



ENGINEERED SUCCESS

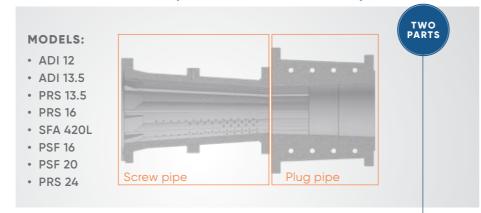
Compelling benefits from the ANDRITZ AdvaProtect Segments Multiple System

The AdvaProtect Segments Multiple System (APS Multiple System) reduces repair costs drastically and eliminates technical disadvantages. As welding is no longer needed, the original housing geometry of the APS Multiple System is preserved - just one reason why it makes refurbishment much more flexible and economical. The long housing of the APS Multiple System combines two or three components: $\boldsymbol{\alpha}$ standard compression housing (screw pipe) together with a dewatering unit (dewatering plug pipe) and, for some types, the rear pipe as well - by eliminating the flange connections. An effluent collector mounted outside the housing and the wear segments installed inside it complete the assembly.

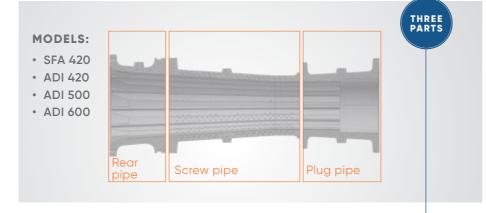
It is easy to install the new system in existing plants, in a shorter time, with just a few piping adjustments. No other modifications are necessary because it is the same length as the combined previous components with flange connections. The APS Multiple System is available in three main versions:

- APS Multiple System (APS M) for dry raw materials
- APS Multiple System plus dewatering (APS M+D) - for wet raw materials
- APS Multiple System plus dewatering and AdvaDrain (APS M+D AdvaDrain) - for extremely wet raw materials

CONVENTIONAL DESIGN (WITH FLANGE CONNECTION)



CONVENTIONAL DESIGN (WITH FLANGE CONNECTION)



INTEGRATED ANDRITZ DESIGN (APS MULTIPLE SYSTEM)



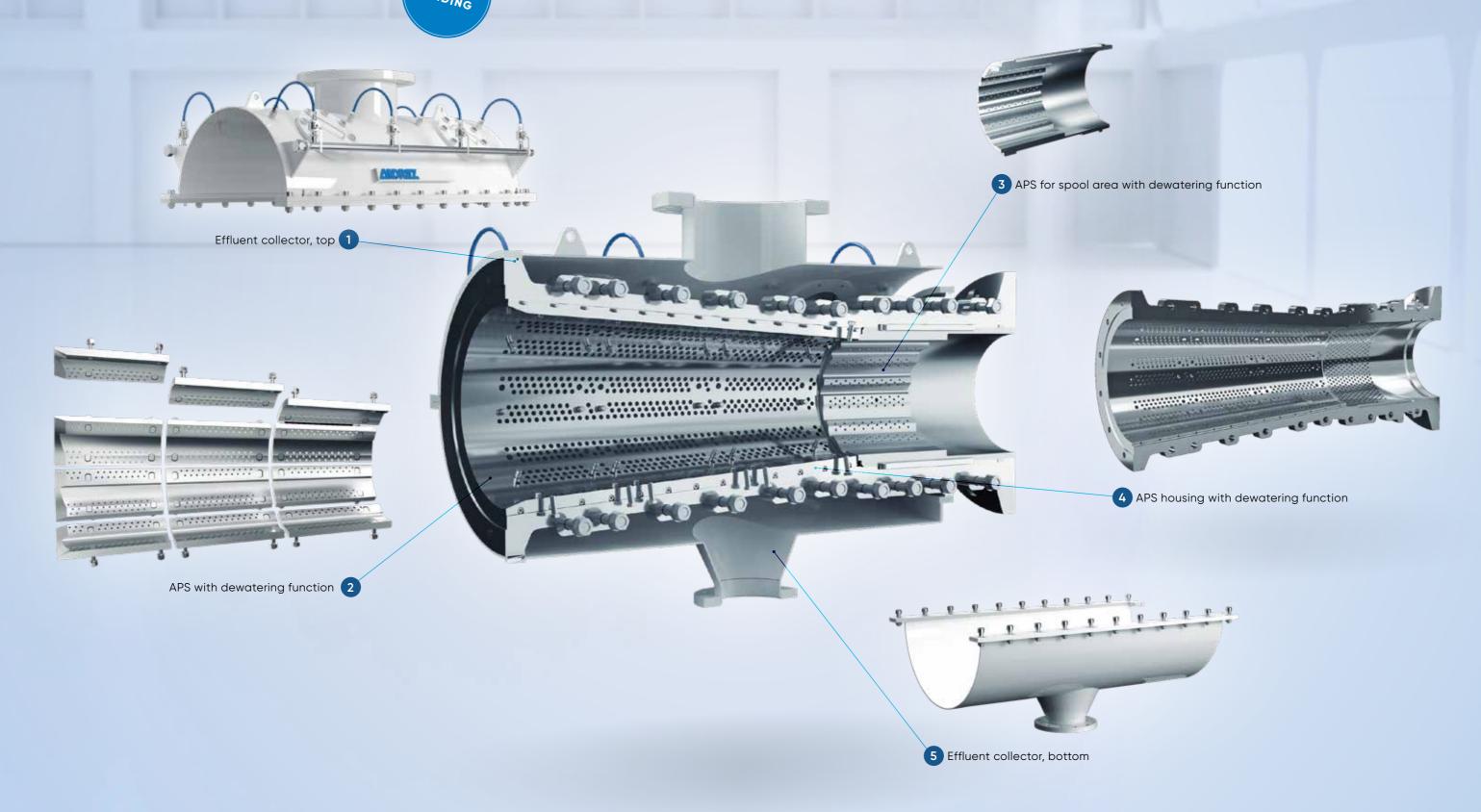
How it works in practice



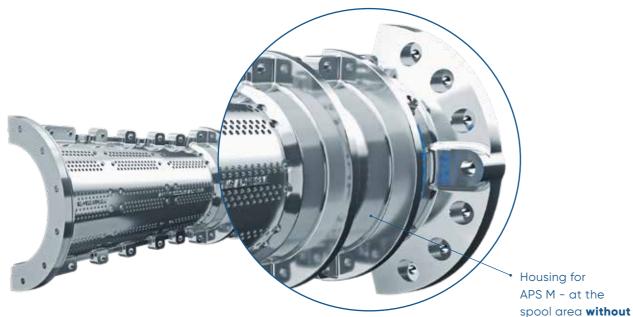
- 1 Newly installed AdvaProtect segments on the housing. 2 Example of wear on segments and mounting bolts. The segments have to be replaced when the wear indicators integrated into the bolts are no longer visible. 3 Fastening bolt with new (right) and worn wear indicator.
- 4 Example of segment replacement, directly on site and in a shorter time.

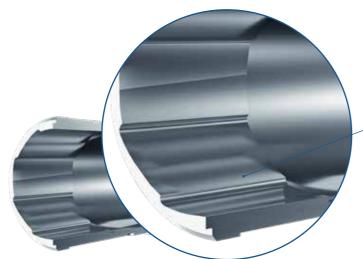


AdvaProtect Segments Multiple System



AdvaProtect Segments Multiple System (APS M)





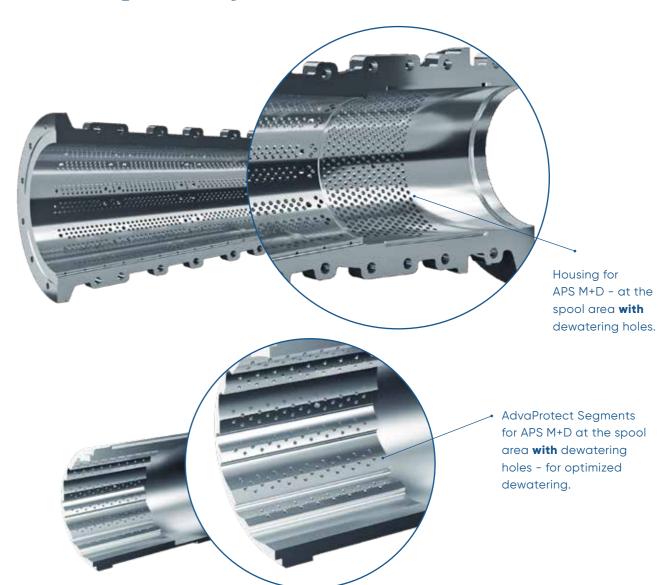
AdvaProtect Segments for APS M – at the spool area without dewatering holes – for less wear and maximum service life.

dewatering holes.

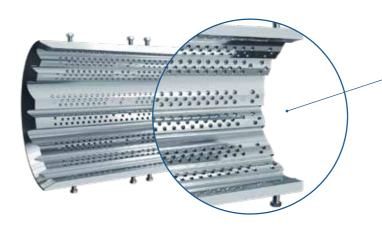
BENEFITS

- Only one initial investment for AdvaProtect segment housing
- Increased dewatering and maximum flexibility, adjustable compression rate (spool area)
- Wear parts with highest quality, resulting in highest lifetime (up to 50% higher)
- No wear of compression housing, no warp, deformation or cracks due to incorrect welding repairs
- Easy maintenance and on-site exchange of wear parts by customer (3 in 1)
- Separate exchange of segment rows possible
- Special dewatering hole design to avoid blocking and raw material losses
- · Vertical installation position and state of the art effluent collector for improved cleaning of housing

AdvaProtect Segments Multiple System (APS M+D)



AdvaProtect SEGMENTS MULTIPLE SYSTEM (APS M+D AdvaDrain)



AdvaProtect liner for APS M+D
AdvaDrain with extended number of dewatering holes, especially at the transition from the tapered to the cylindrical section, where the dewatering action is most effective – for maximized dewatering for applications with **extremely** wet raw material



THE ANDRITZ REFINING SERVICE TEAM – GLOBAL SUPPORT FOR ANY KIND OF REFINER

We also want to take up your challenges! For more information about ANDRITZ's services, please visit andritz.com/refiner-service for details.

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