



ALL-PURPOSE EQUIPMENT DRIVE UNIT

AR 403

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AR 403

ALL-PURPOSE EQUIPMENT DRIVE UNIT

The ERWEKA All-Purpose system is based on a powerful drive unit available in two versions. The various attachments can be easily and quickly connected by means of a coupling.

The drive unit AR 403 is equipped with a three-phase AC motor. The sturdy ball bearing worm gear drive is completely maintenance free and provides an output torque of max. 23 Nm. The unit features electronic speed control, variable between 20 and 400 rpm. A digital dial regulates the speed.

Through permanent nominal/actual adjustment the preselected speed is kept, even under varying load. The AR 403-S is similar to the AR 403 but has a different drive train. This connection is designed for heavy use.

AVAILABLE OPTIONS

- | Foot switch
- | IQ/OQ/PV documents



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R&D AND SMALL-SCALE PRODUCTION

ERWEKA's All-Purpose equipment is the ideal solution for small scale production in the pharmaceutical, chemical, cosmetic and food industries. In addition, it fits perfect into R&D and the development of powder tablets, ointments, crèmes and more. The modular design is compact, economical and offers a powerful motor drive with a wide ideal for R&D and small-scale production range of easily interchangeable attachments for various purposes.

AR 403

UNIVERSAL GEAR (UG)

The Universal Gear (UG) is required for adjusting the angle of operation (0-80°) and for speed reduction (1:6). The UG is used for the operation of:

- | | |
|-------------------------|-------------------------|
| Coating pan (DKE/S) | Pelletizer (GTE) |
| Polishing drum (PT) | Ball mills (KM 0) |
| Cube mixer (KB 15/20/S) | Double cone mixer (DKM) |



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ACCESSORIES

Various versatile accessories for all purposes: Ball mill, conical mill, cube mixer, double cone mixer, drum hoop mixer, high-speed mixer, planetary stirrer, v-mixer, wet granulator, double roll crusher, pelletizer, coating pan, polishing drum, filling and dosing ointments FDS.



BALL MILL KM

The Ball Mill KM is used for grinding crystalline materials and for mixing dry, or under certain circumstances, moist materials. The drum is available with 0.5, 5 and 10 litre volume (designation: KM0, KM5, KM10). The balls are available with a diameter from 30 to 50 mm. The drum is sealed airtight with a lid and is delivered including a frame for the drive unit. The drum and balls can be sterilized in water. For using the ball mill, a drive support is needed, which is optionally available in a lengthened version for the simultaneous use of two mills of the same size.



COATING PANS DKE / DKS

The ERWEKA coating pan is used for the development of coating tablets. The universal gear (UG) is required to attach the coating pan to the motor drive. This allows for adjusting the angle of the pan, thus getting an optimum result from the coating process.

Versions:

- DKE: stainless steel pan, volume 9.5 l, max. capacity 30 %, 275 mm outside diameter



CONICAL MILL CM

The CM is designed for homogenization of dry products to a specified particle size, reduction of oversized particles to the desired size and milling of agglomerates back to the initial size. A set of shims to adjust the clearance between the rotor and screen (0.5 mm to 3.0 mm) is supplied. It allows a flow rate of up to max 40 kg/h with a rotor speed of 0 - 1200 rpm. A safety interlock helps to prevent injuries.

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ACCESSORIES



DOUBLE CONE MIXER DKM

The Double Cone Mixer allows mixing of free-flowing powders and granules. The arrangement of the mixer in combination with the angle adjustment of the universal gear UG allows a multi-dimensional mixing process. The mixing vessel (11,9 liter volume, working capacity 50 %) is made of stainless steel.



FILLING & DOSING LIQUIDS FDF

The two-station dosing and filling unit is suitable for the drop-free filling of all types of different liquids. The dispense volume is easily adjustable. Quick removal of the pumps and valves for cleaning and sterilisation. The receiving container holder can be easily adjusted to accommodate various sizes. All parts coming into contact with the product are made of stainless steel.

The ERWEKA FDF comes without pumps. Optional dosing pumps for filling volume 5 to 30 ml (DP 30) and 20 to 150 ml (DP 150) are available. It comes with one set of filling nozzles (6 mm and 8 mm o.d.). Filling nozzles with different diameters are available per request. The FDF can be operated with a foot switch.

SPECIFICATIONS

- Maximum output: 1200 fills / hour
- Dosing pump for filling volume 5 to 30 ml (DP 30)
- Dosing pump for filling volume 20 to 150 ml (DP 150)



FILLING & DOSING OINTMENTS FDS

Dosing Machine FDS is suitable for filling precise quantities of ointments, lotions, emulsions and similar products into tubes, cans, bottles etc. The standard unit has a dosing range of 10-200 ml. Quick removal of the pump and hopper (19 liter volume) for cleaning. Filling nozzles of 2, 4 and 8 mm are part of the standard package.

An additional cylinder unit to accommodate the filling range from 0.5 to 25 ml together with dispense heads with different apertures and special heads for filling tubes are available on request. The FDS can be operated with a foot switch.

SPECIFICATIONS

- Additional cylinder unit to accommodate the filling range from 0.5 to 25 ml
- Dispense heads with different apertures
- Special heads for filling tubes

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ACCESSORIES



WET GRANULATOR FGS II

Wet Granulator with oscillating rotor for the production of wet granules. The granules can be produced in varying sizes depending on the employed sieve mesh. All parts coming into contact with the product are made of stainless steel. Working capacity is max. 30 kg/h depending on the material and mesh width of the sieve used.

The unit is supplied as standard with two sieves 1.0 mm and 1.6 mm MW respectively. The following mesh sizes are also available: 0.315, 0.63, 0.8, 1.0, 1.25, 1.6, 2.0, 2.5 and 3.15 mm. Other special sieves are available on request. An emergency stop helps to prevent injuries.



GTE PELLETIZER

The pelletizer GTE (400 mm inner diameter, 200 mm radius, 9.5 litre) is attached to the AR 403 via the Universal Gear UG which enables the operator to adjust the operating angle to the optimal position during operation. The material can be fed in manually or continuously. The rotary movement of the pan carries the product to the top of the pan and then flows down the pan in an even stream to the base.

By addition of the requisite amount of liquid, this process can be converted into the formation of pellets. The angle of the pan and the amount of liquid added determines the pellet size. When the pan is full, the pellets will continuously roll over the edge of the pan into a waiting container. All parts coming into contact with the product are made of stainless steel.

SPECIFICATIONS

- Universal gear (UG) is required



CUBE MIXER KB

The Cube Mixer KB uses a tumbling motion to produce a homogenous blend within a short time. The mixing action is assisted by three stainless steel rods strategically positioned within the cube. The cube mixer is attached to the drive unit via the ERWEKA Universal Gear UG, which permits operation at various angles for optimum efficiency. The cube mixer is available in several versions of acrylic glass or stainless steel.

Our cube mixers are available in the following versions:

- KB 15: Cube mixer made of acrylic glass, 3.5 l volume, 40 % working capacity
- KB 20: Cube mixer made of acrylic glass, 8 l volume, 40 % working capacity
- KB 20 S: Cube mixer made of stainless steel, 8 l volume, 40 %

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POLISHING DRUM PT

Polishing Drum to polish coated tablets. The drum is covered with interchangeable felt parts. The cover has a 120 mm diameter opening for observation of the polishing process and addition of the polishing agent during the production process. The polishing drum has 2 l volume with a working capacity of max. 40%. The device is attached to the drive unit via the ERWEKA Universal Gear UG, which permits operation at various angles for optimal results.

SPECIFICATIONS

- | Stainless steel
- | 2 l volume
- | Working capacity max. 40 %
- | Universal gear (UG) needed for attachment



PLANETARY STIRRER PRS

The planetary stirring unit for mixing of creams, ointments, pastes, moist powders and liquids. This powerful mixing attachment comes with various mixing/stirring accessories e.g. kneading hook, mixing paddle, whisk and a fluoropolymer scraper for removing any product adhering to the side of the bowl, thus ensuring a homogenous mixing in the shortest possible time.

The stirring / mixing accessories and vessel (5 liter volume, working capacity 60 %) are made out of stainless steel. Optionally an electric heated bowl DER or a double jacket bowl DB for heating and cooling by water are available. An emergency stop helps to prevent injuries.

SPECIFICATIONS

- | Electric heated bowl
- | Double jacket bowl for heating and cooling by water



DRUM HOOP MIXER RM

The drum hoop mixer with diagonal placement of the drum within the hoop. The rotation of the hoop itself produces a uniform, three-dimensional displacement of the material to be processed and hence a tumbling mixing action.

The mixer consists of two parts: the drive support and drum hoop with acrylic mixing drum. As an option, an extended drive support for simultaneous use of two mixers of the same size is available in lengthened version (RM 5 volume, working capacity max. 40 %).

SPECIFICATIONS

- | Working capacity max. 40 %
- | Mixing drums are available with 5 liter volume

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LABORATORY HIGH-SPEED MIXER SW 1/S

The Laboratory High Speed Mixer operates with the plough-share principle for mixing of powders, granules and other products of fibrous nature. Different quantities can be mixed homogeneously in only a few minutes. The mixing drum (5 liter volume, working capacity max. 70 %) offers a removable cover and can be rotated upside down for charging and emptying. A safety switch ensures that the drive unit AR 403 is switched off when the cover is removed. All parts coming into contact with the product are made of stainless steel.

SPECIFICATIONS

- | Mixing drum 5 liter volume
- | Working capacity max. 70%



DOUBLE ROLL CRUSHER TG 2000

Double Roll Crusher with two driven rollers running in opposing directions from the inside to the outside. The rollers are 70 mm long and made of stainless steel. They are equipped with teeth to produce a powerful grinding action by forcing the material against a series of braking combs.

All parts coming into contact with the product are made of stainless steel. The maximum capacity of the double roll crusher is 20 kg/hour. An emergency stop helps to prevent injuries.



V-MIXER VB-3

Mixer VB-3 with V-shaped mixing vessel out of stainless steel for gentle mixture of solid well flowing materials (bulk materials). The rotary motion of up to 140 rpm results in an even more homogenous mixture of possible and suitable sensitive materials.

It is equipped with three capacious openings for easy filling, emptying and cleaning. Volume of mixing container: 3 liter, recommended working conditions: minimum 0.2 liter to maximum 2 liter and 10-14 rpm. All parts coming into contact with the product are made of stainless steel.

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TECHNICAL DATA

Weight	30 kg
Dimensions (H x W x D)	440 x 450 x 400 mm
Voltage	98 - 136 V / 50-60 Hz, 196-264 V / 50-60 Hz; 2100 W
Protection class	I/EN 61140
Protection type	IP 21/IEC 529
Motor type	3-phase AC motor
Motor power	740 W
Motor insulation	Class F
Motor speed	20-400 rpm
Motor tolerance (coasting)	+/- 1 rpm
Gear type	Worm gear
Gear speed	20-400 rpm
Gear max. torque	23 Nm
Gear efficiency	89%
Timer settings	Hours/minutes
Time (max.)	9 h 59 min
Time tolerance	+/- 1 s
Ambient temperature during operation	+ 10 °C up to +30 °C
Storage and transport temperature	+5 °C up to +40 °C
Relative air humidity	25 to 80 % non-condensing
Airborne acoustic noise	The A-weighted emission sound pressure level in the workspace is less than or equal 70 dB(A), provided no influence from other devices or similar in the surrounding environment

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