

# DUAL FORCE

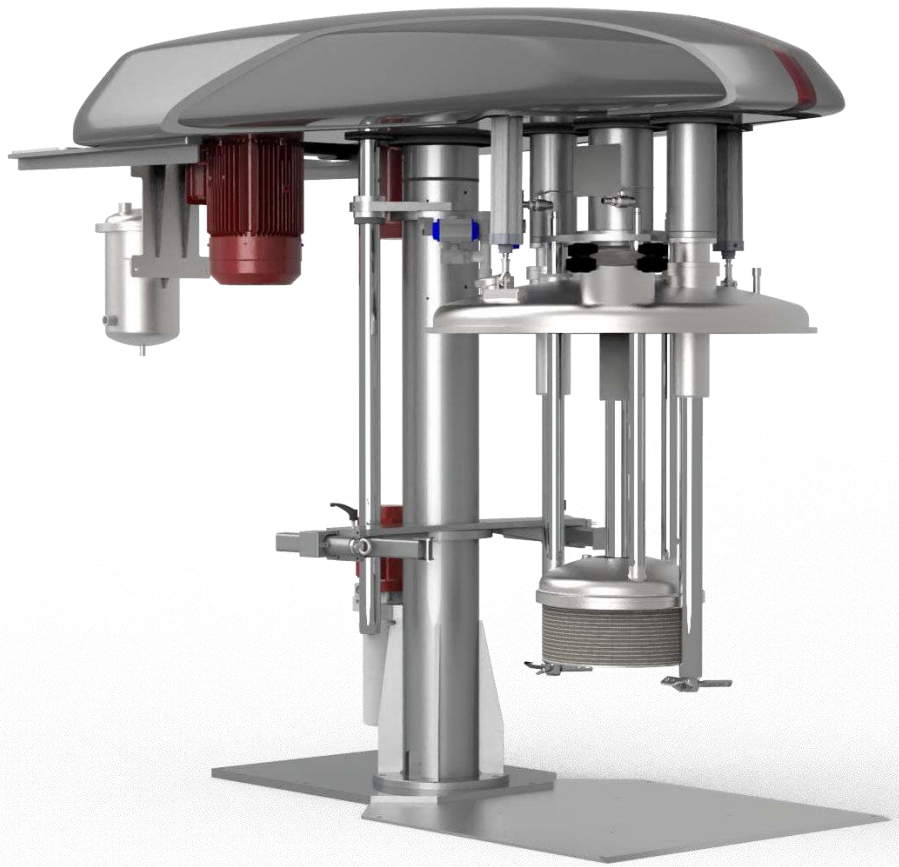
## DOUBLE WORKING POWER IMMERSION BASKET MILL

**DUAL FORCE** double working power immersion Basket Mills with microbeads are outstanding energy-efficient and ultra-fine grinding machines for batch milling.

This system is designed taking advantage of the double power of two independent engines with separate drives for grinding and mixing.

This special configuration also allows the optimization of product circulation inside the vessel, taking care of different flow behaviors without changing the grinding maximum allowed speed.

Equipped with an energy-efficient grinding chamber and two lateral agitators, they can grind large batches up to 1500 lt and reduce total energy consumption, grinding time and the number of used microbeads in comparison to similar machines.



## ADVANTAGES

- Innovative technology enabling INDUSTRY 4.0 that optimizes business processes in terms of management time, costs and quality
- Continuous process control thanks to internal PLC
- Total integration with the production flow and the company ERP
- Efficient recipe management, high product repeatability and reduction of production waste
- Minimization of breakdowns and unwanted downtime by predictive maintenance indicators
- Remote assistance for immediate customer support
- Larger batches with low engine power (1000 lt with 30 kW)
- Processing products with a wide range of viscosities
- Grinding time reduced by up to 50%
- Simple mounting, easy to maintain and inspect
- Ultra-fine grinding
- Cleaning time reduced by 60%
- Energy saving up to 40%
- 70% less microbeads in comparison to traditional vertical mills
- Coated grinding chamber for controlled temperature processing



## TECHNICAL FEATURES

- AISI 304 stainless steel supporting structure with anti-vibration reinforcements
- High thickness base plate to fix the machine to the floor
- Rectified and chromed steel telescopic head holder column
- High thickness sheet metal head with anti-vibration reinforcements and pulley protection casings
- Transmission by belt and pulleys
- Hydraulic lifting unit with electric pump embedded in the command group
- Head ascent stop with safety device
- Shaft support with high performance ball bearings
- AISI 304 stainless steel main grinding shaft
- Wear-resistant milling chamber with electro-weed mesh and different peg impellers
- Two AISI 304 stainless steel lateral mixing shafts
- Two AISI 304 stainless steel mixing impellers
- Efficient cooling cavities without hot spots in the grinding chamber hood and in the vessel
- Product temperature control sensor close to the grinding chamber
- Vessel locking system:
  - **Adjustable Belt**, characterized by a support with adjustable saddles and tensioning ratchet. Possibility of fixing vessels with different diameters
  - **Fast Dumping**, characterized by easy entering of the vessel, fast locking and high resistance to lateral loads. Manual locking clamps with safety micro-contact for machine start only when the vessel is blocked
- Electronic speed variation with inverter
- Also available in ATEX version



### INDUSTRY 4.0 READY

- Internal PLC
- Intuitive touch interface for the operator
- Ethernet connections

### INDUSTRY 4.0 OPTIONAL

- Wi-Fi operator control panel
- Router for remote assistance
- Latest generation MISURA software:
  - Preventive maintenance indicators
  - OEE (Overall Equipment Effectiveness) indicators
  - Panel with digital pointers
  - Software interface with customer ERP

SEPARATE  
DRIVES FOR  
GRINDING AND  
MIXING

ENERGY  
EFFICIENT  
GRINDING  
CYCLE

PORTABLE  
TABLET AND  
INTUITIVE  
INTERFACE 4.0



## CONFIGURATIONS

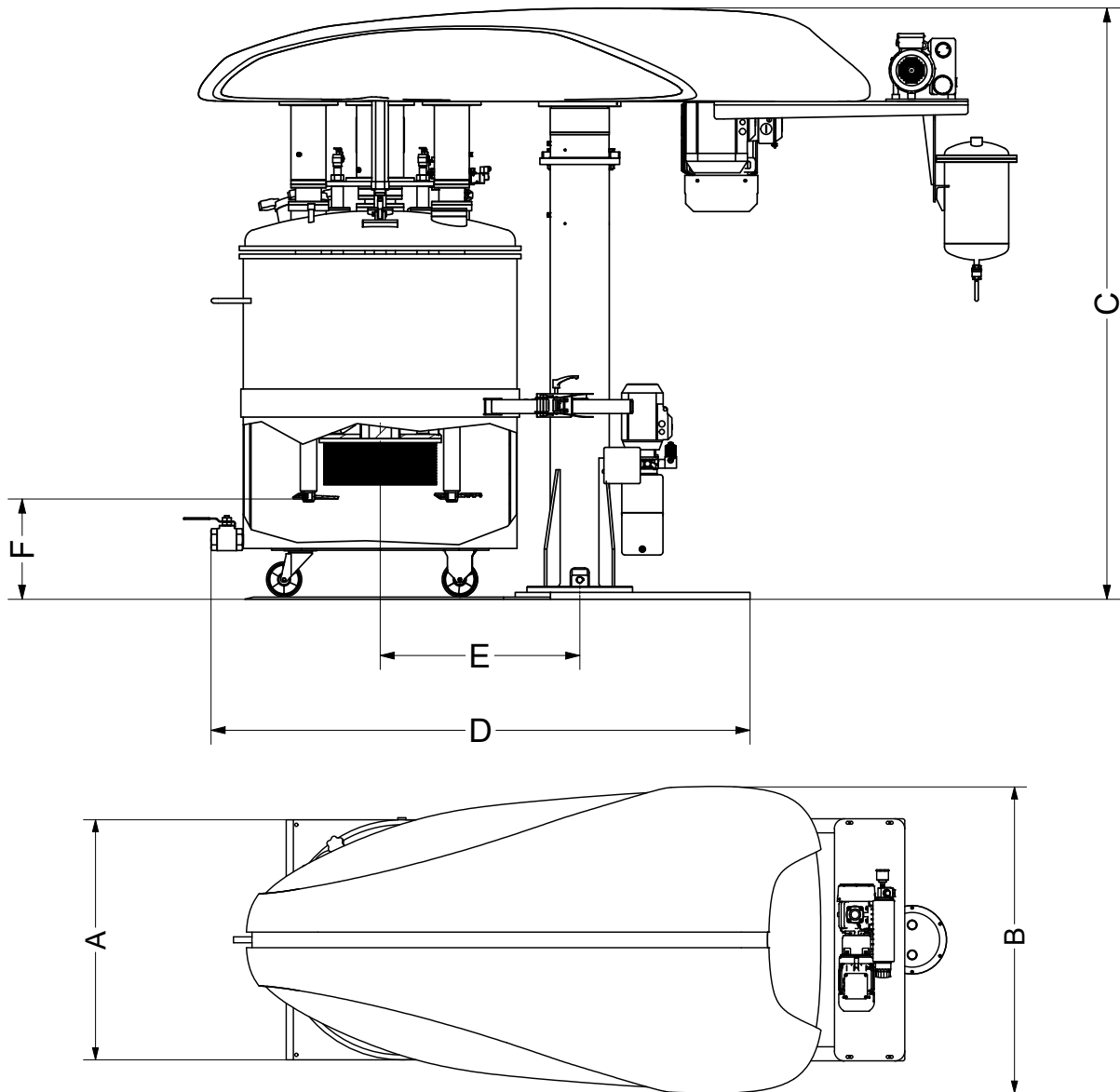
Model	Flat lid	Rounded lid for vacuum version SV
F Model	X	
SV Model		X

## TECHNICAL DATA

Model	Grinding shaft engine power		Mixing shaft engine power		Head lifting engine power		Revolutions per minute	Maximum useful volume (lt)	Minimum useful volume (lt)	Minimum useful volume with reduced vessel (lt)	Basket volume (lt)	Microballs charge volume (lt)
	Kw	Hp	Kw	Hp	Kw	Hp						
DUAL FORCE 500	15	20	5,5	7,3	1,5	2	750	500	300	230	15	10,5
DUAL FORCE 1000	22	30	7,5	10	2,2	3	750	1000	650	350	30	21
DUAL FORCE 1500	37	55	11	15	2,2	3	750	1500	800	500	50	35

DATA ARE PROVIDED FOR INDICATIVE PURPOSES ONLY

## DIMENSIONS



Model	Machine dimensions (mm)					
	A	B	Cmin-Cmax	D	E	F
DUAL FORCE 500	1200	1530	2370 - 3510	2850	950	300
DUAL FORCE 1000	1400	1530	2380 - 3650	2850	950	400
DUAL FORCE 1500	1700	1530	2380 - 3650	2850	950	400

## APPLICATIONS

Paints, inks, colored and concentrated pastes, pigments for tannery, food products, agrochemicals, cosmetic products, gelcoats