

Innovative  
engineering for..EXCELLENCE...

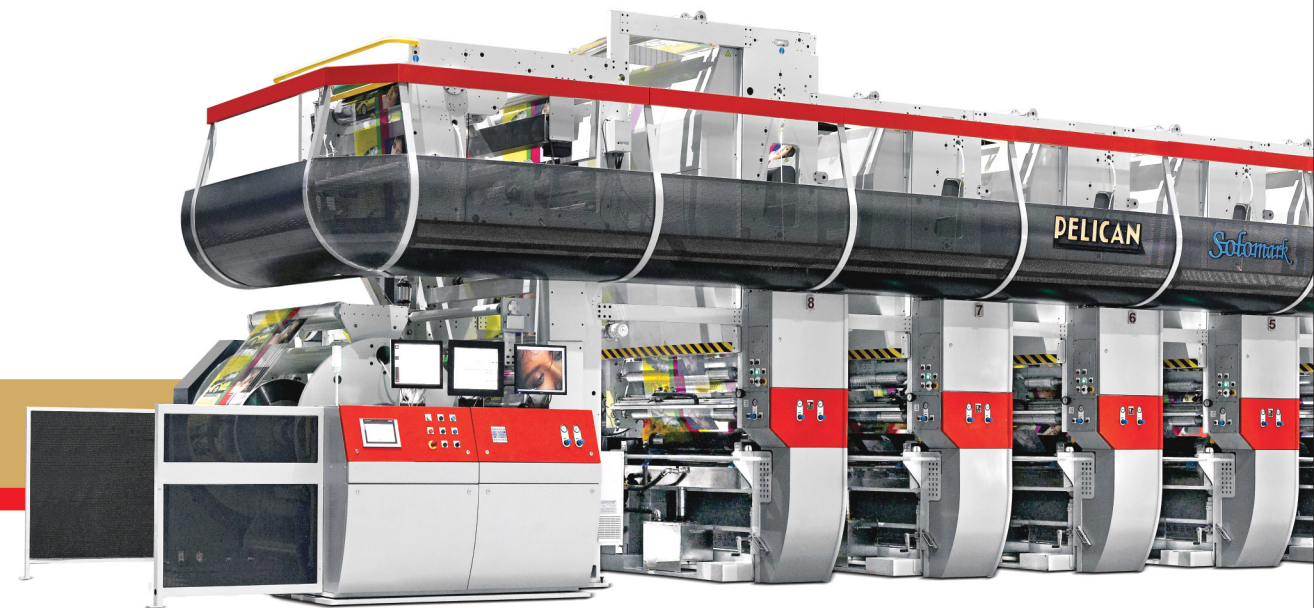
**PELICAN**

*Solomark*

ROTOGRAVURE PRINTING PRESS

- WITH SHAFTED CYLINDER CHUCKING
- WITH SHAFT-LESS CYLINDER CHUCKING

ROTOGRAVURE PRINTING PRESS (MLS)



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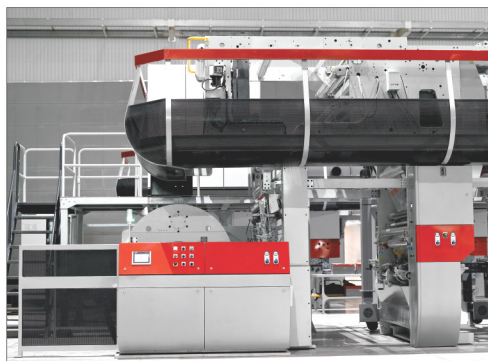
## INTEGRATED register control

UNIQUE  
service  
SUPPORT

### STANDARD TECHNICAL SPECIFICATION

• Maximum web width	1300 mm
• Printing cylinder repeat range	400 to 800 mm
• Web tension range	60 to 400 N

Pelican's range of converting equipments is designed and developed to achieve high standards in flexible packaging. Its state-of-the-art technology offers excellence in converting solutions.



### THE MACHINE

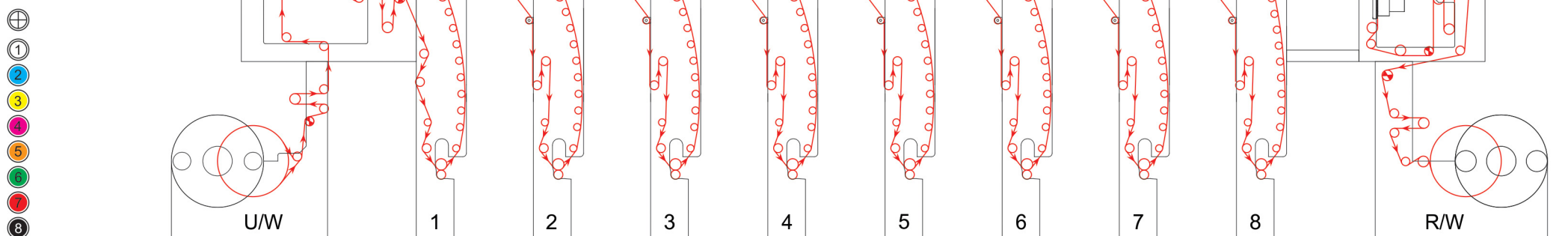
By perfectly integration of advanced electronics and ergonomically designed mechanical components to deliver optimum performance, better operational ease, faster print register response, higher productivity, better print quality, less waste, optimising ink solvent and energy consumption, faster job changeover etc.

Distinctively designed and precisely machined, strong steel frame structure machined using high precision CNC - VMC, maintains accuracy over long dependable life and ensures high print quality with optimum operating speed.

LOW wastage

FAST JOB  
change over

### STANDARD WEB PATH



**FASTER** registration response  
and **BETTER** accuracy

**SAFETY**  
on board

**SHORTER**  
**WEB PATH**





#### PRINT UNIT CONTROLS

Each print station control panel mainly consists of electrical and pneumatic controls for...

- Push button for blower/drying system
- Air temperature controller/indicator for drying chamber
- Necessary protection & fault indicator for DOL
- Joy Stick for manual length and side registration setting
- Emergency stop
- Pneumatic controls, pressure gauge and regulator for impression rubber roller and doctor blade.

**HIGH EFFICIENCY**  
**LOW ENERGY**  
**CONSUMPTION**

**FAST JOB**  
change over



#### HIGH EFFICIENT VENTILATION MODULE

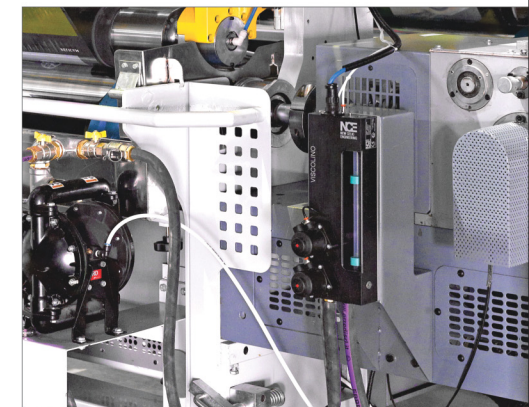
High Efficient Ventilation Module ensuring optimum drying at minimum energy consumption.

Separate ventilation module for each printing unit, suitable to send, and re-circulate air.

Each ventilation module composed of the centrifugal blower with AC motor, thermal oil or electric heat exchanger, other necessary controls and feedback device for temperature.

Connection Ducts and piping for the delivery and re-circulation between the drying chamber and the ventilation module.

Adjustment of air balancing using manually operated dampers.



**Viscosity Control System (Optional)**



#### AUTOMATIC INTEGRATED REGISTER CONTROL SYSTEM

The automatic length and side-lay register control system with full colored touch screen operator interface facilitates automatic mark centering and recognition.

Automatic selection of different control parameters during machine speed changes and control parameters individually configurable to different materials for easy operator selection.

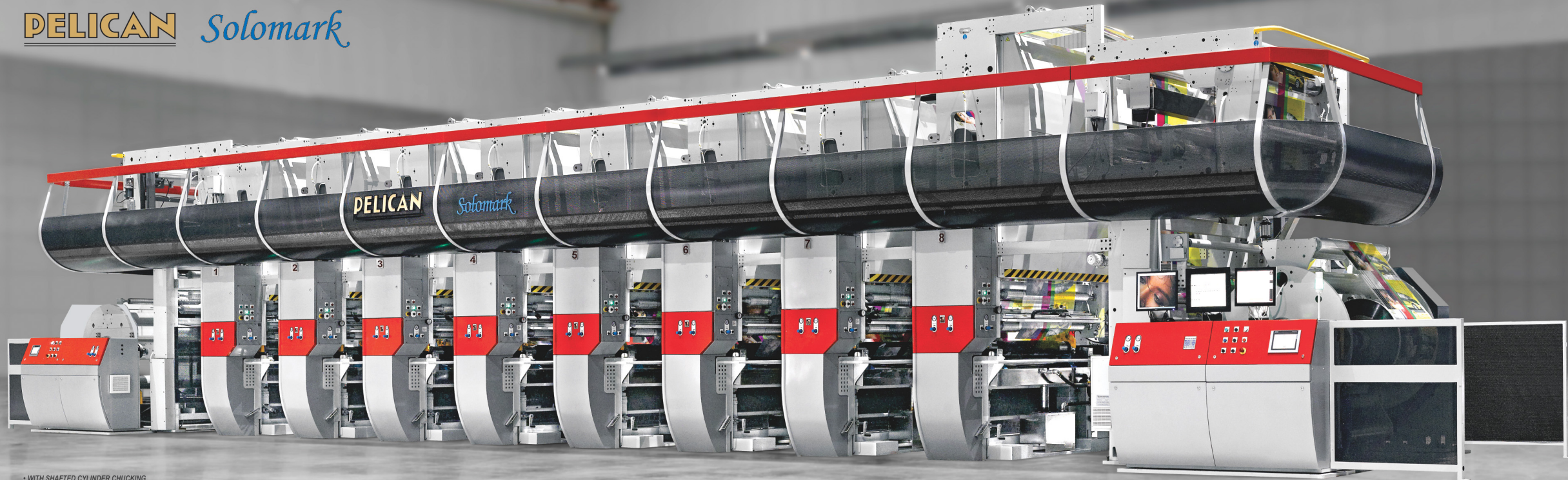
#### FIBER OPTIC RGB SCANNING HEAD

- Due to fiber optic, communication is faster so can result in high measurement accuracy and registration stability
- RGB sensor; Colored mark display for better visualization

**LOW energy**  
**CONSUMPTION**



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- WITH SHAFTED CYLINDER CHUCKING
- WITH SHAFT-LESS CYLINDER CHUCKING





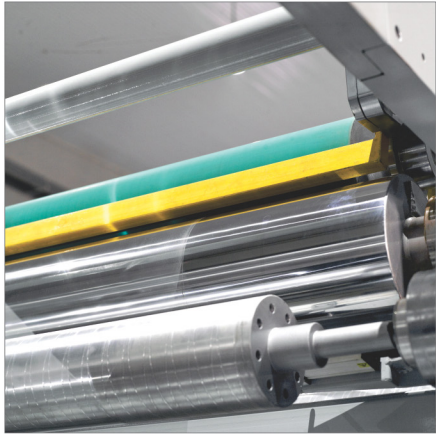
## UNWIND GROUP

Turret type Unwinder with flying splice (Bi-Directional)

The system mainly composed of push button initiated motorized rotating disc, pneumatically loaded automatic splicing arm, rubbered covered pasting roller and cutting blade assembly etc.

Pneumatically expanded shafts and safety chucks to hold the reels.

**Unwind Web Handling Control** using the latest generation AC servo technology. The system mainly composed of AC servo motor and drive, pneumatically loaded low friction dancing roller assembly and load cell for tension feed-back and actual tension display.



**Electro-electric Edge Guiding System** equipped with Ultrasonic edge sensor.

## IN-FEED SYSTEM (DRAW UNIT)

The system provides precise tension control of the web before entering to the first printing station and isolates the printing unit from tension disturbance of the unwinding zone.

The system mainly composed of chromium plated steel roller, AC servo motor and drive, load cell and rubber covered nip roller with pneumatically adjustable pressure.

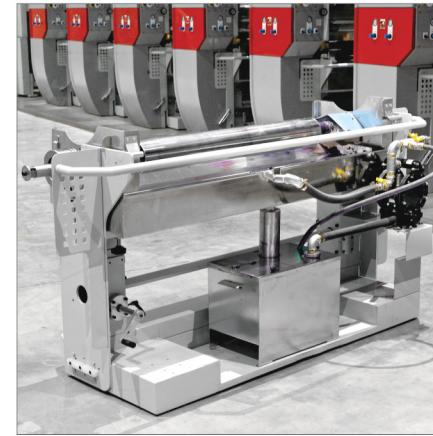
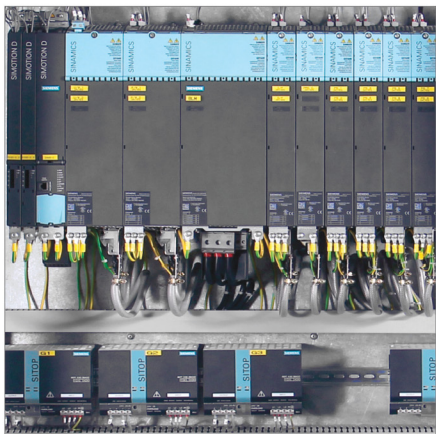
## CONTROL SYSTEM

Unwinder, rewinder, common for all print units, in-feed and out-feed are individually driven by servo motors-drives controlled and supervised by the high performance controller having its own intelligent software.

'Ethernet / IP Based Communication System' used to maintain tight synchronization between all the drives by providing fast, reliable and jitter-free communication.

## OPERATOR INTERFACE

Operator control panel mainly consists of a touch screen operator interface located at rewind side facilitates easy operation.



## TROLLEY SYSTEM

Trolley for a quick change of engraved cylinder & the whole inking group facilitates fast and easy job changes.

Trolley consists of a cylinder mounting shaft, taper cones with quick locking check nut, ink basin, ink tank and ink pump.

New design ink tray with ink delivery nozzle to reduce ink foaming and better disbursement of ink.

The new design of splash guard to reduce ink splashing.

## SLEEVE TYPE IMPRESSION ASSEMBLY (OPTIONAL)

The sleeve system, consists of an air mandrel with a rubber covered fiberglass sleeve, provides functional flexibility and sleeve change without tools.

Sleeve type rubber covered impression roller raising - lowering on precision linear bearings.

The precision linear bearings ensure smooth and precise displacement.

Main machine control is programmable for automatic detach of the pressure roller at machine stop.

Pressure roller sleeve with antistatic rubber, solvent resistant made of fiberglass.



## DOCTOR BLADE GROUP

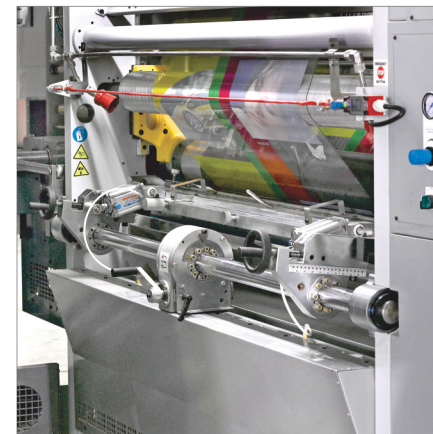
Designed to ensure a straight profile of the blade resulting in lesser blade pressure, better printing quality and longer cylinder life.

The blade locking by an eccentric rod without tools.

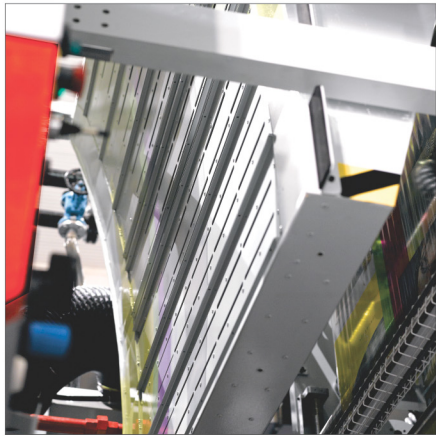
Group sliding with low friction bearings reciprocating transversal movement of the doctor blade is taken from the reduction gearbox of the main line shaft.

The group allows horizontal and angular adjustment for the doctor blade position on the engraved cylinder.

Pneumatic doctoring pressure with adjustment possibility from the unit control panel.







#### DRYING SYSTEM

Ink drying is obtained by blowing hot air on the web through air nozzles.

The optimized airflow minimizes heat consumption and avoids solvent retention in the printed substrate.

Solvents evaporation is obtained by air nozzles, blowing air on the web in connection with the idle rollers, to ensure the proper drying, avoiding shaking or deforming of the web itself.

The system mainly composed of single hood drying chambers.

Hood opening/closing to allow easy access for web threading and cleaning.

**High Efficient Ventilation Module** ensuring optimum drying at minimum energy consumption.

Separate ventilation module for each printing unit, suitable to send, and re-circulate the process air.

Each ventilation module composed of the centrifugal blower with AC motor, thermal oil or electric heat exchanger, other necessary controls and feedback device for temperature.

Connection Ducts and piping for the delivery and re-circulation between the drying chamber and the ventilation module.

Adjustment of air balancing using manually operated dampers.

Central Exhaust System composed of AC frequency drive controlled heavy-duty centrifugal fan to collect solvent contaminated air from all the printing units through central duct.

#### THERMIC FLUID HEATING SYSTEM (OPTIONAL)

Thermic Fluid Heating System (instead of electrical heating system): The system consists of Temperature Control on/off Valve, Globe valve, Pressure Gauge, Piping within the machine area, Fittings etc. for Thermic fluid heating System.

#### TRANSMISSION

Power Transmission from main common motor to all the printing units is done by mechanical line shaft with help of gear box to the cylinder shaft by manual coupling joint.



#### REWIND GROUP

Turret type Rewinder with flying splice.

The system mainly composed of push button initiated mototized rotating disc, pneumatically loaded automatic splicing arm, rubbered covered pasting roller and cutting blade assembly etc.

Pneumatically expanded shafts and safety chucks to hold the reels.

**Rewind web tension control** by using the latest generation AC servo technology.

The system mainly composed of AC servo motor and drive, pneumatically loaded low friction dancing roller assembly and load cell for tension feed-back and actual tension display.

#### Lay-on Roller Assembly

Pneumatically operated lay on roller assembly complete with pressure gauge and regulator for control of the pressure on the rewind reel.

#### MOTORIZED WEB VIDEO INSPECTION SYSTEM

Motorized web video inspection system consists of high quality CCD color camera, Industrial PC & Monitor (facilitates sequential inspection of the lateral and entire print repeat of the web).

#### IDLE ROLLERS

Specially designed, dynamically balanced low friction-low inertia idle rollers made of Aluminum alloy mounted on low friction bearings, enhance rotational smoothness.

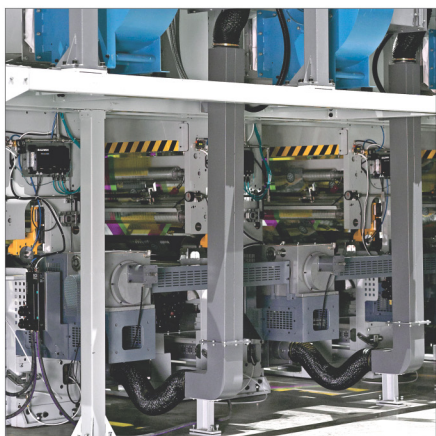
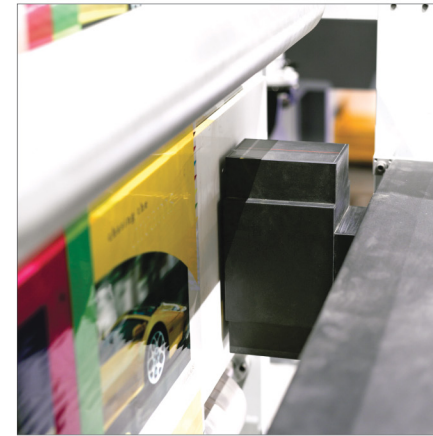
Metallurgy, Shaft end, Internal Boring of the aluminum pipe is done, computerized Dynamically balancing, bearing with self-lubricate, temp resist grease.

#### OUT-FEED SYSTEM

Out-feed system pulls the substrate from last printing unit.

The system provides precise tension control of the web before entering to the rewinder and isolates the rewinder from tension disturbance of the printing unit.

The system mainly composed of matt chromium plated steel roller AC servo motor and drive, load cells and rubber covered nip roller with pneumatically adjustable pressure.





# PELICAN

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