

蒸解設備のメンテナンス パネルディスカッション

2024年4月16日

バルメット株式会社

パルプ&エネルギー設備

山下 宏

梅村 謙二

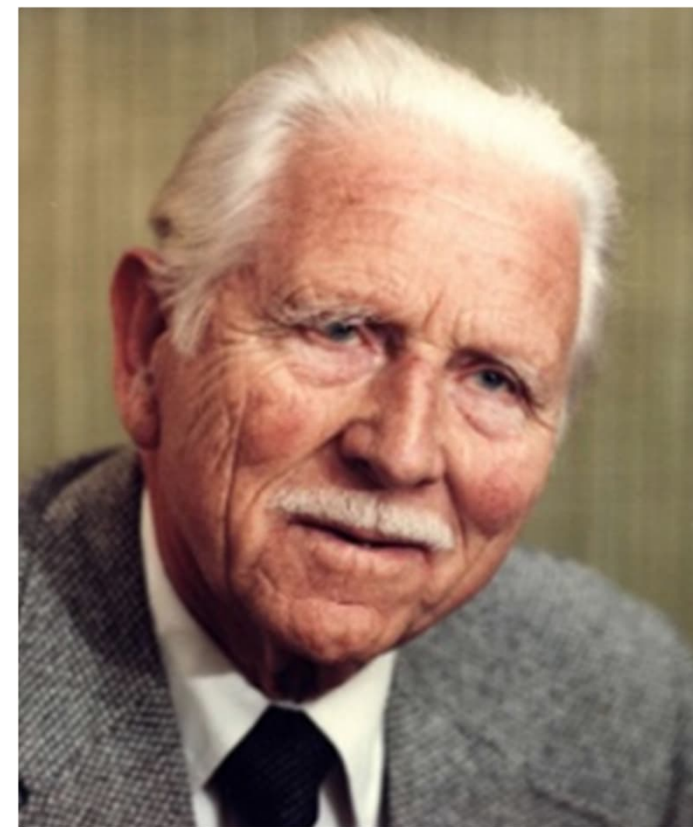
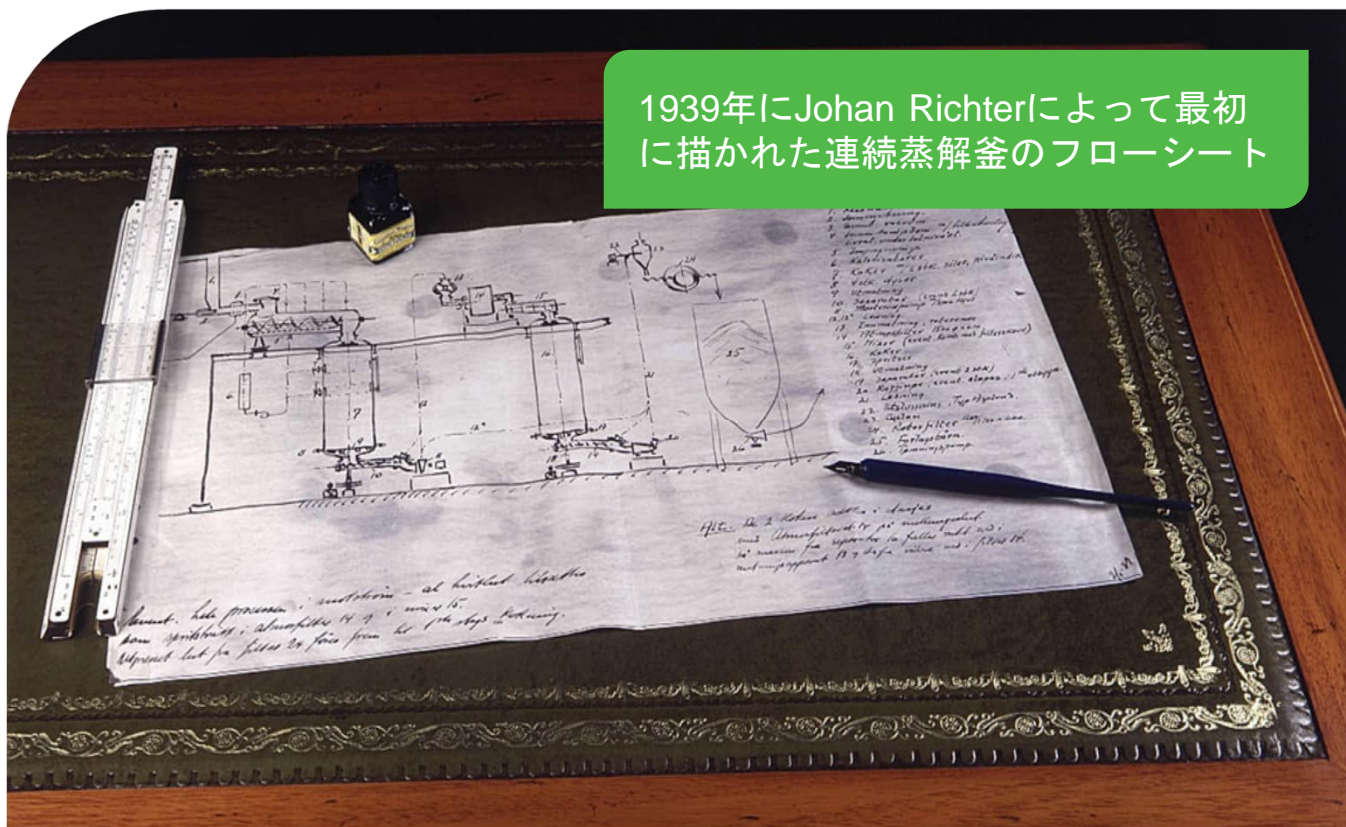
倉持 守男



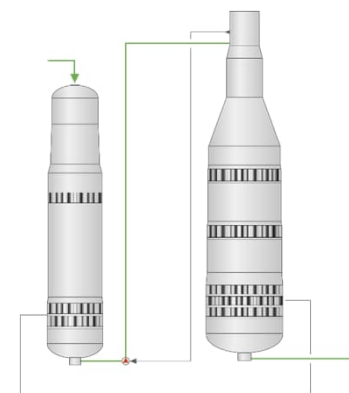
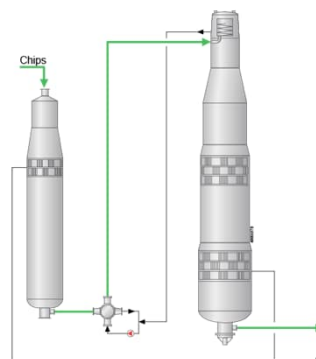
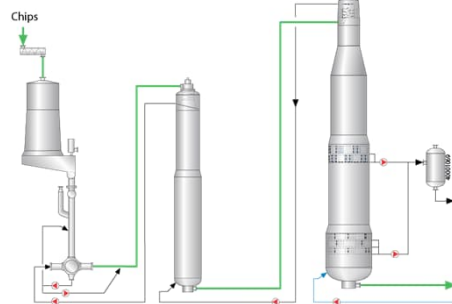
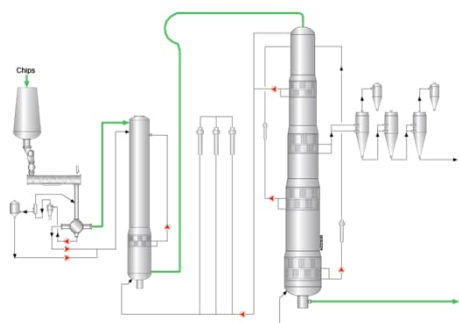
連続蒸解釜

バルメットは連続蒸解釜を世界で始めた開発、実用化したメーカー

1939年にJohan Richterによって最初に描かれた連続蒸解釜のフローシート



蒸解プロセスの変遷



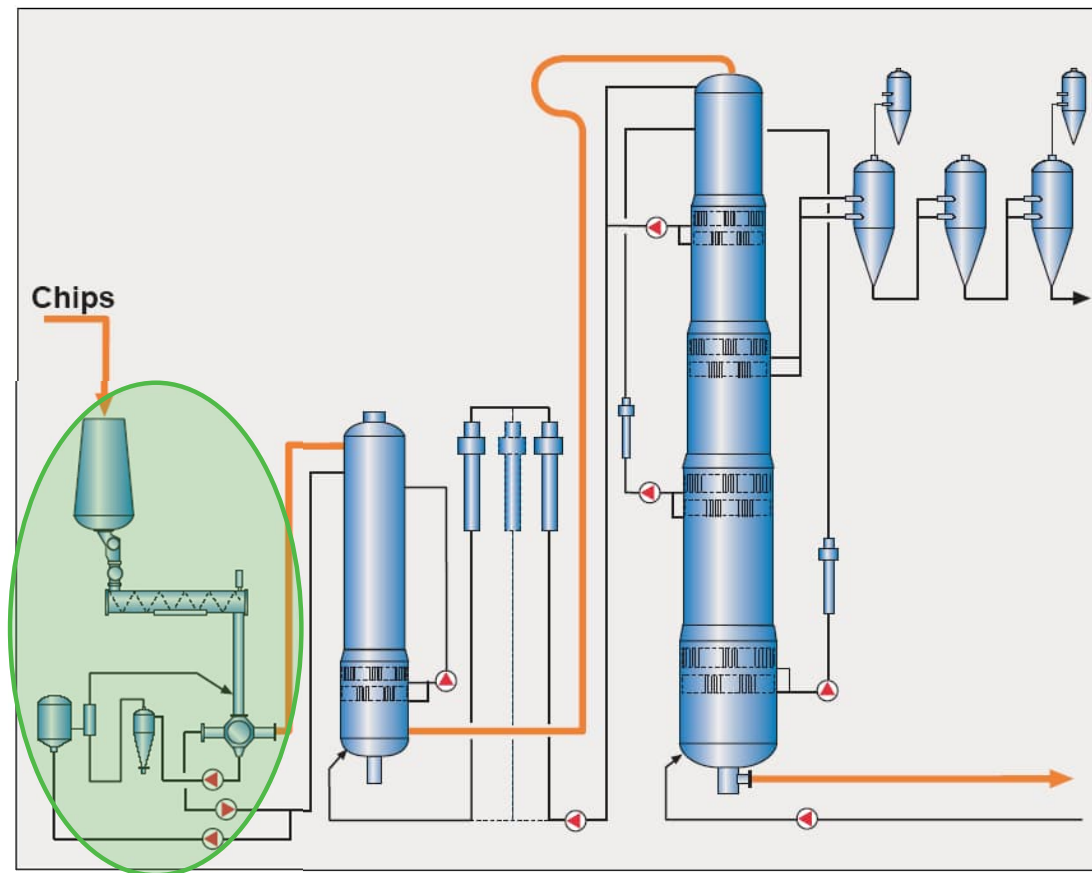
Continuous cooking
MCC/ITC

CompactCooking™ G1

CompactCooking™ G2

CompactCooking™ G3

蒸解プラント チップ供給設備



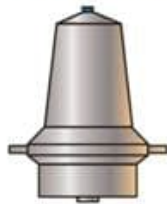
This is where the feeding line starts

Different types of chip bins

VibraBin



HulaBin™



HelpSilo



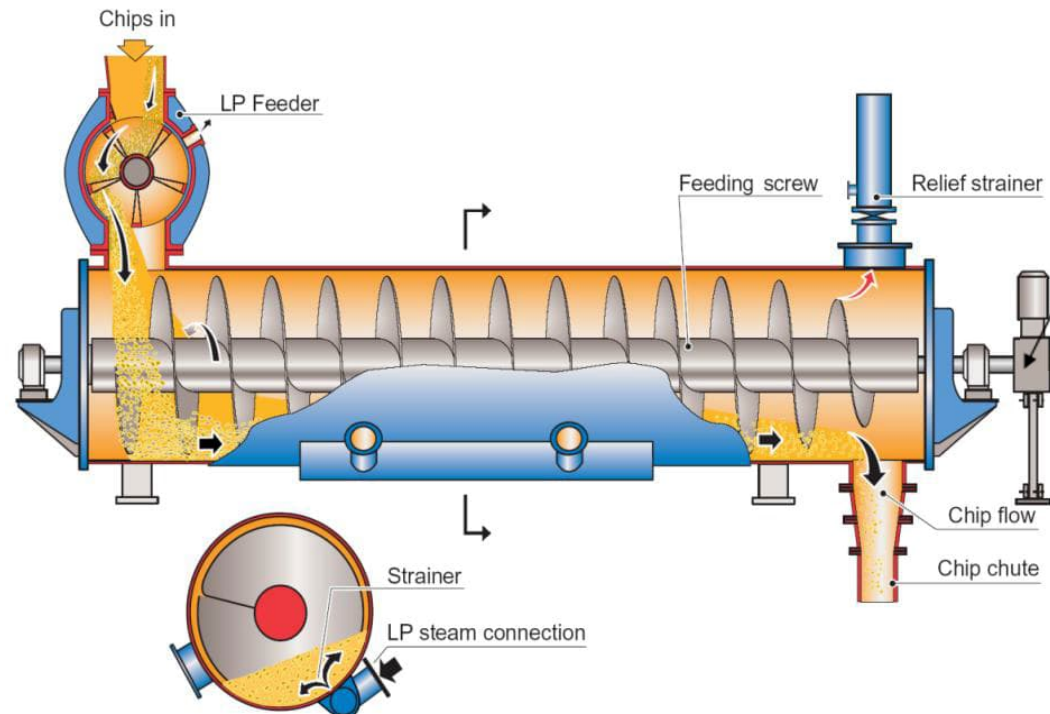
Diamondback™



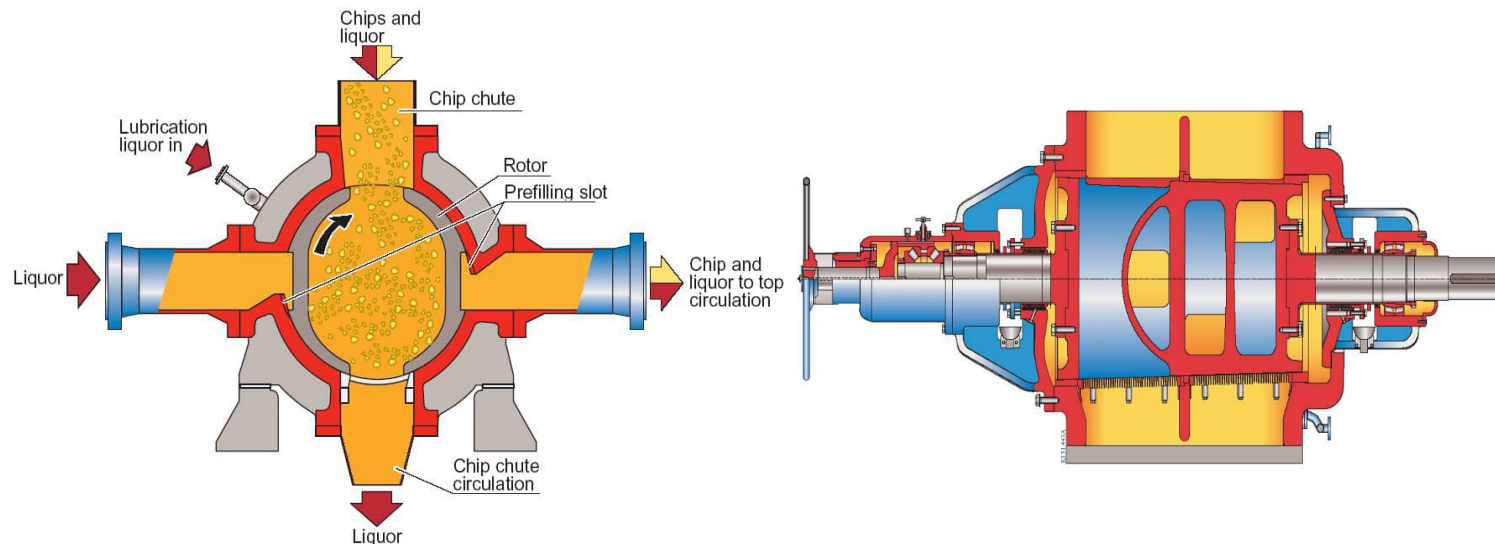
Dualsteam Bin™



Steaming Vessel – typical problems



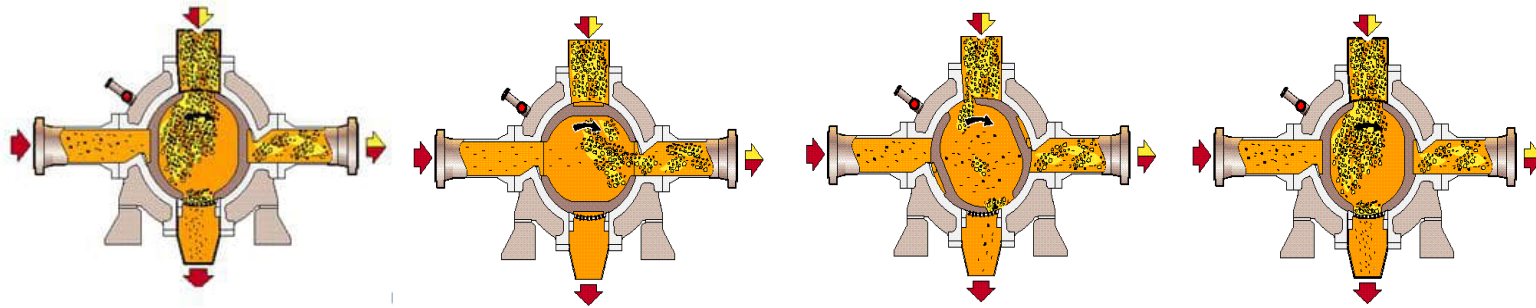
High Pressure Feeder



- Max speed (conventional) < 14 rpm
- Design speed (conventional) < 10 rpm

HP-feeder

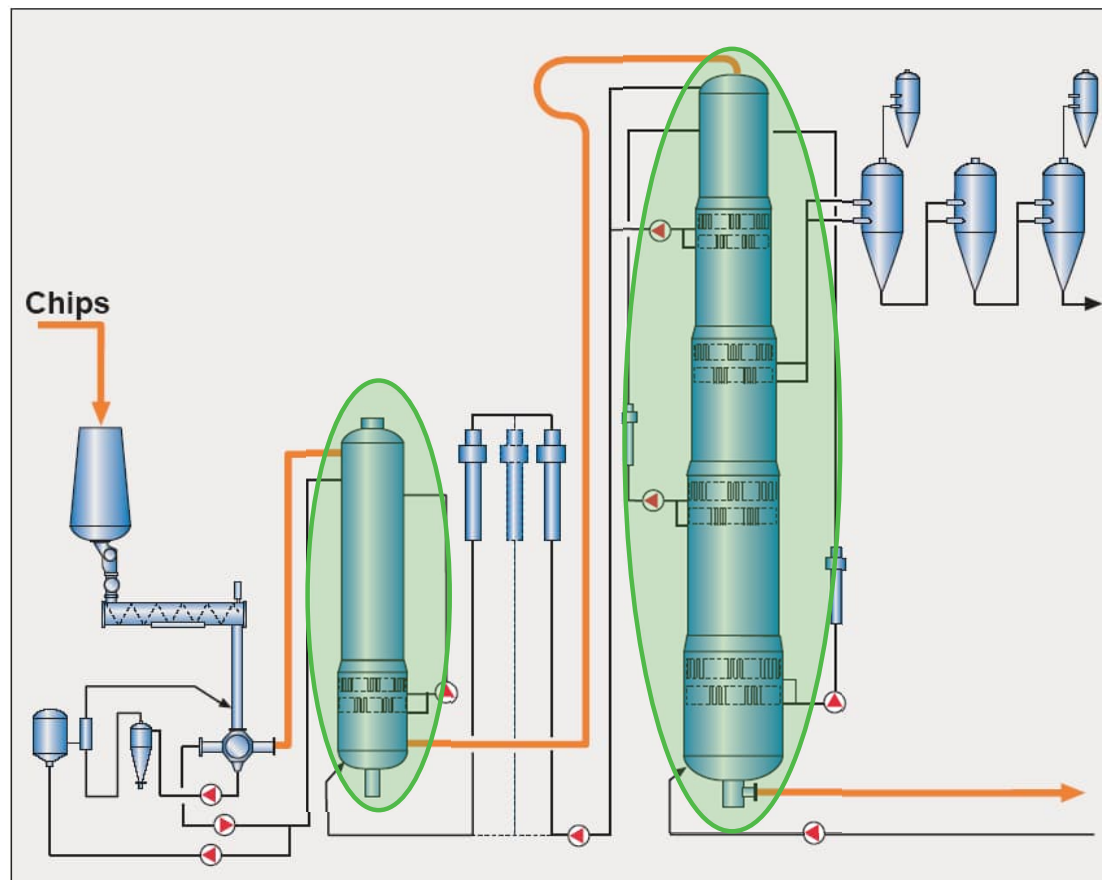
Conventional filling sequence



- Four pockets per rotor
- Each pocket is emptied and filled twice per rev..
- The bottom strainer prevents chips from getting into the C3 pump. (CCP)
- Max 60 % filling degree at 10 rpm.
 - At higher rpms', the filling degree starts to drop off

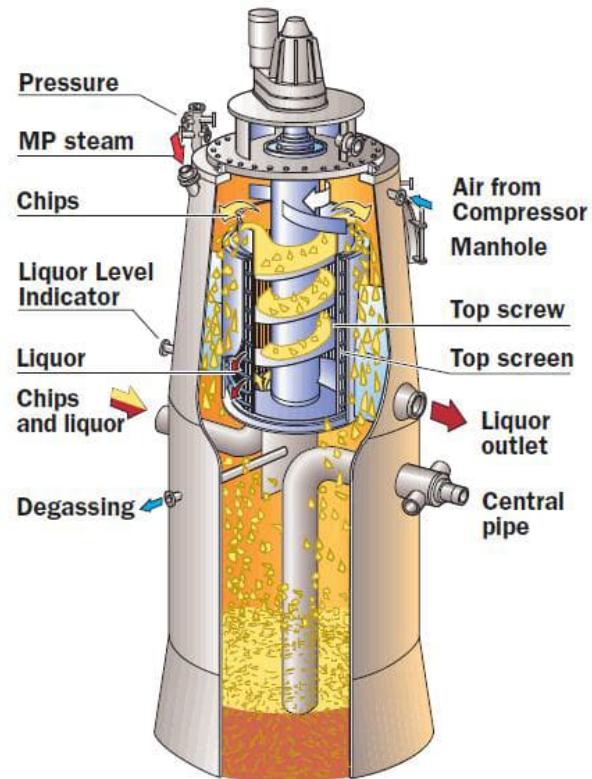
蒸解プラント

浸透釜、蒸解釜

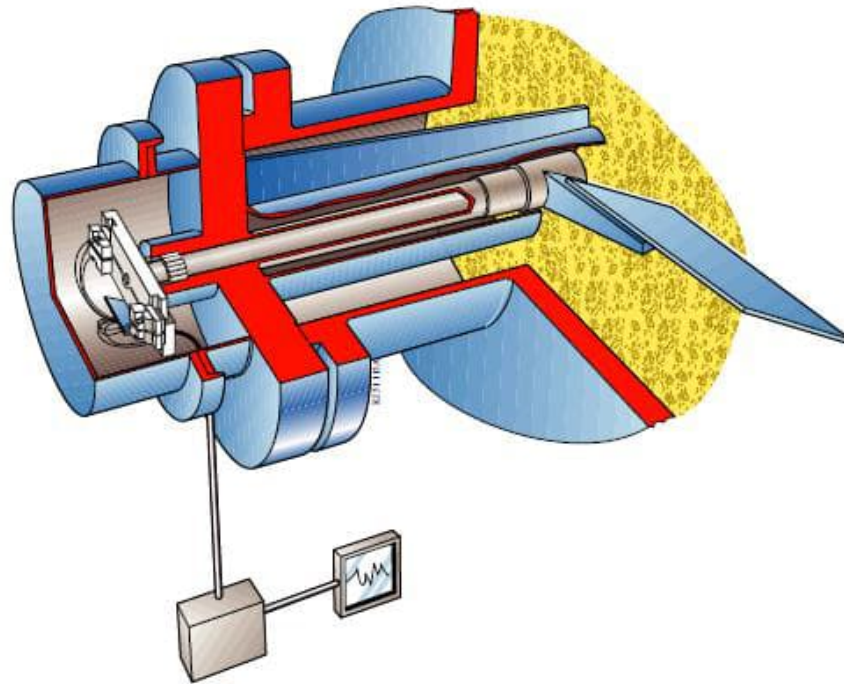


Upwards feeding top separator

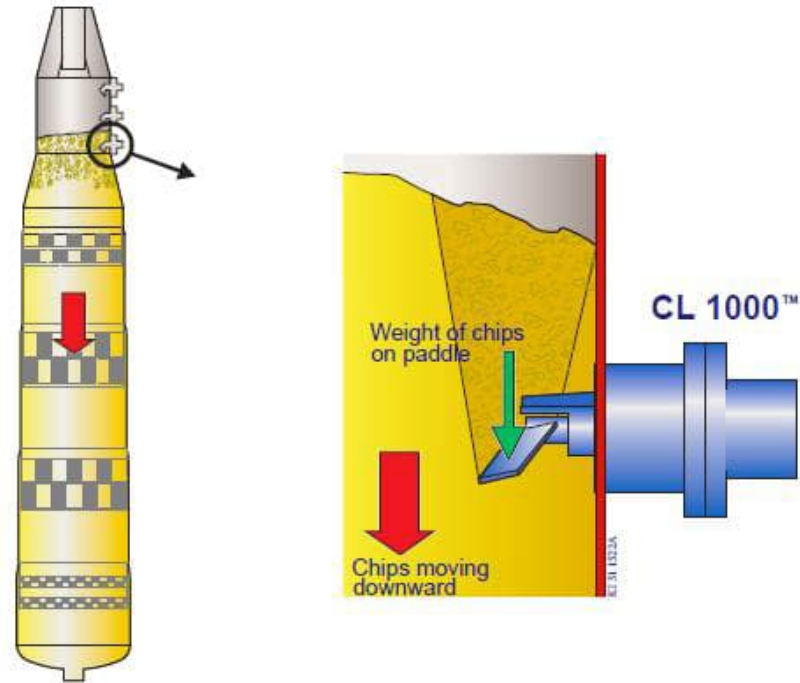
Steam/Liquor phase digesters



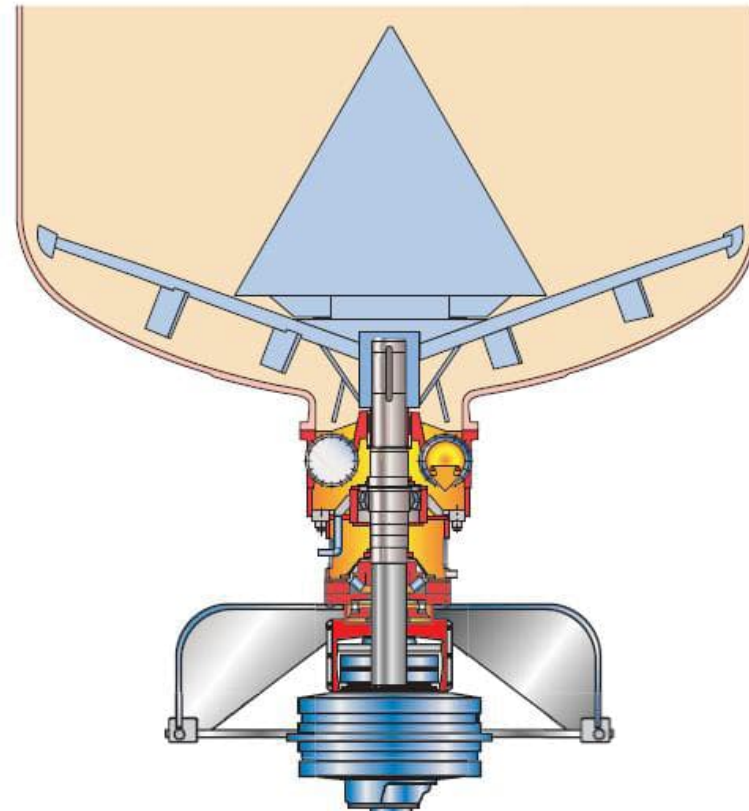
CL 1000 – Chip Level Indicator



CL 1000 – Chip Level Indicator



Digester outlet device with scraper



Our scraper – solid forged arms in Duplex or carbon steel

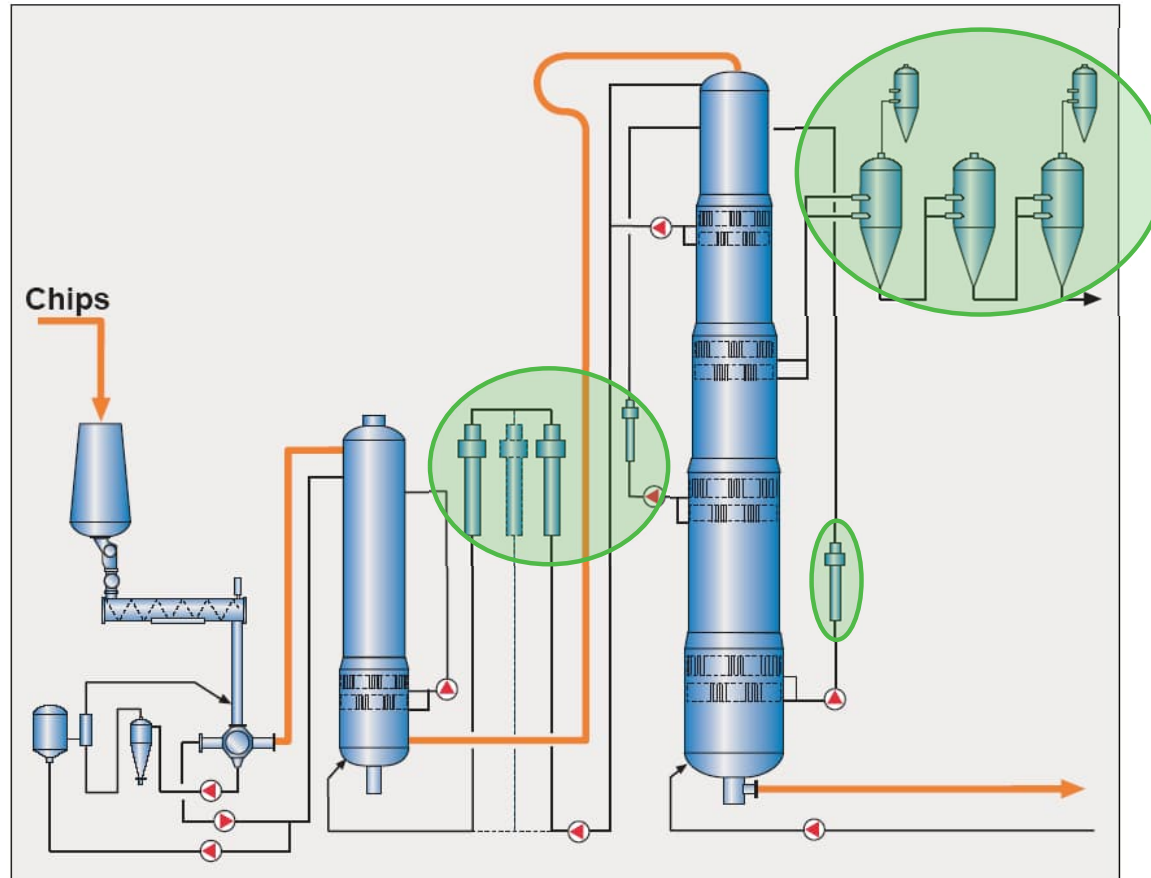


Competitors scraper – Box design with cracks at the leading edge



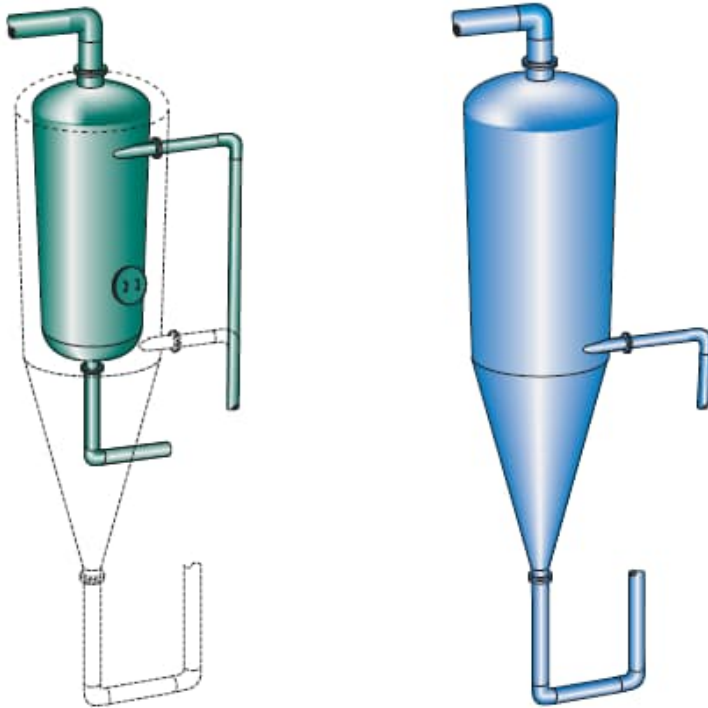
蒸解プラント

フラッシュサイクロン、ヒーター



TubeFlash™ Footprint

Comparison Between TubeFlash™ and a Conventional Flash



- Due to its design, a TubeFlash™ requires a much smaller footprint compared to a conventional flash.

