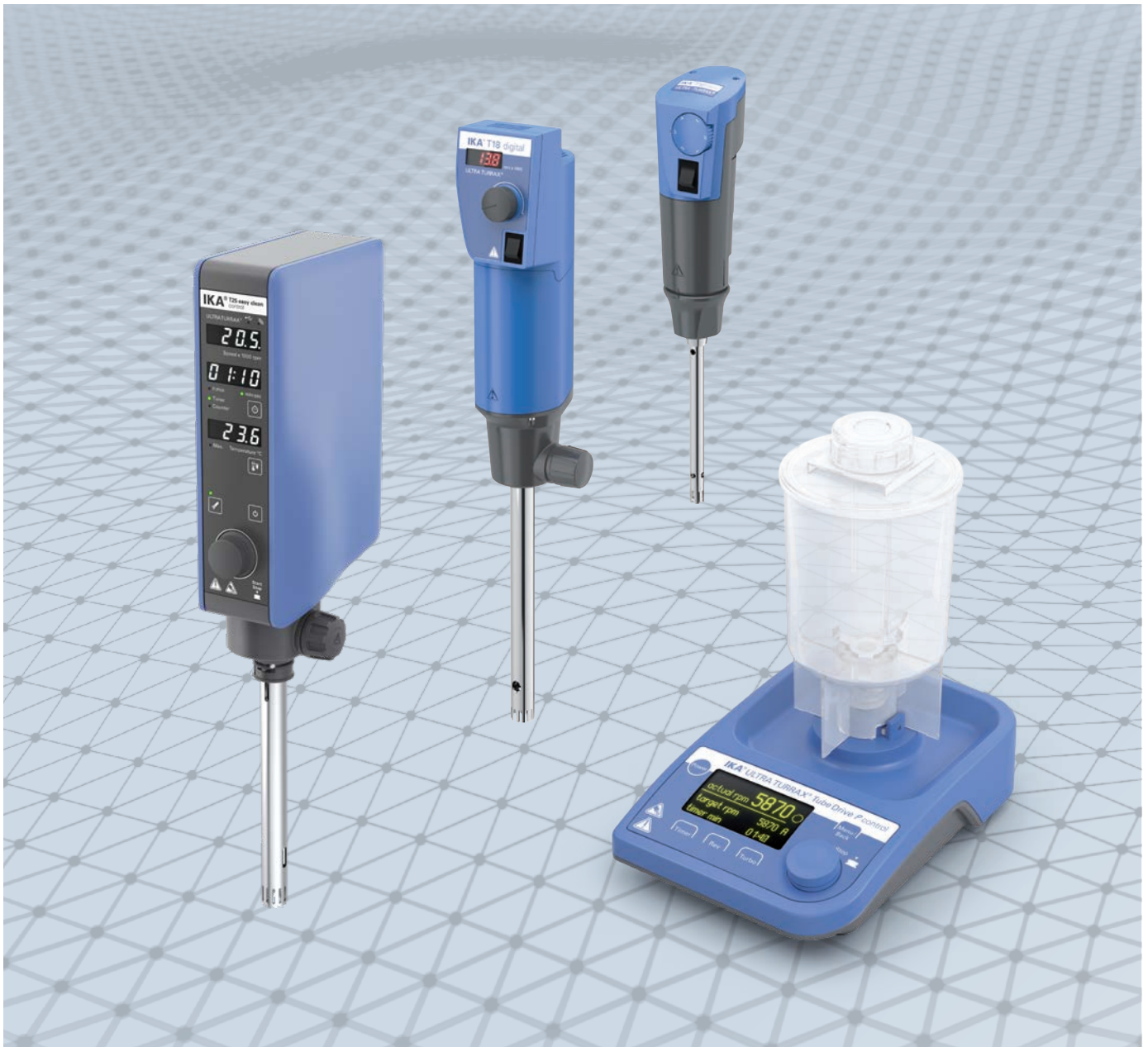


IKA

designed for scientists

EN



HIGH PERFORMANCE HOMOGENIZING | [Dispersers](#)

More than 50 years of dispersing expertise

Dispersers

/// Proven and precise technology

ULTRA-TURRAX® - the epitome of first-rate dispersing devices enable the best possible results whether used for homogenization, emulsification or suspensions. The IKA range of dispersers are used for volumes ranging from 0.5 to 50,000 ml (H₂O) and come equipped with a digital display. These dispersers offer a wide speed range up to 30,000 rpm that enables users to work at high circumferential speeds even with small rotor diameters. The high-performance drive ensures immense speed stability. Due to their broad spectrum of dispersing tools, IKA dispersers are highly effective for a variety of uses.

The unique and patented ULTRA-TURRAX® Tube Drive system is the world's first disperser system with disposable and sealed sample tubes. Multiple tube styles are available for mixing, homogenizing and grinding for a variety of applications.



Personalized application support

In the IKA Application Center you can test the dispersers yourself. Our experts analyze your processes and work with you to find out how your application can be optimized.

Worldwide service

To opt for the IKA dispersers is also to opt for the excellent IKA service in your region. Our team is available worldwide for your service and application needs. Availability of spare parts is guaranteed for 10 years.

Do you have any questions?

Our service team is at your disposal:

+1 910 452-7059

sales@ika.net

3 years
warranty*



*2+1 years after registering at
www.ika.com/register,
wearing parts excluded



Dispersers

/// High performance homogenizing

ULTRA-TURRAX® Tube Drive

The unique and universal dispersing, stirring, homogenizing and grinding system is equipped with sealable disposable sample tubes, perfectly suited for research purposes where cross-contamination has to be avoided.

T-series

IKA's T- and T brushless series are high speed and high shear instruments that are used for dispersing, emulsifying and homogenizing. With the easy clean tools, no disassembling is required for cleaning. The brushless motor guarantees a dust-free and silent operation.



UTL 25 in-line system

The in-line system is designed for circulation or flow-through processing in the laboratory. It is sterilizable, autoclave-compatible and suitable for vacuum or pressurized operation (up to 6 bar).

4

/// ULTRA-TURRAX® TUBE DRIVE

39

/// UTL 25 IN-LINE SYSTEM

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/// T-SERIES

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/// INDUSTRIES & APPLICATIONS

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/// DISPERSING TOOLS

43

/// FAQ



ULTRA-TURRAX® Tube Drive
Ident No. 0003646000

ULTRA-TURRAX® Tube Drive

/// World's first universal disposable disperser system with hermetically sealable sample tubes

The ULTRA-TURRAX® Tube Drive disperser system provides protection and security for infectious sample materials, toxic and high-odor substances under defined conditions (time, energy, volume). Test procedures are easily duplicated with no cross-contamination between samples.

The sample containers (tubes) are easily attached to the drive unit. Desired speed and duration are set, then the test is started. An acoustic signal indicates completion of the experiment.

Patented!



ULTRA-TURRAX® Tube Drive
P control
Ident No. 0025005981

ULTRA-TURRAX® Tube Drive P control & Workstation

/// 4-in-1 without any cross-contamination

The IKA UTTD power control disperser gets its name from an even more powerful motor. The disperser assures the best stirring, dispersing, grinding and homogenization results.

The unit includes a turbo function and reverse rotation switch to optimize mixing and crushing performance. The USB interface enables PC operation and data storage.



ULTRA-TURRAX® Tube Drive
P control Workstation
Ident No. 0025005836

Scope of delivery:

ST-20 Stirring tube, 20 ml (3 pcs.)
DT-20 Dispersing tube, 20 ml
Glass balls (6.0 mm) for BMT tubes
Stainless steel (5.0 mm) balls for BMT tubes

FEATURES

ULTRA-TURRAX® Tube Drive P control

- › Disposable tubes
- › Programmable test conditions
- › Adjustable change in direction of rotation
- › Turbo button

Technical data

Technical data	ULTRA-TURRAX® Tube Drive Ident No.: 0003646000	ULTRA-TURRAX® Tube Drive P control Workstation Ident No.: 0025005981 0025005836
Motor rating input	20 W	36 W
Motor rating output	17 W	28 W
Viscosity max.	5000 mPas	5000 mPas
Speed range	300 – 6000 rpm	400 – 8000 rpm
Reversible direction of rotation	-	yes
Speed deviation	10 %	3 %
Speed adjustment	stepless	10 RPM Steps
Speed display	scale	OLED
Noise without element	50 dB(A)	50 dB(A)
Process type	batch	batch
Timer	-	yes
Timer display	-	OLED
Dimensions (W × H × D) Dimension case (W × H × D)	100 × 40 × 160 mm	122 × 54 × 178 mm 270 × 78 × 225 mm
Weight	0.75 kg	1.3 kg 1.5 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C
Permissible relative humidity	80 %	80 %
Protection class according to DIN EN 60529	IP 20	IP 20
USB interface	50/60 Hz	yes
Voltage	100 – 240 V	100 – 240 V
Frequency	50/60 Hz	50/60 Hz
Current consumption	800 mA	1500 mA

The ULTRA-TURRAX® Tube Drive system, with its universal, single use tubes is particularly suitable for processing infectious, toxic and high odor sample materials. Tests can be reproduced at any time with no risk of cross-contamination between individual samples.



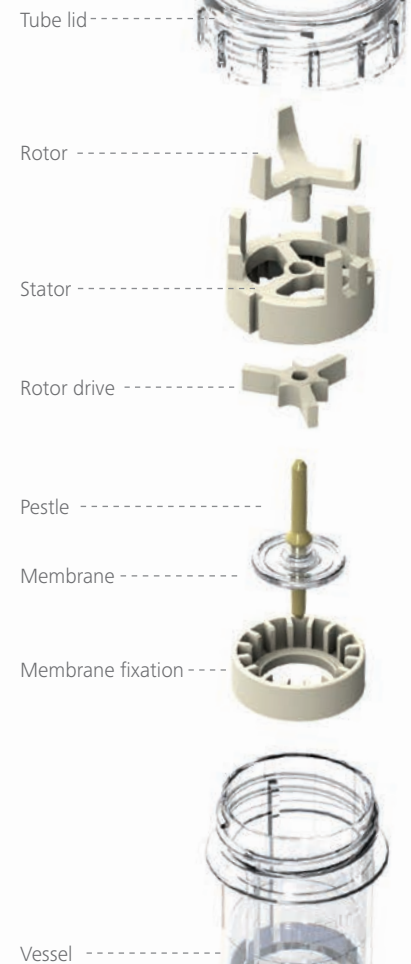
FEATURES

- › Simple and safe disposal
- › Sealed disposable sample tubes
- › No cross-contamination
- › No cleaning required
- › Reproducible tests supports GLP and GMP reporting
- › Chemical resistant plastic
- › Patented
- › Sterile version available
- › Available with pierceable lids
- › Batch traceability ensured



All tubes are also available with a pierceable membrane and gamma-sterilized.

DT TUBE



The ULTRA-TURRAX® Tube Drive is ideal for easier, faster, simpler and safer sample preparation.

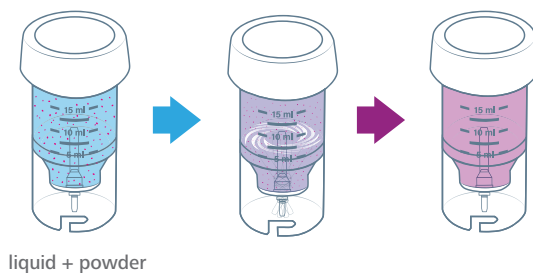




Tube with stirring device ST TUBE

Suitable for:

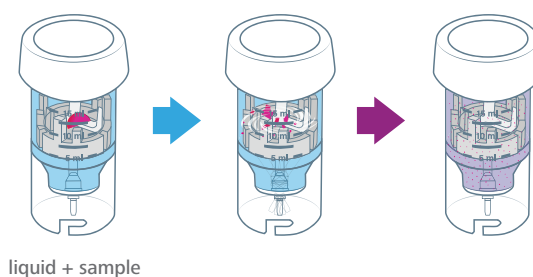
- › Mixing
- › Stirring
- › Extractions
- › Preparation of soil sample suspensions



Tube with rotor-stator element DT TUBE

Suitable for:

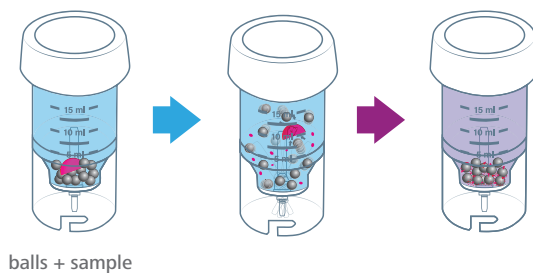
- › Dispersion
- › Homogenization
- › Suspensions
- › Pharmacokinetics
- › Metabolism studies
- › Diagnosis



Tube for grinding with glass balls (G) or with stainless steel balls (S) BMT G / S TUBE

Suitable for:

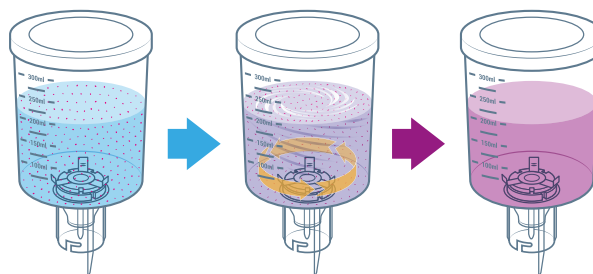
- › Dry milling of dry and brittle samples (e.g. kaolin, gypsum, colored pigments, tablets)
- › Cell maceration
- › Processing of materials mixed with fluids



Tube with dissolver blade DIS TUBE

Suitable for:

- › Applications in the pharmaceutical industry
- › Dissolving samples in different solvents
- › Crushing, mixing, dissolving





ST-20



ST-50-M



DT-20



DT-50-M



BMT-20-G-M



BMT-20-S-IVD.50

TUBE	DESCRIPTION	IDENT. NO.
ST TUBES WITH STIRRING ELEMENT		
ST-20	20 ml, 25 pcs.	0003703000
ST-20-M-gamma	Sterile, 20 ml, 20 pcs., membrane lid	0003700500
ST-50	50 ml, 10 pcs.	0003699500
ST-50-M-gamma	Sterile, 50 ml, 10 pcs., membrane lid	0003701500
DT TUBES WITH ROTOR-STATOR ELEMENT		
DT-20	20 ml, 25 pcs., material: PEEK + PTFE	0003703100
DT-20-M-gamma	Sterile, 20 ml, 20 pcs., membrane lid	0003700600
DT-20 eco	20 ml, 25 pcs., material: PES + PTFE	0020003207
DT-50	50 ml, 10 pcs., material: PEEK + PTFE	0003699600
DT-50-M-gamma	Sterile, 50 ml, 10 pcs., membrane lid	0003701600
DT-50 eco	50 ml, 10 pcs., membrane lid, material: PES + PTFE	0020003213
BMT G S TUBES FOR GRINDING WITH GLASS (G) OR STAINLESS STEEL (S) BALLS		
BMT-20-S	Stainless steel balls, 20 ml, 25 pcs.	0003703200
BMT-20-G	Glass balls, 20 ml, 25 pcs.	0003703300
BMT-20-S-M-gamma	Sterile, stainless steel balls, 20 ml, 20 pcs., membrane lid	0003700701
BMT-20-G-M-gamma	Sterile, glass balls, 20 ml, 20 pcs., membrane lid	0020017448
BMT-50-S	Stainless steel balls, 50 ml, 10 pcs.	0003699700
BMT-50-G	Glass balls, 50 ml, 10 pcs.	0003699800
BMT-50-S-M-gamma	Sterile, stainless steel balls, 50 ml, 10 pcs., membrane lid	0003701700
IN-VITRO-DIAGNOSTIC TUBES		
BMT-20-S-IVD1.50	Sterile, IVD label, stainless steel balls, 5 ml NaCl solution, 20 ml, 50 pcs., single sterile packaging	0020103143
BMT-20-S-IVD.50	Sterile, IVD label, stainless steel balls, 5 ml NaCl solution, 20 ml, 50 pcs., membrane lid, double sterile packaging	0020027186
BALLS FOR BMT TUBE		
Glass balls	250 g, 6 mm	0003599200
Stainless steel balls	250 g, 5 mm	0003599300



DIS-50-S-M

DIS-300-S-M



TC-50-M



CA.UTTD

TUBE	DESCRIPTION	IDENT. NO.
TUBES WITH DISSOLVER ELEMENT AND MEMBRANE LID		
DIS-50-S-M	50 ml, 10 pcs., stainless steel	0020016316
DIS-50-T-M	50 ml, 10 pcs., titanium	0020016317
DIS-300-S-M.10	300 ml, 10 pcs., stainless steel	0020016318
DIS-300-S-M.50	300 ml, 50 pcs., stainless steel	0020017313
TUBES WITH DISSOLVER ELEMENT		
DIS-300-S.10	300 ml, 10 pcs., stainless steel	0020026959
DIS-300-S.50	300 ml, 50 pcs., stainless steel	0020026960
COVERS		
TC-20-M	Cover, pierceable membrane, for 20 ml tubes, 25 pcs.	0003749900
TC-50-M	Cover, pierceable membrane, for 50 ml tubes, 10 pcs.	0003750000
FURTHER ACCESSORIES FOR UTTD		
CA.UTTD	Centrifuge adapter for UTTD tubes, 2 pcs.	0020101847



BMT-20-S-IVD

/// For use in human medicine

The disposable tube BMT-20-S-IVD is suitable especially for in-vitro diagnostic applications in the fields of human medicine and infection diagnostics. The gamma-sterilized tube contains a stirring unit, 10 stainless steel balls, 5 ml 0.90% saline solution and is equipped with a pierceable membrane in the screw cap. BMT-20-S-IVD facilitates and improves the microbiological and molecular biological analysis of patient samples.

The disposable tube BMT-20-S-IVD is a medical product according to directive 98/79 / EG and manufactured according to ISO 13485: 2016.

REDUCED RISK OF CONTAMINATION

No cross-contamination as sample is directly ground inside the vessel, no multiple opening of sample vessel required.

TIME SAVING

Disposable system, shorter sample preparation times, no cleaning of additional vessels.

TRACEABILITY

One single process for transport, grinding / homogenization and storage.

T-series

/// Innovative solutions for dispersion technology

IKA's T-series of dispersers are designed for mixing and dispersing of products with a wide range of viscosities. This series of dispersers enables the best possible results for any application with improved product quality and better stability.

Handheld
operation

T 10 basic
ULTRA-TURRAX®
Ident No. 0003737001



T 25 digital
ULTRA-TURRAX®
Ident No. 0003725001



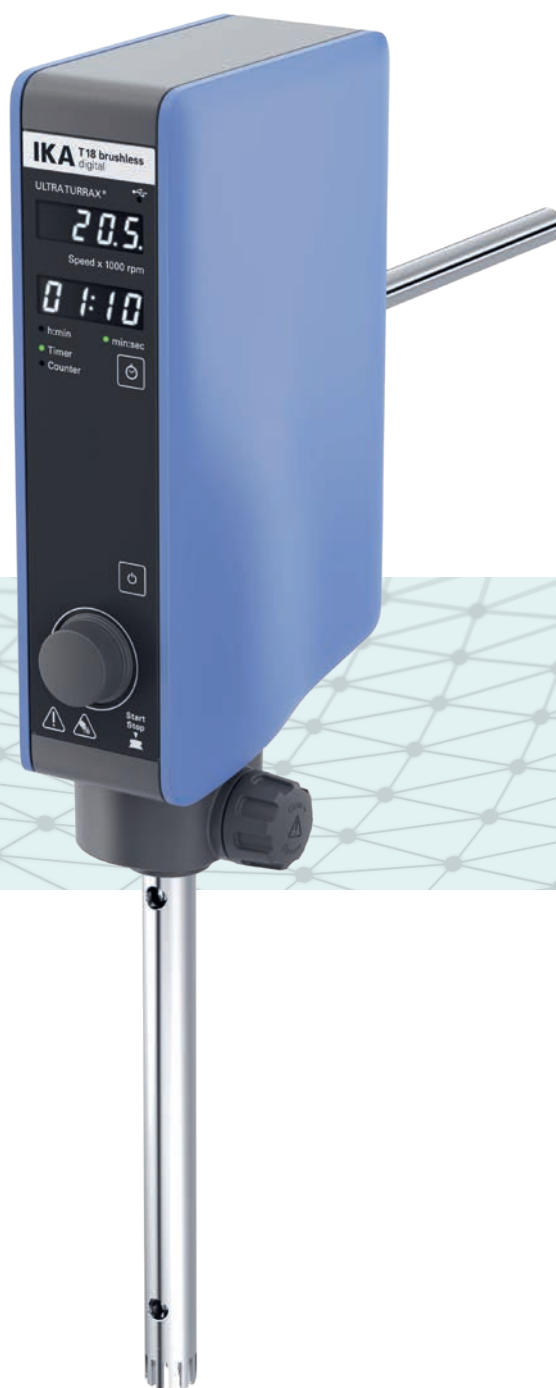
FEATURES

- › Motor protection against overload
- › Quick-connect coupling to exchange dispersing tools easily
- › Digital display for precise monitoring of set and actual speeds
- › Wide selection of dispersing tools to suit your application
- › Rotating knob for adjustment of speed

Upgraded technology: new brushless motor series

The new generation of the T 18 disperser comes with an upgraded housing design for increased robustness. The dispersing tools can be easily changed to accommodate a wide range of applications and to facilitate easy cleaning of the shafts after use.

T 18 brushless digital
ULTRA-TURRAX®
Ident No. 0020103241



FEATURES

T 18 brushless digital ULTRA-TURRAX®

- › Brushless DC motor guarantees dust-free and quieter operation
- › USB interface for control and documentation via labworldsoft®
- › Timer function for unattended operation
- › Digital display for indication and adjustment of rotational speed
- › Various dispersing tools available to meet different application needs
- › Electronic overload protection

Easy Clean series

T 25 easy clean digital
ULTRA-TURRAX®
Ident No. 0025002561

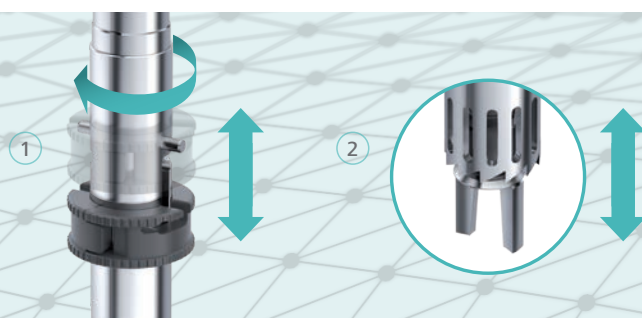


Electronically commutated motor

IKA applies a new motor technology to the devices in the T 25 easy clean series: the brushless DC motor, with a noise level of 70 dB, ensures a significant noise reduction in the lab. It also allows for carbon dust-free operation.

Easy cleaning

Easy clean means: The disperser is easily cleaned without disassembly, thanks to its manually extendable rotor, which allows for fast cleaning and rinsing between batches.



Resistant surface

IKA developed a particularly resistant housing for the new disperser. The timer function for the easy-to-read display is another outstanding feature.



Remote control
with WiCo

T 25 easy clean control
ULTRA-TURRAX®
Ident No. 0025002501



Integrated temperature measurement

Yet another highlight is the patented, integrated temperature measurement in the T 25 easy clean control version. The temperature sensor is integrated into the tool and thus enables the real-time monitoring of the medium temperature.

Heat-sensitive samples can also be protected with the safety temperature setting, which helps to avoid overheating and damage to temperature-sensitive samples and any intermediates formed in situ.

Tool service time

A maintenance reminder can be set to help maintain the dispersing tool in its optimum condition for everyday use.



Automation and documentation

These devices can be connected to the IKA laboratory software labworldsoft® which allows software control and process documentation to meet the most stringent audit standards.

PATENTED

The temperature measurement integrated in the disperser is patented. Another patent for the wireless temperature measurement is pending.

The optimal disperser for your application

1:50

Scale-up principle

IKA dispersers have a high degree of flexibility and scalability. Therefore, ensuring reliable scale-up by offering the possibility to work with the same method from formulation development to production.

T 10 basic 0.5 – 100 ml 5000 mPas	T 65 digital 2 – 50 l 5000 mPas
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T 10 basic
ULTRA-TURRAX®
Ident No. 0003737001



T 18 digital
ULTRA-TURRAX®
Ident No. 0003720001



T 18 brushless digital
ULTRA-TURRAX®
Ident No. 0020103241



T 25 digital
ULTRA-TURRAX®
Ident No. 0003725001

Further
process solutions
can be found on
www.ikaprocess.com



T 25 easy clean digital
ULTRA-TURRAX®
Ident No. 0025002561



T 25 easy clean control
ULTRA-TURRAX®
Ident No. 0025002501



T 50 digital
ULTRA-TURRAX®
Ident No. 0003787001



T 65 digital
ULTRA-TURRAX®
Ident No. 0004234501

scale up solutions

Dispersing tools are not included in the scope of delivery.

Technical data

Technical data	T 10 basic ULTRA-TURRAX® Ident No.: 003737000	T 18 digital ULTRA-TURRAX® Ident No.: 0003720000	T 18 brushless digital ULTRA-TURRAX® Ident No.: 0020102476	T 25 digital ULTRA-TURRAX® Ident No.: 0003725000
Motor rating input / output	125 / 75 W	500 / 300 W	400 / 300 W	800 / 500 W
Volume range (H ₂ O)	0.5 – 100 ml	1 – 1500 ml	1 – 1500 ml	1 – 2000 ml
Viscosity max.	5000 mPas	5000 mPas	5000 mPas	5000 mPas
Speed range	8000 – 30 000	3000 – 25 000 rpm	3000 – 25 000 rpm	3000 – 25 000 rpm
Speed display	scale	LED	LED	LED
Speed control	stepless	stepless	stepless	stepless
Noise without element	65 dB(A)	75 dB(A)	70 dB(A)	75 dB(A)
Extension arm diameter	8 mm	13 mm	13 mm	13 mm
Extension arm length	100 mm	160 mm	160 mm	160 mm
Process type	batch	batch	batch	batch
Dimensions (W × D × H)	56 × 66 × 178 mm	87 × 106 × 271 mm	89 × 161 × 270 mm	87 × 106 × 271 mm
Weight	0.61 kg	2.5 kg	3 kg	2.5 kg
Perm. ambient temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %	80 %	80 %
Protect. class DIN EN 60529	IP 30	IP 20	IP 30	IP 20
Interface	no	no	yes	no
Voltage	230 V	220 – 240 V	220 – 240 V	220 – 240 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz

Technical data	T 25 easy clean digital control ULTRA-TURRAX® Ident No.: 0025002560 0025002500	T 50 digital ULTRA-TURRAX® Ident No.: 0003787000	T 65 digital ULTRA-TURRAX® Ident No.: 004234500
Motor rating input / output	500 / 400 W	1100 / 700 W	2600 / 2200 W
Volume range (H ₂ O)	1 – 2000 ml	0.25 – 30 l	2 – 50 l
Viscosity max.	5000 mPas	5000 mPas	5000 mPas
Speed range	3000 – 25 000 rpm	600 – 10 000 rpm	1000 – 9500 rpm
Speed display	LED	LED	LED
Speed control	stepless	stepless	stepless
Noise without element	70 dB(A)	72 dB(A)	75 dB(A)
Extension arm diameter	13 mm	16 mm	flange
Extension arm length	160 mm	220 mm	flange
Process type	batch	batch	batch
Dimensions (W × D × H)	89 × 161 × 270 mm	115 × 139 × 355 mm	300 × 400 × 420 mm
Weight	3 kg	5.85 kg	35 kg
Perm. ambient temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %	80 %
Protect. class DIN EN 60529	IP 30	IP 20	IP 54
Interface	yes	no	no
Voltage	220 – 240 V	220 – 240 V	3 × 400 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz



Accessories



(A)

R 182 Boss head clamp
Ident No. 0002657700



(B)

R 1825 Plate stand
Height: 560 mm
With slip resistant mat
Ident No. 0003160000

R 1826 Plate stand
Height: 800 mm
With slip resistant mat
Ident No. 0003160100

R 1827 Plate stand
Height: 1000 mm
With slip resistant mat
Ident No. 0003160200



(C)

Dispersing tools in different sizes
and designs available



(D)

RH 3 Strap clamp
For securing vessels against walls or for
synchronized rotation during dispersing
Ident No. 0003008600

Find more
accessories on
www.ika.com

Trial devices

You may request demo units
in order to experience
our high-quality disperser
offerings first hand.

Contact us [here](#)



Dispersing tools

IKA dispersing technology works by using the rotor-stator principle. The system consists of a rotor within a stationary stator. Due to the high circumferential speed, the medium to be processed is drawn axially into the dispersion head and then forced radially through the slots in the rotor-stator arrangement. The high speed and minimal gap between the rotor and stator produces extremely strong shear forces which results in better dispersion within a very short time frame.

A wide variety of rotor-stator configurations and seals are required to process different mediums. In order to make the device adaptable to the user's specific needs, it is sometimes necessary to use two dispersing tools to achieve from coarse to fine particle size reduction. The quick-connect coupling facilitates the exchange of dispersing tools.



Nomenclature Dispersing elements

For dispersing instrument	Dispersing element shaft / agitator shaft	Seal or bearing type*	Generator or element**	Outer diameter (mm)	Degree of fineness achieved***
T 10 basic	S 10	N	—	5 / 8 / 10	G
T 18 digital / T 18 brushless digital	S 18	N	—	10 / 19	G
T 25 digital	S 25	N / KV / KD / C	—	8 / 10 / 18 / 19 / 25	G / F
T 25 easy clean digital / control	S 25 / S 25 EC	N / KV / KD / C / EC	—	18 / 25	G / F
T 50 digital	S / R 50	N / KG-HH / KD	G / W	45 / 65 / 80	G / M / F
T 65 digital	S 65	KG – HH / KD / C	G	65	G / M / F

C = Ceramic-coated stainless steel

*N = PTFE bearing

KV = Ball bearing with vacuum-tight sliding-ring seal and silicon carbide seal rings

KD = Ball bearing with PTFE sealing and FFKM O-ring

KG – HH = Ball bearing with hard metal sliding-ring seal and FFPM seal rings

**G = Proved configuration

W = Special element

***G = Coarse

M = Medium

F = Fine

All parts in contact with the product are made of FDA-compliant materials.

	Dispersing element	Volume range (ml)	Vacuum operation	Vacuum (mbar)	Circumferential speed (m/s)	Ultimate fineness, suspensions (µm)	Ultimate fineness, emulsions (µm)
A	S 10 N - 5 G	0.5 – 10	No	-	6	5 – 25	1 – 10
	S 10 N - 8 G	1 – 50	No	-	9.6	5 – 25	1 – 10
	S 10 N - 10 G	1 – 100	No	-	11.9	5 – 25	1 – 10
	S 10 N - 8 G - ST	1 – 50	No	-	9.6	5 – 25	1 – 10
	S 10 N - 10 G - ST	1 – 100	No	-	11.8	5 – 25	1 – 10
	S 10 D - 7 G - KS - 65	1 – 20	No	-	7.5	10 – 50	5 – 20
	S 10 D - 7 G - KS - 110	1 – 40	No	-	7.5	10 – 50	5 – 20
B	S 18 N - 10 G	1 – 100	No	-	9.8	10 – 50	1 – 10
	S 18 N - 19 G	10 – 1500	No	-	16.6	10 – 50	1 – 10
	S 18 D - 10 G - KS	10 – 100	No	-	8.5	10 – 50	5 – 20
	S 18 D - 14 G - KS	10 – 500	No	-	12.0	10 – 50	5 – 20
C	S 25 N - 8 G	1 – 50	No	-	8	10 – 50	1 – 10
	S 25 N - 10 G	1 – 100	No	-	9.8	10 – 50	1 – 10
	S 25 N - 18 G	10 – 1500	No	-	16.6	10 – 50	1 – 10
	S 25 N - 25 G	50 – 2000	No	-	22.3	15 – 50	1 – 10
	S 25 N - 25 F	100 – 2000	No	-	23.6	5 – 25	1 – 5
	S 25 N - 8 G - ST	1 – 50	No	-	8	10 – 50	1 – 10
	S 25 N - 10 G - ST	1 – 100	No	-	9.8	10 – 50	1 – 10
	S 25 N - 18 G - ST	10 – 1500	No	-	17.5	10 – 50	1 – 10
	S 25 N - 25 G - ST	50 – 2000	No	-	26.2	10 – 50	1 – 10
	S 25 KV - 18 G	10 – 1500	Yes	1	16.6	10 – 50	1 – 10
D	S 25 KV - 25 G	50 – 2000	Yes	1	22.2	15 – 50	1 – 10
	S 25 KV - 25 F	100 – 2000	Yes	1	23.6	5 – 25	1 – 5
	S 25 KV 2802	10 – 1500	yes	1	39.3		
	S 25 KD - 18 G	10 – 1500	Yes	100	16.6	10 – 50	1 – 10
	S 25 KD - 25 G	50 – 2000	Yes	100	22.2	15 – 50	1 – 10
	S 25 KD - 18 G - ST	10 – 1500	Yes	100	17.5	10 – 50	1 – 10
	S 25 KD - 25 G - ST	50 – 2000	Yes	100	26.2	10 – 50	1 – 10
	S 25 KD - 25 F	100 – 2000	Yes	100	23.6	5 – 25	1 – 5
	S 25 KD - LR - 25 G	50 – 2000	Yes	100	9.6	5 – 25	1 – 10
	S 25 KD - LR - 25 F	100 – 2000	Yes	100	11.8	5 – 25	1 – 10
D	S 25 D - 10 G - KS	10 – 100	No	-	8.5	10 – 50	5 – 20
	S 25 D - 14 G - KS	10 – 500	No	-	12	10 – 50	5 – 20
	S 25 EC - C - 18 G	10 – 1500	No	-	16.6	10 – 50	1 – 10
	S 25 EC - C - 25 G	50 – 2000	No	-	22.2	15 – 50	1 – 10
	S 25 EC - C - 25 F	100 – 2000	No	-	23.6	5 – 25	1 – 5
	S 25 EC - C - 18 G - ST	10 – 1500	No	-	17.5	10 – 50	1 – 10
	S 25 EC - C - 25 G - ST	50 – 2000	No	-	26.2	10 – 50	1 – 10
	S 25 EC - T - C - 18 G	10 – 1500	No	-	16.6	10 – 50	1 – 10
	S 25 EC - T - C - 25 G	50 – 2000	No	-	22.2	15 – 50	1 – 10
	S 25 EC - T - C - 18 G - ST	10 – 1500	No	-	17.5	10 – 50	1 – 10
	S 25 EC - T - C - 25 G - ST	50 – 2000	No	-	26.2	10 – 50	1 – 10
	S 25 EC - T - C - 25 F	100 – 2000	No	-	23.6	5 – 25	1 – 5

T 10 basic
ULTRA-TURRAX®

A

T 18 digital
ULTRA-TURRAX®

B

T 18 brushless digital
ULTRA-TURRAX®

T 25 digital
ULTRA-TURRAX®

C

T 25 easy clean
digital | control
ULTRA-TURRAX®

D

Dispersing element	Volume range (ml)	Vacuum operation	Vacuum (mbar)	Circumferential speed (m/s)	Ultimate fineness, suspensions (µm)	Ultimate fineness, emulsions (µm)
S 50 N - G 45 G	50 – 20000	No	-	18.8	40 – 100	10 – 30
S 50 N - G 45 G - ST	50 – 20000	No	-	19.9	40 – 100	10 – 30
S 50 N - G 45 M	50 – 15000	No	-	21.2	25 – 50	5 – 20
S 50 N - G 45 F	250 – 10000	No	-	20.9	10 – 30	1 – 10
S 50 KG - HH - G 45 G	500 – 20000	Yes	1	18.8	40 – 100	10 – 30
S 50 KG - HH - G 45 G - ST	500 – 20000	Yes	1	18.8	40 – 100	10 – 30
S 50 KG - HH - G 45 M	500 – 15000	Yes	1	21.2	25 – 50	5 – 20
S 50 KG - HH - G 45 F	250 – 10000	Yes	1	20.9	10 – 30	1 – 10
S 50 KD - G 45 G	500 – 20000	Yes	100	18.8	40 – 100	10 – 100
S 50 KD - G 45 G - ST	500 – 20000	Yes	100	19.9	40 – 100	10 – 100
S 50 KD - G 45 M	500 – 15000	Yes	100	21.2	25 – 50	5 – 20
S 50 KD - G 45 F	250 – 10000	Yes	100	20.9	10 – 30	1 – 10
R 50	250 – 30000	No	-	23.6	-	-
S 50 N - W 65 SK	100 – 10000	No	-	28.8	50 – 200	5 – 15
S 50 N - W 80 SMK	100 – 50000	No	-	17.8	-	-
R 1405	250 – 30000	-	-	-	-	-
R 1402	100 – 30000	-	-	-	-	-
S 65 C - G 65 G	2000 – 50000	No	-	26.4	25 – 75	5 – 25
S 65 C - G 65 M	2000 – 40000	No	-	28.8	20 – 50	5 – 15
S 65 C - G 65 F	2000 – 30000	No	-	28.8	5 – 20	1 – 10
S 65 KG - HH - G 65 G	2000 – 50000	Yes	1	26.4	25 – 75	5 – 25
S 65 KG - HH - G 65 M	2000 – 40000	Yes	1	28.8	20 – 50	5 – 15
S 65 KG - HH - G 65 F	2000 – 30000	Yes	1	28.8	5 – 20	1 – 10
S 65 KD - G 65 G	2000 – 50000	Yes	100	26.4	25 – 75	5 – 25
S 65 KD - G 65 M	2000 – 40000	Yes	100	28.8	20 – 50	5 – 15
S 65 KD - G 65 F	2000 – 30000	Yes	100	28.8	5 – 20	1 – 10
D 60	2000 – 30000	No	-	9.6	5 – 25	1 – 10
D 80	2000 – 50000	No	-	17.5	10 – 50	1 – 10

T 50 digital
ULTRA-TURRAX®T 65 digital
ULTRA-TURRAX®

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Technical data

Dispersing elements for T 10 basic ULTRA-TURRAX®

Dispersing element	S 10 N - 5 G	S 10 N - 8 G	S 10 N - 10 G	S 10 N - 8 G - ST	S 10 N - 10 G - ST
Ident. No.	0003304000	0003305500	0003370100	0004446500	0004446700
Volume range (H ₂ O)	0.5 – 10 ml	1 – 50 ml	1 – 100 ml	1 – 50 ml	1 – 100 ml
Stator diameter	5 mm	8 mm	10 mm	8 mm	10 mm
Rotor diameter	3.8 mm	6.1 mm	7.6 mm	6.1 mm	7.5 mm
Gap between rotor and stator	0.1 mm	0.25 mm	0.2 mm	0.25 mm	0.25 mm
Circumferential speed max.	6 m/s	9.6 m/s	11.9 m/s	9.6 m/s	11.8 m/s
Immersion depth	20 – 75 mm	20 – 95 mm	20 – 100 mm	20 – 95 mm	23 – 100 mm
Shaft length	92 mm	115 mm	115 mm	115 mm	115 mm
Material in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L
pH range	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes	yes	yes
Working temperature max.	180 °C	180 °C	180 °C	180 °C	180 °C
Sterilization methods	all methods	all methods	all methods	all methods	all methods

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Dispersing element	S 10 D - 7 G - KS - 65	S 10 D - 7 G - KS - 110
Ident. No.	0020002076	0020002075
Volume range (H ₂ O)	1 – 20 ml	1 – 40 ml
Stator diameter	7 mm	7 mm
Rotor diameter	4.8 mm	4.8 mm
Gap between rotor and stator	0.3 mm	0.3 mm
Circumferential speed max.	7.5 m/s	7.5 m/s
Immersion depth	20 – 45 mm	20 – 90 mm
Shaft length	65 mm	110 mm
Material in contact with medium	Polycarbonat (PC), Polysulfon (PSU)	Polycarbonat (PC), Polysulfon (PSU)
Working temperature max.	100 °C	100 °C
Sterilization methods	autoclavable	autoclavable

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③

③ Saw Tooth (ST) dispersing tools

- › ST tools are recommended for use with tissue and other fibrous materials
- › Saw tooth design creates a cutting and tearing action for shredding fibrous materials
- › Made of high quality stainless steel



Dispersing elements for T 18 digital | brushless digital ULTRA-TURRAX®



④



⑤

Dispersing element	S 18 N - 10 G	S 18 N - 19 G
Ident. No.	000L004639	000L004640
Volume range (H ₂ O)	1 – 100 ml	1 – 1500 ml
Stator diameter	10 mm	19 mm
Rotor diameter	7.5 mm	12.7 mm
Gap between rotor and stator	0.35 mm	0.25 mm
Circumferential speed max.	9.8 m/s	16.6 m/s
Immersion depth	25 – 70 mm	35 – 170 mm
Shaft length	108 mm	204 mm
Material in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L
pH range	2 – 13	2 – 13
Suitable for solvents	yes	yes
Working temperature max.	180 °C	180 °C
Sterilization methods	all methods	all methods

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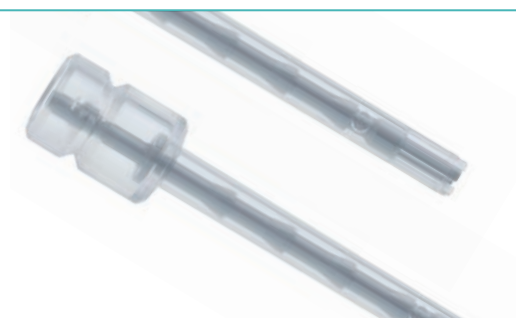
Dispersing element	S 18 D - 10 G - KS	S 18 D - 14 G - KS
Ident. No.	0003452400	0003452300
Volume range (H ₂ O)	1 – 100 ml	10 – 500 ml
Stator diameter	10 mm	14 mm
Rotor diameter	6.75 mm	9.5 mm
Gap between rotor and stator	0.25 mm	0.35 mm
Circumferential speed max.	8.5 m/s	12 m/s
Immersion depth	15 – 85 mm	15 – 85 mm
Shaft length	150 mm	150 mm
Material in contact with medium	Polycarbonat (PC), Polyetheretherketon (PEEK)	Polycarbonat (PC), Polyetheretherketon (PEEK)
Working temperature max.	100 °C	100 °C
Sterilization methods	autoclavable	autoclavable

⑥ (KS)

⑦ (KS)

(KS) Plastic disposable tools

- › Ideal for applications where cross-contamination must be prevented and steel is not suitable
- › Disposable & single-use
- › No cleaning required



Dispersing elements for T 25 digital | T 25 easy clean digital & control ULTRA-TURRAX®

Dispersing element	S 25 N - 8 G	S 25 N - 10 G	S 25 N - 18 G	S 25 N - 25 G
Ident. No.	0001024200	0000594000	0000593400	0001713300
Volume range (H ₂ O)	1 – 50 ml	1 – 100 ml	10 – 1500 ml	50 – 2000 ml
Stator diameter	8 mm	10 mm	18 mm	25 mm
Rotor diameter	6.1 mm	7.5 mm	12.7 mm	17 mm
Gap between rotor and stator	0.25 mm	0.35 mm	0.3 mm	0.5 mm
Circumferential speed max.	8.0 m/s	9.8 m/s	16.6 m/s	22.2 m/s
Immersion depth	27 – 85 mm	22 – 85 mm	40 – 165 mm	40 – 165 mm
Shaft length	108 mm	105 mm	194 mm	194 mm
Material in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L
pH range	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes	yes
Working temperature max.	180 °C	180 °C	180 °C	180 °C
Sterilization methods	all methods	all methods	all methods	all methods

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Dispersing element	S 25 N - 25 F
Ident. No.	0001713800
Volume range (H ₂ O)	100 – 2000 ml
Stator diameter	25 mm
Rotor diameter	18 mm
Gap between rotor and stator	0.5 mm
Circumferential speed max.	23.6 m/s
Immersion depth	40 – 165 mm
Shaft length	194 mm
Material in contact with medium	PTFE, AISI 316L
pH range	2 – 13
Suitable for solvents	yes
Working temperature max.	180 °C
Sterilization methods	all methods

11



11



Dispersing element	S 25 N - 8 G - ST	S 25 N - 10 G - ST	S 25 N - 18 G - ST	S 25 N - 25 G - ST
Ident. No.	0004446900	0004447100	0004447300	0004447500
Volume range (H ₂ O)	1 – 50 ml	1 – 100 ml	10 – 1500 ml	50 – 2000 ml
Stator diameter	8 mm	10 mm	18 mm	25 mm
Rotor diameter	6.1 mm	7.5 mm	13.4 mm	20 mm
Gap between rotor and stator	0.25 mm	0.35 mm	0.25 mm	0.5 mm
Circumferential speed max.	8.0 m/s	9.8 m/s	17.5 m/s	26.2 m/s
Immersion depth	27 – 85 mm	22 – 85 mm	40 – 165 mm	40 – 165 mm
Shaft length	108 mm	105 mm	194 mm	194 mm
Material in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L
pH range	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes	yes
Working temperature max.	180 °C	180 °C	180 °C	180 °C
Sterilization methods	all methods	all methods	all methods	all methods
	(12) (ST)	(13) (ST)	(14) (ST)	(15) (ST)

For dispersing under vacuum and positive pressure conditions



Dispersing element	S 25 KV - 18 G	S 25 KV - 25 G	S 25 KV - 25 F	S 25 KV 2802
Ident. No.	0002348000	0002466900	0002404000	0020008825
Volume range (H ₂ O)	10 – 1500 ml	50 – 2000 ml	100 – 2000 ml	0.01 – 1.5 l
Stator diameter	18 mm	25 mm	25 mm	-
Rotor diameter	12.7 mm	17 mm	18 mm	30 mm
Gap between rotor and stator	0.3 mm	0.5 mm	0.5 mm	-
Circumferential speed max.	16.6 m/s	22.2 m/s	23.6 m/s	39.3 m/s
Immersion depth	40 – 225 mm	40 – 225 mm	40 – 225 mm	40 – 225 mm
Shaft length	270 mm	270 mm	270 mm	270 mm
Material in contact with medium	FFPM / SIC, AISI 316L	FFPM / SIC, AISI 316L	FFPM / SIC, AISI 316L	FFPM / SIC, AISI 316L
pH range	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes	yes
Working temperature max.	220 °C	220 °C	220 °C	220 °C
Sterilization methods	all methods	all methods	all methods	all methods
	(16)	(17)	(18)	(19)

For dispersing under vacuum conditions

Dispersing element	S 25 KD - 18 G	S 25 KD - 25 G	S 25 KD - 18 G - ST	S 25 KD - 25 G - ST
Ident. No.	0020002971	0020002972	0020002973	0020002974
Volume range (H ₂ O)	10 – 1500 ml	50 – 2000 ml	10 – 1500 ml	50 – 2000 ml
Stator diameter	18 mm	25 mm	18 mm	25 mm
Rotor diameter	12.7 mm	17 mm	13.4 mm	20 mm
Gap between rotor and stator	0.3 mm	0.5 mm	0.25 mm	0.5 mm
Circumferential speed max.	16.6 m/s	22.2 m/s	17.5 m/s	26.2 m/s
Immersion depth	40 – 185 mm	40 – 185 mm	40 – 185 mm	40 – 185 mm
Shaft length	194 mm	194 mm	194 mm	194 mm
Material in contact with medium	AISI 316L / PTFE / FFPM	AISI 316L / PTFE / FFPM	AISI 316L / PTFE / FFPM	AISI 316L / PTFE / FFPM
pH range	2 – 13	2 – 13	2 – 13	2 – 13
Working temperature max.	150 °C	150 °C	150 °C	150 °C
Sterilization methods	wet chemical	wet chemical	wet chemical	wet chemical

(20)

(21)

(22) (ST)

(23) (ST)



Dispersing element	S 25 KD - 25 F
Ident. No.	0020002975
Volume range (H ₂ O)	100 – 2000 ml
Stator diameter	25 mm
Rotor diameter	18 mm
Gap between rotor and stator	0.5 mm
Circumferential speed max.	23.6 m/s
Immersion depth	40 – 185 mm
Shaft length	194 mm
Material in contact with medium	AISI 316L, PTFE, FFPM
pH range	2 – 13
Working temperature max.	150 °C
Sterilization methods	wet chemical

(24)





For use with the IKA laboratory reactors

Dispersing element	S 25 KD - LR - 25 G	S 25 KD - LR - 25 F
Ident. No.	0025007321	0025007322
Volume range (H ₂ O)	50 – 2000 ml	100 – 2000 ml
Stator diameter	25 mm	25 mm
Rotor diameter	17 mm	18 mm
Gap between rotor and stator	0.5 mm	0.5 mm
Circumferential speed max.	22.2 m/s	23.6 m/s
Immersion depth	40 – 220 mm	40 – 220 mm
Shaft length	267 mm	267 mm
Material in contact with medium	FFPM, PTFE, AISI316L	FFPM, PTFE, AISI316L
pH range	2 – 13	2 – 13
Working temperature max.	150 °C	150 °C
Sterilization methods	wet chemical	wet chemical

(25)

(26)

For use in applications incompatible with stainless steel



Dispersing element	S 25 D - 10 G - KS	S 25 D - 14 G - KS
Ident. No.	0003452200	0003452100
Volume range (H ₂ O)	10 – 100 ml	10 – 500 ml
Stator diameter	10 mm	14 mm
Rotor diameter	6.75 mm	9.5 mm
Gap between rotor and stator	0.25 mm	0.35 mm
Circumferential speed max.	8.5 m/s	12 m/s
Immersion depth	15 – 85 mm	15 – 85 mm
Shaft length	150 mm	150 mm
Material in contact with medium	Polycarbonat (PC), Polyetheretherketon (PEEK)	Polycarbonat (PC), Polyetheretherketon (PEEK)
Working temperature max.	100 °C	100 °C
Sterilization methods	autoclavable	autoclavable

(27) (KS)

(28) (KS)

Dispersing elements for T 25 easy clean digital & control ULTRA-TURRAX®

Dispersing element	S 25 EC - C - 18 G	S 25 EC - C - 25 G	S 25 EC - C - 18 G - ST	S 25 EC - C - 25 G - ST
Ident. No.	0020108996	0020108997	0025007399	0025002590
Volume range (H ₂ O)	10 – 1500 ml	50 – 2000 ml	10 – 1500 ml	50 – 2000 ml
Stator diameter	18 mm	25 mm	18 mm	25 mm
Rotor diameter	12.7 mm	17 mm	13.4 mm	20 mm
Gap between rotor and stator	0.3 mm	0.5 mm	0.25 mm	0.5 mm
Circumferential speed max.	16.6 m/s	22.2 m/s	17.5 m/s	26.2 m/s
Immersion depth	35 – 150 mm	35 – 150 mm	35 – 150 mm	35 – 150 mm
Shaft length	191 mm	191 mm	191 mm	191 mm
Material in contact with medium	AISI 316L, ceramic	AISI 316L, ceramic	AISI 316L, ceramic	AISI 316L, ceramic
pH range	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes	yes
Working temperature max.	180 °C	180 °C	180 °C	180 °C
Sterilization methods	all methods	all methods	all methods	all methods

(29)

(30)

(31) (ST)

(32) (ST)



Dispersing element	S 25 EC - C - 25 F
Ident. No.	0025007215
Volume range (H ₂ O)	100 – 2000 ml
Stator diameter	25 mm
Rotor diameter	18 mm
Gap between rotor and stator	0.5 mm
Circumferential speed max.	23.6 m/s
Immersion depth	35 - 150 mm
Shaft length	191 mm
Material in contact with medium	AISI 316L, ceramic
pH range	2 – 13
Suitable for solvents	yes
Working temperature max.	180 °C
Sterilization methods	all methods

(33)



Temperature-sensing "T" shafts

Dispersing element	S 25 EC - T - C - 18 G	S 25 EC - T - C - 25 G	S 25 EC - T - C - 18 G - ST	S 25 EC - T - C - 25 G - ST
Ident. No.	0020108998	0020108999	0025007398	0025002595
Volume range (H ₂ O)	10 – 1500 ml	50 – 2000 ml	10 – 1500 ml	50 – 2000 ml
Stator diameter	18 mm	25 mm	18 mm	25 mm
Rotor diameter	12.7 mm	17 mm	13.4 mm	20 mm
Gap between rotor and stator	0.3 mm	0.5 mm	0.25 mm	0.5 mm
Circumferential speed max.	16.6 m/s	22.2 m/s	17.5 m/s	26.2 m/s
Immersion depth	45 – 150 mm	45 – 150 mm	45 – 150 mm	45 – 150 mm
Shaft length	191 mm	191 mm	191 mm	191 mm
Material in contact with medium	AISI 316L, ceramic	AISI 316L, ceramic	AISI 316L, ceramic	AISI 316L, ceramic
pH range	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes	yes
Working temperature max.	120 °C	120 °C	120 °C	120 °C
Sterilization methods	all methods except hot air	all methods except hot air	all methods except hot air	all methods except hot air

34

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36 ST

37 ST



34



35



36



37

Dispersing element	S 25 EC - T - C - 25 F
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Ident. No.	0025007199
Volume range (H ₂ O)	100 – 2000 ml
Stator diameter	25 mm
Rotor diameter	18 mm
Gap between rotor and stator	0.5 mm
Circumferential speed max.	23.6 m/s
Immersion depth	45 - 150 mm
Shaft length	191 mm
Material in contact with medium	AISI 316L, ceramic
pH range	2 – 13
Suitable for solvents	yes
Working temperature max.	120 °C
Sterilization methods	all methods except hot air

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All easy clean shafts are
dishwasher compatible.

Dispersing elements for T 50 digital ULTRA-TURRAX®



Dispersing element	S 50 N - G 45 G	S 50 N - G 45 G - ST
Ident. No.	0008003000	0008039500
Volume range (H ₂ O)	0.5 – 20 l	0.5 – 20 l
Stator diameter	45 mm	45 mm
Rotor diameter	36 mm	38 mm
Gap between rotor and stator	0.5 mm	0.5 mm
Circumferential speed max.	18.8 m/s	19.9 m/s
Immersion depth	70 – 250 mm	70 – 250 mm
Shaft length	300 mm	300 mm
Material in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L
pH range	2 – 13	2 – 13
Suitable for solvents	yes	yes
Working temperature max.	180 °C	180 °C
Sterilization methods	all methods	all methods

(39)

(40) (ST)



Dispersing element	S 50 N - G 45 M	S 50 N - G 45 F
Ident. No.	0008003300	0008003900
Volume range (H ₂ O)	0.5 – 15 l	0.25 – 10 l
Stator diameter	45 mm	45 mm
Rotor diameter	40.5 mm	40 mm
Gap between rotor and stator	0.25 mm	0.5 mm
Circumferential speed max.	21.2 m/s	20.9 m/s
Immersion depth	70 – 250 mm	70 – 250 mm
Shaft length	290 mm	290 mm
Material in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L
pH range	2 – 13	2 – 13
Suitable for solvents	yes	yes
Working temperature max.	180 °C	180 °C
Sterilization methods	all methods	all methods

(41)

(42)

For dispersing under vacuum and positive pressure conditions



Dispersing element	S 50 KG - HH - G 45 G	S 50 KG - HH - G 45 G - ST
Ident. No.	0008003200	0010000648
Volume range (H ₂ O)	0.5 – 20 l	0.5 – 20 l
Stator diameter	45 mm	45 mm
Rotor diameter	36 mm	36 mm
Gap between rotor and stator	0.5 mm	0.5 mm
Circumferential speed max.	18.8 m/s	18.8 m/s
Immersion depth	70 – 260 mm	70 – 260 mm
Shaft length	300 mm	300 mm
Material in contact with medium	FFPM / WC / AISI 316L	FFPM / WC / AISI 316L
pH range	2 – 13	2 – 13
Suitable for solvents	yes	yes
Working temperature max.	150 °C	150 °C
Sterilization methods	wet chemical	wet chemical

(43)

(44) ST



Dispersing element	S 50 KG - HH - G 45 M	S 50 KG - HH - G 45 F
Ident. No.	0008003500	0008004100
Volume range (H ₂ O)	0.5 – 15 l	0.25 – 10 l
Stator diameter	45 mm	45 mm
Rotor diameter	40.5 mm	40 mm
Gap between rotor and stator	0.25 mm	0.5 mm
Circumferential speed max.	21.2 m/s	20.9 m/s
Immersion depth	70 – 250 mm	70 – 250 mm
Shaft length	300 mm	290 mm
Material in contact with medium	FFPM / WC / AISI 316L	FFPM / WC / AISI 316L
pH range	2 – 13	2 – 13
Suitable for solvents	yes	yes
Working temperature max.	150 °C	150 °C
Sterilization methods	wet chemical	wet chemical

(45)

(46)

For dispersing under vacuum conditions



Dispersing element	S 50 KD - G 45 G	S 50 KD - G 45 G - ST
Ident. No.	0010000629	0010000632
Volume range (H ₂ O)	0.5 – 20 l	0.5 – 20 l
Stator diameter	45 mm	45 mm
Rotor diameter	36 mm	38 mm
Gap between rotor and stator	0.5 mm	0.5 mm
Circumferential speed max.	18.8 m/s	19.9 m/s
Immersion depth	70 – 260 mm	70 – 260 mm
Shaft length	300 mm	300 mm
Material in contact with medium	FFPM, PTFE, AISI316L	FFPM, PTFE, AISI316L
pH range	2 – 13	2 – 13
Suitable for solvents	yes	yes
Working temperature max.	150 °C	150 °C
Sterilization methods	autoclavable	autoclavable

(47)

(48) (ST)



Dispersing element	S 50 KD - G 45 M	S 50 KD - G 45 F
Ident. No.	0010000630	0010000631
Volume range (H ₂ O)	0.5 – 15 l	0.25 – 10 l
Stator diameter	45 mm	45 mm
Rotor diameter	40.5 mm	40 mm
Gap between rotor and stator	0.25 mm	0.5 mm
Circumferential speed max.	21.2 m/s	20.9 m/s
Immersion depth	70 – 260 mm	70 – 260 mm
Shaft length	300 mm	300 mm
Material in contact with medium	FFPM, PTFE, AISI316L	FFPM, PTFE, AISI316L
pH range	2 – 13	2 – 13
Suitable for solvents	yes	yes
Working temperature max.	150 °C	150 °C
Sterilization methods	autoclavable	autoclavable

(49)

(50)



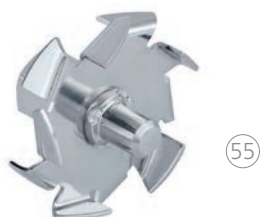
Wet blending



Jet mixing



High speed dissolving



For high speed mixing applications that require less shear

Dispersing element	S 50 N - W 65 SK	S 50 N - W 80 SMK
Ident. No.	0008005100	0008006300
Volume range (H ₂ O)	1 – 10 l	1 – 50 l
Stator diameter	65 mm	80 mm
Immersion depth	80 – 350 mm	140 – 350 mm
Material in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L
Suitable for solvents	yes	yes
Working temperature max.	180 °C	180 °C
Sterilization methods	all methods	all methods

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52

Dispersing element	R 50
Ident. No.	0001689300
Volume range (H ₂ O)	0.25 – 30 l
Rotor diameter	40 mm
Immersion depth	180 mm
Material	stainless steel (AISI 316L)

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Dispersing element	R 1405*	R 1402*
Ident. No.	0001289800	0001243300
Volume range (H ₂ O)	0.5 – 15 l	0.25 – 10 l
Rotor diameter	45 mm	40 mm
Immersion depth	-	-
Material	stainless steel (AISI 316L)	stainless steel (AISI 316L)

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55

*Rotor to be installed on the R50

Dispersing elements for T 65 digital ULTRA-TURRAX®



Dispersing element	S 65 C - G 65 G	S 65 C - G 65 M	S 65 C - G 65 F
Ident. No.	0010001665	0010001666	0010001667
Volume range (H ₂ O)	2 – 50 l	2 – 40 l	2 – 30 l
Stator diameter	65 mm	65 mm	65 mm
Rotor diameter	53 mm	53 mm	53 mm
Gap between rotor and stator	0.5 mm	0.5 mm	0.5 mm
Circumferential speed max.	26.4 m/s	28.8 m/s	28.8 m/s
Immersion depth	90 – 450 mm	90 – 450 mm	90 – 450 mm
Shaft length	520 mm	520 mm	520 mm
Material in contact with medium	AISI 316L, ceramic	AISI 316L, ceramic	AISI 316L, ceramic
pH range	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes
Working temperature max.	180 °C	180 °C	180 °C
Sterilization methods	all methods	all methods	all methods
	56	57	58

For dispersing under vacuum and positive pressure conditions



Dispersing element	S 65 KG - HH - G 65 G	S 65 KG - HH - G 65 M	S 65 KG - HH - G 65 F
Ident. No.	0010010765	0010010767	0010010768
Volume range (H ₂ O)	2 - 50 l	2 - 40 l	2 - 30 l
Stator diameter	65 mm	65 mm	65 mm
Rotor diameter	53 mm	58 mm	58 mm
Gap between rotor and stator	0.5 mm	0.5 mm	0.5 mm
Circumferential speed max.	26.4 m/s	28.8 m/s	28.8 m/s
Immersion depth	90 – 450 mm	80 – 450 mm	80 – 450 mm
Shaft length	520 mm	510 mm	510 mm
Material in contact with medium	FFPM / WC /AISI 316L	FFPM / WC /AISI 316L	FFPM / WC /AISI 316L
pH range	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes
Working temperature max.	180 °C	180 °C	180 °C
Sterilization methods	all methods	all methods	all methods
	59	60	61

For dispersing under vacuum conditions



Dispersing element	S 65 KD - G 65 G	S 65 KD - G 65 M	S 65 KD - G 65 F
Ident. No.	0010000641	0010000642	0010000643
Volume range (H ₂ O)	2 – 50 l	2 – 40 l	2 – 30 l
Stator diameter	65 mm	65 mm	65 mm
Rotor diameter	53 mm	58 mm	58 mm
Gap between rotor and stator	0.5 mm	0.5 mm	0.5 mm
Circumferential speed max.	26.4 m/s	28.8 m/s	28.8 m/s
Immersion depth	90 – 450 mm	80 – 450 mm	80 – 450 mm
Shaft length	520 mm	520 mm	520 mm
Material in contact with medium	FFPM, PTFE, AISI316L	FFPM, PTFE, AISI316L	FFPM, PTFE, AISI316L
pH range	2 – 13	2 – 13	2 – 13
Working temperature max.	180 °C	180 °C	180 °C
Sterilization methods	wet chemical	wet chemical	wet chemical

62

63

64

For high speed dissolving applications



Dispersing element	D 60*	D 80*
Ident. No.	0020008388	0020008389
Volume range (H ₂ O)	2 – 30 l	2 – 50 l
Rotor diameter	60 mm	80 mm
Material	stainless steel (AISI 316L)	stainless steel (AISI 316L)

65

66

*Includes only the rotor, must be installed on a S 65 shaft

Customization can be considered upon request.

IKA



Discover our YouTube Channel [@ikaworldwide](#) to get insights on shaft dismantling, assembly and maintenance of the dispersing tools.

Other accessories



S 18/25 - ET50 Disposable tube

For attaching plastic tools from S 18 D and S 25 D series. Allows for dispersing under enclosed conditions.

Ident No. 0003452500



Silentstream

The flow breaker is used to prevent vortexing and to minimize air induction into the medium.

Fits the following dispersing elements:
All S 25 / S 25 EC shafts with a diameter of 18 – 25 mm

Ident No. 0003754000



TS 25-3 Cleaning tool

Cleaning tool for cleaning three dispersing elements. The cleaning tool consists of an aluminum stand, three cleaning tubes (PP) and three covers with openings (PP).

Fits the following dispersing elements:
All S 25 shafts with a diameter of 18 – 25 mm

Ident No. 0020003013



CT.15 Cleaning tube

Cleaning tube for cleaning the S 25 dispersing tools used in combination with the T 25 digital and T 25 easy clean digital / control.

Ident No. 0020006595



HS 25 EC – DW Holder

Holder for S 25 easy clean dispersing tools to use in a dishwasher.

Ident No. 0025007380



WiCo T 25 easy clean control

The wireless controller (WiCo) allows to operate and monitor the T 25 easy clean control disperser e.g. in a fume hood and therefore helps protecting the user from toxic material exposure.

WiCo is only compatible with the T 25 easy clean control disperser. The WH 11 wall mount and two USB cables are included in the scope of delivery.

Ident No. 0025006310

UTL 25 in-line system

/// For circulation or flow-through processing in the laboratory

FEATURES

- › Simple, compact and sturdy modular design
- › Sterilizable, autoclave-compatible
- › Table-top or stand-supported device, low space requirement
- › Easy disassembly
- › Large delivery capacity of 4.4 to 11.6 l/min with open outlet (the mounting of a valve can reduce the flow rate)
- › For air-free, sterile, and inline suspension, emulsifying and deagglomeration
- › For vacuum or pressurized operation (up to 6 bar)
- › If the DK 25.11 is used, air induction is also prevented in batch operation
- › Not self-priming
- › A pump can be integrated between intake nozzle and vessel. As a result, viscous fluids can be processed
- › The hoses used should have an inner diameter size of 13 mm (inlet) and 9 mm (outlet) respectively to fit the DK 25.11 flow chamber



UTL 25 digital Inline
ULTRA-TURRAX®
Ident No. 0010006856

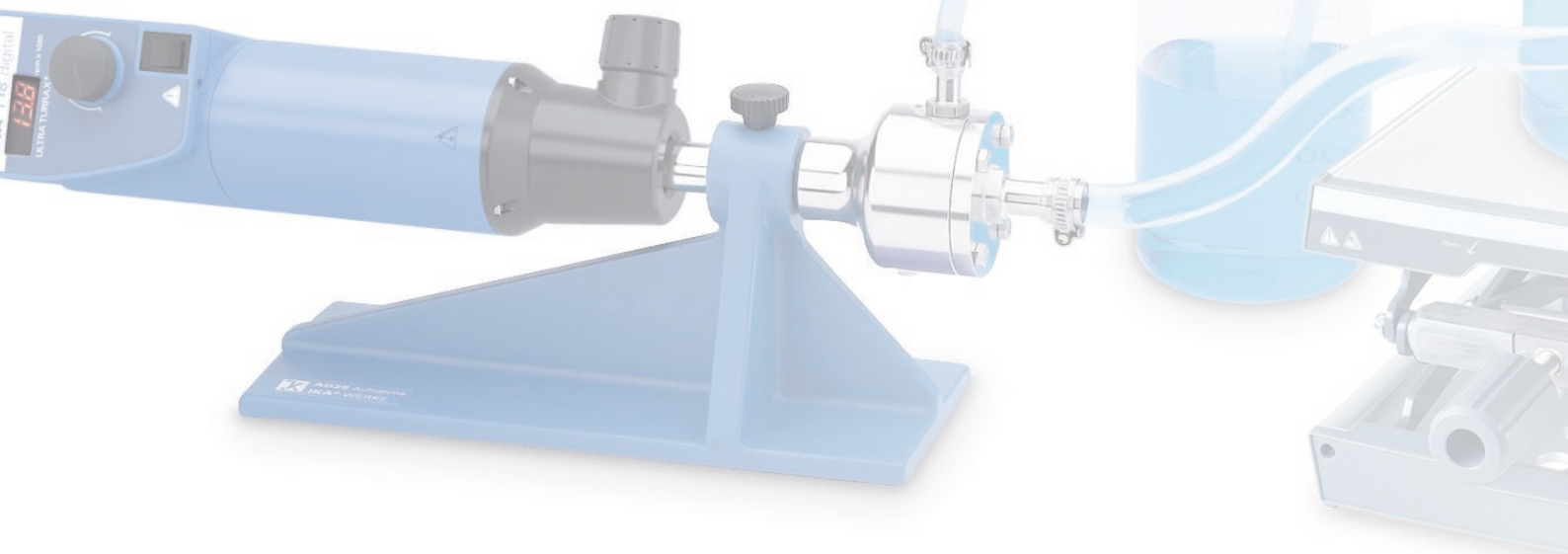
Technical data

Technical data

UTL 25 digital Inline ULTRA-TURRAX®

Ident No.: 0010006857

Motor rating input	500 W
Motor rating output	300 W
Pump rate	11.6 l/min
Speed range	3000 – 25 000 rpm
Speed adjustment	stepless
Speed display	scale
Noise without element	73 dB(A)
Extension arm diameter	13 mm
Extension arm length	175 mm
Chamber volume	26 ml
Attainable vacuum	1 mbar
Pressure max.	6 bar
Process type	inline
Dimensions (W x H x D)	450 x 120 x 100 mm
Weight	3.8 kg
Permissible ambient temperature	5 – 40 °C
Permissible relative humidity	80 %
Protection class according to DIN EN 60529	IP 20
Voltage	230 V
Frequency	50/60 Hz
Power input	500 W



Dispersing elements for UTL 25 digital Inline ULTRA-TURRAX®



Dispersing element	S 25 KV - 25 G - IL	S 25 KV - 25 F - IL
Ident. No.	0002563000	0002830200
Stator diameter	25 mm	25 mm
Rotor diameter	17 mm	18 mm
Gap between rotor and stator	0.5 mm	0.5 mm
Circumferential speed max.	22.2 m/s	23.6 m/s
Immersion depth	40 – 85 mm	40 – 85 mm
Shaft length	110 mm	110 mm
Material in contact with medium	FFPM / SIC, AISI 316L	FFPM / SIC, AISI 316L
pH range	2 – 13	2 – 13
Suitable for solvents	yes	yes
Working temperature max.	220 °C	220 °C
Sterilization methods	all methods	all methods

Other accessories



AD 25 Mounting support

Mounting support for flow chamber

DK 25.11

Ident No. 0002562500

DK 25.11 Flow chamber

For S 25 KV - 25 ... - IL dispersing elements.

Batch operation:

DK 25.11 is mounted around the dispersing element. The DK 25.11 must be at a lower elevation than the surface of the liquid during operation. With this operating mode, no air is drawn in as a result of turbulence in the vessel.

The hoses used should have an inner diameter of 13 mm (inlet) and 9 mm (outlet) to fit the flow chamber.

Ident No. 0002518000

Industries & Applications

FOOD

food paste
fruit juice concentrate
orange peel
vegetables
cheese
pork meat
salami
spices
peanuts

CHEMISTRY

oil
fuel oil
crude oil
waste water
calcium carbonate
polymer solution
dishwasher tabs
surfactant
manganese dioxide

BUILDING MATERIAL

ceramic glaze
wood
clay powder
loam
glass fiber
engobe powder
bentonite
wall paint
iron mica

ENVIRONMENT

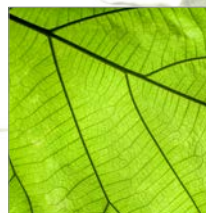
soil samples
compost
algae
roots
resin
disposal waste
biogas mud
plant leaves
animal excrements

MEDICINE & PHARMACY

medicine analeptic
capsules
tablets
acetate
muscle tissue
collagen granules
pills
beta carotene
calcium phosphate

COSMETICS

ointments
baby cream
body lotion
collagen
flavors
carnival make-up
day cream
showering gel
shaving gel



FAQ

1. What does "continuous operation" mean for dispersers? Are 4 hours OK?

4 hours equate to continuous operation. A further particle size reduction with rotor-stator systems does not happen after more than 15 min. Only heat (due to friction) is transferred into the medium. For the drive itself, continuous operation is not a problem.

2. Due to the technical data, the ambient temperature of a disperser is 5 – 40 °C. What can be done, if the sample requires higher temperatures?

The prescribed ambient temperature of 5 – 40 °C is only valid for the drive. Of course, it is possible to work in mediums with higher temperatures, e.g. a dispersing element with PTFE Bearing (N) can be used in mediums up to 180 °C.

3. Is it possible to disperse abrasive materials such as sand, glass or similar material?

In general, it is possible to disperse abrasive material, but a frequent change of the bearing is necessary. In addition, the shaft and spindle can wear off very quickly under these conditions.

4. Is it possible to disperse frozen samples?

Yes, in general this is possible if the sample is processed in liquid. However, it is not possible to work with liquid nitrogen.

5. The teflon seal (PTFE) of my dispersing element is ripped. Can a new one be ordered?

Those PTFE parts are slotted and it is not a defect. They are used as a bearing. If necessary, a new seal may be ordered from the spare parts list.

6. How often can the disposable dispersing elements for the T 10 basic, T 18 digital and T 25 digital be used?

The disposable dispersing tools are designed for single use only.

7. Does IKA offer high pressure dispersers?

Yes, it is possible to work under a pressure of up to 6 bar with dispersing tools having "KV" in their product description. IKA also offers high pressure homogenizer systems with our process division.

8. How can foam formation during dispersion be avoided?

To avoid this scenario, a ULTRA-TURRAX® disperser with KV, KD or KG-HH tools is recommended. These tools are closed systems, which avoid the generation of foam.

9. The ULTRA-TURRAX® dispersing elements should not run dry. Does that mean that the bottom bore hole has to be in the medium?

Yes, the circulation hole should be in the medium on all accounts. This is the only way to guarantee the optimum cooling effect on the internal bearing to prolong its longevity.

10. Which is the right dispersing tool to crush vegetables and fruits? How should one clean this properly (sterile)?

The Saw Tooth (ST) dispersing tools and a T 50 digital with cutting head S 50 N - W 65 SK are suitable for this application. The tools can be cleaned e.g. with acetone or every commonly used sterilization method.





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CALORIMETRY

IKA Works, Inc.

2635 Northchase Parkway SE
Wilmington, NC 28405
+1 910 452-7059 / sales@ika.net



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