

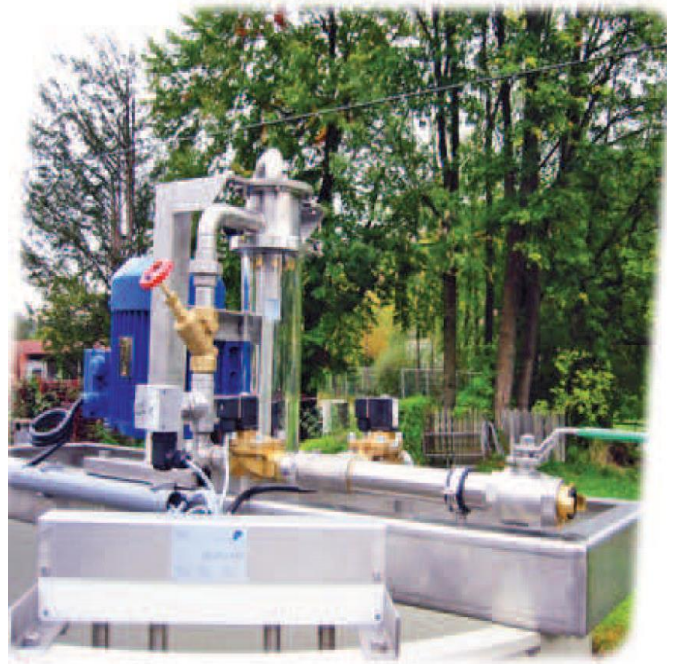
INDIVIDUAL AND FULLY DEVELOPED: ACAT Bentonite & Polymer Systems

In the beginning, polymers and bentonites were the first pillars of the newly founded ACAT. But soon the question arose, wouldn't it make strategic sense to combine the long experience and knowledge of our employees in paper production and the environmental sector with the corresponding system technology, to offer customers complete solutions ?. The combination of systems engineering and chemical products, together with the expertise and experience of our employees should lead to very good results. And it was just as expected!

First, larger plants were provided or bought from our former supplier "Allied Colloids", but soon our employees took the first steps in stand-alone construction of smaller units in backyards and garages. The pioneering work in this field was performed by our "veteran" in plant construction par excellence, Bernhard Anzenberger, together with the active support of the Heads of Departments of Paper and Environment Technology, Theo Weinbrenner and Erich Sailer.

In 1998, the targeted expansion of the ACAT marketing activities in machinery and plant engineering resulted in the establishment of a new department. Two years later we bought the engineering and logistics centre in Scheibbs NÖ and adapted it.

In addition to the logistics our polymer-dissolution stations and our bentonite systems with the associated switch cabinets,



Das JetWet System der „Mercedes“ unter den Polymeranlagen

were manufactured in Scheibbs. The great advantage of our small production plant is to meet special customer needs and to fulfil most wishes based on the existing technology.

“The strength of our team is to meet special customers’ needs and to fulfil almost every wish on the basis of the existing technology.”

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Polymer Systems in Jet-Wet-and in dispersing technology and for liquid polymer systems

In general polymer systems are distinguished with regard to the dissolving technique used. There are the two techniques, the jet-wet and the dispersion technique. To eliminate unnecessary sources of error sequence and structure, the systems are kept as simple as possible. Therefore chosen control systems Siemens LOGO or Moeller Titan are completely sufficient. On request PLC systems can also be installed but they are not really necessary. For the integration into a DCS system, these systems are supplied without any control.

Polymer systems as well as bentonite systems are designed for a continuous 24-hour operation.

Wetting quality of powdered polymers is decisive

The difference between the two polymer powder systems is the wetting of the polymer. In the case of dispersing technique the powder is conveyed via a screw directly into the disperser and is wetted with water. The powder is dissolved by stirring in the container. This method is often used in municipal wastewater treatment plants.



PolyJet® PPU-1 Disperser ; Doppelbehälter

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Polyelectrolyte solutions in paper mills are of a very high standard. Mostly the "Mercedes" the JetWet system is used there. The powder polymer is conveyed with a screw into a venturi tube and then blown with a fan into the head of the JetWet. The fine distribution of the powder ensures a better and more effective wetting in the JetWet head. Larger amounts of polyelectrolyte solution can be prepared. In disperser technique they are limited.

In both systems the necessary dwell time is achieved in a storage tank. With the help of a transfer pump the polyelectrolyte solution is pumped from the dissolution tank into the storage tank.

We also provide systems for liquid polymers. In a pot with a rapid stirrer the liquid polymer is mixed with water. If this pot is full, the solution will run into a storage tank.



This system is also available in different sizes. In all systems a maximum concentration of the polymer solution of about 1.0 percent has to be observed. Both small and big bag handling systems are

ACAT-bentonite systems in two sizes

The Bentonite systems (SlurryJet™ ABA) are based on a continuous flow system. The preparation of the bentonite slurry is ensured by a system with different agitators. The maximum concentration of the slurry is four percent. ACAT offers two sizes depending on production quantity.

The SlurryJet™ ABA with an output up to 7000 litres / h slurry has a 3-chamber continuous flow system with four special agitators. The bentonite is transported into the agitation chamber with a screw. The "little brother" of the SlurryJet™, the SlurryJet™ Small with a capacity up to 2500 l / h slurry has a two-chamber system equipped with two agitators.

The SlurryJet® Small has a capacity up to 2500 l / h slurry and a two-chamber system equipped with two agitators.

Details can be designed on customer request.

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For the polymer and bentonite processing plants special dosing systems can be offered providing dilution to the desired polymer / bentonite concentration and easy dosing. Especially in this sector there are possibilities, which recently are at the planning stage. Some of them have been realized in pilot projects and trials were carried out together with customers.

Our excellent team, consisting of "old hands", who have dealt with these techniques for over 25 years and of young engineers who will help to develop innovative systems for the future.

The strength of this team is the development of individual customer specific solutions. For more detailed information please contact our sales and systems engineers.