

## REFERENCE STORY

# SOFT GEL FILLING

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**“Leakages and blockages during encapsulation are not a problem anymore!”** James Morales, Production Manager

**Select Supplements is a privately owned soft gel manufacturer in Vista, California that recently optimized its production process and implemented both a FrymaKoruma CoBall Mill and Homogenizer. The results speak for themselves! Putting the quality of the end product and process security at the next level.**

**The Requirements** During encapsulation of soft gels, the particle size and homogeneity of the fill material are key. A suspension not fine enough can cause lea-

kages during encapsulation and blockages of the injection wedges while filling the suspensions into the gel mass. Additionally, soft gel fill material is heat sensitive and should not exceed a temperature of 35-40°C during the milling process. Prior to cooperating with ProXES, Select Supplements mixed their suspensions on a vacuum mixer and milled the product on a conventional stone mill. Like many other manufacturers, they were confronted with these challenges and looked for improvements.



Select Supplements, Inc. of Vista, CA

**Select Supplements, Inc.** is a privately owned nutritional supplements manufacturer that offers soft gels and hard-shell capsules, custom powder blends and stick packs for the nutritional supplements market. As a comprehensive contract manufacturer, SSI provides a broad yet focused suite of products and services covering all facets of private labeling, from product composition and formulation, to manufacturing, to custom packaging.

**“The support and availability of ProXES during the whole process of finding the right solution, getting the machine running and supporting them with our customer service has truly exceeded my expectations.”**

James Morales  
Production Manager  
Select Supplements, Inc.



Mr. Morales and his colleague at work with their FrymaKoruma CoBall Mill

**The Solution** To increase the homogeneity of the suspension, Select Supplements connected a FrymaKoruma Homogenizer into the recirculation line of their existing vacuum mixer. This multi-chamber rotor/stator system deagglomerates the powders and homogenizes all ingredients such as oils, beeswaxes and lecithin efficiently until the desired product quality is achieved. Due to the high shear forces, some products do not even require an additional milling step anymore.

The stone mill has been replaced by a FrymaKoruma CoBall Mill. This unique technology uses the impact of beads in a narrow grinding gap to reduce the particle size. The ball mill is able to

mill their suspensions from 250 microns (60 mesh) down to <80 microns (177 mesh) in just one pass. Due to the exceptional cooling capability, the product temperature consistently stays under 35°C.

James Morales, Production Manager of Select Supplements, is impressed with the results: "Leakages and blockages during encapsulation don't happen anymore". He has been in the industry for over 23 years and worked at several well-known soft gel companies in Southern California. According to James, the end product is a creamy-looking and very fine suspension, which Select Supplement hasn't been able to achieve in this way before. In addition, the manufactu-

ring process now runs very smoothly and is reproducible. They are able to guarantee the highest product quality and consistency, which in return has given them a great boost in confidence in themselves and their craft: "The process security and the confidence to get it right the first time increased tremendously".

What also exceeded his expectation is the support and availability of ProXES during the whole process of finding the right solution, testing the equipment, and getting the machine installed and running. Overall quality is the number one priority for Select Supplements and in his opinion "all companies should strive for the same quality of their end product".



from left to right: installed FrymaKoruma DIL Inline Homogenizer, full view of homogenizer, closeup of CoBall Mill and discharge of the suspension

## FrymaKoruma

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