In the edible fats and oils industry of the 21st century, dry fractionation is well established as a proven, cost-effective and powerful modification technology. Essentially, dry fractionation consists in a fractional crystallization of oil, followed by a separation of the resulting fat crystals from the remaining liquid oil. Dry fractionation stands out as a true zero-effluent modification technology, unlike solvent or wet fractionation, chemical interesterification, hydrogenation.

Today’s industry is challenged by a continuously expanding spectrum of edible oils and fat products that meet specific physical quality demands at competitive costs. This trend has called for improved performance of the existing fractionation technology and more specifically the crystallizer operation, which is at the heart of any industrial fractionation plant.

Faithful to its R&D leadership in the field of Oils & Fats technologies, Desmet Ballestra introduces iConFrac™, its new continuous fractional crystallization technology, an exclusive answer to the demand for enhancing performance with higher yield at lower utility consumption, day in, day out.

By improving the existing Mobulizer™ technology which uses an integrated agitation/cooling system to ensure excellent heat and mass transfer within the crystallizer, this innovative technology offers the possibility to operate fractional crystallization in a continuous mode.
The “plug flow” approach in the MoBulizer™ allows the main following improvements:

- minimal peak loads in chilling and heating;
- high heat recovery;
- lower electrical and steam consumption;
- higher throughput.

Using Plug Flow technology in an industrial dry fractional plant (600 tpd of RBD PO) has brought results that unambiguously confirm the technical benefits of this approach:

> Increased Yield: up to 2% net increase of olein (IV 56)
> Utility savings: up to 30%
> Increased throughput: up to 20% higher capacity
> Better filterability: up to 25% higher filter performance
> Improved olein cold stability: 1-2°C drop of cloud point

For more information on continuous fractionation advantages for your specific process, contact your local Desmet Ballestra office!