



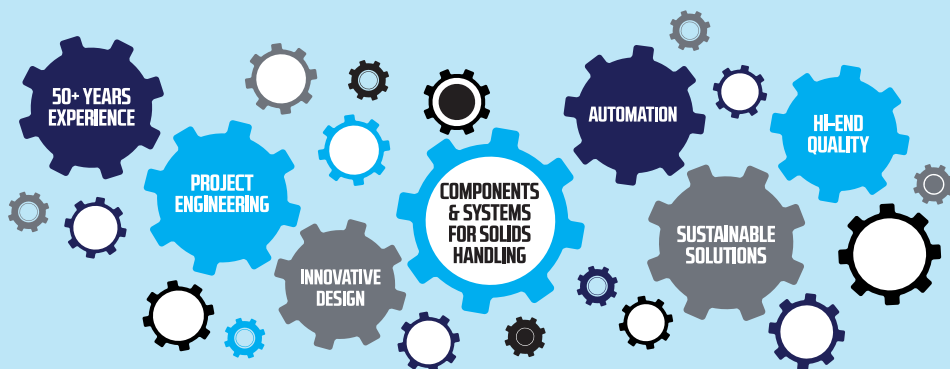
SAMPLERS

WHO WE ARE

TBMA are specialists in the design and supply of components and systems for bulk solids handling. Our extensive range of high-quality processing equipment is suitable for handling powders and granules with proven reliability in practice in a variety of processing industries.

The highly qualified and experienced TBMA staff are well able to translate your requirements into the right execution and application of our components and systems. We also offer the design and execution of complete projects, thus providing you with an efficient, reliable and sustainable solution for your process.

Solutions beyond bulk handling



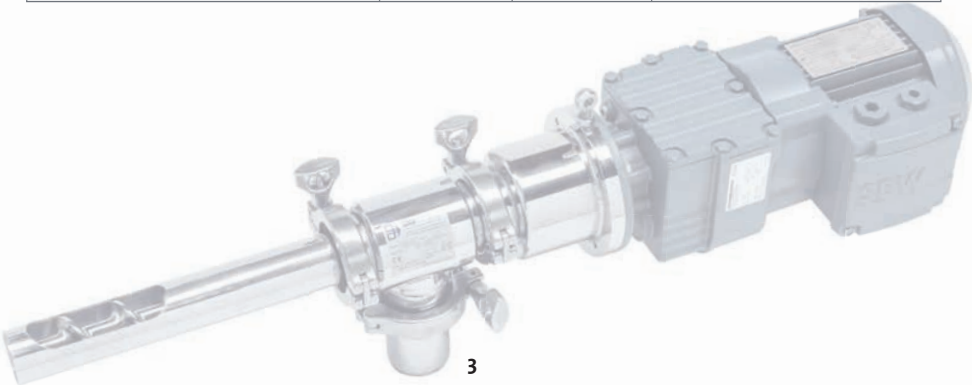
SAMPLERS

Product safety and traceability make it necessary for manufacturers to regularly test and analyse their products. A well-taken product sample allows one to easily check the quality of the product and the performance of the production process. Therefore, it is important that you can rely on representative product samples, without disrupting the production process.

TBMA offers you a complete range of automatic samplers, applicable for granules, flakes, and powders. From simple, economical versions up to high-end, Ra<0,8 polished stainless steel versions for the food and dairy industries. Our samplers are suitable for use in bunkers and down spouts and in pneumatic conveying systems. In most cases, they can also be integrated into existing systems.

SPECIFICATIONS

SAMPLERS	SRF	PTS	SPV
Powders	yes	yes	yes (free flowing only)
Granules	yes	yes	yes (free flowing only)
Flakes	yes	yes	yes (free flowing only)
Adjustable sample size	yes	no	no
High-end applications	yes	yes	no
ATEX 2014/34/EU internal	yes	no	no
ATEX 2014/34/EU external	optional	optional	optional



SRF SAMPLERS

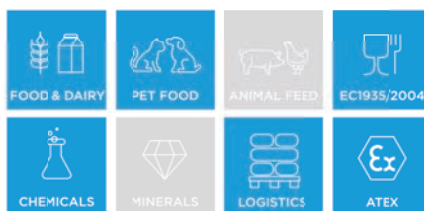
The SRF high-end automatic sampler can be used for sampling powders, granules or flakes out of down spouts lines or hoppers. Due to the use of a screw the sample size is adjustable. Also, poorly flowing products are easy to process.



The SRF consists of a 2" stainless steel 304 tube with tri-clamp connections for mounting to the drive. The inner and outer tube are divided by a Delrin tube. The sampler is easy demountable: by using tri-clamp connections the complete sampler can be easily taken out for inspection and cleaning as a whole or just partly. The outer tube can be equipped with a connection piece or directly welded into the hopper.

The precision polished finish makes this sampler the right fit for high-end applications in the food and dairy industry. The SRF is internal ATEX 2014/34/EU certified, external ATEX 2014/34/EU certified is optional.

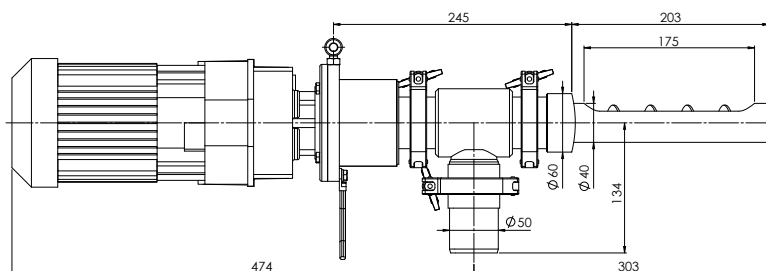
APPLICATIONS



Working principle

When starting the sequence, the auger will first turn backwards for an adjustable period to remove any possible sample material from the previously taken sample. Then it takes the actual sample during an adjustable period, depending on the required size of the sample. Gravity causes the sample to drop down into the sample jar.

SRF samplers can be supplied including a control unit, consisting of a cabinet with Siemens Logo PLC and fuses, switches, motor protector and frequency converter. The cabinet is internally wired and tested and standard suitable for a non-classified zone. This control unit is optionally available conforming to ATEX 2014/34/EU.



Dimensions in mm and for standard version.

Features

- Suitable for powders, granules, and flakes
- Adjustable sample size
- Product contact parts stainless steel 316 polished $Ra < 0,8$
- Product contact parts food approved
- Outside stainless-steel parts mirror polished
- Tri-clamp connections
- Easy demountable for easy cleaning
- Conforming to ATEX 2014/34/EU (optional)

Options

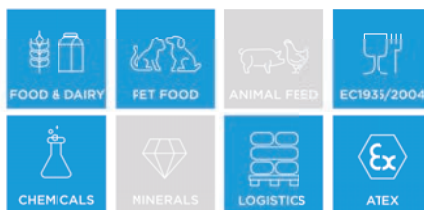
- Connection piece on outer tube (multiple sizes available)
 - Control unit
 - Extended screw
 - End bearing
 - Holder with sample jar (stainless steel or plastic)
 - Niflon coating for sticky products
- see page 10*

PTS SAMPLERS

The PTS high-end automatic sampler can be used for sampling powders, granules or flakes out of vertical or horizontal pneumatic conveying lines. It consists of a pipe section matching the diameter of the conveying line into which a stainless steel pipe is welded at a downward angle. This pipe holds a stainless steel 316 polished tube with bevelled and rounded end, ensuring that the end of the sampling tube does not interrupt the product flow when not in use.



APPLICATIONS



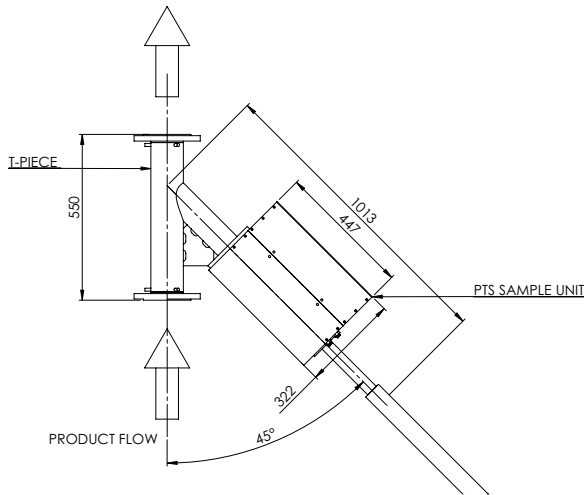
Working principle

When starting the sampling cycle, the sampling tube is moved inside the product stream by means of a pneumatic cylinder. The product sample is taken from the line by an opening in the sampler tube.

The overpressure in the pneumatic transport system facilitates a smooth flow of the sample into the sampling jar, which is at ambient pressure.

The sample jar holder is equipped with a pressure indicator and a manual valve with filter socket to depressurise the sampling system before disconnecting the sample jar.

PTS samplers can be supplied including a control unit, consisting of a cabinet with Siemens Logo PLC and fuses, switches, motor protector and frequency converter. The cabinet is internally wired and tested and standard suitable for a non-classified zone. This control unit is optionally available conforming to ATEX 2014/34/EU.



Dimensions in mm and for standard version.

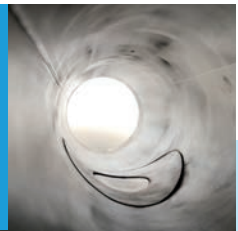
Features

- Suitable for powders, granules, and flakes
- Product contact parts food approved
- Conforming to ATEX 2014/34/EU (optional)

Options

- Control unit
 - Holder with sample jar (stainless steel)
 - Niflon coating for sticky products
- see page 10

Inside of tube.
Sampling tube
not in use.



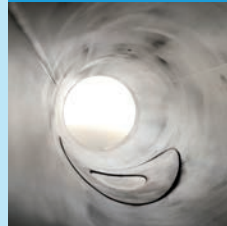
Sampling cycle
starts: sampling
tube moves into
product stream.



Sampling tube
is fully out and
ready to take a
product sample.



Sampling tube
back to rest
position.

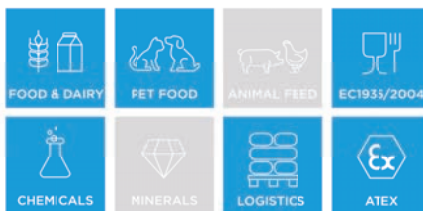


SPV SAMPLERS

The SPV automatic sampler can be used for sampling free flowing powders, granules or flakes out of down spouts. It consists of a pipe section matching the diameter of the conveying line with a permanent, inclined sampling tube. Due to the angle of the tube, the sampled product must be free flowing. The tube has a longitudinal sample slot on one side. When not in use, the slot is facing down.



APPLICATIONS



Working principle

When the sampler is activated, the pneumatic torque cylinder rotates the sample tube until the sample slot faces upwards. (1)

Material enters the sampler through the sample slot and gravity causes the sample to slide down into the sample jar.

After sampling, the sample tube is rotated back until the sample opening is facing down. (2)

Material will pass the sample tube without being extracted.

SPV samplers can be supplied including a control unit, consisting of a cabinet with Siemens Logo PLC and fuses, switches, motor protector and frequency converter. The cabinet is internally wired and tested and standard suitable for a non-classified zone.

This control unit is optionally available conforming to ATEX 2014/34/EU.



1



2

OPTIONS

OPTIONS	SRF	PTS	SPV
Control unit	yes	yes	yes
Sample jar including holder	yes	yes	yes
Connection piece	yes	yes	no
Extended screw	yes	no	no
End bearing	yes	yes	no



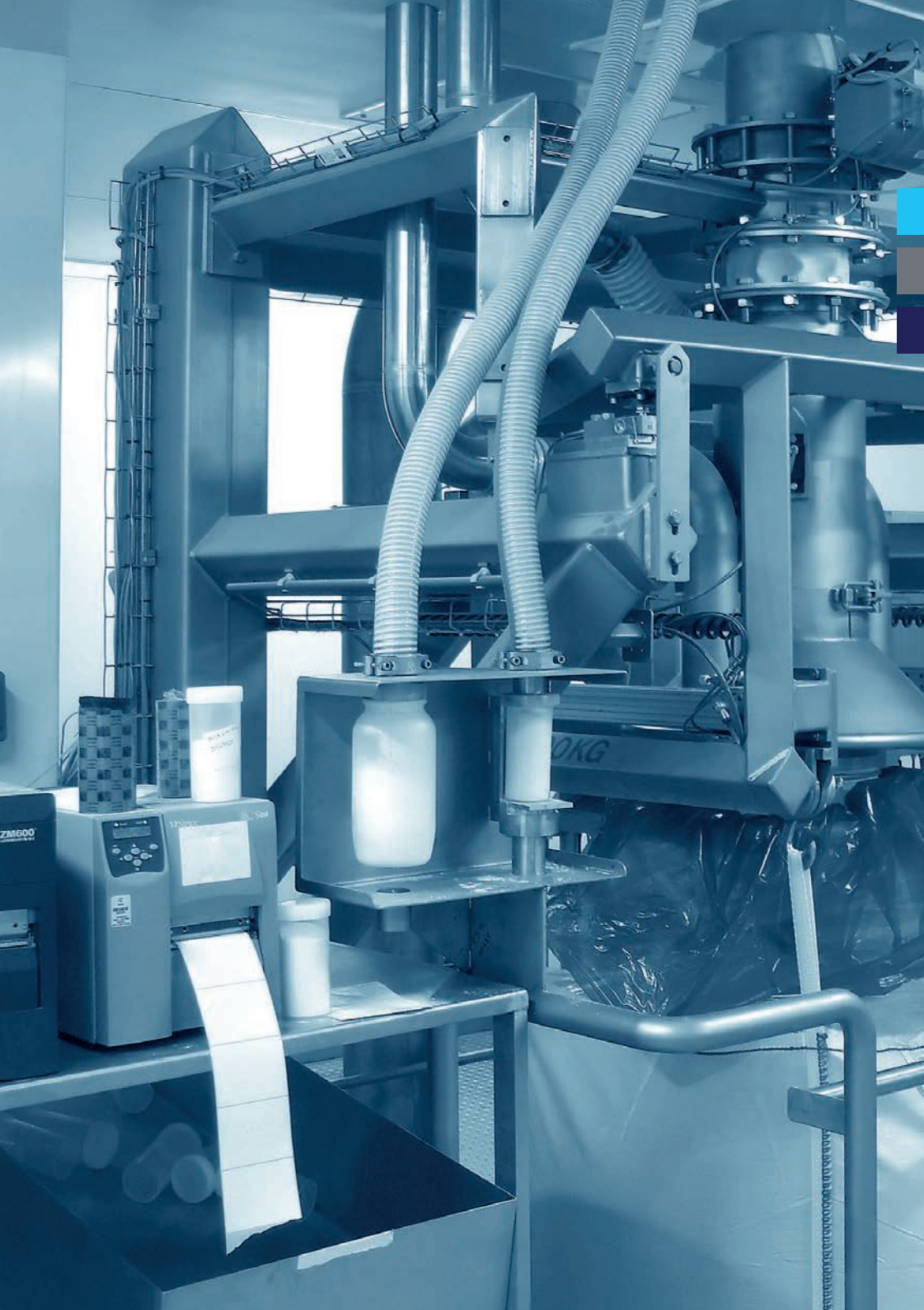
control unit



connection piece



sampler jar



COMPONENTS

SYSTEMS

PROJECTS

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