

# K1.F V.8.0

**Document version** 

8.0

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### **Machine description**

Trajectory mixer	The K1.F trajectory mixer is a stirrerless mixing and kneading system. This device is used for research, testing and development of processes in the process industry.
Process	The machine enables the conditioning of process material.  Due to the movement paths, the process material induces shear forces in itself.  Thus undergoes gentle and at the same time very fast mixing.
Benefits	The process time with the hs-tumbler is often many times shorter than with conventional processes.  Due to the unique process control, not only an immense increase in speed is achieved, but also an increase in quality at the same time.  This enables the customer, for example, to marinate meat products in just a few seconds and make them directly available to the end consumer for consumption or takeaway in accordance with his requirements.  • short process time • hardly any heat input • high degree of individualization • for ready to use products
Scope of delivery	<ul> <li>Trajectory mixer K1.F</li> <li>stainless steel cylindrical pot with lid and vacuum connector</li> </ul>



### Use cases and customer segments

Use cases	<ul> <li>Conditioning of food, e.g. meat products (e.g. marinating) or pasta</li> <li>Emulsion production</li> <li>Suspension production</li> <li>Grinding processes</li> <li>etc.</li> </ul>
Customers	<ul> <li>Food Retail</li> <li>Butchery trade</li> <li>Commercial kitchens &amp; canteens</li> </ul>

### **Technical data**

Specifications	<ul> <li>Capacity: One removable container with 4kg payload</li> <li>Intuitive operation via touch screen</li> </ul>
Supply voltage	400V - 50/60Hz
Electrical prefuse	16 A
Power consumption	4,5 kW maximum
Dimensions BxHxT [mm]	1.100 x 1.100 x 1.300
Weight	1,900 lbs (approx.)
Emission sound pressure level	80 dB (approx.)
Drive	Two individually programmable servo drives, each 2,21 kW
Control panel	Intuitive touch screen operation
Safety	<ul> <li>Complete enclosure with safety door</li> <li>Safety door closed without electric power</li> <li>Emergency stop switch</li> </ul>



Technical data	
Optional components	Process vessels in various shapes for a range of other applications. If you are interested or for further information, please contact our sales team.
Remote maintenance	TeamViewer V10
Machinery directive	2006/42/EC; EC Declaration of Conformity; CE marking

#### Technische Daten: Prozessbehälter

Total volume process vessel HxD [mm]	180 x 178 ~ 4.5 liters
Filling amount	Depending on process material - 75% bis 90%
Vakuum	0 to 99 %
Handling	Manual changing of the process vessel.
Product contact parts	All parts in contact with the product are food grade.  • 18/10 stainless steel  • Nitrile rubber  • PET-G (Polyethylene terephthalate glycol)

## **Product Package - Delivery**

Scope of delivery	Trajectory mixer K1.F 1 Process vessel Optional: Other process vessels in various numbers and shapes
Delivery	Ex Works
Installation	The installation must be carried out by a competent person or by a person authorized by hs-tumbler.
Putting into operation	Commissioning of the machine may only be carried out in the presence of an hs-tumbler service technician or persons authorized by hs-tumbler.

We empower people to create sustainable process solutions through our disruptive technology.



Product Package - Delivery		
Training	<ul><li>Brief instruction</li><li>User training for product manufacturing</li></ul>	
Maintenance, Service & Support	Regular maintenance of the machine must be carried out at least four times a year or every 100 operating hours (pure process time).  One year warranty Option: Maintenance contract (strongly recommended)	
Documen- tation	Instruction manual & Recipe Book (in print & electronic form)	