

SHEET NUMBER 29348 BELT PRESS

AJM HUNTSMAN MODEL 1500 DIMENSIONS WIDTH 2,000 MM, LENGTH 6,900 MM, HEIGHT 2,600 MM NAMEPLATE VELO SPA PRMC 400—V6647 DATE 1998 VELO -BREVETTATE ALTIVOLE TV.

FIVE SECTIONS—

SLUDGE MIXING SECTION.

PRE-DEWATERING [ROTARY DEWATERING] SECTION.

GRAVITY DEWATERING SECTION.

COMPRESSOR [LOW PRERSSURE] DEWATERING SECTION.

HIGH PRESSURE [SHEAR] DEWATERING SECTION.



**CHAPTER 7 PAGE 41 SHOWROOM MS 9
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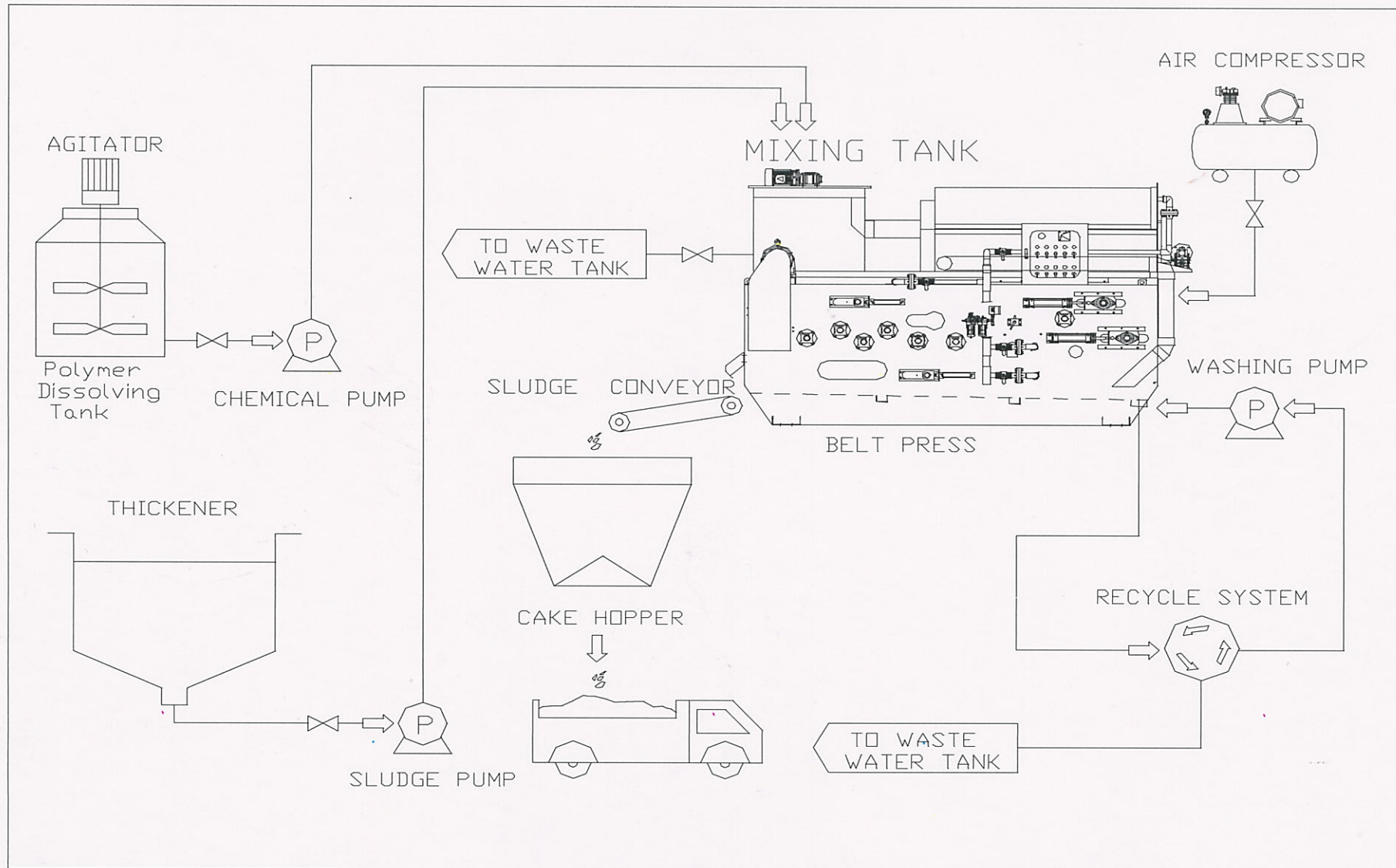
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2.2 Flow Sheet



2.0 Process Description

2.1 Procedures for Treatment

There are five steps involved in the AJM Huntsman 1500;

- Step one → Sludge Mixing Section.
- Step two → Pre-Dewatering (Rotary Dewatering) Section.
- Step three → Gravity Dewatering Section.
- Step four → Compression (Low Pressure) Dewatering Section.
- Step five → High Pressure (Shear) Dewatering Section.

Sludge Mixing Section

The Sludge flows into the flocculation tank where it is added with polymer and mixed. The flocculated sludge develops a free water phase.

Pre-Dewatering (Rotary Dewatering) Section

After the sludge is thickened and conditioned, it enters the rotary screen filter and is tossed and agitated in the trommel. A lot of free water is separated from the sludge mixture.

Gravity Dewatering Section

After the trommel, the sludge is deposited onto the upper belt. The sludge dewateres slightly by gravity alone. This is aided by the vibration of the moving belt. Then the sludge drops onto the filter cloth and enters the compression dewatering chamber.

Compression (Low Pressure) Dewatering Section

The sludge then passes gradually through compression dewatering and is compressed into a wedge-shape. It then passes into the high pressure (shear) dewatering section.



High Pressure Dewatering Section

The sludge enters the high pressure dewatering section and a number of S type rollers form the sludge cake. The sludge becomes sludge cakes because of the high-pressure shear force generated between the two cloths. This is the final dewatering of the sludge after which the dry cake is fed out of the press.

