

# BAOLI S

Highly reliable strand pelletizer with countless references



Successfully applied by hundreds of customers in China and abroad, the proven BAOLI strand pelletizers produce the highest quality of cylindrical pellets or micro pellets, ideally suited for further processing. BAOLI is specifically used for strand pelletizing of compounds, blends and masterbatches.

## Your benefits

- Profitable production due to very high machine availability with wear-resistant cutting tools
- Simple, efficient cleaning and maintenance as well as fast product changeover
- Consistently high pellet quality
- Highest reliability due to very long life time based on enhanced quality of all pelletizer components
- More than 60 years of expertise in strand pelletizing and comprehensive service

# BAOLI S

## Dry-cut strand pelletizers for utmost flexibility during production

Processes, machines and systems made by Maag Automatik stand for cost-effectiveness, flexibility, and reliability world-wide. With over six decades of experience and an installed base of currently more than 9,000 pelletizing systems, the company helps its customers to achieve the maximum level of profitability..

### Range of applications

With BAOLI S throughput rates of up to 3,000 kg/h can be achieved for all polymers extrudable to strands.

### Functioning of the WSG systems

Polymer strands extruded from a die head **01** pass through the cooling trough **02**.

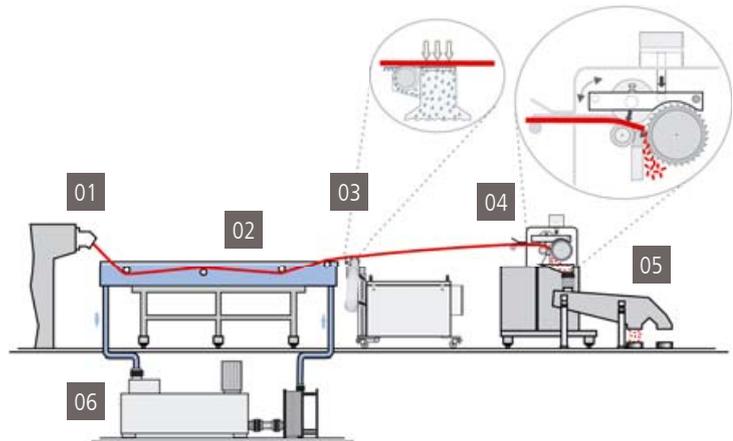
The air knife **03** ensures effective strand drying prior to cutting.

The residual moisture after strand drying evaporates in the evaporation section.

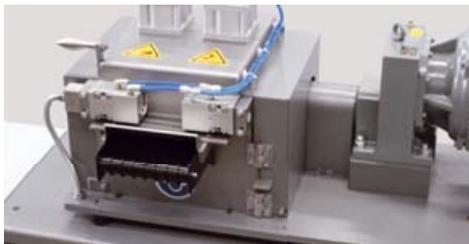
The feed tools of the strand pelletizer **04** catch the polymer strands and direct them to the cutting tools where the strands are cut into pellets.

The pellets are classified, cooled, and conveyed in subsequent operations **05**.

The cooling water is filtered and temperature controlled in a process water unit **06** and then returned to the cooling trough.



### BAOLI S features



### Automated cutting chamber interlock

Two pneumatic cylinders, which are situated on the cutting chamber cover lock the cutting chamber while the pelletizer is in operation. Only when the cutting rotor and the feed rollers are completely stationary do the two pneumatic cylinders unlock automatically; the cutting chamber can then be opened.

- This guarantees comfortable and fast handling as well as it ensures the safety for the operators

### Wear protection / cutting gap adjustable within 0.02 mm

Optionally, all parts coming in contact with the product are wear protected. The upper feed roller can come with a specific heat resistant material (up to 170 °C). Robust machine design and two-sided bearing ensure stability and adjustability of cutting gap.

- Leads to constantly high pellet quality and less energy consumption of the cutting rotor drive

### Easy-to-operate machine controls

Well accessible buttons e.g. for on and off, a potentiometer to adjust the strand draw-in speed, as well as, a display for the current status of the frequency inverter with direct indication of the draw-in speed make it simple to operate BAOLI S.

- Intuitive operation, specific process skills are not required – the process can be learned very quickly

# BAOLI S

Perfectly adapted to any product



WS01 stainless steel



HM02F clamped tungsten carbide rotor (patented)



The cutting rotor is the »heart« of every strand pelletizer. The rotor performance is significant for product quality, system availability and production costs.

BAOLI S offers a wide range of rotors with different characteristics, like rotor material, number of teeth and tooth profile. Therefore the machine can be optimized for each application in strand pelletizing to achieve outstanding results in quality, throughput and life time.

Operation time example: cutting rotor HM02F for PA with 15 - 50% glass fiber > 1,000 hours

Cutting rotors to produce micro pellets (front), a standard rotor (middle) and for Long Fiber production (LFT)

## Technical data of cutting rotors

Cutting rotor	WS01	HM02G	HM02F
<b>Material:</b>	Stainless steel	Tungsten carbide	Tungsten carbide
<b>Life time:</b>	+	+++	++++
<b>No. of resharpening:</b>	15	11	11
<b>Corrosion resistance:</b>	+	+++	++++
<b>Recommended e.g. for:</b>	PE/PP, PET, GPPS, SAN, PA, TPE, TPU	PA + TiO <sub>2</sub> max. 5%/GF max. 5% resp. up to 30%	PA + TiO <sub>2</sub> /GF up to 50%

## Tooth profile and resharpening service

A major factor in determining pellet quality is the tooth profile which is selected customized for each individual application. As for instance profile 01 is the one to choose for general compound application, profile 15 is the choice for soft and flexible materials.

Maag Automatik also offers professional grinding service - worldwide e.g. in Shanghai, Taipei, Kuala Lumpur. By resharpening the rotor, the tooth profile is preserved for a longer lifetime of the cutting tools. Quality is guaranteed by comprehensive methods of inspection with final certificate.



Grinding center, Shanghai



Quality check after resharpening

# BAOLI S

## Technical data

Technical data:	BAOLI 100 S	BAOLI 200 S	BAOLI 300 S
Operating width:	100 mm	200 mm	300 mm
Drive system:	AC motor with belt drive		
Motor power of pelletizer:	5.5 (7.5) kW	7.5 (11) kW	11 (15) kW
Line speed at pellet length of 3 mm:	30-70 m/min		
No. of strands at 75% utilization rate and a pellet diameter of 3 mm:	25	50	75

Throughput rates [kg/h]*:		BAOLI 100 S	BAOLI 200 S	BAOLI 300 S
Product:	Density [g/cm <sup>3</sup> ]			
PP, PE:	0.91	700	1,350	2,000
GPPS, SAN:	1.04	800	1,600	2,400
ABS, HIPS:	1.04	800	1,600	2,400
PMMA:	1.18	900	1,750	2,600
PET, PBT:	1.31	1,000	2,000	3,000
PA 6, PA 6.6:	1.14	850	1,700	2,200 (65)
PET, PBT, PA, PP + 15-50% glass fiber:	1.00	750	1,500	1,800 (60)
	1.55	1,150	2,300	2,750 (60)
Thermoplastic elastomers:	1.10	850	1,600	2,500
Masterbatch with > 40% fillers:	1.30	1,050	2,100	3,150

\*Pellet length 3 mm, pellet diameter 3 mm and maximum number of strands.