

SUCCESS STORY

Dynamic crossflow filtration
for wine at Toso S.p.A., Italy



SEPARATION
RECOVERY
FROM WINE LEES
PROFITABILITY MEETS EFFICIENCY

ANDRITZ

ENGINEERED SUCCESS

The challenge

A step forward in cost efficiency and yield recovery

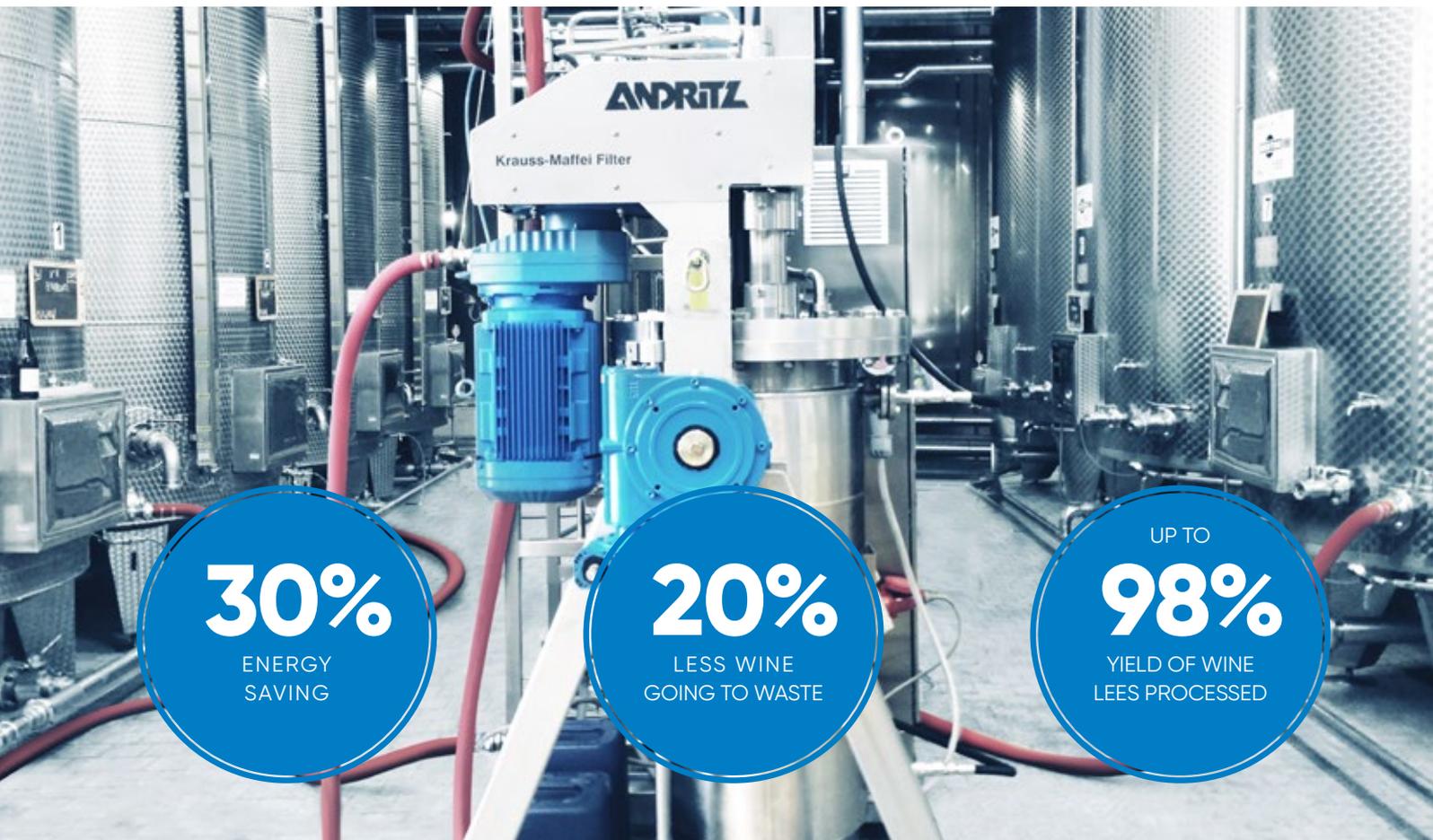
When it comes to clarification of wine, the overall challenge is always the same, regardless of the size of the business: to filter and recover wine profitably, with easy handling and a minimum of maintenance.

Toso S.p.A. is a traditional, family-owned Italian winery producing high-quality wines, sparkling wines, and aromatized wines and spirits, and it was facing exactly this challenge. After relying on a traditional vacuum filter for many years, it was time for a new and more innovative technology.

This technology was to:

- improve yield and reduce production costs,
- minimize the need for filter aids,
- reduce total cost of ownership,
- save space and be flexible to use.

After a careful evaluation, we saw an opportunity to rethink the bigger picture. It was a way to do more in less space that would give Toso a competitive edge for years to come.



DCF skid at Toso S.p.A. production facility

Our solution

Direct wine recovery from the lees, making perlite redundant

Rather than focus only on improved equipment, we proposed a new, more efficient approach to wine filtration where direct wine recovery from the lees is possible. The proposed Dynamic Crossflow Filter (DCF), supplied as a plug-and-play unit, not only has a very small footprint, it also eliminates the need for perlite or other filter aids and comes with a very fast return on investment. With its unique design of overlapping, rotating membrane discs, an open filtration area is created that avoids blocking and, therefore, unwanted downtimes. Taking the versatility of Toso's product

portfolio into account, flexibility and multipurpose use to handle must, sparkling wine, and retentate from traditional crossflow or separator sludge were mandatory. The suggested DCF skid was, therefore, a perfect fit as it provides this needed flexibility. Moreover, operation is possible in an isobaric process environment of up to 6 bar, ensuring that sparkling wine, for instance, can be processed without losses of CO₂. As taste is key in the wine business, the vertical design of the closed and self-venting skid makes sure the taste stays where it belongs.

Results

Higher yield and quality, energy savings, and smaller footprint

Thanks to our collaboration, Toso was able to improve performance well beyond initial expectations. In Cassano Belbo today, Toso is achieving 20% less losses of wine to waste, production has increased by 3,600 hl/year due to direct wine recovery from lees, 30% energy is being saved, no filter aids are needed any more, and downtimes have been reduced to 80 h/year. Not least, the total equipment footprint

is 80% smaller than the vacuum filter used previously, providing more flexibility on the production site. In addition, the housing to handle the retentate was reduced in size by approximately 50% compared to the dimensions required before. All of these are the direct results of our in-depth process know-how, efficient solid/liquid separation solutions, and a uniquely forward-thinking customer.

“For us, switching to DCF technology was the right decision. We would do it again.”

MASSIMO TOSO

Owner of Toso S.p.A.





WHAT'S YOUR SEPARATION CHALLENGE?

ANDRITZ Separation is the world's leading separation specialist with the broadest technology portfolio and more than 2,000 specialists in 40 countries. For more than 150 years, we have been a driving force in the evolution of separation solutions and services for industries ranging from environment to food, chemicals, and mining & minerals. As the OEM for many of the world's leading brands, we have the solutions and services to transform your business to meet tomorrow's changing demands – wherever you are and whatever your separation challenge. **Ask your separation specialist!**

AFRICA

ANDRITZ Delkor (Pty) Ltd.
p: +27 11 012 7300
separation.za@andritz.com

EUROPE

ANDRITZ KMPT GmbH
p: +49 8139 80299 0
separation@andritz.com

ASIA

ANDRITZ Singapore Pte. Ltd.
p: +65 6512 1800
separation.sg@andritz.com

NORTH AMERICA

ANDRITZ Separation Inc.
p: +1 817 465 5611
separation.us@andritz.com

AUSTRALIA

ANDRITZ Pty. Ltd.
p: +61 3 8773 4888
separation.au@andritz.com

SOUTH AMERICA

ANDRITZ Separation Ltda.
p: +55 47 3387 9100
separation.bra@andritz.com

CHINA

ANDRITZ (China) Ltd.
p: +86 757 8258 6802
separation.cn@andritz.com

ANDRITZ.COM/SEPARATION



All data, information, statements, photographs, and graphic illustrations in this leaflet are without any obligation and raise no liabilities to or form part of any sales contracts of ANDRITZ AG or any affiliates for equipment and/or systems referred to herein. © ANDRITZ AG 2018. All rights reserved. No part of this copyrighted work may be reproduced, modified, or distributed in any form or by any means, or stored in any database or retrieval system, without the prior written permission of ANDRITZ AG or its affiliates. Any such unauthorized use for any purpose is a violation of the relevant copyright laws. ANDRITZ AG, Stattegger Strasse 18, 8045 Graz, Austria. Story Toso 2.0/02.2018 EN