



**MUSTARD
CHILLI
NUT PASTES**

**CORUNDUM
STONE MILL MK**

FOR FOOD

FrymaKoruma

GREAT RECIPES NEED EXPERT MILLS.

Chilli sauces or mustard, tahina or cocoa liquor, lab use or industrial production – FrymaKoruma Corundum Stone Mills (MK) are the most versatile experts when it comes to wet milling of liquid, viscous and pasty products.

Their high efficiency and extreme flexibility make our MKs the first choice for use in the food industry.

At the heart of our MK mills are the corundum stones, which are available in various grains. As the rotor presses against the stator, shear forces and cutting forces reduce the particle size of the product. The processing zone is sealed by an innovative, single or double acting mechanical seal, with no dead spaces.

APPLICATIONS FROM SWEET TO SAVOURY

Corundum Stone Mills are highly versatile and adept at a wide range of food processing applications. Mustard or cocoa liquor? Creamy nut paste or hot sauce? Our MK mills expertly grind seeds, roots, nibs, nuts, kernels, fruits and vegetables.



CONSTANT TECHNOLOGICAL DEVELOPMENT

ProXES brand FrymaKoruma has been building Corundum Stone Mills since 1958. We see the success of our proven technology as a challenge and we make it our mission to constantly improve and further develop our milling technology. It is our goal to equip our customers with solutions that meet their markets changing requirements, and to help make their business future-proof.

KEY BENEFITS

- excellent wet grinding performance for small to large throughput
- reliably high product quality
- adjustable grinding gap
- minimal product loss
- fully scalable technology for R&D as well as industrial use
- exceptional lifespan
- low-wear ceramic grinding tools
- easy assembly/disassembly
- CIP-able for easy cleaning



FINE WET-MILLING DISPERSING

MORE OPTIONS, MORE FLEXIBILITY.



**EFFICIENT
RELIABLE
VERSATILE**

You can choose units with feeder pump or funnel, vertical or horizontal designs, and many other options.

CORUNDUM GRINDING DISCS IN MULTIPLE GRAINS

ProXES grinding discs are made of high-quality synthetic corundum grains. Each batch of our self-sharpening grinding discs is tested to eliminate potential defects. Corundum grinding discs are available in grains from 16 to 120 grit.

DIFFERENT DESIGNS AND MODULAR EXTENSIONS

Thanks to various modular extensions, FrymaKoruma Corundum Stone Mills are highly configurable to meet your requirements.

- product infeed via pump or hopper with feed screw
- grinding tools with different grits
- optimal surface quality
- tri-clamp and flange connections
- different positions for inlet/outlets
- heatable/coolable
- double and single-acting mechanical seal

Machine	Throughput (l/h) approx.	Installed power (kw)	Dimensions (mm) L x W x H	Weight (kg)
MK 95	10 – 160	5.5	560 x 370 x 350	100
MK 180	50 – 1000	15	840 x 480 x 500	200
MK 250	90 – 2000	22	1130 x 530 x 560	400
MK 320	200 – 5000	45	1130 x 370 x 870	650



JUICES SMOOTHIES PUREES PLANT-BASED DRINKS



AND WHAT ABOUT VEGAN PRODUCTS?

From soy and nut drinks to vegan burgers, spreads and dips – the food industry is experiencing a drift towards plant-based alternatives. Ask our experts about how ProXES can help you embrace the vegan trend.

COARSER? FINER? WHATEVER YOU NEED!

What's your target particle size: 1,000 microns or 40 µm? ProXES offers a wide range of reliable size reduction technologies for coarser and extra-fine wet grinding.

PULPING AND MASHING WITH THE PERFORATED DISC MILL (ML)

Perforated disc mills are used for the initial size reduction and pre-milling of bulky products (e.g. fruit and vegetables).

Size reduction down to 0.5mm for

- Fruit & vegetables
- Meat & fish
- Legumes

CONTINUOUS FINE CUTTING WITH MICRO CUT (MC)

The Microcut operates with a contactless rotor/stator system and enables first-class fine cutting and emulsifying no matter if the product is hard, soft, frozen or defrosted. Available in three diameters, single and double cut technology.

Size reduction down to 250 µm for

- Meat & fish
- Fruit & vegetables
- Biscuit rework

DISK MILL (MD) FOR PLANT-BASED DRINKS

The Disk Mill was invented for efficient pre-grinding of whole grains and beans. MD tools work reliably and extend the service life of fine grinding tools.

TOOTHED COLLOID MILL (MZ) FOR SUSPENSIONS AND EMULSIONS

Toothed Colloid Mills (MZ) are experts for the wet milling of fluids and high-viscosity suspensions and emulsions. Tailored to your requirements, ProXES offers a range of colloid milling sets.

CORUNDUM STONE MILL (MK)

MK is the expert of wet milling liquid, viscous and pasty products. It is the benchmark for the mustard business.

Size reduction down to 40 µm for

- Mustard
- Legumes
- Fruit & vegetables

INLINE MELTER (MI) FOR LIQUEFACTION OF CHOCOLATE CALLETS

The Inline Melter melts chocolate callets efficiently. The high throughput eliminates the need for intermediate storage of the product. Melting on demand saves time and energy.

Liquefaction of chocolate callets for

- Confectionery

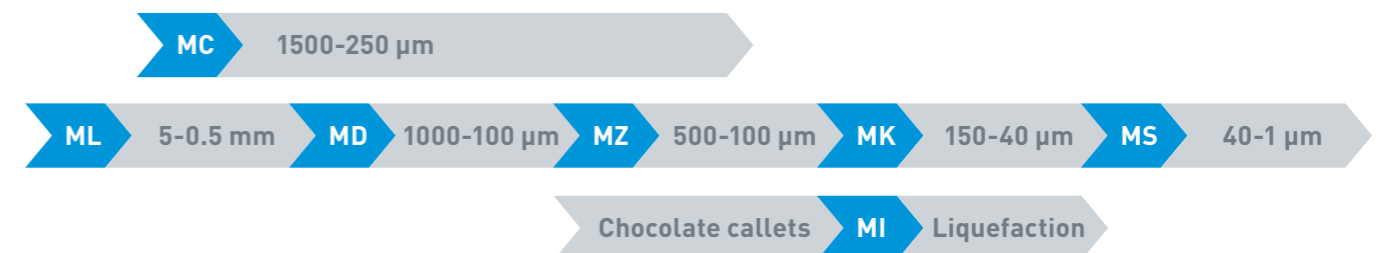
COBALL BEAD MILL (MS) FOR SUSPENSIONS

The Coball Bead Mill is used for very fine milling, for suspensions of medium to high viscosities. The versatile mills deliver prime product quality efficiently and cost effectively.

Size reduction below 40 microns for

- Confectionery
- Nuts, seeds & kernels
- Protein

Size reduction technologies and particle size



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EXCELLENCE IS A TEAM EFFORT

With three leading brands FrymaKoruma, Stephan and Terlet under one roof, ProXES combines long-standing expertise with a challenger mindset. As an agile partner, we support our customers from first product concept to the implementation of a successful production process.

At ProXES, we believe in the power of Co-Creation: We're here to listen, learn and advise. In close collaboration with our customers, we merge their ideas and our technologies into innovative processes and tailor-made solutions that help them align the quality, energy efficiency and profit of their production.

With standalone machines, modern process lines, advanced automation and service concepts, ProXES drives the business of customers in the food, pharmaceutical, cosmetics and advanced materials industries. What about you? Let's create value together – sustainably!

FROM INSPIRATION TO FEASIBILITY

Our process technology and training centre is a space to try out new ideas. Here you can develop or improve formulas in a professionally equipped laboratory, test any kind of machine, perform scale-ups and produce test batches. You will receive expert advice and support on all the capabilities of the technical equipment and modifications.

GET IN TOUCH WITH OUR EXPERTS



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