NEW!

ULTRA-TURRAX® Tube Drive

World first! The revolutionary disposable disperser

Technical data	
Rating input	20 W
Rating output	17 W
Speed range, infinitely adjustable	300 – 6.000 rpm
Timer	
1 – 59 s	(300 – 6.000 rpm)
1 – 29 min	(300 – 4.000 rpm)
Display time	digital
Dimensions (W x D x H)	100 x 160 x 40 mm
Weight	0,75 kg
Protection class acc. to DIN EN 60529	IP 20

Application areas: Human medicine, pathology, veterinary medicine, animal hygiene institutes, clinical diagnosis research, foodstuffs testing laboratories, diagnostic laboratories, toxicology, medical research, pharmaceutical research, biological research, tumour biology, immunology, chemistry, cosmetics

ULTRA-TURRAX® Tube Drive

World first: Universal disposable disperser system with hermetically sealable disposable sample tubes. Protection and security for: Infectious sample materials, toxic substances, high-odour substances.

- Disperse, stir and grind using a single drive unit
- No possibility of cross-contamination
- Hermetically sealable disposable sample tubes
- γ-sterilized tubes on request
- High level of user safety
- Quick and simple
- Hygienic and clean
- Covers with pierceable membranes available on request
- Volumes from 2–15 ml
- Suitable for individual use and use in series
- Anti-locking function
- Increases safety due to low voltage (24 V)
- Chemical-resistant plastic
- Worldwide service guaranteed by IKA®
- Patent pending

Ident. No.
3646000 100 – 240 V 50/60 Hz

NEW!

ULTRA-TURRAX® Workstation

Included with delivery (page):
1 x ULTRA-TURRAX® Tube Drive (63),
2 x ST-20 Tube with stirring device (64),
2 x DT-20 Tube with rotor-stator element (64),
2 x BMT-20 G / S Tube for grinding with glass balls (G) or with stainless steel balls (S) (64),
1 x removal hook for removal the rotor-stator unit, power supply

Ident. No.
3645000 100 – 240 V 50/60 Hz

ST-20 Tube with stirring device

Suitable for:
- Mixing
- Stirring
- Extractions
- Preparation of soil sample suspensions
- Solubility testing for medications
- Volumes from 2 - 15 ml
- 25 items per pack

Ident. No.	
3599500	ST-20
3681500	ST-20 γ-sterilized

DT-20 Tube with rotor-stator element

Suitable for:
- Dispersion
- Homogenisation
- Suspensions
- Pharmocokinetics
- Metabolism studies
- Diagnosis
- Volumes from 5 - 15 ml
- 25 items per pack

Ident. No.	
3599400	DT-20
3681600	DT-20 γ-sterilized

BMT-20 G / S Tube for grinding with glass balls (G) or with stainless steel balls (S)

Suitable for:
- Dry milling of dry and brittle samples (e.g. kaolin, gypsum, coloured pigments, tablets)
- Cell maceration
- Processing of materials mixed with fluids
- Volumes from 2 - 15 ml
- 25 items per pack

Ident. No.	
3599600	glass balls
3553700	stainless steel balls
3681700	stain. steel, γ-sterilized
3681800	glass, γ-sterilized

NEW!

γ-sterilized tubes

All sample tubes available in γ-sterilized versions.

Dispersion example: liver

Technical data	
Motor rating input	125 W
Motor rating output	75 W
Volume range (H_2O)	0,5 – 100 ml
Max. viscosity	5.000 mPas
Speed adjustment	stepless
Speed range	8.000 – 30.000 rpm
Speed stability	< 6 %
Speed display	scale
Noise without dispersing element	65 dB (A)
Overload protection	yes
Permitted ON-time (ON / OFF)	max. 10 min / min. 5 min
General data	
Dimensions (W x D x H)	45 x 60 x 180 mm
Weight	0,4 kg
Permissible ambient temperature	5 – 40 °C
Permissible relative humidity	80 %
Protection class acc. to DIN EN 60529	IP 30

T 10 basic

Competitively priced dispersing instrument for volumes of 0,5 to 100 ml. A wide speed range allows you to work at high circumferential speeds even with small rotor diameters. Perfect ergonomic finish.
- **Quick-release coupling makes changing the dispersing elements easy**
- Immense speed stability with various media thanks to high performance 125 Watt drive
- Ideal for manual operation thanks to its light weight and ergonomic form
- Extremely mobile thanks to direct mains operation (no transformer required)
- Stainless steel dispersing elements (5 mm, 8 mm and 10 mm diameter) can be cleaned quickly and easily as they can be dismounted without tools
- Plastic disposable dispersing elements in two sizes, particularly suitable for PCR analysis
- Included with delivery: empty storage case (for drive, clamp, dispersing elements) and spare seals and clamp R 200

Accessories (page):
R 200 Clamp (116), R 104 Stand (114), H 44 Boss head clamp (116), Dispersing elements (72): S 10 N – 5 G, S 10 N – 8 G, S 10 N – 10 G, Plastic dispersing elements (74): S 10 D – 7 G – KS – 65, S 10 D – 7 G – KS – 110

Ident. No.	
3420000	230 V 50/60 Hz
3420001	115 V 50/60 Hz

T 18 basic ULTRA-TURRAX®

Competitively priced dispersing instrument for volumes of 1 to 1.500 ml (H_2O).
A wide speed range allows you to work at high circumferential speeds.
- Electronic speed control
- Electronic overload protection
- Quick release button for dispersing element
- As standard, the T 18 is equipped with a connection for a revolution counter

Dispersing elements not included with delivery.

Accessories (page):
Dispersing instruments (70), Stands (114):
R 1825, R 1826, R 1827, R 182 Boss head clamp (116), DZM control.o Revolution counter (119), RH 3 Strap clamp (116)

Technical data	
Motor rating input	500 W
Motor rating output	300 W
Volume range (H_2O)	1 – 1.500 ml
Max. viscosity	5.000 mPas
Speed adjustment	stepless
Speed range (under load)	3.500 – 24.000 rpm
Speed display	scale
Noise without dispersing element	73 dB (A)
Overload protection	yes
Diameter / length of extension arm	13 mm / 175 mm
General data	
Dimensions (W x D x H)	65 x 80 x 240 mm
Weight	1,6 kg
Permissible ambient temperature	5 – 40 °C
Permissible relative humidity	80 %
Protection class acc. to DIN EN 60529	IP 20

Ident. No.	
3561000	230 V 50/60 Hz
3561001	115 V 50/60 Hz

NEW!

T 25 digital ULTRA-TURRAX®

High-performance dispersing instrument for volumes from 1 - 2.000 ml (H_2O).
The spectrum of applications ranges from homogenizing waste water samples to the use in laboratory reactors, to dispersion tasks under vacuum / pressure and sample preparation in medical diagnostics.
- Three types of shaft bearings
- Standard version with digital display
- Rotor-Stator configurations have thirty years of proven, guaranteed comparability of test results
- Wide range of dispersing elements (not included with delivery, page 70 / 71

Accessories (page):
Dispersing instruments (70 / 71), Stands (114):
R 1825, R 1826, R 1827, R 182 Boss head clamp (116), RH 3 Strap clamp (116)

Technical data	
Motor rating input	500 W
Motor rating output	300 W
Volume range (H_2O)	1 – 2.000 ml
Max. viscosity	5.000 mPas
Speed adjustment	stepless
Speed range (under load)	3.400 – 24.000 rpm
Speed display	digital
Noise without dispersing element	73 dB (A)
Overload protection	yes
Diameter / length of extension arm	13 mm / 175 mm
General data	
Dimensions (W x D x H)	65 x 80 x 240 mm
Weight	1,6 kg
Permissible ambient temperature	5 – 40 °C
Permissible relative humidity	80 %
Protection class acc. to DIN EN 60529	IP 20

Ident. No.	
3565000	230 V 50/60 Hz
3565001	115 V 50/60 Hz

NEW!

T 25 digital ULTRA-TURRAX®
Dispersing instrument for quantities up to approx. 2.000 ml, **page 66**
Ident. No. 3565000

T 18 basic ULTRA-TURRAX®
Dispersing instrument for quantities up to approx. 1.500 ml, **page 66**
Ident. No. 3561000

R 182
Boss head clamp, **page 116**
Ident. No. 2657700

S 18 N – 19 G
Dispersing element for quantities between 10 – 1.500 ml, **page 70**
Ident. No. L004640

S 25 N – 18 G
Dispersing element for quantities between 10 – 1.500 ml, **page 71**
Ident. No. 0593400

RH 3
Strap clamp, **page 116**
Ident. No. 3008600

R 1827
Plate stand, **page 114**
Ident. No. 3160200

Ident. No.

2953100	230 V 50/60 Hz
2953101	115 V 50/60 Hz

T 50 basic ULTRA-TURRAX®

- High-performance dispersing instrument for volumes from 0,25 - 30 l (H_2O)
- Three types of shaft bearings
- Several rotor-stator configurations
- Agitator shaft R 50 allows the use of the T 50 basic as a “high-speed stirrer” (not included in delivery, page 76)
- Infinitely variable speed control, for continuous operation
- Reproducible operations due to constant speed even with viscosity changes
- Large selection of dispersing elements
- Plug-in connectors facilitate exchange of dispersing elements
- Electronic safety circuit and smooth start
- As standard, the T 50 basic is equipped with a connection for the revolution counter
- Wide range of dispersing elements (not included in delivery, page 72 / 73)

Technical data	
Motor rating input	1.100 W
Motor rating output	700 W
Volume range (H_2O)	0,25 – 30 l
Max. viscosity	5.000 mPas
Speed adjustment	stepless
Speed range	4.000 – 10.000 rpm
Speed stability	1 %
Speed display	scale
Noise without dispersing element	72 dB (A)
Diameter / length of extension arm	16 mm / 220 mm
Overload protection	yes
General data	
Dimensions (W x D x H)	125 x 120 x 367 mm
Weight	6 kg
Permissible ambient temperature	5 – 40 °C
Permissible relative humidity	80 %
Protection class acc. to DIN EN 60529	IP 20

Accessories (page):
Dispersing elements (72 / 73), Special dispersing elements (76), Stands (114 / 115): R 2722, R 2723, R 271 Boss head clamp (116), DZM control.o Revolution counter (119), RH 5 Strap clamp (116)

T 50 basic ULTRA-TURRAX®
Dispersing instrument for quantities up to approx. 30 l, **page 68**
Ident. No. 2953100

R 271
Boss head clamp, **page 116**
Ident. No. 2664000

S 50 N – G 45 G
Dispersing element for coarse crushing, **page 72**
Ident. No. 8003000

RH 5
Strap clamp, **page 116**
Ident. No. 3159000

R 2723
Telescopic stand, **page 115**
Ident. No. 1412100

S 50 N – G 45 F
Dispersing element for subsequent fine crushing, **page 73**
Ident. No. 8003900

Technical data	
Motor rating input	1.800 W
Motor rating output	1.500 W
Volume range (H_2O)	2 – 50 l
Max. viscosity	5.000 mPas
Speed, fixed	7.200 rpm
Speed stability	5 %
Noise without dispersing element	75 dB (A)
Overload protection	yes
General data	
Dimensions (W x D x H)	190 x 580 x 380 mm
Weight	28 kg
Permissible ambient temperature	5 – 40 °C
Permissible relative humidity	80 %
Protection class acc. to DIN EN 60529	IP 54

T 65 D ULTRA-TURRAX®

The high-performance T 65 D dispersing instrument has been designed for typical pilot plant stations quantities from 2 - 50 l (H_2O).
- Three rotor-stator configurations for a variety of applications (not included with delivery)
- Plug-in connectors facilitate exchange of dispersing elements
- Speed controller on request
- Dispersing instruments for the production area: ask for our process technology catalogs
- Cables and plugs not included with delivery

Accessories (page):
Dispersing elements (73), T 653 Stand (115), SI 400 Safety switch (43), Fixing device SI 474 (43)

Ident. No.

1602800	3 x 400 V 50 Hz
1602802	3 x 230 V 60 Hz

Nomenclature dispersing elements

The variety of media to be processed also requires a variety of rotor-stator configurations and seals. In many cases it is neccessary to use subsequently two dispersing elements, for pre-crushing and fine crushing. The plug-in connectors facilitate the exchange of the dispersing elements.

Example of the S 50 N – G 45 M dispersing element set-up

For dispersing instrument	Dispersing element Shaft / Agitator shaft	With seal or bearing type*	Generator or element**	With outer diameter (mm)	Degree of fineness achieved***
T 10	S 10	N	–	5 / 8 / 10	G
T 18	S 18	N	–	10 / 19	G
T 25	S 25	N / KR / KV / NK	–	8 / 10 / 18 / 19 / 25	G / F
T 50	S / R 50	N / KV / KR / KG – HH	G / W	45 / 65 / 80	G / M / F
T 65	S 65	KG – HH	G	65	G / M / F

* N = PTFE bearing, KR = Ball bearing with FKM- seal, KV = Ball bearing with vacuum-tight sliding-ring seal with silicon carbide seal rings, NK = PTFE bearing with additional ball bearing without seal, KG - HH = Ball bearing with sliding-ring seals of hard metal allow with FFPM seal rings
** G = proved configuration, W = special element
*** G = coarse, M = medium, F = fine

Ident. No.
1 1024200

Ident. No.
2 0594000

Ident. No.
3 0593400

Ident. No.
4 1713300

Ident. No.
5 1713800

Ident. No.
8011900

Dispersing elements T 18 basic, T 25 digital

For nomenclature see page 69

Dispersing element	S 18 N – 10 G	S 18 N – 19 G	S 25 N – 8 G	S 25 N – 10 G	S 25 N – 10 G – VS	S 25 N – 18 G	S 25 KR – 18 G	S 25 KV – 18 G
Ident. No.	L004639	L004640	1024200	0594000	1899000	0593400	0560300	2348000
Fig.	without fig.	without fig.	1	2	without fig.	3	without fig.	without fig.
Suitable for dispersing instrument	T 18 basic	T 18 basic	T 25 digital	T 25 digital	T 25 digital	T 25 digital	T 25 digital	T 25 digital
Working range	1 – 100 ml	10 – 1.500 ml	1 – 50 ml	1 – 100 ml	1 – 100 ml	10 – 1.500 ml	10 – 1.500 ml	10 – 1.500 ml
Stator diameter	10 mm	19 mm	8 mm	10 mm	10 mm	18 mm	18 mm	18 mm
Rotor diameter	7,5 mm	12,7 mm	6,1 mm	7,5 mm	7,5 mm	12,7 mm	12,7 mm	12,7 mm
Gap between rotor and stator	0,35 mm	0,4 mm	0,25 mm	0,35 mm	0,35 mm	0,3 mm	0,3 mm	0,3 mm
Circumferential speed	9,4 m/s	15,9 m/s	7,7 m/s	9,4 m/s	9,4 m/s	15,9 m/s	15,9 m/s	15,9 m/s
Min. / max. immersion depth	25 / 70 mm	35 / 170 mm	27 / 85 mm	22 / 85 mm	22 / 85 mm	40 / 165 mm	40 / 185 mm	40 / 225 mm
Shaft length	108 mm	204 mm	108 mm	105 mm	105 mm	194 mm	194 mm	270 mm
Materials in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	FKM, AISI 316L	FFPM / SIC, AISI 316L
pH range	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes	yes	yes	yes	no	yes
Suitable for abrasive substances	yes	yes	yes	yes	yes	yes	no	no
Max. temperature	180 °C	180 °C	180 °C	180 °C	180 °C	180 °C	80 °C	220 °C
Sterilization methods	all methods	all methods	all methods	all methods	all methods	all methods	wet chemical	wet chemical
Min. vacuum	–	–	–	–	–	–	50 mbar	1 mbar
Max. pressure	–	–	–	–	–	–	–	6 bar
Ultimate fineness, suspensions	10 – 50 µm	10 – 50 µm	10 – 50 µm	10 – 50 µm	10 – 50 µm	10 – 50 µm	10 – 50 µm	10 – 50 µm
Ultimate fineness, emulsions	1 – 10 µm	1 – 10 µm	1 – 10 µm	1 – 10 µm	1 – 10 µm	1 – 10 µm	1 – 10 µm	1 – 10 µm

Dispersing element	S 25 NK – 19 G	S 25 N – 25 G	S 25 KR – 25 G	S 25 KV – 25 G	S 25 N – 25 F	S 25 KR – 25 F	S 25 KV – 25 F	S 25 KV – 25 G – IL	S 25 KV – 25 F – IL
Ident. No.	2494700	1713300	1713400	2466900	1713800	1713900	2404000	2563000	2830200
Fig.	without fig.	4	without fig.	without fig.	5	without fig.	without fig.	without fig.	without fig.
Suitable for dispersing instrument	T 25 digital	T 25 digital	T 25 digital	T 25 digital	T 25 digital	T 25 digital	T 25 digital	T 25 digital	T 25 digital
Working range	25 – 1.500 ml	50 – 2.000 ml	50 – 2.000 ml	50 – 2.000 ml	100 – 2.000 ml	100 – 2.000 ml	100 – 2.000 ml	Inline	Inline
Stator diameter	19 mm	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm
Rotor diameter	12,7 mm	17 mm	17 mm	17 mm	18 mm	18 mm	18 mm	17 mm	18 mm
Gap between rotor and stator	0,3 mm	0,5 mm	0,5 mm	0,5 mm	0,5 mm	0,5 mm	0,5 mm	0,5 mm	0,5 mm
Circumferential speed	15,9 m/s	21,4 m/s	21,4 m/s	21,4 m/s	22,6 m/s	22,6 m/s	22,6 m/s	21,4 m/s	22,6 m/s
Min. / max. immersion depth	40 / 165 mm	40 / 165 mm	40 / 185 mm	40 / 225 mm	40 / 165 mm	40 / 185 mm	40 / 225 mm	40 / 85 mm	40 / 85 mm
Shaft length	194 mm	194 mm	194 mm	270 mm	194 mm	194 mm	270 mm	110 mm	110 mm
Materials in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	FKM, AISI 316L	FFPM / SIC, AISI 316L	PTFE, AISI 316L	FKM, AISI 316L	FFPM / SIC, AISI 316L	FFPM / SIC, AISI 316L	FFPM / SIC, AISI 316L
pH range	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	no	yes	yes	no	yes	yes	yes
Suitable for abrasive substances	yes	yes	no	no	yes	no	no	no	no
Max. temperature	120 °C	180 °C	80 °C	220 °C	180 °C	80 °C	220 °C	220 °C	220 °C
Sterilization methods	wet chemical	all methods	wet chemical	wet chemical	all methods	wet chemical	wet chemical	wet chemical	wet chemical
Min. vacuum	–	–	50 mbar	1 mbar	–	50 mbar	1 mbar	1 mbar	1 mbar
Max. pressure	–	–	–	6 bar	–	–	6 bar	6 bar	6 bar
Ultimate fineness, suspensions	10 – 50 µm	15 – 50 µm	15 – 50 µm	15 – 50 µm	5 – 25 µm	5 – 25 µm	5 – 25 µm	15 – 50 µm	5 – 25 µm
Ultimate fineness, emulsions	1 – 10 µm	1 – 10 µm	1 – 10 µm	1 – 10 µm	1 – 5 µm	1 – 5 µm	1 – 5 µm	1 – 10 µm	1 – 5 µm

SW 18 Slab rotor

Additional rotor for dispersing elements:
S 25 N – 18 G
S 25 KR – 18 G
S 25 KV – 18 G

Technical data	
Rotor diameter	12,8 mm
Gap between rotor and stator	0,35 mm
Circumferential speed	16,1 m/s
Materials in contact with medium	stainl. steel AISI 316L
Applications	viscous, fibrous tissue

Ident. No.
1 3304000

Ident. No.
2 3305500

Ident. No.
3 3370100

Dispersing elements T 10 basic

For nomenclature see page 69

Dispersing element	S 10 N – 5 G	S 10 N – 8 G	S 10 N – 10 G
Ident. No.	3304000	3305500	3370100
Fig.	1	2	3
Suitable for dispersing instrument	T 10 basic	T 10 basic	T 10 basic
Working range	0,5 – 10 ml	1 – 50 ml	1 – 100 ml
Stator diameter	5 mm	8 mm	10 mm
Rotor diameter	3,8 mm	6,1 mm	7,6 mm
Gap between rotor and stator	0,1 mm	0,25 mm	0,2 mm
Min. / max. immersion depth	20 / 75 mm	20 / 95 mm	20 / 100 mm
Shaft length	92 mm	115 mm	115 mm
Materials in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L
pH range	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes
Suitable for abrasive substances	yes	yes	yes
Max. temperature	180 °C	180 °C	180 °C
Sterilization methods	all methods	all methods	all methods
Min. vacuum	–	–	–
Max. pressure	–	–	–
Ultimate fineness, suspensions	5 – 25 µm	5 – 25 µm	5 – 25 µm
Ultimate fineness, emulsions	1 – 10 µm	1 – 10 µm	1 – 10 µm

Ident. No.
1 8003000

Ident. No.
2 8003300

Ident. No.
3 8003900

Dispersing elements T 50 basic

For nomenclature see page 69

Dispersing element	S 50 N – G 45 G	S 50 KR – G 45 G	S 50 N – G 45 M	S 50 KR – G 45 M	S 50 N – G 45 F	S 50 KR – G 45 F	S 50 KV – G 45 G – IL
Ident. No.	8003000	8003100	8003300	8003400	8003900	8004000	8015800
Fig.	1	without fig.	2	without fig.	3	without fig.	without fig.
Suitable for dispersing instrument	T 50 basic	T 50 basic	T 50 basic	T 50 basic	T 50 basic	T 50 basic	T 50 basic
Working range	0,5 – 20 l	0,5 – 20 l	0,5 – 15 l	0,5 – 15 l	0,25 – 10 l	0,25 – 10 l	Inline
Stator diameter	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm
Rotor diameter	36 mm	36 mm	40,5 mm	40,5 mm	40 mm	40 mm	36 mm
Circumferential speed	18,8 m/s	18,8 m/s	21,2 m/s	21,2 m/s	20,9 m/s	20,9 m/s	18,8 m/s
Min. / max. immersion depth	70 / 250 mm	70 / 260 mm	70 / 250 mm	70 / 260 mm	70 / 250 mm	70 / 260 mm	70 mm
Shaft length	300 mm	300 mm	290 mm	290 mm	290 mm	290 mm	105 mm
Materials in contact with medium	PTFE, AISI 316L	FKM, AISI 316L	PTFE, AISI 316L	FKM, AISI 316L	PTFE, AISI 316L	FKM, AISI 316L	FFPM / SIC, AISI 316L
pH range	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	no	yes	no	yes	no	yes
Suitable for abrasive substances	yes	no	yes	no	yes	no	no
Max. temperature	180 °C	80 °C	180 °C	80 °C	180 °C	80 °C	220 °C
Sterilization methods	all methods	wet chemical	all methods	wet chemical	all methods	wet chemical	wet chemical
Min. vacuum	–	100 mbar	–	100 mbar	–	100 mbar	1 mbar
Max. pressure	–	–	–	–	–	–	6 bar
Ultimate fineness, suspensions	40 – 100 µm	40 – 100 µm	25 – 50 µm	25 – 50 µm	10 – 30 µm	10 – 30 µm	40 – 100 µm
Ultimate fineness, emulsions	10 – 30 µm	10 – 30 µm	5 – 20 µm	5 – 20 µm	1 – 10 µm	1 – 10 µm	10 – 30 µm

S 50 N - Special length shafts also available in 430 mm (order label S 50 N 1)

Dispersing elements T 65 D

For nomenclature see page 69

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.	8005500	8005700	8005900
Fig.	1	2	3
Suitable for dispersing instrument	T 65 D	T 65 D	T 65 D
Working range	2 – 50 l	2 – 40 l	2 – 30 l
Stator diameter	65 mm	65 mm	65 mm
Rotor diameter	58 mm	58 mm	58 mm
Circumferential speed	21,9 m/s	21,9 m/s	21,9 m/s
Min. / max. immersion depth	90 / 450 mm	80 / 450 mm	80 / 450 mm
Shaft length	520 mm	510 mm	500 mm
Materials in contact with medium	FFPM / SIC, AISI 316L	FFPM / SIC, AISI 316L	FFPM / SIC, AISI 316L
pH range	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes
Suitable for abrasive substances	no	no	no
Max. temperature	180 °C	180 °C	180 °C
Sterilization methods	wet chemical	wet chemical	wet chemical
Min. vacuum	1 mbar	1 mbar	1 mbar
Max. pressure	6 bar	6 bar	6 bar
Ultimate fineness, suspensions	25 – 75 µm	20 – 50 µm	5 – 20 µm
Ultimate fineness, emulsions	5 – 25 µm	5 – 15 µm	1 – 10 µm

Ident. No.
1 8005500

Ident. No.
2 8005700

Ident. No.
3 8005900

Plastic dispersing elements

Plastic dispersing elements are ideal for those applications where absolutely no cross-contamination is permitted. They are disposable and can be thrown away after a single use. The element is disposable and designed for one-way use. However, it can be re-used several times in applications where this is permitted. If you decide to re-use the element, make sure that you follow the cleaning instructions carefully. Example use: homogenizing tissue samples.

For disperser	Dispersing element shaft	Seals	Diameter stator (mm)	Degree of fineness achieved	Material
T 10	S 10	D = without seal	7	G = coarse	KS = plastic
T 18	S 18	D = without seal	10 / 14	G = coarse	KS = plastic
T 25	S 25	D = without seal	10 / 14	G = coarse	KS = plastic

S 10 D – 7G – KS – 65

Ident. No.	
3433212	12 pcs.
3433225	25 pcs.

S 10 D – 7G – KS – 110

Ident. No.	
3433312	12 pcs.
3433325	25 pcs.

Plastic dispersing elements for T 10 basic

Dispersing element	S 10 D – 7 G – KS – 65	S 10 D – 7 G – KS – 110
Ident. No. [Packing unit]	**3433212** [12 pcs.]	**3433312** [12 pcs.]
	3433225 [25 pcs.]	**3433325** [25 pcs.]
Suitable for dispersing instrument	T 10 basic	T 10 basic
Working range	1 – 20 ml	1 – 40 ml
Stator diameter	7 mm	7 mm
Rotor diameter	4,8 mm	4,8 mm
Min. / max. immersion depth	20 / 50 mm	20 / 90 mm
Shaft length	65 mm	110 mm
Materials in contact with medium	Polycarbonate (PC)	Polycarbonate (PC)
	Polysulfon (PSU)	Polysulfon (PSU)
Max. temperature	100 °C	100 °C
Sterilization methods	yes, autoclavable	yes, autoclavable

Plastic materials used approved by FDA.

Plastic dispersing elements for T 18 basic

Dispersing element	S 18 D – 10 G – KS	S 18 D – 14 G – KS
Ident. No. [Packing unit]	**3452000** [5 pcs.*]	**3451900** [5 pcs.*]
	3452400 [10 pcs.*]	**3452300** [10 pcs.*]
Suitable for dispersing instrument	T 18 basic	T 18 basic
Working range	10 – 100 ml	10 – 500 ml
Stator diameter	10 mm	14 mm
Rotor diameter	6,75 mm	9,5 mm
Min. / max. immersion depth	15 / 85 mm	15 / 85 mm
Shaft length	150 mm	150 mm
Materials in contact with medium	Polycarbonate (PC)	Polycarbonate (PC)
	Polyetheretherketon (PEEK)	Polyetheretherketon (PEEK)
Max. temperature	100 °C	100 °C
Sterilization methods	yes, autoclavable	yes, autoclavable

Plastic materials used approved by FDA.
* incl. 1 Disposable tube

S 18 D – 10 G – KS

Ident. No.	
3452000	5 pcs.*
3452400	10 pcs.*

S 18 D – 14 G – KS

Ident. No.	
3451900	5 pcs.*
3452300	10 pcs.*

Plastic dispersing elements for T 25 digital

Dispersing element	S 25 D – 10 G – KS	S 25 D – 14 G – KS
Ident. No. [Packing unit]	**3451800** [5 pcs.*]	**3451700** [5 pcs.*]
	3452200 [10 pcs.*]	**3452100** [10 pcs.*]
Suitable for dispersing instrument	T 25 digital	T 25 digital
Working range	10 – 100 ml	10 – 500 ml
Stator diameter	10 mm	14 mm
Rotor diameter	6,75 mm	9,5 mm
Min. / max. immersion depth	15 / 85 mm	15 / 85 mm
Shaft length	150 mm	150 mm
Materials in contact with medium	Polycarbonate (PC)	Polycarbonate (PC)
	Polyetheretherketon (PEEK)	Polyetheretherketon (PEEK)
Max. temperature	100 °C	100 °C
Sterilization methods	yes, autoclavable	yes, autoclavable

Plastic materials used approved by FDA.
* incl. 1 Disposable tube

S 25 D – 10 G – KS

Ident. No.	
3451800	5 pcs.*
3452200	10 pcs.*

S 25 D – 14 G – KS

Ident. No.	
3451700	5 pcs.*
3452100	10 pcs.*

General data	
Material	PP

Disposable tube S 18 / 25-ET50

50 ml for attaching onto plastic tools from S 18 D and S 25 D series. Allows dispersing in a closed system (splash guard).

Ident. No.
3452500

IKA® Crushing

Special dispersing elements (T 50 basic)

Ident. No.
1689300

R 50 “high speed” stirring shaft

With the stirring shaft R 50, the T 50 basic is quickly converted into a high speed stirrer. 700 W and 10.000 rpm are provided for rapid mixing, dissolving, and disagglomerating pigment agglomerates. The conical shaft is supported by means of ball bearings, the mixing elements have a screw connection. For operational safety a protective cage is fitted around the mixing element.

Included with delivery (page):
R 1402 Dissolver (76)

Accessories (page):
Dispersing elements (76): R 1405, R 1402

General data	
Immersion depth	180 mm
Working range	0,25 – 30 l
Max. circumferential speed	15,7 – 23 m/s
Max. permissible rotor diameter	50 mm
Material	stainl. steel (AISI 316L)

Ident. No.
1289800

R 1405 Propeller

General data	
Working range	0,25 – 10 l
Rotor diameter	45 mm

Ident. No.
1243300

R 1402 Dissolver

General data	
Working range	1 – 30 l
Rotor diameter	42 mm

Ident. No.

8006300	S 50 N – W 80 SMK
8006400	S 50 KR – W 80 SMK

S 50 ... – W 80 SMK Jet mixer head

For shortening mixing and dissolving times. The vertical flow and the high circumferential speed up to 10.000 rpm ensure intensive mixing. The head is used for adding gases or liquids, for lump-free suspension of difficult to dissolve powders or for dissolving sedimented, already hardened substances.

General data	
Min. / max. immersion depth	140 / 350 mm
Working range	1 – 50 l
Generator diameter	80 mm
Available seals	S 50 N S 50 KR

Ident. No.
8005100

S 50 N – W 65 SK Cutting head

To crush large pieces (up to 50 mm) of fibrous materials, such as vegetation, vegetables and fruit.

General data	
Min. / max. immersion depth	80 / 350 mm
Working range	1 – 10 l
Generator diameter	65 mm
Available seals	S 50 N

IKA® Crushing

Dispersers (inline operation)

Technical data	
Flow rate (H_2O)	11,6 l/min
Speed range	6.500 – 24.000 rpm
Materials in contact with medium	stainl. steel (AISI 316L) FFPM
Max. operating temperature	180 °C
Dimensions (W x D x H)	450 x 100 x 120 mm
Weight	3,8 kg
Chamber volume	26 ml
Min. vacuum	1 mbar
Max. pressure	6 bar
Permissible ambient temperature	5 – 40 °C
Permissible relative humidity	80 °C
Protection class acc. to DIN EN 60529	IP 20

UTL 25 digital Inline ULTRA-TURRAX®

For circulation or flow-through processings in the laboratory.
- 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, emulsyfying and desagglomeration
- 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
- **Not suitable for continuous operation or cyclical continuous operation**

Included with delivery (page):
T 25 digital (66), AD 25 Mounting (78),
DK 25.11 Flow chamber (78),
S 25 KV – 25 G – IL Dispersing element (71)

Accessories (page):
dispersing element S 25 KV – 25 F – IL (71)

Ident. No.

8014400	230 V 50/60 Hz
8014401	115 V 50/60 Hz

Example application

Technical data	
Flow rate (H_2O)	24 l/min
Speed range	4.000 – 10.000 rpm
Materials in contact with medium	stainl. steel (AISI 316L) FFPM
Max. operating temperature	180 °C
Dimensions (W x D x H)	130 x 150 x 500 mm
Weight	6,1 kg
Chamber volume	94 ml
Min. vacuum	1 mbar
Max. pressure	6 bar
Permissible ambient temperature	5 – 40 °C
Permissible relative humidity	80 °C
Protection class acc. to DIN EN 60529	IP 21

UTL 50 basic Inline ULTRA-TURRAX®

For circulation or flow-through processings in the laboratory or pilot plant stations.
- Stand-supported device, low space requirement
- Large flow rate of 24 l/min with open outlet (the mounting of a valve reduces the delivery capacity)
- For vacuum or pressurized operation to 6 bar
- If the DK 50.11 is used, air induction is also prevented in batch operation
- **Not suitable for continuous operation or cyclical continuous operation**

Additional features as UTL 25 digital inline.

Included with delivery (page):
T 50 basic (68), DK 50.11 Flow chamber (78),
S 50 KV – G 45 G – IL Dispersing element (73)

Accessories (page):
R 2723 Telescopic stand (115), R 271 Boss head clamp (116)

Ident. No.

8015900	230 V 50/60 Hz
8015901	115 V 50/60 Hz

Ident. No.
2518000

DK 25.11 Flow chamber

For S 25 KV - 25 ... - IL dispersing elements. Allows inline operation mode, see UTL 25 digital, page 77.

Batch operation (see fig.):
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.

General data	
Chamber volume	26 ml
Vacuum	1 mbar
Pressure	6 bar

Ident. No.
2562500

AD 25

Mounting support for DK 25.11

Ident. No.
2810000

DK 50.11 Flow chamber

For S 50 KV - G 45 ... - IL dispersing elements. Allows operation in inline mode, see UTL 50 basic, page 77.

If used in batch mode: DK 50.11 is mounted around the dispersing element. Additional features as DK 25.11.

General data	
Chamber volume	94 ml
Vacuum	1 mbar
Pressure	6 bar

Technical data	
Power	1,5 kW
Speed range (up to 40 m/s)	3.160 – 13.750 rpm
Flow rate	approx. 300 – 700 l/h
Circumferential speed	23,5 (9,4 – 41) m/s
Materials in contact with medium	stainl. steel AISI 316L/316Ti
Seal material	
Shaft sealing ring	PTFE-compound
Elastomer chamber	standard FPM
Dimensions (W x D x H)	450 x 250 x 350 mm
Generator	4M

LABOR-PILOT 2000/4

Small, multi-functional table-top dispersing system with the possibility of upscaling to production size.

Basic unit with module ULTRA-TURRAX® UTL:
- Three-phase motor with on/off-switch
- Belt drive
- Single stage dispersing chamber UTL
- Generator 4M (medium)
- PTFE-shaft sealing ring

Can be extended to a high-speed dispersing machine by means of the LABOR-PILOT-Controller.

Special features:
- Multiple use for mixing, dispersing or wet milling
- Modular design – the basic unit can be converted easily by using various mixing heads to reach circumferential speeds up to 40 m/s
- CIP/SIP (clean-in-place / sterilization-in-place) capable
- All parts in contact with the medium are made of stainless steel AISI 316 L/316 Ti
- The control system allows a product-specific adaptation to rheological characteristics

Ident. No.	
T056762	3 x 220 – 240 V 50/60 Hz
T055396	3 x 380 – 420 V 50/60 Hz
S097950	for FC-operation

Technical data	
Power	2,2 kW
Speed range (up to 40 m/s)	3.160 – 13.750 rpm
Standard speed	7.900 rpm
Flow rate	approx. 300 – 700 l/h
Circumferential speed	23,5 (9,4 – 41) m/s
Materials in contact with medium	stainl. steel AISI 316L/316Ti
Seal material	
Double acting mechanical seal	Q1Q1VMG-BQ1VMG
Elastomer chamber	standard FPM
Dimensions (W x D x H)	
(including pressure locking)	450 x 250 x 930 mm
Generator	4M
Inlet connector	DN 25
Outlet connector	DN 15

PROCESS-PILOT 2000/4

The PROCESS-PILOT is equipped with a double-acting mechanical seal complete with the necessary pressure locking system. This allows, in addition to the other modules, the use of the CMS module for easy and dust-free incorporation of powders into liquids in batch operation.

The advantages of the PROCESS-PILOT:
- Operates under pressure/vacuum
- Works at elevated temperatures
- Low maintenance mechanical seal
- Suitable for dry-running
- Available in Ex-protected design acc. to 94/9/EG (ATEX 95)

Basic unit with module ULTRA-TURRAX® UTL:
- Three-phase motor
- Belt drive
- Single stage dispersing chamber UTL
- Double acting mechanical seal, material combination Q1Q1VMG-BQ1VMG
- Generator 4M (medium)
- All parts in contact with the medium are made of stainless steel AISI 316 L/316 Ti
- O-rings made of FPM

Ident. No.	
T058102	for FC-operation

Other generators available.