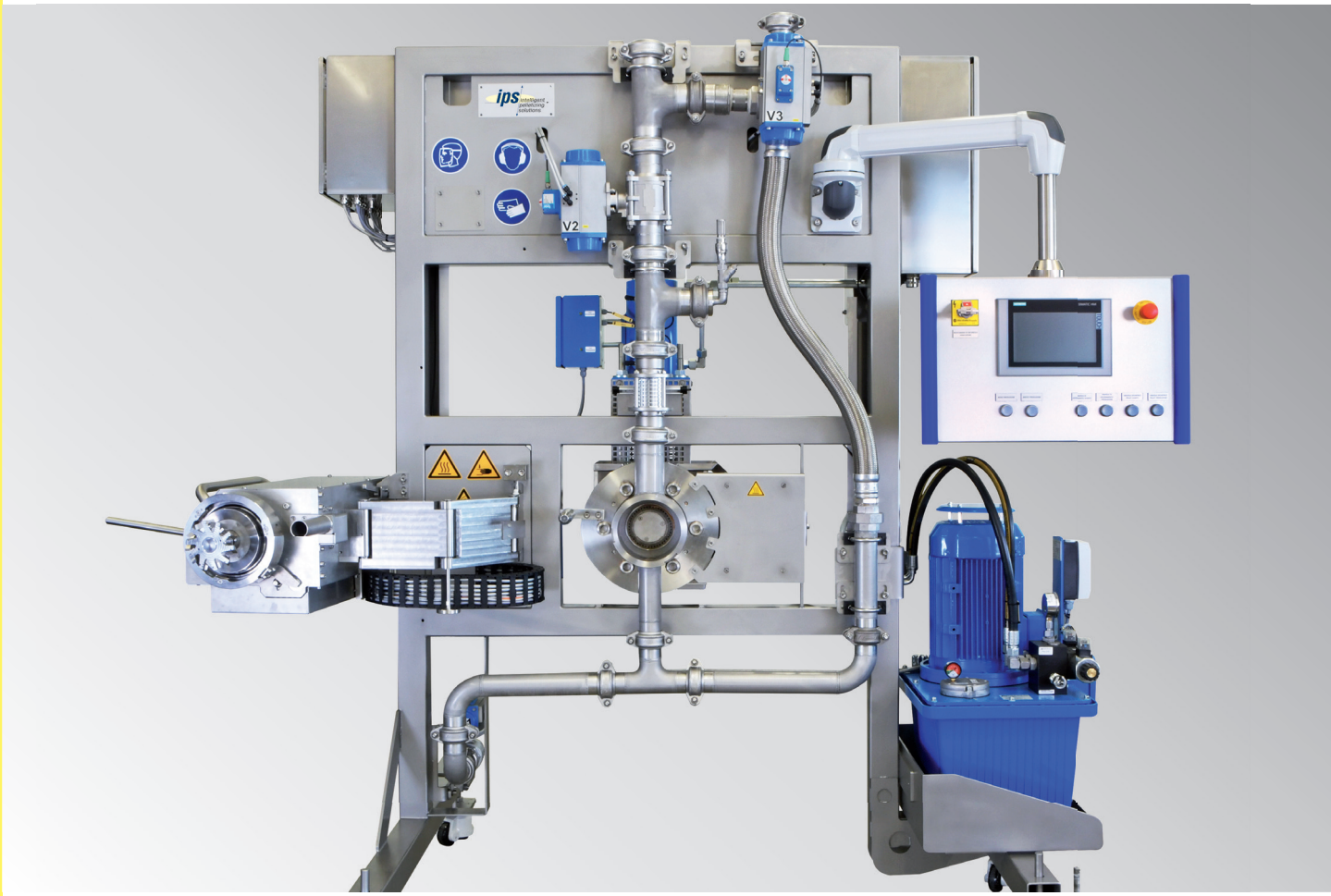
Underwater Pelletizing System

ips-UWG S



Gentle on material. Efficient. Flexible.

- Simple operation with high system safety
- Swivelling pelletizing unit for outstanding accessibility
- Simple, manual one-hand locking mechanism of the cutting chamber with automatic locking and simultaneous safety monitoring
- Automatic starting and stopping of the entire system at the push of a button
- Ergonomic operator guidance via graphic touch-user interface
- Process monitoring with automatic shutdown to avoid time-consuming cleaning and maintenance work
- Throughputs from 180 – 2 500 kg/h

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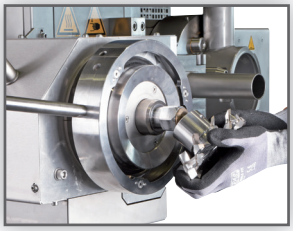
Underwater Pelletizing System ips-UWG S

The underwater pelletizing system ips-UWG S was developed especially for processing thermoplastic materials and produces spheric pellets.

The extremely flexible design of the ips-UWG S allows it to be used in different areas of the compounding, master batch and recycling industry.

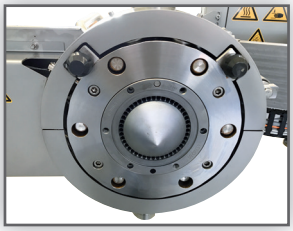
Design details



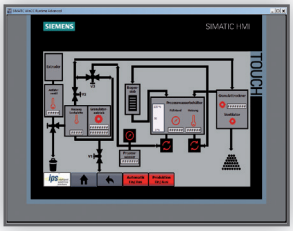
Single-hand locking

Simple cutter hub replacement

Ergonomic ips operator guidance with plain text message and user management



Optimum access to the die plate for fast die plate replacement



Modern process visualisation

Control via graphic touch-user interface

Polymer diverter valve and hydraulic unit integrated on the machine frame

Compact design of all components

Pneumatic and electric terminal boxes made of stainless steel

Further design details

– Operation of the system from the left/right can be freely chosen
– Pneumatic knife contact pressure with adjustable grinding intervals
– Complete machine frame can be moved on wheels and height-adjusted
  → Fast changeover between strand and underwater pelletizing possible
– Fast and precise operation of the most important process functions by pushbuttons

Options

– Mass pressure/mass temperature monitoring upstream of the die plate
– Heating cartridge monitoring with position detection
– Torque monitoring of the pelletizer drive
– Pellet flow monitoring at the bypass system
– Remote control connection for maintenance and support

Process water system ips-PWS

The process water system ips-PWS has been matched especially to the requirements of the underwater pelletizing system ips-UWG S. Thanks to its flexible design, the ips-PWS can be tailored to the customer's needs and requires only a small footprint due to its compact design.

Design details

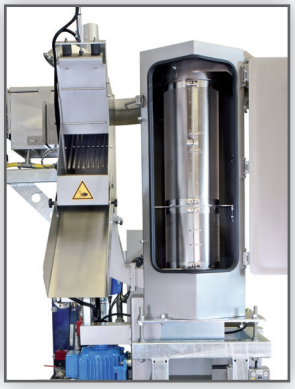
Compact design on a joint machine frame

All parts which come in contact with water are made of stainless steel

Process water tank with integrated drawer filter

Process water heating *(optional)*

Curved screen with additional drawer filter



Agglomerate catcher with a pneumatically operated gate valve (seal without sealing material) and automatic ejection *(optional)*

Pellet dryer ips-GT in wear-protected design *(optional)*

Further design details

– Constant process water temperature control using plate heat exchanger
– Process water level control in the process water tank with automatic water refill
– Frequency-controlled drive motor of the pellet dryer with adjustable speed
– Dryer screen unit with quick-connect couplings

Options

– Process water heating
– Measuring of the process water volume flow with digital display
– Process water cleaning circuit with curved screen or band filter
– Rotation monitoring of the pellet dryer
– Frequency-controlled fan for exhaust air flow at the pellet dryer
– Water discharged at the exhaust air outlet of the pellet dryer
– Agglomerate catcher with automatic ejection
– Pellet switch at the pellet dryer outlet
– Wear-protected version of the pellet dryer
– Hot water version with thermally insulated process water tank, pellet dryer, pumps, agglomerate catcher etc.
– Rotary tube ips-DR/K for controlled PET crystallization without external energy supply being necessary

ips intelligent pelletizing solutions

100% ips QUALITY

ips – We set great store by the highest quality
German mechanical engineering to ensure your success!

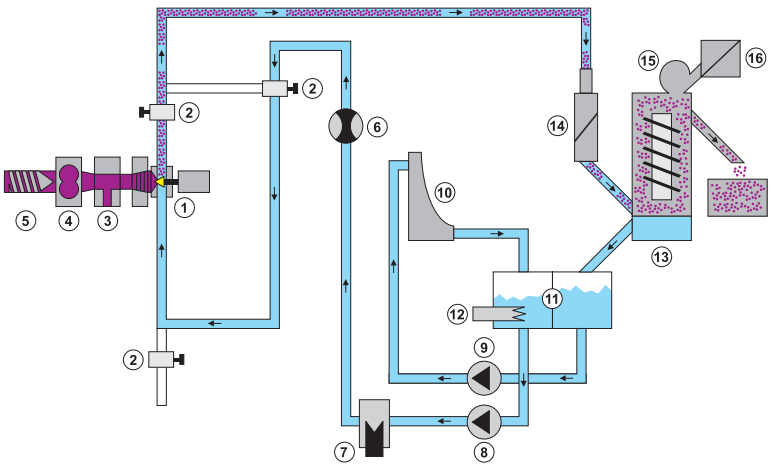
ips intelligent pelletizing solutions

Technical Data

Size	ips-UWG 75 S	ips-UWG 120 S
Throughput rate (kg/h)	180 – 720*	500 – 2 500*
Polymer diverter valve		
Heating power (kW)	5,0	6,4
Drive power hydraulic system (kW)	7,5	7,5
Pelletizing		
Drive power (kW)	3,0	5,5
Speed range (min.$^{-1}$)	500 – 5 500	500 – 4 500
Die plate		
Heating power (kW)	5,4	5,4
Number of holes	20*	80*
Pellet dryer	**ips-GT 500/3**	**ips-GT 1500/3**
Drive power pellet dryer (kW)	1,1	5,5
Drive power ventilator (kW)	0,1	0,55
Process water system		
Process water volume flow rate (m^3/h)	15,0	40,0
Volume of process water tank (l)	250/330**	250/330**
Pump process water cycle (kW)	4,0	7,5
Pump process water cleaning (Option) (kW)	2,2	4,0
Process water heating (Option) heating power (kW)	2 x 9,0	2 x 13,0
Process water cleaning standard	Drawer filter	Drawer filter
Process water cleaning options	Curved screen or band filter	Curved screen or band filter

* *depending on application, product, die plate, pellet size, etc.*
** *standard process water system or with process water cleaning*

Prozess diagram



1 Pelletizing unit
2 Bypass-piping
3 Polymer diverter valve
4 Melt pump
5 Extruder
6 Process water flowmeter
7 Plate heat exchanger
8 Pump process water cycle
9 Pump process water cleaning
10 Curved screen
11 Process water tank
12 Process water heating
13 Pellet dryer
14 Agglomerate catcher
15 Ventilator pellet dryer
16 Water separator