



Tower Diffuser Assembly



Water Feeding in Drive House



Tower Diffuser

The tower diffuser is one of the two key elements in a Maguin juice extraction installation.

Maguin diffusion is based on technology acquired from Buckau Wolf. It stands out thanks to its **extreme working reliability** and its **ease of operation**, which have been recognised by all its users since 1954.

Maguin offers complete diffusion installations or stand-alone tower diffusers.

MAIN FEATURES

- / minimal need of floor space compared with other types of diffusion systems
- / high mechanical resistance of fixed arms for high capacity running
- / no need to fill the shaft with a water load on common sizes
- / extendable extraction height
- / minimal maintenance
- / civil works minimised
- / mechanical reliability superior to all other systems and long service-life
- / installation outside a building in all climates

ADVANTAGES

- / tried-and-tested, renowned technology
- / wide range from 3000 to 16000 t/d
- / flexible capacity up to 120% of nominal rate
- / a high rate of dry substance of pulp at the diffusion outlet: DS above 10%
- / No risk of clogging the separation screens, no dead-centres and infection risks associated



TECHNICAL DETAILS

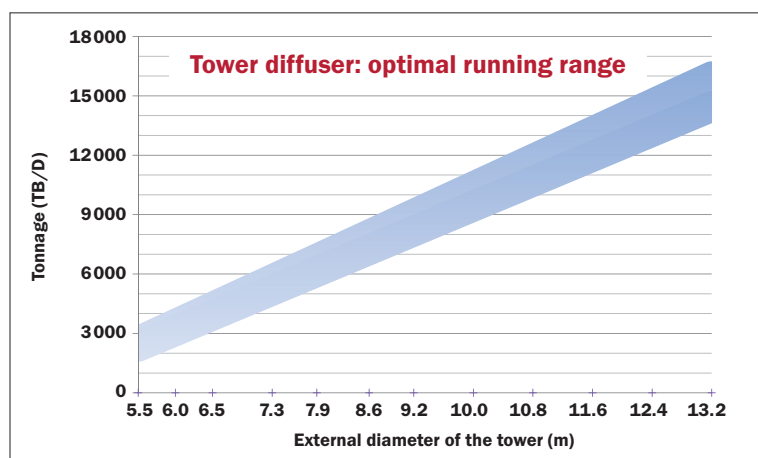
The cossettes are fed in at the bottom of a vertical cylinder in which a shaft fitted with flights turns. The movement thus created conveys the cossettes to the top. An extraction liquid flows **counter currently** making it possible to extract the sugar of the cossettes by **osmosis**.

The main aspects are:

The fresh water, the press water and the biocide are fed separately into the shaft axis allowing **for a uniform radial distribution** across the entire surface of the bed thanks to the rotation.

The juice/cossette mix is distributed across a **horizontal bottom screen** using several channels via the central rotating shaft. The cleaning of the screen is carried out continuously by a scraper and the rotation of the cossettes without any risk of clogging. With its **large filtering surface**, this system **eliminates any risk of infection** at this level in contrast to a system with lateral screens.

The design of the tower base makes it possible to **reduce civil works strain**. This design also eases access for maintenance. More conventionally, the tower has a drive made up of a ring gear and multiple gear boxes, individually driven by variable speed motors.



Top part of tower section view



Cossette feeding section view

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