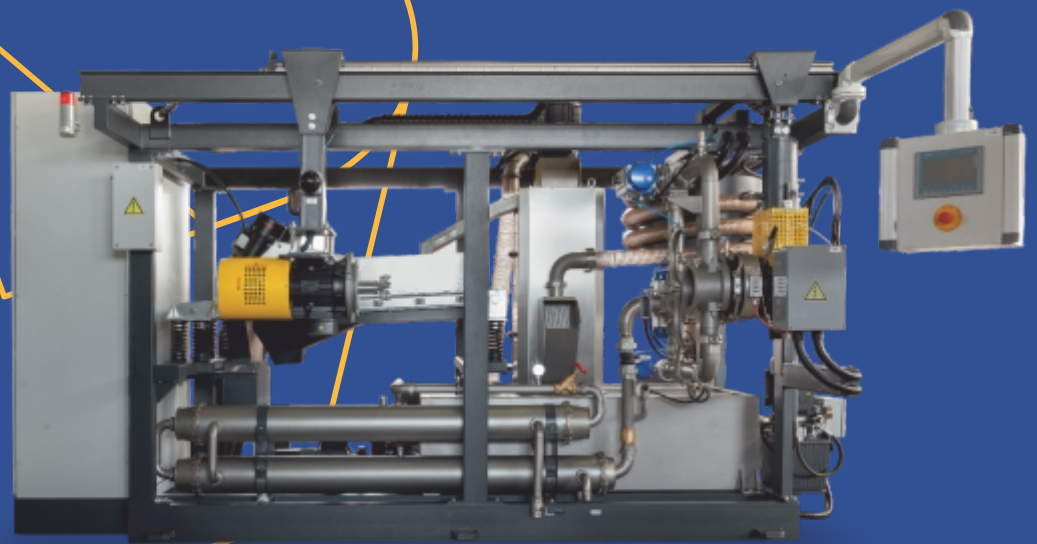


*PELLETISING SYSTEMS*  
from SIKOPLAST



Order directly from the manufacturer  
SIKOPLAST Recycling Technology GmbH

# Pelletising systems

The pelletising systems presented below are available both individually to complete third-party systems and in combination with our complete pelletising systems. The following systems are used depending on the material and throughput:

- Water-ring pelletising systems - type HAW
- Underwater pelletising systems - type UWG
- Air-cooled pelletising systems - type HG

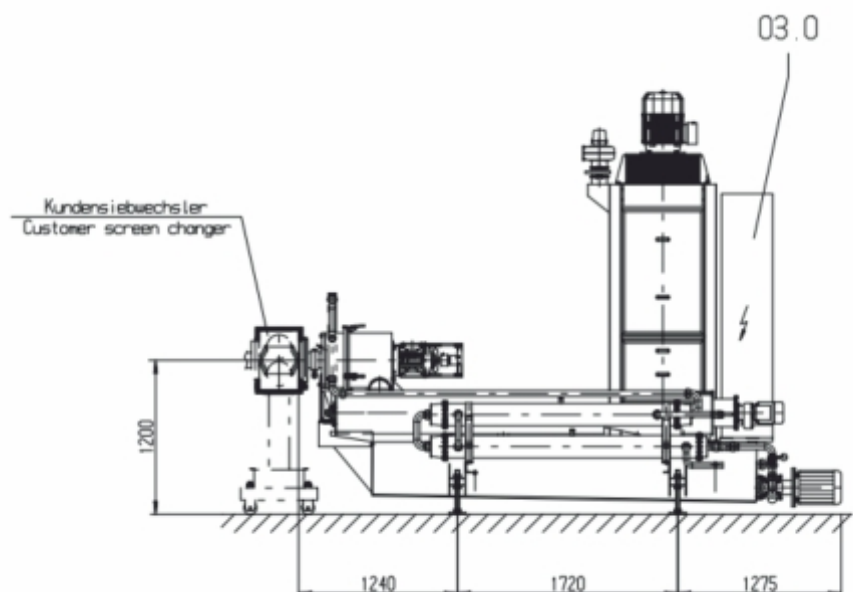


## How it works

- The homogeneous plastic melt is conveyed through a circular holed nozzle
- The molten plastic emerging from the circular holed nozzle is cut off by a rotating blade head
- The pellets are then cooled either by air or water and conveyed away
- In the subsequent cooling section or centrifugal dryer, the pellets are cooled or dried to a stable temperature
- To produce pellets of the same size, the material is passed over a screen vibration unit
- In the final stage, the pellets are filled into big bags, octabins, containers or material sacks






## Areas of application

- Pelletisation of all common thermoplastics
- Different pelletising systems cover almost any application
- Available as single component to complete existing lines or in combination with complete recycling extruders











### FEATURES OF AIR-COOLED HOT DIE FACE PELLETISING SYSTEM TYPE HG

-  up to 250 kg/h
-  Specially developed for the pelletisation of LD-PE, LLD-PE, MD-PE and HD-PE
-  The melt strands are cut into pellets. No direct use of water.
-  The pellets are conveyed away by an air stream and enters a cooling coil where it is cooled by air
-  Simple, environmentally friendly and inexpensive system











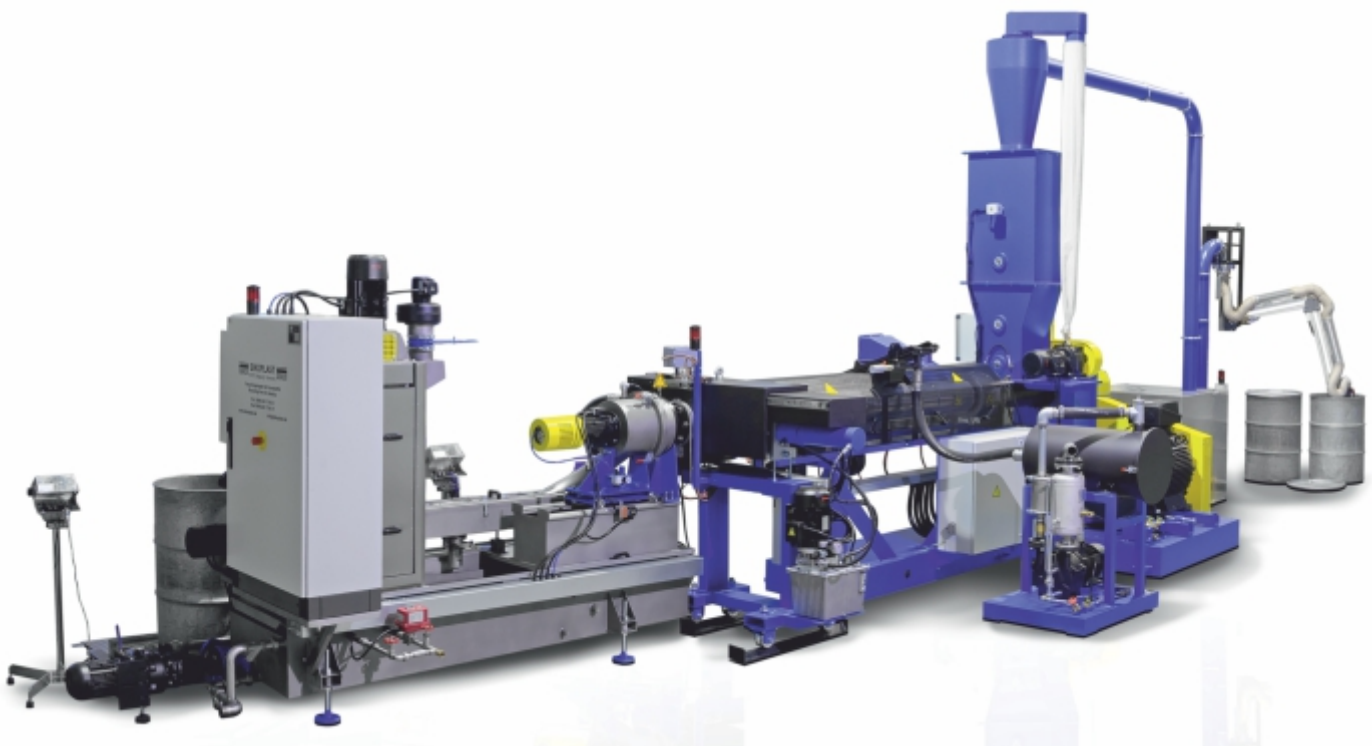
### FEATURES OF WATER-RING PELLETISING SYSTEM – TYPE HAW

-  Available for material throughputs of up to 1.300 kg/h
-  For the pelletisation of PE, PP, (E/X) PS, ABS and similar plastics
-  The melt strands are cut into pellets by a rotating blade head, picked up by the water, discharged and cooled in the process
-  A centrifugal dryer removes the residual moisture from the pellets
-  Automatic blade adjustment ensures uniform blade contact pressure with minimum blade wear
-  Simple, compact and proven system



### FEATURES OF UNDERWATER PELLETISING SYSTEM – TYPE UWG

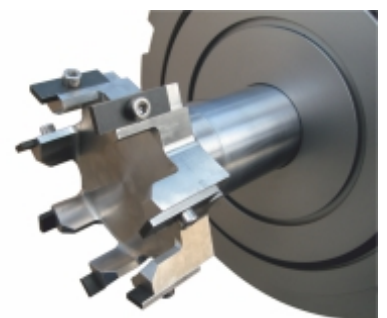
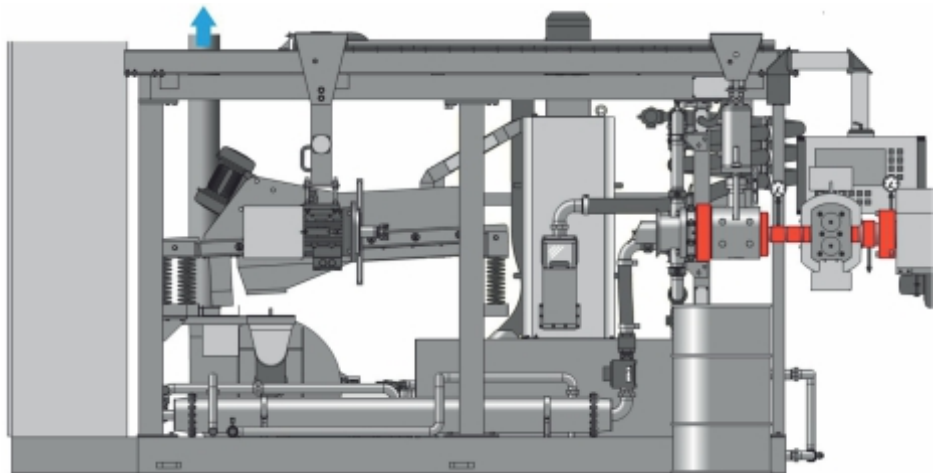
-  Available for material throughputs of up to 1.300 kg/h
-  Not only PE, PP, ABS, (E/X) PS but also PA, PET, TPU etc. can be pelletised reliably
-  User-friendly, universal system optimised to the latest technical standards
-  The melt strands are cut in the water with a rotating blade head, conveyed away with the water flow and cooled at the same time
-  A centrifugal dryer located directly behind the blade head removes the residual moisture from the pellets
-  Automatic blade adjustment ensures uniform blade contact pressure with minimum blade wear
-  Integrated diverter valve enables easy start-up of the system without smearing of the blades or freezing of the plastic melt in the circular holed nozzle
-  MFI Highly viscous plastics can be processed with ease

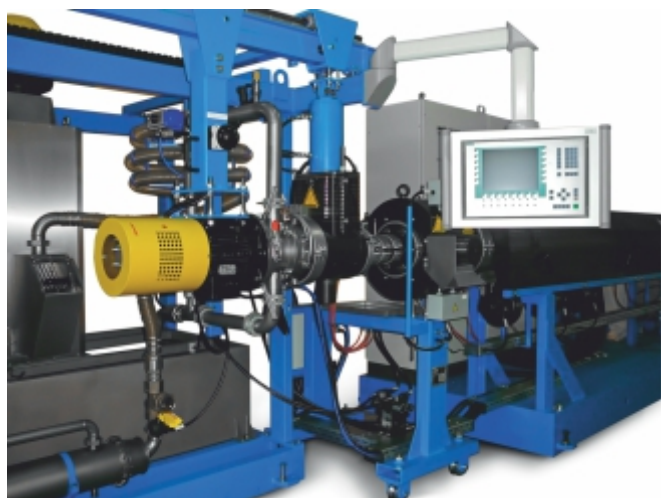
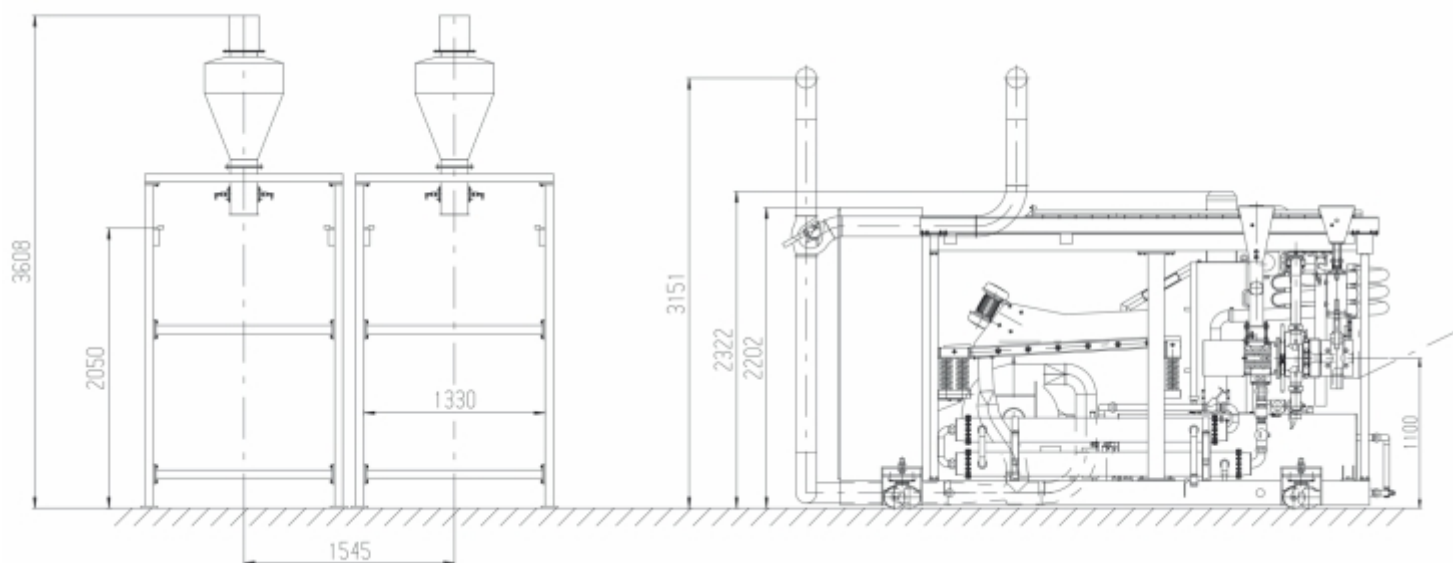


# SIKOPLAST underwater pelletising system type UWG

for the production of plastic pellets. The underwater pelletising system UWG was specially developed for use in recycling plants. Our underwater pelletising system UWG consists of the following components: diverter valve - type AFW, pelletising head - type UGK, water system - type WST.

- **AFW diverter valve:** The AFW diverter valve is located between the screen changer and the pelletising head. In the start-up position, the melt flow is diverted in front of the pelletising head and directed into the open. This serves to ensure the minimum throughput necessary for start-up with critical polymers. In the start-up position, the melt is collected in stainless steel trays. As soon as the extruder is in a stable operating state, the diverter valve is switched to production position and the polymer melt flows through the pelletising head.
- **UGK pelletising head:** consisting of the main components nozzle plate, blade head and drive unit. In this system, the blades run directly on the nozzle plate. The contact pressure of the blades is variable and can thus be adjusted according to the operating condition. The nozzle holes are arranged in a ring. The number of nozzle holes as well as the geometry is specific to the material and throughput. The process water flows directly over the nozzle and, in addition to cooling, serves to transport the pellets away. The pelletising head is divided into two parts. While the nozzle is rigidly screwed to the diverter valve, the blade head with drive hangs in an axially movable support. The support is held by the upper crossbeam. Thus, there are no disturbing superstructures in the floor area. When in operation, the two units are connected to each other by means of a quick-release fastener. A special safety switch prevents the blade from starting until the pelletising head is closed.
- **WST Water system:** for cooling, transporting and drying the pellets. Depending on requirements, the process water is routed directly past the nozzle plate (production position) or around the nozzle in a bypass (start-up position). This ensures that the water is at the nozzle plate at the right time when switching from the start-up to the production position so as to prevent the pellets from sticking together or the melt from freezing. The pellets-water mixture is then fed into a centrifugal dryer. This separates the pellets from the process water, which then flows back into the water tank integrated in the frame. In the final stage, the pellets are passed over a pellet vibration unit. This ensures that pellet chains and oversized pellets do not end up in the output product.





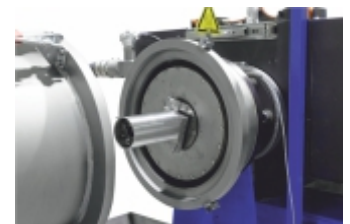
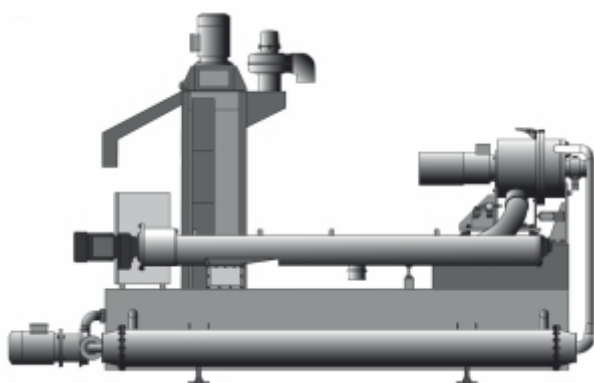
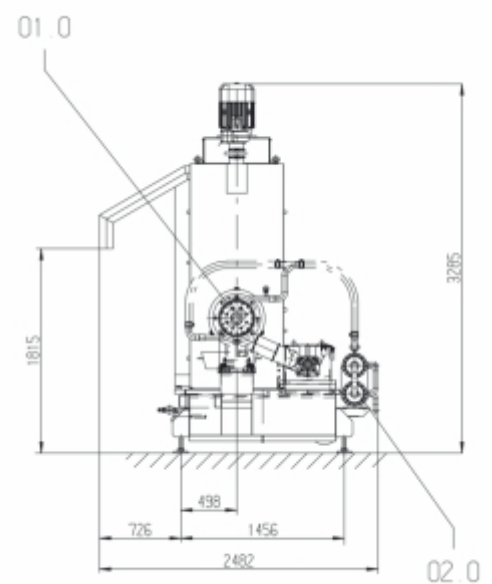
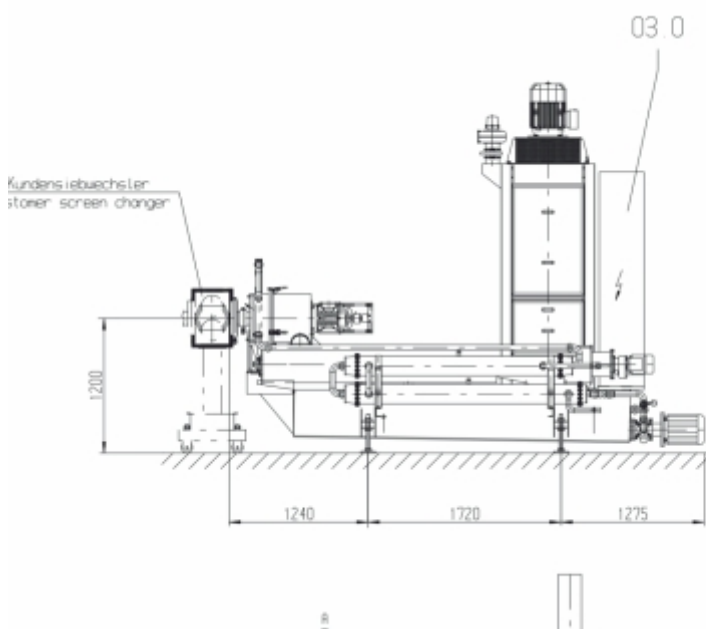
## Advantages of UWG

- Compact design, minimal space requirement
- Pelletising head in suspended carriage guide, operator-friendly, without dangerous tripping edges
- Centrifuge with split screen jacket – easy maintenance access
- AFW diverter valve: positioning of the diverter valve is monitored by sensors
- Material 1.8519
- Hydraulic switching
- Hydraulic power unit included
- Electrically heated
- UGK pelletising head: compact design – machine frame with integrated motor slide
- Self-aligning blade heads
- Safety limit switch for blade head drive – start only possible in production position
- Blade speed infinitely variable
- Piping and pelletising chamber in stainless steel design
- Electrically heated
- WST water system: bypass with electro-pneumatically operated valves
- Parts in contact with product made of stainless steel
- Centrifuge with 3-stage screen jacket. These can be dismantled separately for maintenance purposes
- Centrifuge soundproofed

# SIKOPLAST water-ring pelletising system type HAW

for pelletising plastic melts

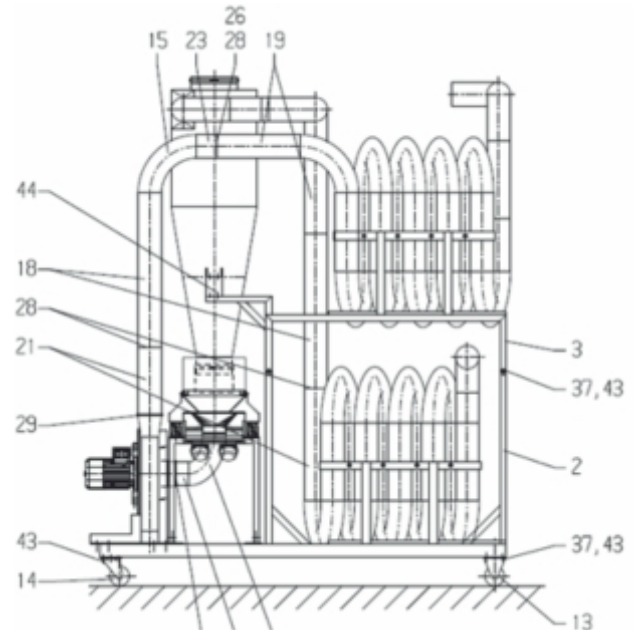
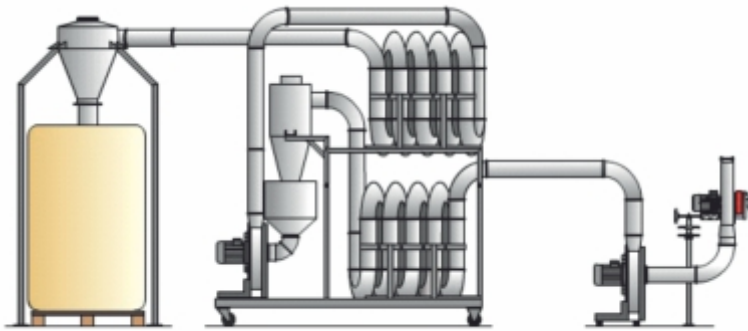
- Water-cooled pelletiser housing
- Compact design, minimal space requirement
- Easy blade change
- Pneumatic blade adjustment – automatic wear compensation
- easy handling
- Centrifuge for material dewatering included
- Integrated water tank with filter screen
- Centrifuge soundproofed
- Water return unpressurised
- Cooling rate infinitely variable



# SIKOPLAST air-cooled pelletising system type HGG

for pelletising plastic melts

- Dry pellets
- Low power requirement
- Compact design, minimal space requirement
- Easy blade change
- Easy handling
- Water-cooled pelletiser housing



## How it works

- The homogeneous plastic melt is conveyed through a circular holed nozzle
- The molten plastic emerging from the circular holed nozzle is cut off by a rotating blade head
- The pellets are then cooled either by air or water and conveyed away
- In the subsequent cooling section or centrifugal dryer, the pellets are cooled or dried to a stable temperature
- To produce pellets of the same size, the material is passed over a screen vibration unit
- In the final stage, the pellets are filled into big bags, octabins, containers or material sacks

## Features

- Available for material throughputs of up to 250 kg/h
- Specially developed for the pelletisation of LD-PE, LLD-PE, MD-PE and HD-PE
- The melt strands are cut into granules. No direct use of water
- The pellets are conveyed away by an air stream and enters a cooling coil where it is cooled by air
- Simple, environmentally friendly and inexpensive system



