

## PRIMO E

WSG dry-cut strand pelletizing systems for utmost flexibility during production



Successfully applied by hundreds of customers, the proven WSG dry-cut strand pelletizing systems with PRIMO E pelletizers produce the highest quality of cylindrical pellets or microgranular compounds particularly suitable for further processing.

Variable system configurations allow for optimal matching with your specific production requirements and also provide utmost flexibility in terms of product changeover.

### Your benefits

- Shortest possible unguided section from feeding unit to cutting unit to meet highest pellet quality standards, with single-sided bearing of the cutting rotor
- Quick exchange of tools and rollers
- System configuration suitable for soft, brittle, and abrasive polymers
- Changes on the pellet length and weight to be made with Dual Drive
- Quick and easy access for cleaning and servicing; quick product changeover

# PRIMO E

## WSG dry-cut strand pelletizing systems for utmost flexibility during production

Processes and machines and systems made by Maag Automatik stand for cost-effectiveness, flexibility, and reliability worldwide. With over six decades of experience and an installed base of currently more than 8,000 pelletizing systems, the company helps its customers to achieve the maximum level of profitability.

### Range of applications

With these conventional WSG systems, throughput rates of up to 1,000 kg/h can be achieved for all polymers extrudable to strands.

### Functioning of the WSG systems

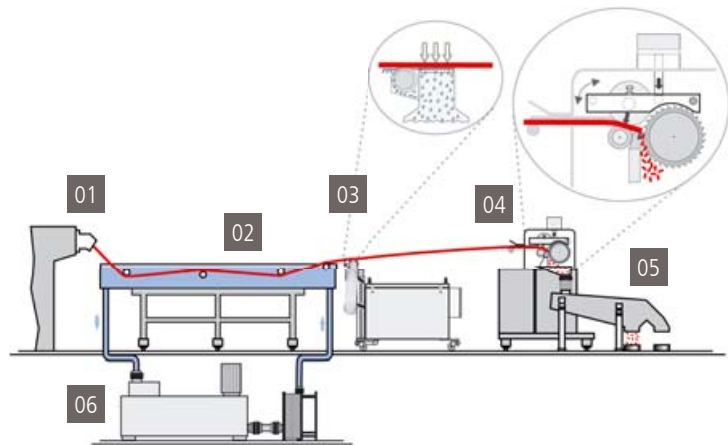
Polymer strands extruded from a die head **01** pass through the cooling trough **02**. The air knife **03** ensures effective strand drying prior to cutting.

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.



PRIMO 60 E strand pelletizer

The »heart« of each WSG system is the strand pelletizer. Maag Automatik offers the PRIMO E systems for small batch operations and laboratory applications, according to your specific requirements.

### Strand pelletizer

- Single-sided bearing of the cutting rotor allows quick access for cleaning and servicing
- Strand draw-in speeds of up to 150 m/min possible
- Shifting of operating range possible through selection of individual components
- Sound protection hood
- No deposits within the cutting chamber
- Upper feed roll and cutting head cooling
- Start-up assistance for soft, elastic strands
- Lower feed roll driven by a separate motor and belt drive allowing a variable adjustment of pellet length
- Classifier can be attached directly to the machine frame of the PRIMO E

### Cutting tools

- Selection of cutting tools subject to application, e.g. cutting rotor for soft polymers with shore hardness < 60 shore or for brittle plastics
- Wide range of steel grades, e.g. tool steel, tungsten carbide, PM steel

# PRIMO E

## WSG system components

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As your most competent system supplier for WSG pelletizing machinery, Maag Automatik provides the perfect solutions for your production.

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### Die head

- Electric heating, divided into several heating zones
- Absolutely uniform and homogeneous melt distribution
- Die plate with wear protection for abrasive products
- Swivel joint for fast access to the extruder screws
- Die head widths from 50 to 300 mm



SG 200C die head

### Cooling trough

- Cooling trough with integrated process water temperature control function
- Mobile due to track rollers for precise alignment and exchanging
- Supporting rollers stationary or swivelling, turnable, and slideable
- Widths from 160 to 300 mm, lengths from 2 to 10 m



KW 160 cooling trough

### Process water unit

- Specific cooling via plate heat exchanger
- Separation of process water from the central cooling water supply unit
- Process water circulated with a stainless steel pump
- Optional water tank with filling level control as buffer for start-up
- Cooling capacity of up to 200 kW, process water throughput of up to 12 m<sup>3</sup>/h



KW 160 cooling trough with integrated process water unit

### Air knife

- Required vacuum produced by blower with high suction capacity
- Dehumidification of air and refeed of water
- Space-saving positioning behind or alongside the cooling trough
- Efficient sound encapsulation
- Suction die moveable and adjustable in height
- Working widths: 100 and 200 mm



SE 100-2 air knife

# PRIMO E

## Technical data

Technical data:	PRIMO 60 E	PRIMO 120 E
Operating width:	60 mm	120 mm
Drive system:	AC motor with belt drive	
Motor power of pelletizer:	2.2 kW	4.0 kW
Line speed at pellet length of 3 mm:	20-90 m/min	
No. of strands at a 50 % utilization rate and a pellet diameter of 3 mm:	10	20

Throughput rates [kg/h]*:		PRIMO 60 E	PRIMO 120 E
<b>Product:</b>	<b>Density [g/cm<sup>3</sup>]</b>		
PP, PE:	0.91	350	700
GPPS, SAN:	1.04	400	800
ABS, HIPS:	1.04	400	800
PMMA:	1.18	450	900
PET, PBT:	1.31	500	1,000
PA 6, PA 6.6:	1.14	425	750 (17)
PET, PBT, PA, PP + 15 to 50 % glass fiber:	1.00	375	625 (16)
	1.55	500	800 (16)
Thermoplastic elastomers:	1.10	425	850
Masterbatch with > 40 % fillers:	1.30	500	1,000

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