STROKE
W-GO6	Contact Weingrill	± 12°
W-GO88 plate	Contact Weingrill	± 15°
W-GO88 support	F1x50+F2x212 < 180 daNm	± 50 mm
W-GO1212 support	F1x50+F2x229 < 510 da Nm	± 50 mm
W-GO1414 support	F1x50+F2x279 < 1000 da Nm	± 50 mm

PIVOTING GUIDE W-GO6

PIVOTING PIVOTTANTE W-GO-PLATE

PIVOTING GUIDE W-GO-SUPPORT

PIVOTING GUIDE W-GOC-PLATE+CM

GUIDING SYSTEMS

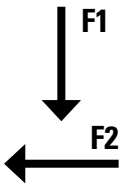
LINEAR GUIDE W-GL

✓ Compact and reliable assembly.
✓ Base support suitable for doctor installation.
✓ Suitable for humid and dry environments.
✓ Low and simple maintenance.

- Roll support linear displacement.
- Stainless steel or painted cast iron execution.
- Three sizes for different applications.
- Models with or without manual positioning.
- Air rides can be easily replaced without dismantling guide or roll support.
- Options:
  - execution for high temperature applications.
- Accessories:
  - system for manual positioning;
  - roll support bearing housings;
  - pressure balance palm valve;
  - proportional bleed palm valve;
  - alarm palm.
- Maximum air feeding pressure: 0.4 MPa.

LINEAR GUIDE W-GL

LINEAR GUIDE W-GL



SIZE	F1 (daN)	F2 (daN@0.4 MPa)	AUTOMATIC STROKE (mm)	MANUAL STROKE (mm)
W-GL-101	800	290	±50	±55
W-GL-102	1700	450	±50	±55
W-GL-103	3000	3000	±50	±55

GUIDING SYSTEMS

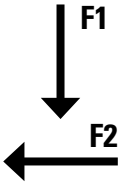
VERTICAL GUIDE W-GV

✓ Compact and reliable assembly.
✓ Low and simple maintenance.
✓ Suitable for humid and dry environments.

- Press felt application.
- Roll support linear displacement.
- Execution in stainless steel or painted mild steel.
- Two sizes for different applications.
- Vertical or inclined mounting design.
- Options:
  - execution for high temperature applications.
- Accessories:
  - system for manual positioning;
  - roll support bearing housings;
  - pressure balance palm valve;
  - proportional bleed palm valve;
  - alarm palm.
- For inclined mounting contact Weingrill.

VERTICAL GUIDE W-GV

SIZE	F1 (daN)	STROKE	∅D max (mm)
W-GV8	400	± 35 mm	160
W-GV26	1000	± 35 mm	220
W-GV20	1900	± 35 mm	280



BEARING SEATS W-S

✓ Easy roll removal.
✓ Suitable for humid and dry environments.

- Stainless steel or painted cast iron execution.
- Model W - S -110
  - Cylindrical seat: diameters from 80 to 110 mm.
  - Spherical seat: diameters from 90 to 110 mm.
- Model W-S-160
  - Cylindrical seat: diameters from 110 to 160 mm.
  - Spherical seat: diameters from 120 to 160 mm.
- Model W-S-200
  - Cylindrical seat: diameters from 170 to 200 mm.
  - Spherical seat: diameters from 180 to 200 mm.
- Other sizes available upon request.

SEAT W-S

GUIDING SYSTEMS

PRESSURE BALANCE PALM VALVE W-PALM

✓ Reduced and adjustable contact pressure.
✓ Reduced hysteresis to compensate uneven edges.
✓ Low air consumption.
✓ Easy to operate.
✓ Low maintenance.

- Pneumatic valve.
- Double or single inlet.
- Valve alternatively add or bleed air to and from the fabric guide.
- Four-way control device.
- With stable fabric, the valve is Normally Closed (NC), consequence is no air consumption.
- Interchangeable sliding insert in ceramic.
- Max operating temperature: 150 °C.
- Max air pressure: 0.5 MPa.
- When unbalance conditions occur, the double inlet allows different actions on the air rides of wire or felt guide.

W-PALM

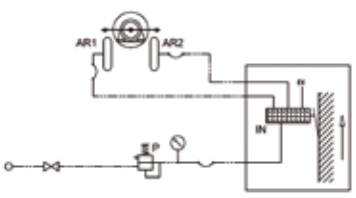
W-PALM

PRESSURE PROPORTIONAL BLEED PALM VALVE W-PALM

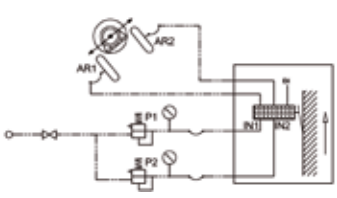
✓ Reduced and adjustable contact pressure.
✓ High sensibility.
✓ Easy to operate.
✓ Low maintenance.

- Pneumatic valve.
- Valve proportionally bleeds air from fabric guide input line.
- Cone control device.
- Standard valve is Normally Closed (NC), on request it can be Normally Open (NO).
- Palm action can be reversed by reversing cone device (NC to NO or vice versa).
- Sliding surface in ceramic or tungsten carbide.
- Max operating temperature: 150 °C.
- Max air pressure: 0.4 MPa.

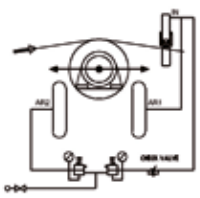
W-PALM 1



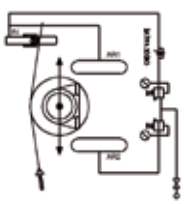
W-PALM 2



W-52050 / W-52055



W-52050 / W-52055



GUIDING SYSTEMS

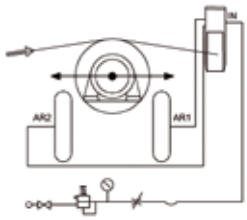
PRESSURE BALANCE PALM VALVE W-25600

✓ Reduced hysteresis to compensate uneven edges.
✓ Low air consumption.
✓ Easy to operate.
✓ Low maintenance.

- Pneumatic valve.
- Valve alternatively adds or bleeds air to and from the fabric guide.
- Four-way control device.
- With stable fabric, the valve is Normally Closed (NC), consequence is no air consumption.
- Sliding surface in ceramic or tungsten carbide.
- Max operating temperature: 120 °C.
- Max air pressure: 0.4 MPa.

W-25600

scheme



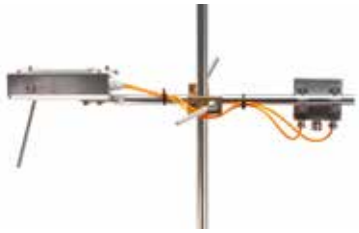
ALARM PALM

✓ Protects fabric from excessive run out.
✓ Alarm palms detect fabric when it tends to run off.
✓ Increase fabric safety operations.
✓ Easy to operate.
✓ Low maintenance.

- Two limit switches detect fabric run off levels:
  - 1st level signal wired to ALARM;
  - 2nd level signal wired to MACHINE STOP.
- Alarm palms have to be installed not contacting the fabric, at front and back side of the machine. Sliding surface in stainless steel.
- Suitable for wet or high temperature applications.
- Max operating temperature: 120 °C.
- Dust-proof execution avaiable.
- Accessories:
  - electric connection box.

ALARM PALM

DUST-PROOF ALARM PALM



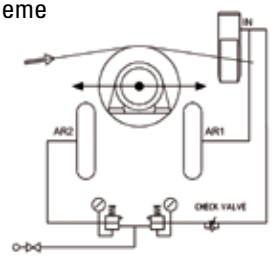
PROPORTIONAL BLEED VALVE W-17800

✓ High sensibility.
✓ Easy to operate.
✓ Low maintenance.

- Pneumatic valve.
- Valve proportionally bleeds air from fabric guide input line.
- Cone control device.
- Standard valve is Normally Closed (NC), on request it can be Normally Open (NO).
- Palm action can be reversed by reversing cone device (NC to NO or vice versa).
- Sliding surface in ceramic or tungsten carbide.
- Max operating temperature: 120 °C.
- Max air pressure: 0.4 MPa.

W-17800

scheme



TAIL CUTTING SYSTEMS

GENERAL OVERVIEW

Time saved after a sheet break means higher machine efficiency. With Weingrill Tail Cutter systems manual operation is replaced with a fast programmed and automatic sequence.

The use of an automatic Tail Cutter allows:
✓ increased machine availability;
✓ optimized paper machine efficiency;
✓ operator safety during sheet break phases.

Weingrill offers different Tail cutter models:
▹ WET END TAIL CUTTER, web cutting with water jet on wire or wet felt;
▹ DRY END TAIL CUTTER WITH ROTATING BLADE, paper cutting on free run after dryer can;
▹ DRY END TAIL CUTTER WITH WATER JET, paper cutting on free run or on dryer can with high pressure jet.

Together with the Tail Cutter Weingrill proposes the CONTROL SYSTEM, which allows the automatic cutting procedure. Unit is activated by simply pushing a button or with an external signal coming from sheet break detecting system.

Wet End Tail Cutter can be associated with WET TRIM SQUIRTS adjustable in position.

WET END TAIL CUTTER W-TCU

DRY END TAIL CUTTER W-TCS

TAIL CUTTING SYSTEMS

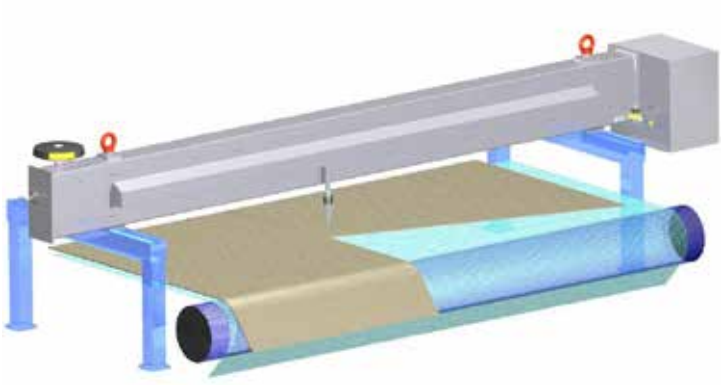
WET END TAIL CUTTER W-TCU-1

✓ Tail formation and widening to full sheet.
✓ Web cut with water jet.
✓ Web cutting on wire or wet felt.
✓ Smooth and stable nozzle translation.
✓ Suitable for cutting on wire or felt, upward or downward.
✓ Compact and reliable assembly.
✓ Low maintenance.
✓ Suitable for wet environments.
✓ Application up to 10 meter paper machine width.

- Corrosion resistant construction.
- Dedicated control.
- Driven by chain and electric motor, hydraulic or pneumatic motor on request.
- Nozzle position detection with Encoder or electrical limit switches.
- Emergency manual translation by hand wheel.
- Options:

- cantilever version;
- inverter control or double speed electrical motor;
- built on trim squirts;
- air shielded nozzle.

WET END TAIL CUTTER W-TCU-1



NOOZLE

INSTALLATION OF WET END TAIL CUTTER W-TCU-1

TAIL CUTTING SYSTEMS

WET END TAIL CUTTER W-TCU-2

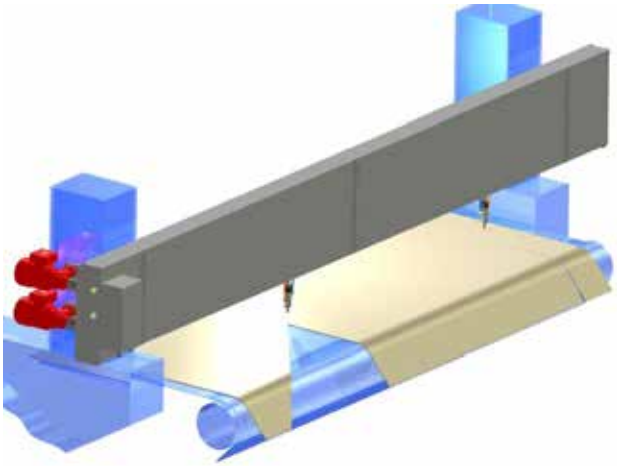
✓ Tail formation and widening to full sheet.
✓ Continuous operation as trim squirts.
✓ High operation flexibility.
✓ Paper width and paper sheet position changes in automatic.
✓ Web cut with water jet.
✓ Web cutting on wire or wet felt.
✓ Smooth and stable nozzle translation.
✓ Compact and reliable assembly.
✓ Low maintenance.
✓ Suitable for wet environments.
✓ Application up to 10 meter paper machine width.

- Corrosion resistant construction.
- Dedicated control.
- Driven by chain and electric motor.
- Inverter control or double speed electrical motor.
- Nozzles position detection with Encoder.
- Air shielded nozzles.
- Emergency manual translation by hand wheel.
- Options:

- cantilever version.

INSTALLATION OF WET END TAIL CUTTER W-TCU-2

WET END TAIL CUTTER W-TCU-2



NOZZLE

TAIL CUTTING SYSTEMS

DRY END TAIL CUTTER ROTATING BLADE W-TCS

✓ Paper cut with rotating blade.
✓ Paper cut on free run after dryer cylinder.
✓ Smooth and stable blade translation.
✓ Compact and reliable assembly.
✓ Low maintenance.
✓ High temperature resistant.
✓ Application up to 10 meter paper machine width.

- Dedicated control.
- Driven by chain and electrical motor.
- Rotating blade driven by air motor.
- Vacuum device for tail stabilization.
- Hidden blade at parking position.
- Blade position detection with Encoder or electrical limit switches.
- Emergency manual translation by hand wheel.
- Options:

- fixed blade version;
- inverter control or double speed electrical motor.

DRY END TAIL CUTTER ROTATING BLADE W-TCS

ROTATING BLADE

W-TCS DRY END TAIL CUTTER INSTALLATION

TAIL CUTTING SYSTEMS

DRY END TAIL CUTTER WATER JET W-WJ

✓ Paper cut with high pressure water jet.
✓ Paper cut on free run or on dryer can.
✓ Smooth and stable nozzle translation.
✓ Compact and reliable assembly.
✓ Low maintenance.
✓ High temperature resistance.
✓ Application up to 10 meter paper machine width.

- Dedicated control.

- Driven by chain and electrical motorization.

- Nozzle position detection with Encoder or electrical limit switches.

- Emergency manual translation by hand wheel.

- Options:
- high pressure cut (40 MPa);
- extra high pressure cut (200 MPa);
- Inverter control or double speed electrical motor.

HIGH PRESSURE PUMP UNIT

- Unit complete with:
- high pressure pump and electric motor;
- filters;
- drive and safety.

- Piping for high pressure is available.

DRY END TAIL CUTTER WATER JET W-WJ

INSTALLATION OF DRY END TAIL CUTTER WATER JET W-WJ

INSTALLATION OF DRY END TAIL CUTTER WATER JET W-WJ

TAIL CUTTING SYSTEMS

TAIL CUTTER CONTROL

✓ Turn key unit.
✓ Pre-tested system.
✓ Just connect unit power and start-up.
✓ Tail cutter can be operated with an external signal (sheet break photocell or alarm buttons).

• Panel interface and motor control center.
- Stroke limit setting (Encoder version).
- Display of actual cutting unit position.
- Alarm display and diagnostic.
- Dedicated PLC (SIEMENS or ALLEN-BRADLEY).
- Operation and maintenance dedicated code.
- Electric motor control center.

• Push button box located close to the machine.
- Push button Back Side, Front Side, Tail.
- Push button Widen, Narrow at low speed.
- Emergency push button Stop.

TAIL CUTTTER CONTROL

WET END TRIM SQUIRTS W-TB

✓ Web cut with water jet.
✓ Web cutting on wire.
✓ Nozzle check and exchange during production.
✓ High operating performance.
✓ High reliability and safe operation.
✓ Easy installation and reduced maintenance.

• Air shielded nozzle (no formation of moisture deposits).

• Settings:
- jet impinging angle;
- nozzle distance from paper;
- nozzle replacement during productions.

• Manual version:
- position control with manual knob;
- position indication with scale and pointer.

• Motorized version:
- position control with motor and remote control;
- digital display of the position.

• Option:
- single or double nozzle.

WET END TRIM SQUIRTS W-TB 1

WET END TRIM SQUIRTS W-TB 2

WET END TRIM SQUIRTS W-TB 2

MECHANICAL SCREW JACKS

MICRO SCREW JACKS

MECHANICAL SCREW JACKS W-SJ

✓ Weingrill screw jacks have been used by the thousands for over thirty years in the most diverse industrial applications, with excellent functional and durability results.
✓ Numerous applications, sizes and executions in stainless steel allow Weingrill to be able to reply to any installation requirements.

• Sizes from 5 to 1500 kN.

• Operation can be either manual or motorized.

• Worm or two pinion bevel gear screw, with V-thread or ball bearing lifting screw.

• Combined with hydraulic piston.

• Equipment:
- diameters, pitches and end dimensions on request;
- anti-backlash feature and anti-rotation system;
- additional guides and mechanical stops;
- special screw to wheel ratios;
- electric limit switches and position detection system;
- centesimal dial indicator for direct stroke reading;
- swinging mounting features;
- conventional and special hand operated hand wheel with gravitational dial indicator or ratchet;
- supports or coupling for direct motor assembly;
- gear reducers, transmission shafts and couplings for dual or multiple connections.

MICRO SCREW JACKS W-MSJ

✓ Weingrill micro actuators have been used for over twenty years in headbox slice lip profiling applications.

• Complete anti corrosion and water proof execution.

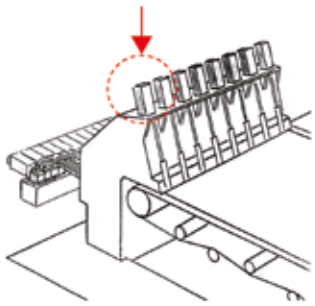
• Capacity 450 daN.

• Manual type:
- manual control;
- centesimal dial indicator for position display.

• Motorized type:
- drive with motor 24/115 Vdc or Vac;
- position feedback by LVDT.

• Models with vertical or horizontal dial indicator.

MICRO SCREW JACKS W-MSJ



MECHANICAL SCREW JACKS W-SJ

MICRO SCREW JACKS W-MSJ

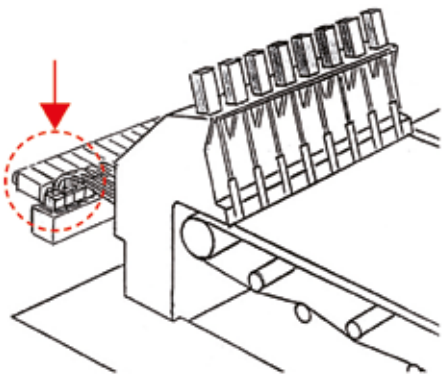
MOTORIZED VALVE

MOTORIZED VALVE W-ACT

✓ W-ACT is a new WEINGRILL motorized valve. W-ACT can be used wherever a fine flow modulation and valve opening repeatability is required (for example, in the dilution system for cross control of the basis weight profile on headboxes).

- Complete reduction of dead areas causing fiber deposits in the valve.
- Low head losses through the valve due to straight flow path.
- High regulation range from 0° to 90°.
- High resolution for fine adjustments.
- Four different valve sizes.
- Valve actuator with electric gear motor, with incorporated electric limit switches for max and min opening control.
- Position feedback with potentiometer sensor.

VALVE W-ACT



VALVE W-ACT motorized

VALVE W-ACT manual

VALVE W-FLOW

PNEUMATIC OSCILLATOR

PNEUMATIC OSCILLATOR W-OP

✓ Designed to operate in extremely wet environment.
✓ Compact unit.
✓ High reliability and safe operation.
✓ Easy installation and reduced maintenance.

- Complete stainless steel construction.
- Air ride operation.
- Stroke: ±10 or ± 15 mm.
- Installation with support parallel or perpendicular to doctor axis.
- Accessories:

- doctor support with oscillating bushings;
- articulated couplings.

SIZE	FORCE MAX (daN@0.4 MPa)
W-OP-4	270
W-OP-8	670

PNEUMATIC OSCILLATOR W-OP

INSTALLATION OF PNEUMATIC OSCILLATOR W-OP

AUTOMATIC RECIPROCATING AIR MOTORS

AUTOMATIC RECIPROCATING AIR MOTORS W-MP

✓ Automatic reciprocating air motors are normally used in those applications where a reciprocating forth and back motion at variable speed is required.
✓ Automatic reciprocating air motors were developed more than 20 years ago and they are still used in many different industrial applications.
✓ Double acting cylinder actuated by a valve system which alternatively feed both sides of the cylinder, using its motion to generate impulse.

- Suitable for doctors or shower oscillation.
- Air supply (no need for electrical power).
- Versions:
  - stainless steel execution for wet applications;
  - steel, aluminum and bronze execution for high temperature applications.
- Three different sizes.
- Fixed strokes 9.5 – 15 – 20 mm, adjustable from 60 to 700 mm.
- Motors operated by filtered slightly lubricated compressed air, max. pressure 0.5 MPa.
- Operating temperature up to 120 °C.
- Motors are equipped with pressure port to check effective operating pressure.
- Accessories:
  - articulated joint;
  - fixed support;
  - pivoting support (for stroke above 100 mm);
  - motor stop alarm device.

AUTOMATIC RECIPROCATING AIR MOTORS W-MP

SIZE	STROKE (mm)	TYPE (mm)	FORCE (max daN@0.3MPa)
W-110 F	9.5 - 15 - 20	Fixed	250
W-110 R	60 - 260	Adjustable (min 20 mm)	250
W-110 RL	260 - 710	Adjustable (min ½ stroke)	250
W-150 F	9.5 - 15 - 20	Fixed	450
W-150 R	60 - 260	Adjustable (min 20 mm)	450
W-150 RL	260 - 710	Adjustable (min ½ stroke)	450
W-200 F	9.5 - 15 - 20	Fixed	850

BEARINGS FOR AXIAL MOVEMENTS

BEARINGS FOR AXIAL MOVEMENTS W-CRO

✓ Suitable for applications where high axial sliding capacity and perfect load alignment are required.
✓ Operating performance.
✓ High reliability and safe operation.
✓ Easy installation and reduced maintenance.

- Low friction coefficient.

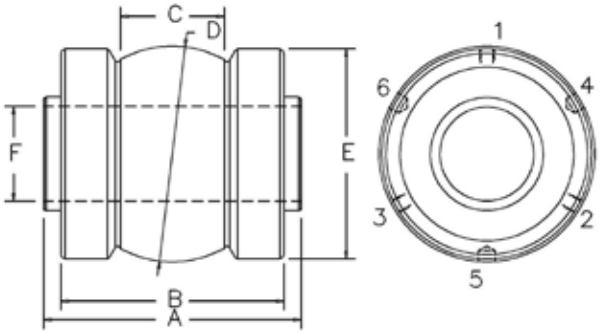
- Self-alignment: ax. 3° in all directions.

- Versions
- Type "A": stainless steel execution (on request, with bronze ball bushing) for wet applications, max. temperature: 70 °C.
- Type "B": steel execution for high temperature applications (max. 130 °C).
- Other executions and types on request.

- Internal balls in stainless steel for wet applications.

BEARINGS W-CRO

BEARINGS W-CRO



SIZE	RADIAL LOAD (daN)		STROKE (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Fmax (mm)
	Type A	Type B							
CRO 97	280	490	25	119	92	30	97	99	45
CRO 127	550	970	25	156	124	57	127	124	54
CRO 152	1300	2300	22	181	157	73	152.4	148	67
CRO 163	870	1500	25	152	125	57	163.4	160	88
CRO 174	1300	2250	25	152	125	57	174.6	172	89
CRO 196	1950	3350	25	200	174	64	196	194	89
CRO 215	2550	4650	35	241	203	102	215.9	214	98
CRO 220	2050	3550	25	172	148	70	220	210	101
CRO 236	4150	7200	38	302	264	115	236.5	234	114

RADIAL BEARINGS WITH ECCENTRIC

RADIAL BEARINGS WITH ECCENTRIC W-EC

✓ Suitable for applications where a rotational to linear movement transformation is required, for example the forth and back doctor movement.

- Versions:
- stainless steel execution for wet applications;
- steel and bronze execution for high temperature applications.

- Dimensioned according to ISO shafts.

- Other executions and types on request.

- Bearings are supplied pre-lubricated.

BEARINGS W-EC

PNEUMATIC AND HYDRAULIC CYLINDERS

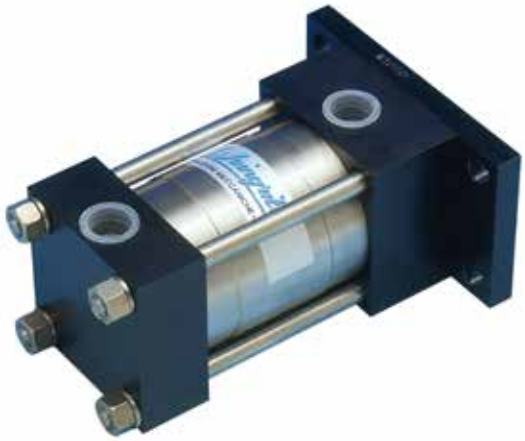
PNEUMATIC AND HYDRAULIC CYLINDERS W-CIL

✓ Weingrill stainless steel pneumatic and hydraulic cylinders have been designed and manufactured over the years and are used in many different industrial applications.

- Manufactured entirely with stainless materials (AISI 316/630 and bronze).
- Sizing and execution according to ISO standards or to customer request.
- Single or double acting.
- Boring from 40 to 300 mm.
- Max. operating pressure: air 1 MPa, oil 7 MPa.
- Rod with diameter on request.
- Max. operating temperature up to 70 °C, special up to 120 °C.
- Execution: square heads, with tie rods or cylindrical housing.
- Clamping: flanged, with feet or floating with pins and articulated joints.
- Metric or imperial dimensions.
- Special types:
  - double rod;
  - double piston;
  - tandem;
  - telescopic;
  - high pressure.

CYLINDERS W-CIL

CYLINDER W-CIL



ROPE STRETCHER

ROPE STRETCHER W-RS

✓ Made in a compact and reliable assembly.
✓ Wide range of rope length compensation.
✓ The electro-welded steel structure offers high resistance, eliminating also deformations and providing perfect trolley sliding.

- Pulleys in painted cast iron with bearings.
- Moving trolley supporting the pulley is driven by pneumatic cylinders.
- Double acting cylinders provide rope stretch control and stabilizing counter pressure.
- TAIL THREADING TENSION and SLOW SPEED OPERATION switch.
- Models with different strokes, for double or single rope.
- Vertical or horizontal installation.
- Accessories:

- maximum rope stretch detecting device.

ROPE STRETCHER W-RS

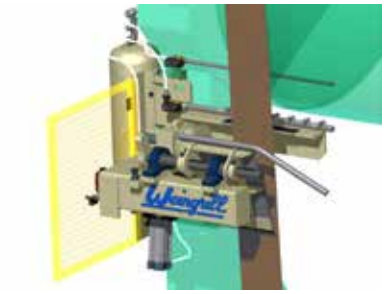
DRY END TAIL BREAKER

DRY END TAIL BREAKER W-SHARK

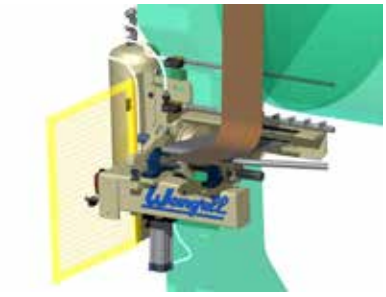
✓ Tail cutting and threading system.
✓ Full automated cutting and threading sequence.
✓ Safety protections and electric block to prevent access to cutting balde during operation.

- Tail break with teethed blade.
- Tail thread with adjustable air jets.
- Separate push-button box for tail breaker operation.
- Dedicated control box with based on PLC with display and keyboard which allow setting sequences and timing directly in the field.
- Power and air cut off when safety barriers are open.
- Complete system, pre-tested at Weingrill facilities, ready for installation.

W-SHARK



W-SHARK



W-SHARK

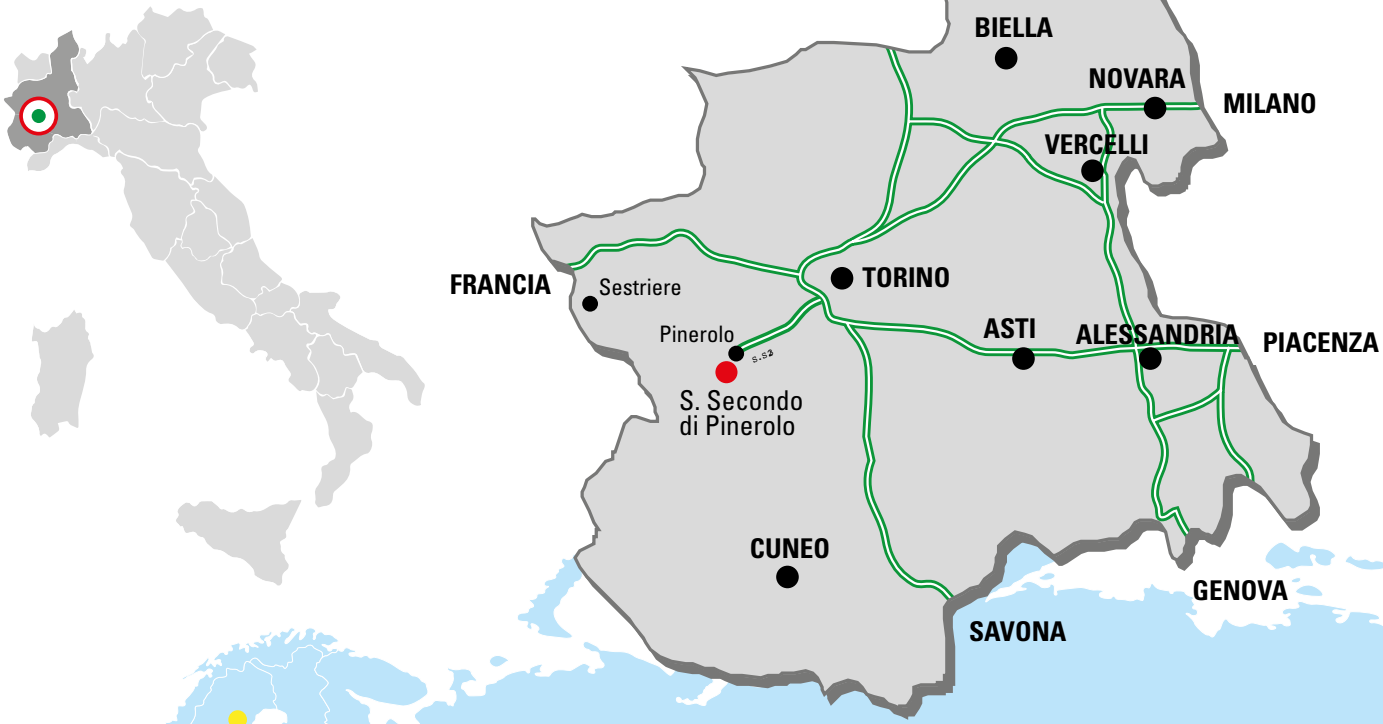
INSTALLATION OF W-SHARK

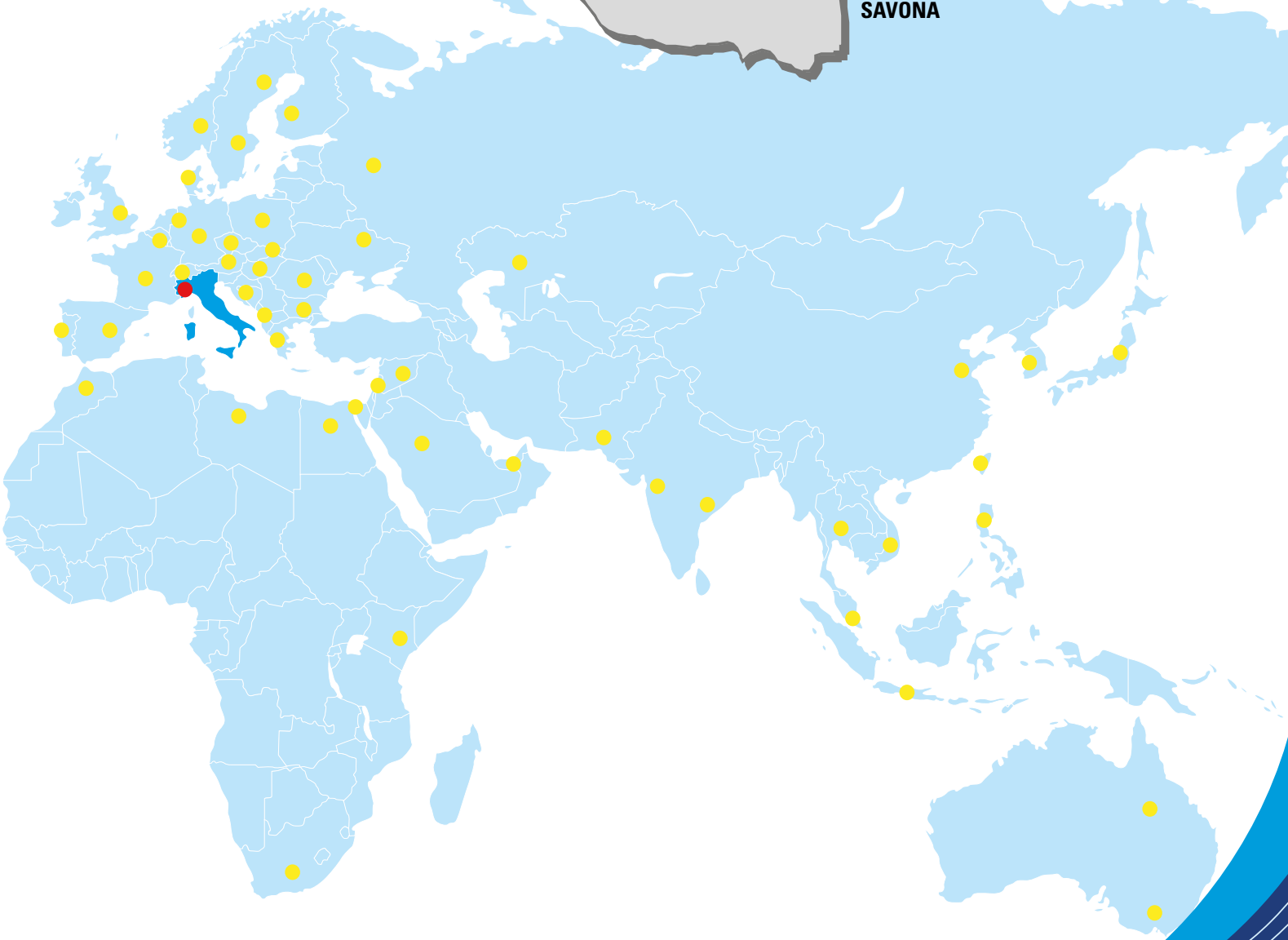
ITALIAN ENGINEERING AND MANUFACTURE

- HEADQUARTERS
- MORE THAN 3000 CLIENTS IN MORE THAN 30 COUNTRIES

COSTRUZIONI MECCANICHE WEINGRILL Ing. ZENO s.r.l.

Member of CISQ Federation
RINA
CERTIFIED MANAGEMENT SYSTEM
ISO 9001


BIELLA
NOVARA
MILANO
VERCELLI
FRANCIA
Sestriere
TORINO
Pinerolo
S.S.23
ASTI
ALESSANDRIA
PIACENZA
S. Secondo
di Pinerolo
CUNEO
GENOVA
SAVONA



Weingrill®

COSTRUZIONI MECCANICHE
WEINGRILL Ing. ZENO s.r.l.
10060 S. SECONDO di PINEROLO
VIA VALPELLICE, 63 - ITALY
+39 0121 501 855
weingrill@weingrill.com
www.weingrill.com