

PolyLine[®] Polymer preparation and dosing systems



The simple solution
for water treatment



Low-cost investment

Economical operation

Simple commissioning

Safe process and operation

Easy to operate

Customer-specific-solutions

Modular system with extensive accessories

Compact PLC with Touch-Screen

The simple and efficient solution for water treatment

Polymer preparations are used everywhere where the sedimentation or flotation of suspended solids in water has to be fastened, and where the dewatering behavior of thickened sludge has to be improved, such as in the waste water treatment, paper industry, water treatment and sludge dewatering.

The PolyLine® by **sera** is a series of easy and flexible, as well as economic and efficient systems, for the preparation of polymers. The series covers preparation systems which can be run with dry or liquid polymers.

The systems are equipped with a precise flow through measurement for the solution preparation and fluid level measurement, to ensure the economic operation of the systems.

The polymer preparation and dosing systems of the PolyLine® series are specially designed for the production of polymer-derived solutions and stock solutions.

Applications can be found in the following areas:

- Sludge dewatering/ -conditioning
- Waste water treatment
- Paper Industry
- Treatment of drinking water
- Chemical industry
- Treatment of industrial water
- Power plant
- Shipbuilding

Product features:

- Modular customer- and application-specific polymer system
- High-quality PP tank
- Versatile application: Solid, liquid or a combination of solid/ liquid polymer
- High process efficiency by dissolving the prepared polymer almost completely
- Exact preservation of the solvent concentration through reproducible calibration of the dry-material dosing feeder or the liquid concentrate pump
- Low-maintenance level measurement by continuous and contact-free ultrasonic sensor
- Ease of operation via a compact PLC with integrated process visualization and touchscreen
- Modular construction can be optionally expanded with many items from the sera product range according to specific needs of the customer
- Available as ex-design



Ideally matured polymer economical, safe to operate and efficient

Advantages in an overview:

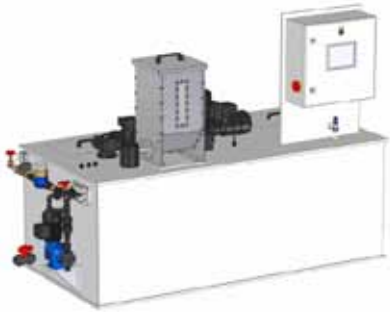
- Economical and high process efficiency
- Ideally matured polymer and thus low product carryover
- Durable and robust systems
- Compact PLC with touchscreen and process visualization according to industrial standard
- Simple installation and start-up through the use of industrial standards at the interfaces
- High flexibility for customer- and application-specific solutions
- Modularly extensible by versatile options and accessories
- Possible combinations with other systems and **sera** products or pump types (e. g. eccentric screw pumps)
- Suitable for applications in potentially explosive areas (ATEX)

Customer benefits:

- Low-cost investment
- Economical operation
- Safe process and production
- Short delivery times
- Ideally designed as per customer request and application
- Robust and durable industrial construction
- Easy commissioning and operation
- High product quality
- Everything from a single source



PolyLine® - Flow



With the 3-chamber system, the polymer is dissolved with water in the first chamber. The product then matures in the second chamber. The prepared solution is transferred into the third chamber via the overflow and then removed. Since the process fits optimally to the demand, a product carryover is kept at a minimum.

PolyLine® - Swing



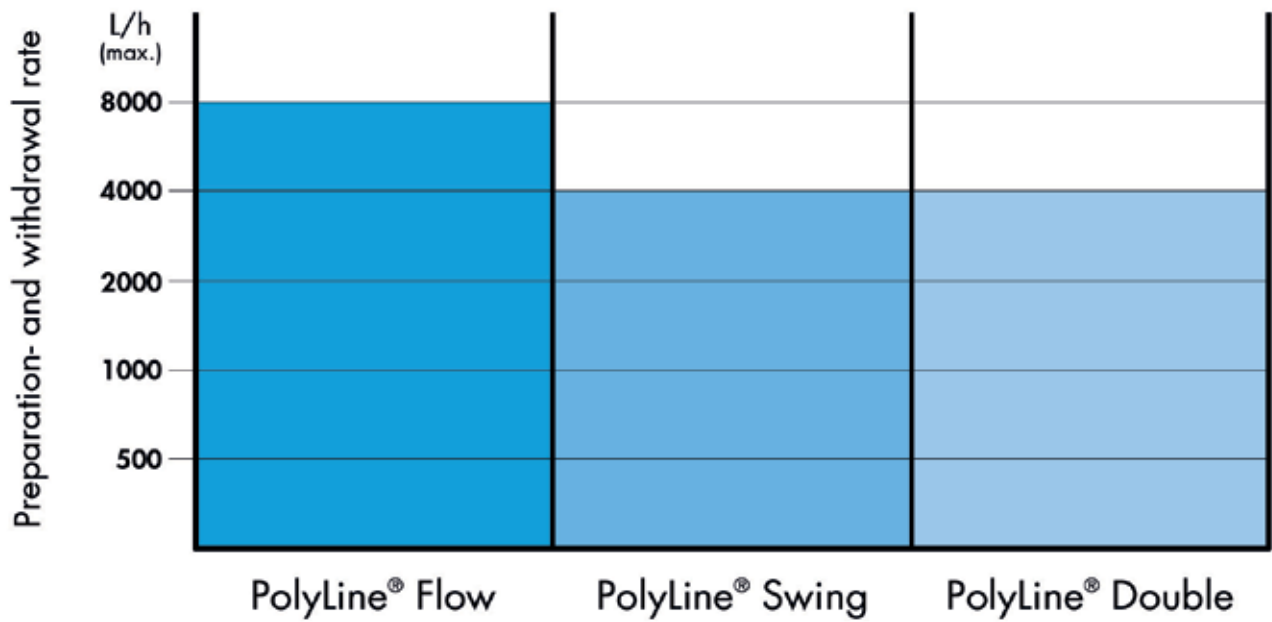
The tank of the batch system consists of 2 separate chambers. The polymer solution is prepared successively in the chambers. After a defined maturing time, the polymer solution can be used. Product carryover is ruled out.

PolyLine® - Double



In the case of the double-decker variant, the chambers are installed one above the other. Preparation of the polymer is effected in the top chamber. The matured product is drained into the lower chamber after the maturing time has ended. Because of this process, a product carryover is prevented.

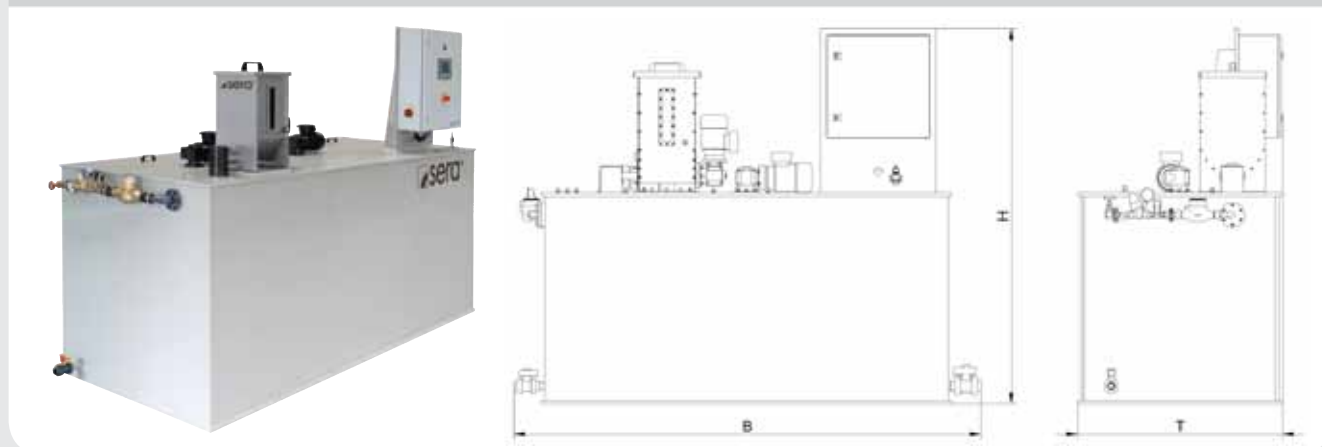
Performance range



Designs of PolyLine® Preparation- and Dosing units: „S“, „L“ and „SL“

S = (Polymer: solid) L = (Polymer: liquid) SL = (Polymer: solid and liquid)

PolyLine® - Flow



3 Chamber unit

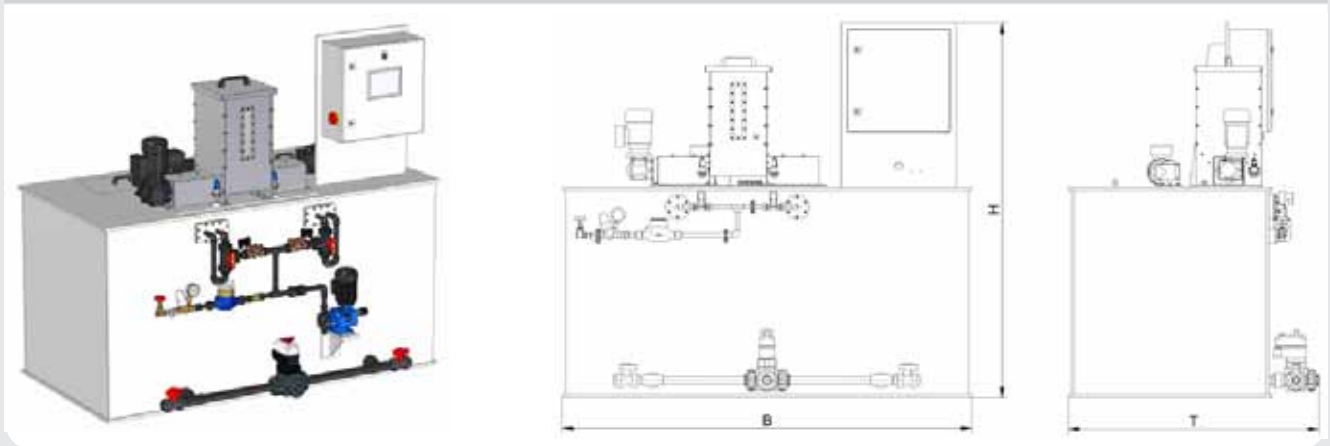
Type	Version	Tank volume	System volume	Polymer concentration	Viscosity	System rating(*)	Maturing time
PolyLine® Flow 500	S (Solid)	500L	500L	0,05..1%	500mPas	500L/h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						
PolyLine® Flow 1000	S (Solid)	1000L	1000L	0,05..1%	500mPas	1000L/ h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						
PolyLine® Flow 2000	S (Solid)	2000L	2000L	0,05..1%	500mPas	2000L/ h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						
PolyLine® Flow 4000	S (Solid)	4000L	4000L	0,05..1%	500mPas	4000L/ h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						
PolyLine® Flow 8000	S (Solid)	8000L	8000L	0,05..1%	500mPas	8000L/ h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						

Type	Version	H(**)	B	D	Weight kg ca.	Connection removal	Connection supply
PolyLine® Flow 500	S (Solid)	1550	1990	990	225	DN25	DN15
	L (Liquid)				210		
	SL (Liquid & Solid)				245		
PolyLine® Flow 1000	S (Solid)	1550	1990	990	225	DN25	DN15
	L (Liquid)				210		
	SL (Liquid & Solid)				245		
PolyLine® Flow 2000	S (Solid)	1820	1990	990	260	DN32	DN15
	L (Liquid)				240		
	SL (Liquid & Solid)				275		
PolyLine® Flow 4000	S (Solid)	2110	2990	1280	440	DN40	DN25
	L (Liquid)				420		
	SL (Liquid & Solid)				465		
PolyLine® Flow 8000	S (Solid)	2330	4000	1570	740	DN50	DN25
	L (Liquid)				720		
	SL (Liquid & Solid)				765		

(*) depending on maturing time (**) depending on the construction head of the dry material feeder

Technical data

PolyLine® - Swing



2 Chamber pendulum unit

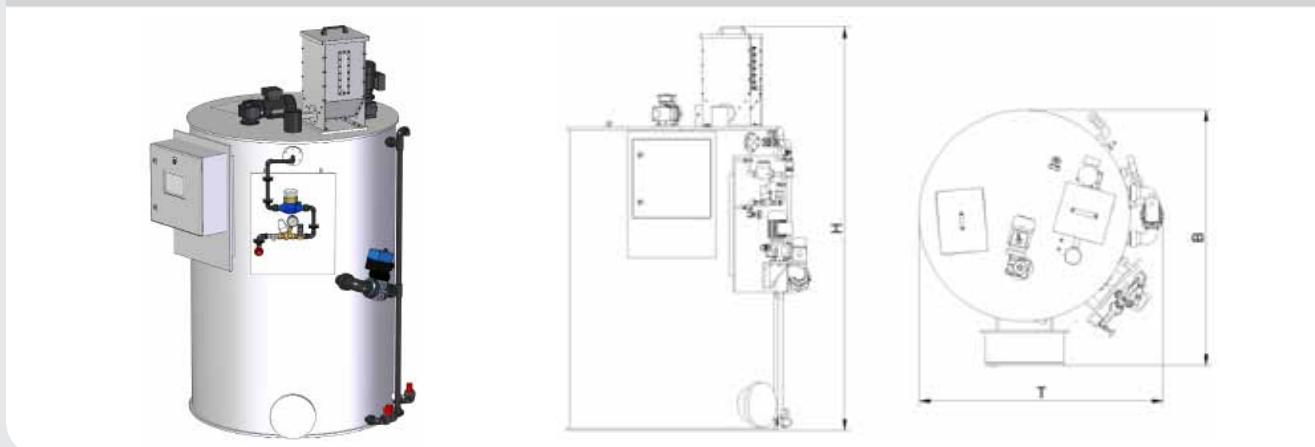
Type	Version	Tank volume	System volume	Polymer concentration	Viscosity	System rating ^(*)	Maturing time
PolyLine® Swing 500	S (Solid)	2 x 500L	1000L	0,05..1%	500mPas	500L/h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						
PolyLine® Swing1000	S (Solid)	2 x 1000L	2000L	0,05..1%	500mPas	1000L/ h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						
PolyLine® Swing 2000	S (Solid)	2 x 2000L	4000L	0,05..1%	500mPas	2000L/ h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						
PolyLine® Swing 4000	S (Solid)	2 x 4000L	8000L	0,05..1%	500mPas	4000L/ h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						

(*) depending on maturing time

Type	Version	H ^(**)	B	D	Weight kg ca.	Connection removal	Connection supply
PolyLine® Swing 500	S (Solid)	1550	1990	1210	240	DN25	DN15
	L (Liquid)				230		
	SL (Liquid & Solid)				260		
PolyLine® Swing1000	S (Solid)	1820	1990	1220	245	DN32	DN15
	L (Liquid)				230		
	SL (Liquid & Solid)				260		
PolyLine® Swing 2000	S (Solid)	2110	2990	1520	280	DN40	DN15
	L (Liquid)				260		
	SL (Liquid & Solid)				300		
PolyLine® Swing 4000	S (Solid)	2330	4000	1520	460	DN50	DN25
	L (Liquid)				440		
	SL (Liquid & Solid)				480		

(**) depending on the construction head of the dry material feeder

PolyLine® - Double



2 Chamber unit

Type	Version	Tank volume	System volume	Polymer concentration	Viscosity	System rating ^(*)	Maturing time
PolyLine® Double 500	S (Solid)	2 x 500L	1000L	0,05..1%	500mPas	500L/h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						
PolyLine® Double1000	S (Solid)	2 x 1000L	2000L	0,05..1%	500mPas	1000L/ h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						
PolyLine® Double 2000	S (Solid)	2 x 2000L	4000L	0,05..1%	500mPas	2000L/ h	45 Min.
	L (Liquid)						
	SL (Liquid & Solid)						

(*) depending on maturing time

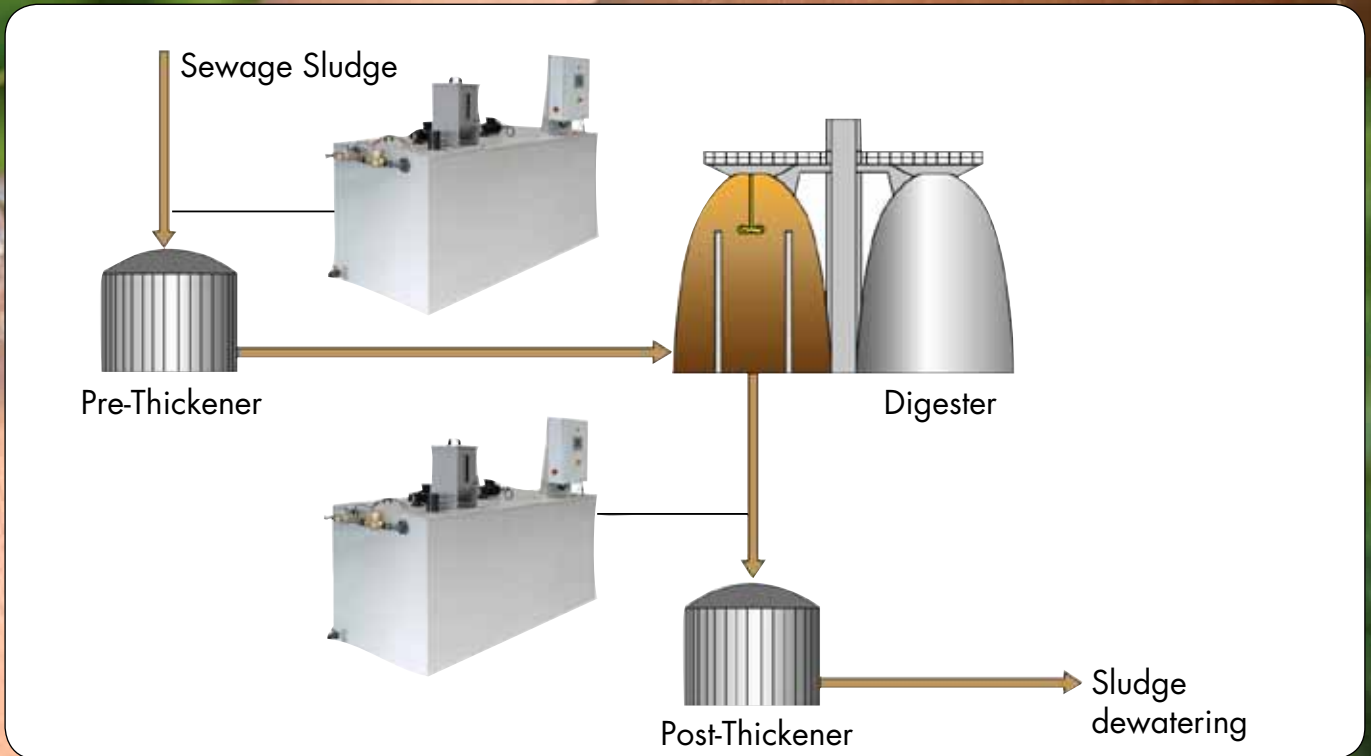
Type	Version	H ^(**)	B	D	Weight kg ca.	Connection removal	Connection supply
PolyLine® Double 500	S (Solid)	2000	1400	1300	270	DN25	DN25
	L (Liquid)				240		
	SL (Liquid & Solid)				290		
PolyLine® Double1000	S (Solid)	2600	1600	1500	300	DN25	DN25
	L (Liquid)				280		
	SL (Liquid & Solid)				340		
PolyLine® Double 2000	S (Solid)	3000	1800	1700	380	DN32	DN25
	L (Liquid)				360		
	SL (Liquid & Solid)				410		

(**) depending on the construction head of the dry material feeder

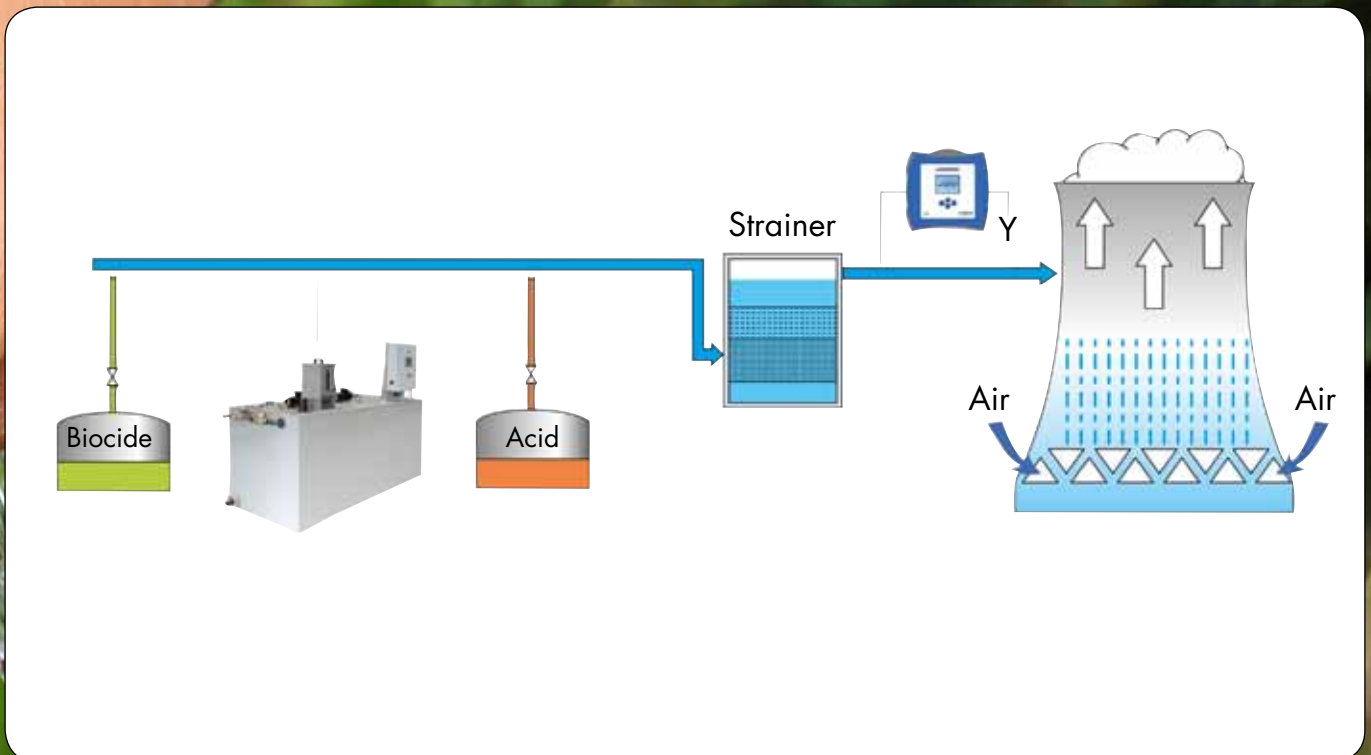
Examples of application



Water preparation sludge thickening:



Cooling water preparation additional water:



Locally present for our global customers

With a headquarter in Germany and local offices in England and South Africa and a worldwide sales and service network with more than 30 foreign representatives in more than 80 countries across all continents, sera guarantees optimum support for customers locally.



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