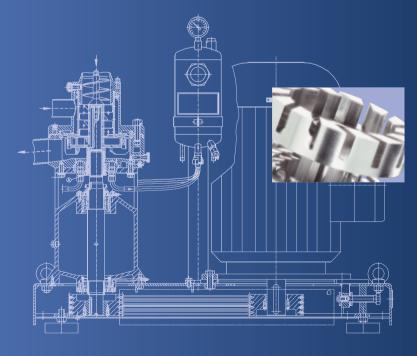
IKA®

Process Technology









The machine program of IKA*-WERKE is as manifold as mixing technology itself.

We are specially dealing with mixing and dispersing of materials that are generally not mixable. This sounds like a contradiction! In order to meet the variety of applications, we have developed a new modular construction series. With this series of machines it became possible to carry out different process steps like dispersing with "highshear", milling or continuous mixing of solids and liquid with only a few modules. A very economic solution!

For the discontinuous processing technology we offer of course also a complete program of stirring, mixing and dispersing machines.

Doing research on new things and preserve proven technologies, that is IKA®'s philosophy. Together with our customers and with research institutions we are permanently developing and testing new technologies, materials and applications.



Stands

Mobile stands SF... 22
Floor stands SB... 22
Wall stands SW... 22





20

IKA®

Stirring

ROTOTRON® 19

TURBOTRON®

Dispersing in

batch operation

ULTRA-TURRAX® 17

Dispersing Inline Series 2000 5 ULTRA-TURRAX® UTL 2000 9 DISPAX-REACTOR® DR 2000 10 DISPAX-REACTOR® DRS 2000 11 Colloid Mill MK 2000 12 Cone Mill MKO 2000 13 Solid-liquid-mixer CMS 2000 14 Solid-liquid-mixer 15



Module UTL 2000

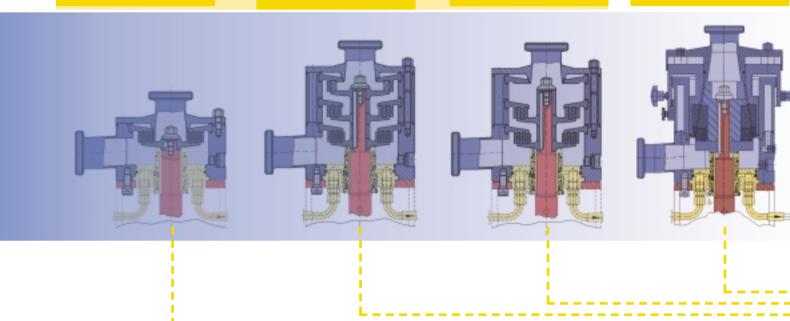
Dispersing – Suspending – Emulsifying – Homogenizing

Module **DR 2000** Modu

Module DRS 2000

Wet milling

Module MK 2000





As manifold as the mixing technology may be, there are some, only slightly differing, requirements arising again and again. IKA* developed a modular construction series which allows to use different working modules for the different applications, using in most of the cases the same drive unit.

Experienced engineers in co-operation with users have bundled up their know-how and developed an innovative package for the use in practice.

These are the main characteristics of the IKA® modular series:

- Vertical position and thus complete emptying
- Product space nearly free of dead spots
- Best quality surface finish
- CIP- and SIP-capability
- Extended mixing- and dispersing methods
- Low noise level
- Especially suited for application in food and pharmaceutical industry



Modular construction – System with great future

Wet milling
Module MKO 2000

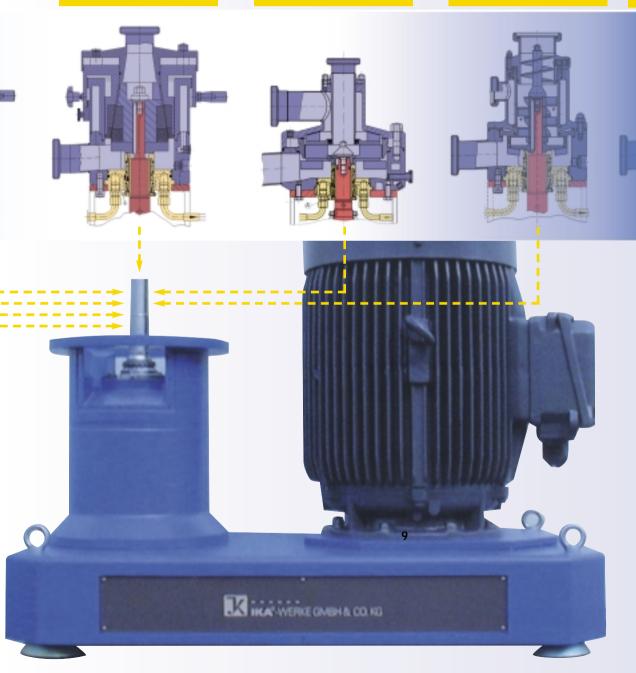
Incorporation of powders

Module CMS 2000

Incorporation of powders

Module MHD 2000

Module ...



Drive unit

Sophisticated up to the details



Outlet even with the bottom



Cartridge-seal suitable for pharmaceutical applications



Discharge chamber free of dead spots



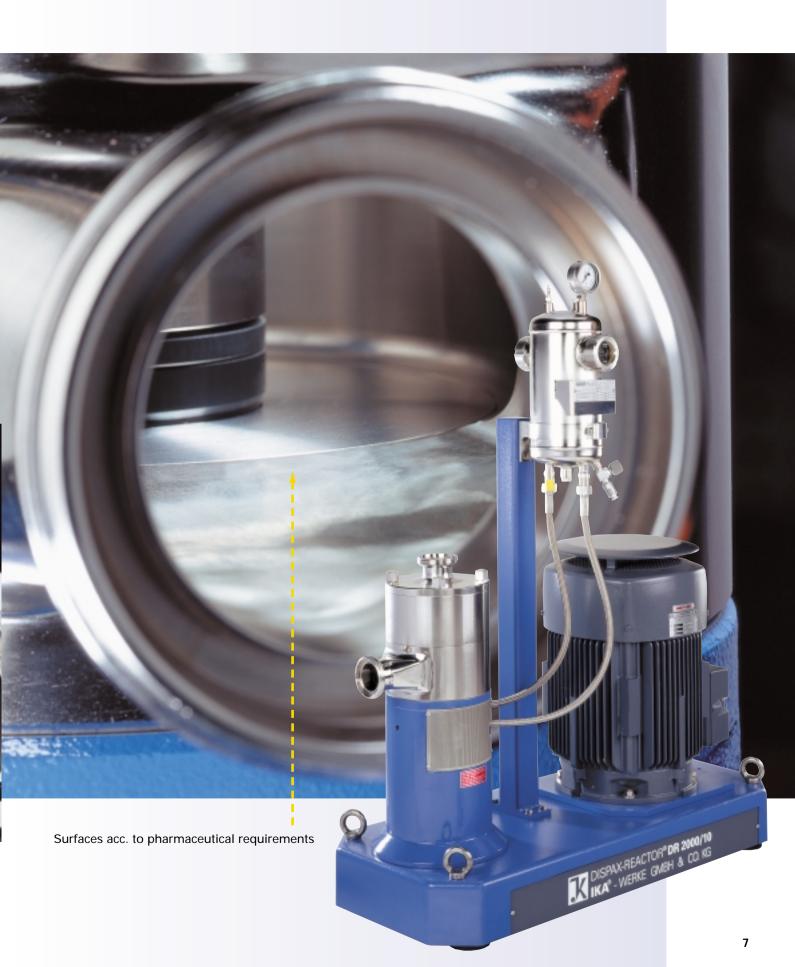
The details make the difference!

A stable and flexible belt drive with three-phase motor of variable power is mounted in the base frame of the IKA® machines. A shear stress that is constant for all machine sizes allows a reliable scale-up. A special mechanical seal in cartridgeconstruction cares for high reliability as well as easy and quick assembly. IKA® uses best-quality materials which respond to highest mechanical requirements and are resistant to corrosion. In close co-operation with our customers the generators have been further improved in order to achieve better dispersing and solving effects. Now also generators made of special materials like ceramics, carbides, stellite, etc. are available. It is for granted that we turn our special attention to surface qualities and lack of dead spots and take all regulations of the FDA and EHEDG into consideration.



Generators interchangeable, increased shear rate and frequency





It was a special honour for IKA® to receive the award shown on the right side, confirming the unlimited use of the MHD 2000 in the chemical process technology.

This machine has been developed for the inline or continuous mixing of solids in liquids. Moreover, the Food and Drug Administration (FDA) granted to IKA® the 3A-sanitary approval for the complete new line of series 2000 machines. Another proof for IKA®'s professional know-how.

Regular patent applications testify to the steady development, whereas ISO certification is securing the high quality standard.



		411	
® BUNDESREPUBLIK DEUTSCHLAND DEUTSCHES PATENT- UND MARKENAMT	Anmeldetag: 2 Offenlogungstag: 2 Verdffendichungstag der Patententeilung: 2	945 C 2 9629945.4-23 6. 7. 1998 9. 1. 1998 8. 4. 2001	© Mr. CL?: B 01 F 7/16 B 01 F 15602 B 01 F 2722 Ø A21C 1602
(§) Patentinhaber: IKA - Werke GmbN & Co (§) Vortreter:	KG, 79219 Staufen, DE	(5) Erfinder: Wanninger, Pater 79379 Müllheim, Krocingen, DE (8) Für die Beurteilu gezogens Drucks DE-AS 1134	. 79219 Staufon, DE: Bürgelin, Reif. DE: Grimm, Ume, 79189 Bed ng der Patentühigkeit in Berrecht ofhilben 372 – 396 At 002
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IKA® LABOR-PILOT 2000/4

The smallest one from the modular construction series 2000. Equipped with the same mixing, milling and dispersing tools as its big brothers, it is the ideal device for development of recipes, adaptation of processes and of course for technical specifying of production size machines. It should not be missing in any laboratory!



ULTRA-TURRAX® Inline

UTL 2000/...

A single-stage dispersing machine for production of emulsions as well as suspensions with relatively rough but narrow distribution range.

The high shear rates result in a good stability of the mixtures. Different generators (rotor + stator) enable a further adaptation to the process aim and the rheology.

The machines of all sizes are working with the same circumferential speed of the rotor, thus allowing a good scale-up. Motors of all protection types, including flame-proof motors, are available. Working is possible with pressures up to 16 bar and temperatures of up to an average of 120°C. In case of higher viscosities a preceding positive-displacement pump may be used. The ULTRA-TURRAX® is self-cleaning, i.e. without dead spots, with surfaces of highest quality and thus CIP-capable.

Applications

Sauces

Fruit juices

Marmalades

Sugar solutions

Colours

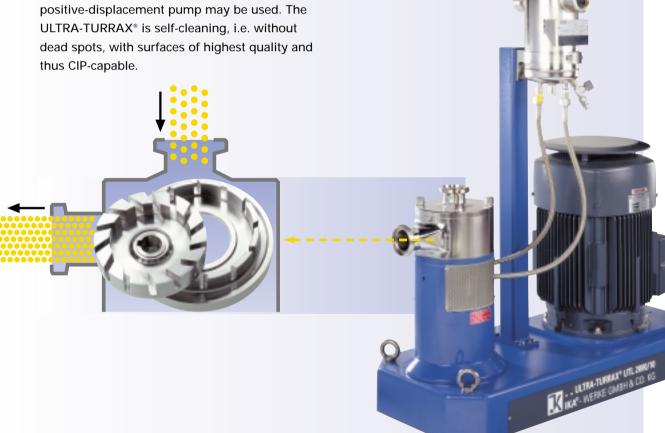
Binders

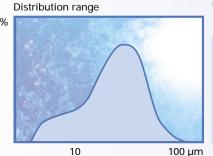
Molten resins

Lotions

Glues

Stabilizers





Type Size	Max. flow capacity, ref. H₂O I/h	Drive speed 1/min	Motor power IP 55 kW	Connections inlet/outlet
ULTRA-TURRAX®				
UTL 2000/4 LABOR-PI	LOT 300 – 700	3.160 - 13.750	1,5	DN 25 / DN 15
UTL 2000/05	2.500	5.800	5,5	DN 40 / DN 32
UTL 2000/10	8.000	4.200	7,5	DN 50 / DN 50
UTL 2000/20	20.000	2.850	22	DN 80 / DN 65
UTL 2000/30	40.000	1.420	37	DN 150 / DN 125
UTL 2000/40	70.000	1.420	55	DN 150 / DN 125
UTL 2000/50	125.000	1.100	110	DN 200 / DN 150

DISPAX-REACTOR® Inline



Applications

Creams

Lotions

Tooth paste

Fruit juices

Salt solutions

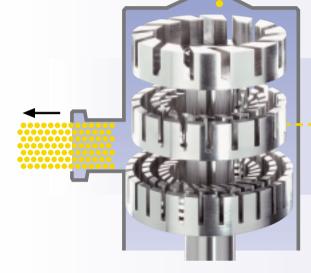
Catalysts

Lacquers

Polymer emulsions

Pesticides, herbicides,

fungicides

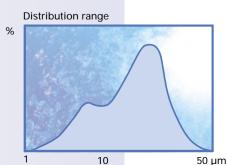




A three-stage high-shear dispersing machine for the production of macro-emulsions and very fine suspensions. Due to the three generators (rotor + stator) in direct series a narrow distribution range, smaller droplets and particles and thus a longer stability of the mixture are reached. The generators are easily interchangeable, by which a further adaptation to the respective application becomes possible. Same speed and shear rate for all machine sizes enables an exact scale-up. Drives and process parameters like temperature, pressure and viscosities are the same as for the

ULTRA-TURRAX*. CIP and SIP capability are also given for these machines and they are therefore of great use especially for the production of food and pharmaceutical products.

Size	Max. flow capacity, ref. H ₂ O I/h	Drive speed 1/min	Motor power IP 55 kW	Connections inlet/outlet
AX-REACTOR®				
2000/4 LABOR-PILOT	300 – 700	3.160 - 13.750	1,5	DN 25 / DN 15
2000/05	2.500	5.800	5,5	DN 40 / DN 32
2000/10	8.000	4.200	15	DN 50 / DN 50
2000/20	20.000	2.850	37	DN 80 / DN 65
2000/30	40.000	1.420	55	DN 150 / DN 125
2000/40	70.000	1.420	75	DN 150 / DN 125
2000/50	125.000	1.100	160	DN 200 / DN 150
	AX-REACTOR® 2000/4 LABOR-PILOT 2000/05 2000/10 2000/20 2000/30 2000/40	N/h AX-REACTOR* 2000/4 LABOR-PILOT 300 – 700 2000/05 2.500 2000/10 8.000 2000/20 20.000 2000/30 40.000 2000/40 70.000	I/h 1/min AX-REACTOR® 300 - 700 3.160 - 13.750 2000/05 2.500 5.800 2000/10 8.000 4.200 2000/20 20.000 2.850 2000/30 40.000 1.420 2000/40 70.000 1.420	I/h 1/min kW AX-REACTOR* 2000/4 LABOR-PILOT 300 – 700 3.160 – 13.750 1,5 2000/05 2.500 5.800 5,5 2000/10 8.000 4.200 15 2000/20 20.000 2.850 37 2000/30 40.000 1.420 55 2000/40 70.000 1.420 75



DISPAX-REACTOR® Inline

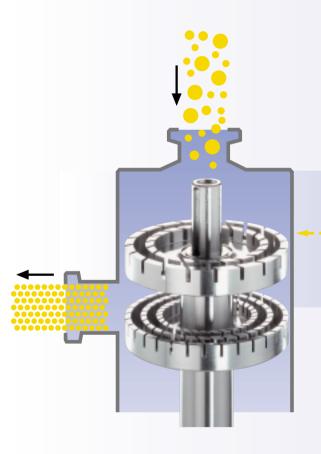
DRS 2000/...

IKA®

It is well known that high speeds resp. shear rates are most important for achieving finest micro-emulsions. The DISPAX-REACTOR® DRS combines extremely high shear rates of up to 100.000 rpm with finest generator geometry. The DRS disposes of two generators. Due to the high circumferential speed a third step became unnecessary. The operation parameters are the same as for ULTRA-TURRAX® and DISPAX-REACTOR® DR. Moreover, the DRS is especially suited for the production of pharmaceuticals.

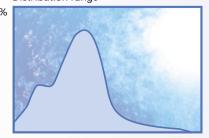
Applications

Vaccines
Decomposition of active substances
Colloidal solutions
Metal-oxide suspensions
Inks
Printing colours
Incorporation of pigments





Distribution range



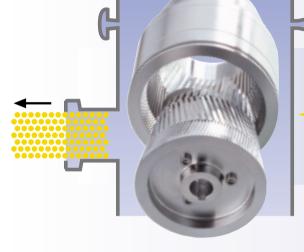
Туре	Size	Max. flow capacity, ref. H₂O I/h	Drive speed 1/min	Motor power IP 55 kW	Connections inlet/outlet
DISP	AX-REACTOR®				
DRS	2000/05	700	10.500	7,5	DN 40 / DN 32
DRS	2000/10	2.500	7.300	15	DN 50 / DN 50
DRS	2000/20	7.000	4.900	37	DN 80 / DN 65
DRS	2000/30	20.000	2.850	75	DN 150 / DN 125
DRS	2000/50	40.000	2.000	160	DN 200 / DN 150
_					

Colloid Mill

MK 2000/...

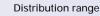
Applications

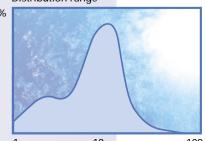
Colloidal solutions
Micro-suspensions
Incorporation of pigments
Metal-oxide suspensions
Micro encapsulation
Coating masses
Mustard
Mayonnaise
Ointments



The colloid mill MK 2000 is especially used for the production of colloidal solutions, i.e. extremely fine suspensions and also emulsions. Besides with high speeds and small gaps the MK is working with friction. Therefore one is talking about wet-milling. The cones of rotor and stator have a large gap width at the entrance and a very narrow one at the exit. Additional deviations in the course of the generator cause increased turbulences. A very efficient milling geometry, best surface finish and excellent material qualities are distinguishing characteristics of the MK 2000. Other process parameters like for DISPAX-REACTOR® DR and DRS.

Туре	Size	Max. flow capacity, ref. H ₂ O I/h	Drive speed 1/min	Motor power IP 55 kW	Connections inlet/outlet
Collo	id Mill				
MK	2000/4 LABOR-PILOT	30 – 300	3.160 - 13.750	1,5	DN 25 / DN 15
MK	2000/05	2.500	5.800	4	DN 40 / DN 32
MK	2000/10	7.500	4.200	11	DN 50 / DN 50
MK	2000/20	20.000	2.850	22	DN 80 / DN 65
MK	2000/30	40.000	1.420	45	DN 150 / DN 125
MK	2000/50	80.000	1.100	110	DN 200 / DN 150





Cone Mill

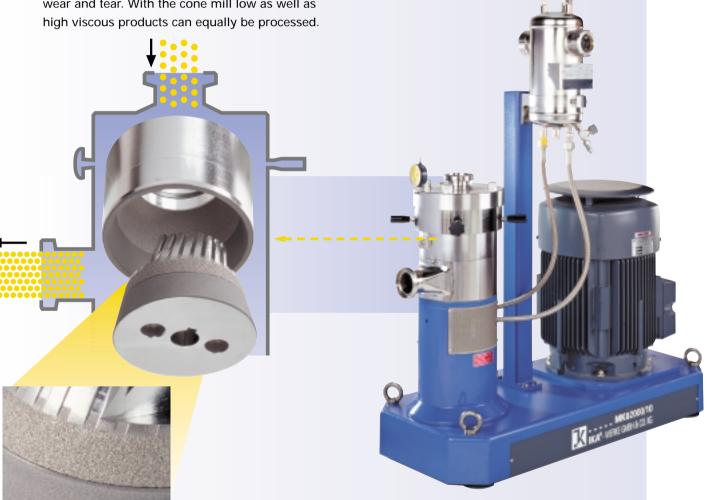
IKA®

MKO 2000/...

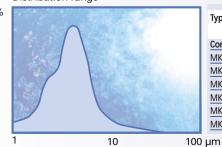
same as for the colloid mill, but even finer distribution and particle size reduction range

Applications

The cone mill MKO 2000 is a further development of the colloid mill. Due to an innovative milling technology the cone mill produces, by particle size reduction and wet milling, even finer suspensions than the colloid mill. This is achieved by smallest milling gaps in connection with an infinite gap adjustment and conical milling tools. An excellent milling effect is caused by very hard surfaces with a rough structure. The milling surfaces consist of high-quality materials like metal carbides or ceramics of different grain size. Therefore the milling tools in the very heavy strained shear zone are well protected against wear and tear. With the cone mill low as well as high viscous products can equally be processed.



Distribution range



Type Size	Max. flow capacity, ref. H ₂ O I/h	Drive speed 1/min	Motor power IP 55 kW	Connections inlet/outlet
Cone Mill				
MKO 2000/4 LABOR-PILOT	1 – 10	3.160 - 13.750	1,5	DN 25 / DN 15
MKO 2000/05	150	5.800	4	DN 40 / DN 32
MKO 2000/10	500	4.200	11	DN 50 / DN 50
MKO 2000/20	1.500	2.850	22	DN 80 / DN 65
MKO 2000/30	3.000	1.420	45	DN 150 / DN 125
MKO 2000/50	6.000	1.100	110	DN 200 / DN 150

Powder incorporation and wetting discontinuous

CMS 2000/...

Applications

Alumina suspensions Starch solutions Calcium carbonate suspensions

All applications where big quantities of solids have to be incorporated.



Dust- and lump-free incorporation of powders is one of the most frequent processing steps. The machine of type CMS 2000 is equipped with a specially designed rotor, which on the one hand sucks the liquid from a tank and on the other hand the powder from any container. The machine is working in circulating operation until the complete quantity of powder is fed. Dispersing can then be continued with closed powder inlet. Depending on the product resp. the powder characteristics, solids concentrations of up to 80% can be achieved. In case of very high viscosities an additional pump may be preceded.

Type Size	Max. total capacity	Powder incorporation	Motor power IP 55	Connections inlet solid/ inlet liquid/outlet
	l/h	kg/h	kW	
CMS 2000/4 LABOR-PILOT	3.000	5 – 500	1,5	DN 25 / DN 25 / DN 15
CMS 2000/05	15.000	60 – 2.500	7,5	DN 25 / DN 32 / DN 32
CMS 2000/10	35.000	150 – 5.500	18,5	DN 40 / DN 50 / DN 50
CMS 2000/20	60.000	200 - 8.500	37	DN 50 / DN 65 / DN 65
CMS 2000/30	100.000	400 – 14.000	90	DN 80 / DN 125 / DN 125
CMS 2000/50	200.000	700 – 28.000	160	DN 125 / DN 150 / DN 150

Powder incorporation and wetting continuous

MHD 2000/...

Applications

IKA

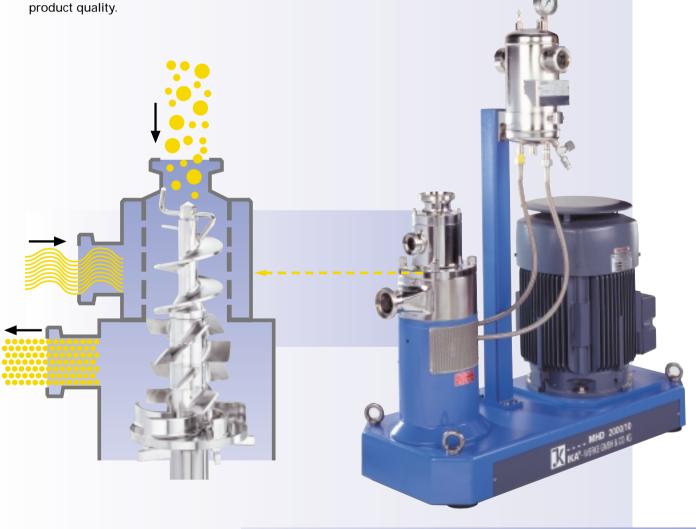
For very big production quantities we recommend the MHD 2000 mixing machines. The liquid and the solids (powders or granules) are mixed continuously and dust-free. The materials to be mixed are fed in proportional quantities, premixed in the machine and then dispersed, so that you will receive a finished final product. The slightly increased dosing effort is compensated by much smaller tank capacities, and additional expensive and heavy other mixing machines are no more needed. Additionally the MHD offers higher flexibility in the production and a constant

also see CMS Fertilizers

Vitamines

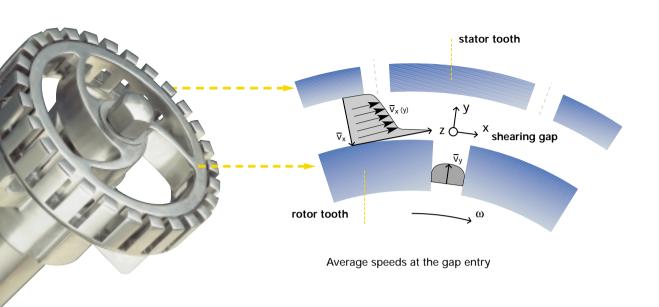
Incoporation of colour pigments Incoporation of thickeners, e.g.:

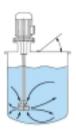
- Pectines
- Guar gum
- Starches
- Xanthan
- Flour and others.



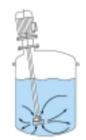
Type Size	Max. total capacity	Max. solids capacity	Motor power IP 55	Connections inlet solid/ inlet liquid/outlet
	I/h	I/h	kW	
MHD 2000/4 LABOR-PILOT	100	50	1,5	DN 50 / DN 15 / DN 15
MHD 2000/05	700	500	5,5	DN 50 / DN 25 / DN 32
MHD 2000/10	2.500	1.300	7,5	DN 65 / DN 32 / DN 50
MHD 2000/20	7.000	2.800	15	DN 80 / DN 50 / DN 65
MHD 2000/30	20.000	6.200	30	DN 150 / DN 80 / DN 125
MHD 2000/50	40.000	11.200	75	DN 200 / DN 100 / DN 150

Dispersing/Stirring in batch operation





ULTRA-TURRAX® UTC-KT (pressureless)



ULTRA-TURRAX® UTC-KD (vacuum or pressure)

approx. 160°C. The models UTC, UTL and UTE are basically only differing in the type of seal. Nevertheless, the generators are always the same so that the same mixing result is achieved. The UTE model has to be preferred in case of

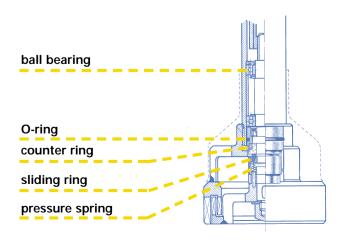


ULTRA-TURRAX® UTE (vacuum or pressure)

Since decades ULTRA-TURRAX® is a common term representing quality and reliability. The machines are used for the production of any kind of emulsions, suspensions as well as lyosoles. A variety of generators (rotor + stator) enable further adaptations to the respective mixing task. Moreover, different types of seals allow different fitting positions as well as working under pressure up to 16 bar and with temperatures up to

Sealing type KD

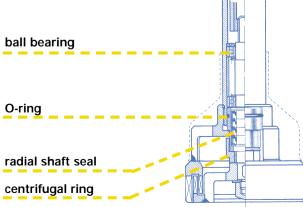
(mechanical seal)



Sealing type KT

varying filling levels in the container.

(lip seal)



ULTRA-TURRAX®

UTC/UTS









Generator TM .../2

Applications

Creams

Waxes

Polishing agents

Gelling agents

Disperse dyes

Polymer emulsions

others see UTL 2000/... page 9







Туре	Size	Max. recom. volume, ref. H ₂ O	Motor power IP 55	Speed	Tip Speed
		l	kW	1/min	m/s
ULTRA-TL	JRRAX®				
UTC	80	150	1,5	2.850	10
UTC	115	500	3	2.850	15
UTC	150	1.700	5,5	2.850	21
UTC	220	2.500	7,5	1.420	15
UTC	280	3.500	18,5	1.420	20
UTC	300	4.000	30	1.420	21
UTC	330	5.000	22	960	15
UTC	350	6.000	22	960	17
UTS-Ph	115	500	3	2.850	15
UTS-Ph	150	1.700	5,5	2.850	21

ULTRA-TURRAX®

UTE

Applications

Creams
Waxes
Polishing agents
Gelling agents
Disperse dyes
Polymer emulsions

others see UTL 2000/... page 9

Туре	Size	Max. recom. volume, ref. H ₂ O	Motor power IP 55	Speed	Tip Speed
		1	kW	1/min	m/s
ULTRA-TI	JRRAX°				
UTE	60	70	1,85	2.850	23
UTE	115	400	3	2.850	15
UTE	150	750	5,5	2.850	21
UTE	220	1.200	11	1.420	15
UTE	250	1.500	15	1.420	18
UTE	280	2.500	22	1.420	20
UTE	300	4.000	30	1.420	21



ULTRA-TURRAX® UTE for bottom entry, mainly used in case of varying filling levels and when strong spouts and air inclusions have to be avoided. Suitable for operation with pressures from 0,1 up to 16 bar and temperatures from -40° up to 160°C.



The IKA-ROTOTRON® is a jet-flow agitator. Its

efficiency is located between that of a normal

has to be intensively circulated, even at high

viscosities (up to approx. 15.000 mPas), as well

as for unfavourable container dimensions and

shapes. The special geometry of the rotor and

the jet-tube allows low drive powers at never-

theless high and directed circulation capacity.

The machines can be fitted in any position. Seals

and operation parameters correspond to those

stirrer and a dispersing machine with rotor-stator-

system. It is mainly used when a mixing product

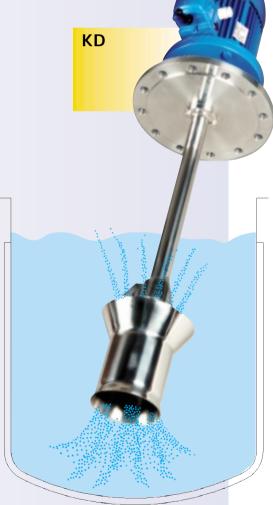


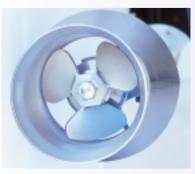
Applications

Mixing and solving of:

- Flocculents
- Gels
- ... and suspending of:
 - Polishes
 - Enamels
- ... and homogenizing of:
 - Bath essences
 - Latex-emulsionen
- ... and gassing of:
 - Waste water
 - Bioreactors







Type	Recom. volume, ref. H ₂ O	Motor power IP 55	Speed	Max. length	Circulation capacity
	1	kW	1/min	mm	m³/h
ROTOTRON	0				
RT 115	200 – 1.000	1,5	2.850	1.500	25
RT 150	1.000 - 5.000	3	2.850	1.700	60
RT 220	max. 10.000	5,5	1.450	2.300	110
RT 250	max. 15.000	7,5	1.450	2.300	145
RT 280	max. 20.000	11	1.450	2.500	200
RT 350	max. 30.000	15	970	2.700	225

RF/RK

The name IKA-TURBOTRON® stands for the classical stirrers.
These can be equipped with the different stirring tools shown on this page. According to the variety of stirring tasks and operation conditions the most different drives, sealing systems and speeds are used.



propeller "P"



For determination of these data the optimum dimensions and installation positions have always to be considered (see sketches on page 21). Depending on the process, the machines can be used under vacuum as well as pressure and in a wide temperature range. Particularly for application in the food and pharmaceutical industry special materials and of course finest polishes are available.



turbine "T"



disk "S"



toothed disk "Z"

Nomenclature
RK-00-P-800

installation length
stirring tool
construction size

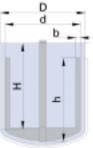
Туре	Recom. volume, ref. H ₂ O	Motor power kW	Speed 1/min	Max. length mm	Pømm	Stirrin Tømm	•	Zømm
TURBOTRON®								
RK / RF 00	500 / 1.000	0,37 / 0,55	1.000 / 1.415	800 / 1.500	125	100	90	90
RK / RF 01	1.000 / 2.000	0,55 / 0,75	1.415 / 920	1.000 / 1.500	160	125	100	100
RK / RF 02	1.500 / 3.000	0,75 / 1,5	920 / 700	1.000 / 1.750	190	150	125	125
RK / RF 03	2.000 / 4.000	1,1 / 2,2	930 / 945	1.250 / 1.500	220	200	150	150
RK / RF 04	2.500 / 5.000	1,5 / 3	700 / 975	1.500 / 1.500	250	220	170	170
RK / RF 05	3.000 / 6.000	2,2 / 4	715 / 725	1.750 / 1.750	275	250	200	200
RK / RF 06	3.500 / 8.000	3 / 5,5	1.000 / 725	1.750 / 1.750	300	275	250	250
RK / RF 07	4.000 / 12.000	4 / 7,4	1.000 / 750	1.750 / 2.000	350	300	275	275
Diameter anchor st	irrer adapted to vessel diameter							

TURBOTRON®

RFG/RKG



anchor stirrer



$$0.75 \le \frac{D}{U} \le 1$$

$$0.9 \leq \frac{d}{D} \leq 0.98 \qquad \qquad 0.1 \leq \frac{d}{D} \leq 0.5 \qquad \qquad 0.2 \leq \frac{d}{D} \leq 0.5 \qquad \qquad 0.1 \leq \frac{d}{D} \leq 0.3 \qquad \qquad \frac{D}{3} \leq a \leq \frac{D}{2}$$

$$0.75 \le \frac{h}{d} \le 1$$

 $b \approx 0.1 \cdot d$





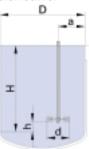
$$0.5 \le \frac{D}{11} \le 0.75$$

$$0.1 \leq \frac{d}{R} \leq 0.5$$

$$1 \leq \frac{h}{d} \leq 2$$

B $\approx 0.1 \cdot D$ a $\ge 1.5 \cdot d$

disk stirrer



$$0.5 \leq \frac{D}{\cdots} \leq 0.75$$

$$0.2 \leq \frac{d}{D} \leq 0.5$$

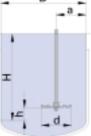
turbine stirrer



$$0.75 \le \frac{D}{H} \le 1$$
 $0.5 \le \frac{D}{H} \le 0.75$ $0.5 \le \frac{D}{H} \le 0.75$ $0.5 \le \frac{D}{H} \le 0.75$ $0.2 \le \frac{d}{D} \le 0.5$

$$0.1 \leq \frac{d}{2} \leq 0.3$$

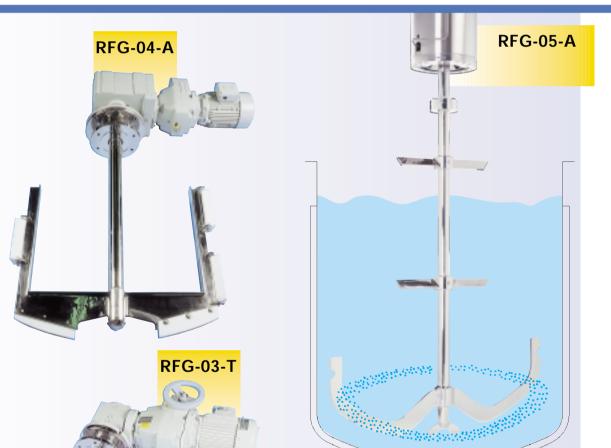
toothed disk stirrer



$$0.2 \leq \frac{d}{2} \leq 0.5$$

$$\frac{D}{3} \le a \le \frac{D}{2}$$

 $0.75 \leq \frac{h}{d} \leq 1 \qquad \qquad 1 \leq \frac{h}{d} \leq 2 \qquad \qquad 0.8d \leq a \leq 1.5d \qquad \alpha \approx 10^{\circ} \qquad \qquad 0.75 \leq \frac{D}{H} \leq 1$



Туре	Recom. volume, ref. H ₂ O	Motor power	Speed	Max. length	Stirrin	g tool
	1	kW	1/min	mm	Pømm	Tømm
TURBOTRON®						
RKG / RFG 00	1.000 / 1.000	0,55 / 0,55	250 / 250	1.250 / 1.500	250	200
RKG / RFG 01	1.500 / 1.500	0,75 / 0,75	250 / 250	1.250 / 1.500	300	250
RKG / RFG 02	3.000 / 3.000	1,5 / 1,5	250 / 250	1.500 / 1.500	350	300
RKG / RFG 03	4.000 / 6.000	2,2 / 3	300 / 250	1.500 / 1.750	400	350
RKG / RFG 04	5.000 / 8.000	3 / 4	250 / 250	1.750 / 2.000	450	400
RKG / RFG 05	6.000 / 12.000	4 / 5,5	250 / 250	2.000 / 2.500	500	450
RKG / RFG 06	8.000 / 15.000	5,5 / 7,5	250 / 250	2.000 / 2.750	550	500
RKG / RFG 07	12.000 / 20.000	7,4 / 9,2	250 / 250	2.000 / 3.000	600	550

Diameter anchor stirrer adapted to vessel diameter

Stands

The shown stands are supplementary equipment to our stirrers and the ULTRA-TURRAX® UTC. Lifting and lowering are either done by a hydraulic hand pump or by an electric motor. The stands may also be equipped with swivelling brackets. The mixing vessels are secured by an adjustable vessel fastening device. Electric lockings make

sure that the stirrer can only be operated when it is emerged into the vessel and the vessel is firmly fixed. The lifting height can be adjusted acc. to the requirements.

For use in food and pharmaceutical production polished stainless steel stands are available.

with hydraulic hand pump



mobile stand in stainless steel design with hydraulic hand pump and vessel fastening device stand for wall mounting with lift adjustment by electric motor

Denomination	Max. load capacity	Max. lifting height	Lit	fting drive
	kg	mm	manual	electro-hydraulic
SFH 150 / SFH 250	150 / 250	1.000 / 1.000	Х	
SFAE 150 / SFAE 250	150 / 250	1.000 / 1.000		Х
SBH 150 / SBH 250	150 / 250	1.200 / 1.200	Х	
SBAE 150 / SBAE 250	150 / 250	1.200 / 1.200		Х
SWH 150 / SWH 250	150 / 250	1.600 / 1.600	Х	
SWAE 150 / SWAE 250	150 / 250	1.600 / 1.600		Х
	SFH 150 / SFH 250 SFAE 150 / SFAE 250 SBH 150 / SBH 250 SBAE 150 / SBAE 250 SWH 150 / SWH 250	kg SFH 150 / SFH 250 150 / 250 SFAE 150 / SFAE 250 150 / 250 SBH 150 / SBH 250 150 / 250 SBAE 150 / SBAE 250 150 / 250 SWH 150 / SWH 250 150 / 250	kg mm SFH 150 / SFH 250 150 / 250 1.000 / 1.000 SFAE 150 / SFAE 250 150 / 250 1.000 / 1.000 SBH 150 / SBH 250 150 / 250 1.200 / 1.200 SBAE 150 / SBAE 250 150 / 250 1.200 / 1.200 SWH 150 / SWH 250 150 / 250 1.600 / 1.600	kg mm manual SFH 150 / SFH 250 150 / 250 1.000 / 1.000 x SFAE 150 / SFAE 250 150 / 250 1.000 / 1.000 x SBH 150 / SBH 250 150 / 250 1.200 / 1.200 x SBAE 150 / SBAE 250 150 / 250 1.200 / 1.200 x SWH 150 / SWH 250 150 / 250 1.600 / 1.600 x

hydraulic hand pump

IKA® Service



Spare parts and repairs

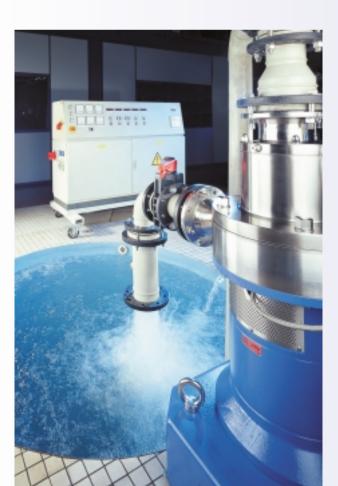
For securing a quick and smooth supply of spare parts, also in case of repairs, IKA*-WERKE is keeping a modern parts stockroom with continuous stock supervision.

Research and development

A well equipped pilot plant with all necessary trial machines as well as measuring and documentation possibilities is at our customers' disposal. Existing processes can be optimized by trials and new procedures can be developed.







This pilot plant is of course also intensively used by our own design department for optimization of existing and development of new machines and processes.

Quality assurance

Every single IKA® product is submitted to a final quality assurance control before it leaves our workshop, in order to test its complete functionality and to ensure a smooth integration into the customer's production line.

IKA® subsidiaries world-wide





IKA*-WERKE GMBH & CO. KG Janke & Kunkel Str. 10 D - 79219 Staufen

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