

IKA® Crushing

Dispersers (batch operation)



T 8 ULTRA-TURRAX®

Dispersing instrument for volumes from 0.5 ml - 50 ml (H₂O). With rotor-stator configurations which have been specifically developed for tissue decomposition, for clinical and medical diagnostics and for suspensions, e.g. centrifuge products.

- Mini-dispersing elements with 5 mm diameter for Eppendorf tubes, centrifugal glasses, cuvettes, ect. are available
- Dispersing elements may be sterilized in accordance with all known methods
- Powerful 100 W drive with infinitely variable speed control (5,000 - 25,000 rpm)
- Safety provided by 12 V low voltage
- Lightweight, the drive weighs only 400 g
- May be optionally used as hand-held or standing instrument
- Power pack included
- Dispersing elements not included with delivery

Accessories (Page):

Dispersing elements (52),
T 8.10 Dispersing station (58)

Motor rating	
input / output	100 / 70 W
Volume range (H ₂ O)	0.5 - 50 ml
Max. viscosity	5,000 mPas
Speed range	5,000 - 25,000 rpm
Speed adjustment	stepless
Speed display	scale (1 - 6)
Noise without dispersing element	64 dB(A)
Overload protection	yes
Dimensions (W x D x H)	42 x 44 x 250 mm
Weight	0.4 kg
Permissible ambient temperature	5 - 40 °C
Permissible humidity	80 %
Protection class acc. to DIN EN 60529	IP 20

Ident. No.		Ident. No.	
8002000	230 V 50/60 Hz	8002001	115 V 50/60 Hz



T 18 ULTRA-TURRAX®

An excellent dispersing instrument at a remarkable price! Volume range: 1 - 1,500 ml (H₂O). An extended speed range allows to work at high circumferential speeds.

- Electronic speed control
- Electronic temperature control
- Electronic overload protection
- Quick release button for dispersing element
- Dispersing elements not included with delivery

Accessories (Page):

Dispersing elements (52),
Stands (90): R 1825, R 1826, R 1827,
R 182 Boss head clamp (92),
DZM control.o Revolution counter (95)

Motor rating	
input / output	300 / 160 W
Volume range (H ₂ O)	1 - 1,500 ml
Max. viscosity	5,000 mPas
Speed range	6,000 - 24,000 rpm
Speed adjustment	stepless
Speed display	scale
Noise without dispersing element	78 dB(A)
Diameter / length of extension arm	13 mm / 165 mm
Dimensions (W x D x H)	78 x 78 x 220 mm
Weight	1.2 kg
Permissible ambient temperature	5 - 40 °C
Permissible humidity	80 %
Protection class acc. to DIN EN 60529	IP 20

Ident. No.		Ident. No.	
L004638	230 V 50/60 Hz	L004637	115 V 50/60 Hz

IKA® Crushing Dispersers (batch operation)



Configuration example

1 **T 18 basic ULTRA-TURRAX®**
Dispersing instrument for quantities up to approx. 1,500 ml, page 47.

2 **S 18 N - 19 G**
Dispersing element for quantities between 10 - 1,500 ml, page 52.

5 **R 1827**
Plate stand, page 90.

6 **R 182**
Boss head clamp, page 92.

7 **RH 3**
Strap clamp, page 92.

3 **T 25 basic ULTRA-TURRAX®**
Dispersing instrument for quantities up to 2,000 ml, page 49.

4 **S 25 N - 18 G**
Dispersing element for quantities between 10 - 1,500 ml, page 53.

5 **R 1827**
Plate stand, page 90.

6 **R 182**
Boss head clamp, page 92.

7 **RH 3**
Strap clamp, page 92.

IKA® Crushing

Dispersers (batch operation)



T 25 basic ULTRA-TURRAX®

High-performance dispersing instrument for volumes from 1 - 2,000 ml (H₂O). 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
- As standard, the T 25 basic is equipped with a connection for a revolution counter
- Rotor-Stator configurations have thirty years of proven, guaranteed comparability of test results
- Wide range of dispersing elements (not included with delivery)

Motor rating	
input / output	500 / 300 W
Volume range (H ₂ O)	1 - 2,000 ml
Max. viscosity	5,000 mPas
Speed adjustment	stepless
Speed range	6,500 - 24,000 rpm
Speed stability	1 %
Speed display	scale
Noise without dispersing element	73 dB (A)
Diameter / length of extension arm	13 mm / 175 mm
Overload protection	yes
Dimensions (W x D x H)	65 x 80 x 240 mm
Weight	1.6 kg
Permissible ambient temperature	5 - 40 °C
Permissible humidity	80 %
Protection class acc. to DIN EN 60529	IP 20

Accessories (Page):

Dispersing elements (52/53), Stands (90): R 1825, R 1826, R 1827, R 182 Boss head clamp (92), DZM control.o Revolution counter (95), RH 3 Strap clamp (92)

Ident. No.	Ident. No.
2953000	2953001

230 V 50/60 Hz 115 V 50/60 Hz



T 50 basic ULTRA-TURRAX®

High-performance dispersing instrument for volumes from 0.25 - 30 l (H₂O).

- 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)
- 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)

Motor rating	
input/output	1,100 / 700 W
Volume range (H ₂ O)	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
Dimensions (W x D x H)	125 x 120 x 367 mm
Weight	6 kg
Permissible ambient temperature	5 - 40 °C
Permissible humidity	80 %
Protection class acc. to DIN EN 60529	IP 21

Accessories (Page):

Dispersing elements (54-56), Special dispersing elements (56), Stands (90): R 2722, R 2723, R 271 Boss head clamp (92), DZM control.o Revolution counter (95), RH 5 Strap clamp (92)

Ident. No.	Ident. No.
2953100	2953101

230 V 50/60 Hz 115 V 50/60 Hz

IKA® Crushing Dispersers (batch operation)



Configuration Example

1 **T 50 basic ULTRA-TURRAX®**
Dispersing instrument for quantities up to approx. 30 l, page 49.

2 **S 50 N - G 45 G**
Dispersing element for coarse crushing, page 54.

3 **S 50 N - G 45 F**
Dispersing element for subsequent fine crushing, page 55.

4 **R 2723**
Telescopic stand, page 90.

5 **R 271**
Boss head clamp, page 92.

6 **RH 5**
Strap clamp, page 92.

IKA® Crushing Dispersers (batch operation)



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 (H₂O).

- 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):

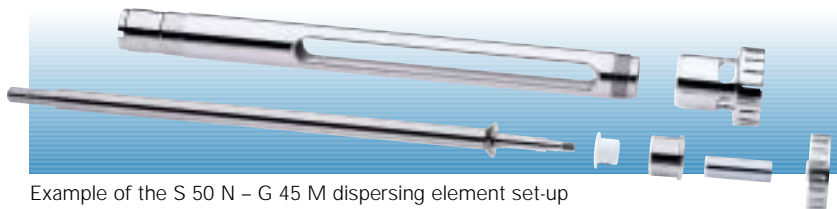
Dispersing elements (54), T 653 Stand (91)

Motor rating	
input / output	1,800 / 1,500 W
Volume range (H ₂ O)	2 - 50 l
Max. viscosity	5,000 mPas
Speed range - fixed	7,200 rpm
Speed stability	5 %
Noise without dispersing element	75 dB (A)
Overload protection	yes
Dimensions (W x D x H)	190 x 580 x 380 mm
Weight	28 kg
Permissible ambient temperature	5 - 40 °C
Permissible humidity	80 %
Protection class acc. to DIN EN 60529	IP 54

Ident. No.	Ident. No.
1602800 3 x 400 V 50 Hz	1602802 3 x 400 V 60 Hz

Dispersing elements

The variety of media to be processed also requires a variety of rotor-stator configurations and seals. In many cases it is necessary 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 (G) or element (W)	With outer diameter (mm)	Degree of fineness achieved**
T 8	S 8	N	-	5 / 8	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 Viton®- 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

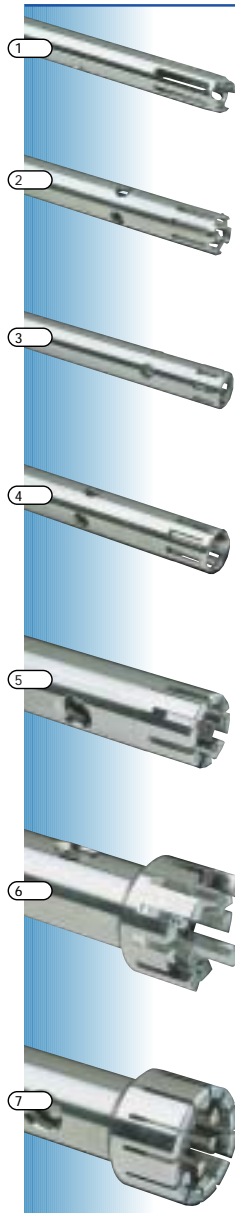
** G = coarse, M = medium, F = fine

IKA® Crushing

Dispersing elements (T 8, T 18 basic, T 25 basic)

Dispersers

Crushing



Dispersing element	S 8 N - 5 G	S 8 N - 8 G	S 18 N - 10 G	S 18 N - 19 G
Fig.				
Ident. No.	2969000	2560000	L004639	L004640

Suitable for dispersing instrument T 8 T 8 T 18 basic T 18 basic

Technical data				
Working range	0.5 - 5 ml	1 - 50 ml	1 - 100 ml	10 - 1,500 ml
Stator diameter	5 mm	8 mm	10 mm	19 mm
Rotor diameter	3.8 mm	6.1 mm	7.5 mm	12.7 mm
Gap between rotor and stator	0.15 mm	0.275 mm	0.35 mm	0.4 mm
Circumferential speed	5.0 m/s	8.0 m/s	9.4 m/s	15.9 m/s
Min. / max. immersion depth	25 / 85 mm	25 / 110 mm	25 / 70 mm	35 / 170 mm
Shaft length	120 mm	140 mm	108 mm	204 mm
Materials in contact with medium	PTFE, 1.4571	PTFE, 1.4571	PTFE, 1.4571	PTFE, 1.4571
pH range	2 - 13	2 - 13	2 - 13	2 - 13
Suitable for solvents	yes	yes	yes	yes
Suitable for abrasive substances	yes	yes	yes	yes
Max. temperature	180 °C	180 °C	180 °C	180 °C
Sterilization methods	all methods	all methods	all methods	all methods
Min. vacuum	-	-	-	-
Max. pressure	-	-	-	-
Ultimate fineness, suspensions	5 - 25 µm	5 - 25 µm	10 - 50 µm	10 - 50 µm
Ultimate fineness, emulsions	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
Fig.			
Ident. No.	2494700	1713300	1713400

Suitable for dispersing instrument T 25 basic T 25 basic T 25 basic

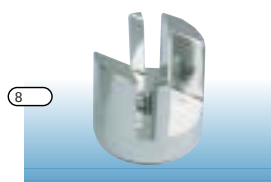
Technical data			
Working range	25 - 1,500 ml	50 - 2,000 ml	50 - 2,000 ml
Stator diameter	19 mm	25 mm	25 mm
Rotor diameter	12.7 mm	17 mm	17 mm
Gap between rotor and stator	0.3 mm	0.5 mm	0.5 mm
Circumferential speed	15.9 m/s	21.4 m/s	21.4 m/s
Min. / max. immersion depth	40 / 165 mm	40 / 165 mm	40 / 185 mm
Shaft length	194 mm	194 mm	194 mm
Materials in contact with medium	PTFE, 1.4571	PTFE, 1.4571	Viton, 1.4571
pH range	2 - 13	2 - 13	2 - 13
Suitable for solvents	yes	yes	no
Suitable for abrasive substances	yes	yes	no
Max. temperature	120 °C	180 °C	80 °C
Sterilization methods	wet chemical	all methods	wet chemical
Min. vacuum	-	-	50 mbar
Max. pressure	-	-	-
Ultimate fineness, suspensions	10 - 50 µm	15 - 50 µm	15 - 50 µm
Ultimate fineness, emulsions	1 - 10 µm	1 - 10 µm	1 - 10 µm

Additional rotor for dispersing elements S 25 N - 18 G, S 25 KR - 18 G, S 25 KV - 18 G

Dispersing element	Slab rotor SW 18
Fig.	
Ident. No.	8011900

Technical data	
Rotor diameter	12.8 mm
Gap between rotor and stator	0.35 mm
Circumferential speed	16.1 m/s

Applications viscous, fibrous tissue



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IKA® Crushing

Dispersing elements (T 25 basic)

S 25 N - 8 G 3 1024200	S 25 N - 10 G 4 0594000	S 25 N - 10 G - VS 1899000	S 25 N - 18 G 0593400	S 25 KR - 18 G 0560300	S 25 KV - 18 G 2348000
T 25 basic	T 25 basic	T 25 basic	T 25 basic	T 25 basic	T 25 basic
1 - 50 ml	1 - 100 ml	1 - 100 ml	10 - 1,500 ml	10 - 1,500 ml	10 - 1,500 ml
8 mm	10 mm	10 mm	18 mm	18 mm	18 mm
6.1 mm	7.5 mm	7.5 mm	12.7 mm	12.7 mm	12.7 mm
0.25 mm	0.35 mm	0.35 mm	0.3 mm	0.3 mm	0.3 mm
7.7 m/s	9.4 m/s	9.4 m/s	15.9 m/s	15.9 m/s	15.9 m/s
27 / 85 mm	22 / 85 mm	22 / 85 mm	40 / 165 mm	40 / 185 mm	40 / 225 mm
108 mm	105 mm	105 mm	194 mm	194 mm	270 mm
PTFE, 1.4571	PTFE, 1.4571	PTFE, 1.4571	PTFE, 1.4571	Viton, 1.4571	FFPM / 1.4571
2 - 13	2 - 13	2 - 13	2 - 13	2 - 13	2 - 13
yes	yes	yes	yes	no	yes
yes	yes	yes	yes	no	no
180 °C	180 °C	180 °C	180 °C	80 °C	220 °C
all methods	all methods	all methods	all methods	wet chemical	wet chemical
-	-	-	-	50 mbar	1 mbar
-	-	-	-	-	6 bar
10 - 50 µm	10 - 50 µm	10 - 50 µm	10 - 50 µm	10 - 50 µm	10 - 50 µm
1 - 10 µm	1 - 10 µm	1 - 10 µm	1 - 10 µm	1 - 10 µm	1 - 10 µm

S 25 KV - 25 G 2466900	S 25 N - 25 F 7 1713800	S 25 KR - 25 F 1713900	S 25 KV - 25 F 2404000	S 25 KV - 25 G - IL 2563000	S 25 KV - 25 F - IL 2830200
T 25 basic	T 25 basic	T 25 basic	T 25 basic	T 25 basic	T 25 basic
50 - 2,000 ml	100 - 2,000 ml	100 - 2,000 ml	100 - 2,000 ml	inline	inline
25 mm	25 mm	25 mm	25 mm	25 mm	25 mm
17 mm	18 mm	18 mm	18 mm	17 mm	18 mm
0.5 mm	0.5 mm	0.5 mm	0.5 mm	0.5 mm	0.5 mm
21.4 m/s	22.6 m/s	22.6 m/s	22.6 m/s	21.4 m/s	22.6 m/s
40 / 225 mm	40 / 165 mm	40 / 185 mm	40 / 225 mm	40 / 85 mm	40 / 85 mm
270 mm	194 mm	194 mm	270 mm	110 mm	110 mm
FFPM / SIC, 1.4571	PTFE, 1.4571	Viton, 1.4571	FFPM / SIC, 1.4571	FFPM / SIC, 1.4571	FFPM / SIC, 1.4571
2 - 13	2 - 13	2 - 13	2 - 13	2 - 13	2 - 13
yes	yes	no	yes	yes	yes
no	yes	no	no	no	no
220 °C	180 °C	80 °C	220 °C	220 °C	220 °C
wet chemical	all methods	wet chemical	wet chemical	wet chemical	wet chemical
1 mbar	-	50 mbar	1 mbar	1 mbar	1 mbar
6 bar	-	-	6 bar	6 bar	6 bar
15 - 50 µm	5 - 25 µm	5 - 25 µm	5 - 25 µm	15 - 50 µm	5 - 25 µm
1 - 10 µm	1 - 5 µm	1 - 5 µm	1 - 5 µm	1 - 10 µm	1 - 5 µm



SV NS 29 Screw cap

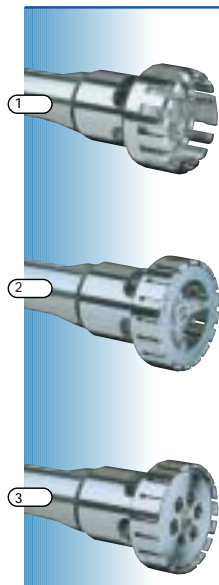
For dispersing operations (use seal types KR and KV) in ground section apparatus and for operations under hermetically sealed conditions or in a protective gas atmosphere (for dispersion elements used with the T 25 basic).

Seal diameter 17 mm

Ident. No.
0767700

IKA® Crushing

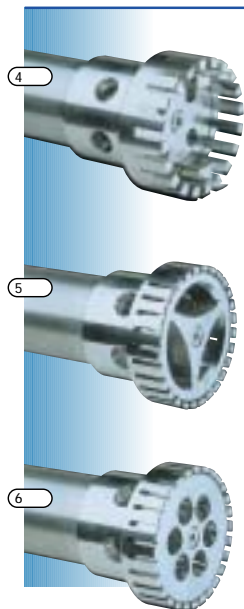
Dispersing elements (T 50 basic)



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
Fig.	<u>1</u>		<u>2</u>	
Ident. No.	8003000	8003100	8003300	8003400
Suitable for dispersing instrument	T 50 basic	T 50 basic	T 50 basic	T 50 basic
Technical data				
Working range	0.5 - 20 l	0.5 - 20 l	0.5 - 15 l	0.5 - 15 l
Stator diameter	45 mm	45 mm	45 mm	45 mm
Rotor diameter	36 mm	36 mm	40.5 mm	40.5 mm
Circumferential speed	18.8 m/s	18.8 m/s	21.2 m/s	21.2 m/s
Min. / max. immersion depth	70 / 250 mm	70 / 260 mm	70 / 250 mm	70 / 260 mm
Shaft length	300 mm	300 mm	290 mm	290 mm
Materials in contact with medium	PTFE, 1.4571	Viton, 1.4571	PTFE, 1.4571	Viton, 1.4571
pH range	2 - 13	2 - 13	2 - 13	2 - 13
Suitable for solvents	yes	no	yes	no
Suitable for abrasive substances	yes	no	yes	no
Max. temperature	180 °C	80 °C	180 °C	80 °C
Sterilization methods	all methods	wet chemical	all methods	wet chemical
Min. vacuum	-	100 mbar	-	100 mbar
Max. pressure	-	-	-	-
Ultimate fineness, suspensions	40 - 100 µm	40 - 100 µm	25 - 50 µm	25 - 50 µm
Ultimate fineness, emulsions	10 - 30 µm	10 - 30 µm	5 - 20 µm	5 - 20 µm

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

Dispersing elements (T 65 D)



Dispersing element	S 65 KG - HH - G 65 G	S 65 KG - HH - G 65 M	S 65 KG - HH - G 65 F
Fig.	<u>4</u>	<u>5</u>	<u>6</u>
Ident. No.	8005500	8005700	8005900
Suitable for dispersing instrument	T 65 D	T 65 D	T 65 D
Technical data			
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, 1.4571	FFPM / SIC, 1.4571	FFPM / SIC, 1.4571
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

S 50 N - G 45 F ③ 8003900	S 50 KR - G 45 F 8004000	S 50 KV - G 45 G - IL 8015800	S 50 KG - HH - G 45 G 8003200	S 50 KG - HH - G 45 M 8003500	S 50 KG - HH - G 45 F 8004100
T 50 basic	T 50 basic	T 50 basic	T 50 basic	T 50 basic	T 50 basic
0.25 - 10 l	0.25 - 10 l	inline	0.5 - 20 l	0.5 - 15 l	0.25 - 10 l
45 mm	45 mm	45 mm	45 mm	45 mm	45 mm
40 mm	40 mm	36 mm	36 mm	40.5 mm	40 mm
20.9 m/s	20.9 m/s	18.8 m/s	18.8 m/s	21.2 m/s	20.9 m/s
70 / 250 mm	70 / 260 mm	70 mm	70 / 260 mm	70 / 250 mm	70 / 250 mm
290 mm	290 mm	105 mm	300 mm	300 mm	290 cm
PTFE, 1.4571	Viton, 1.4571	FFPM / SIC, 1.4571	FFPM / SIC, 1.4571	FFPM / SIC, 1.4571	FFPM / SIC, 1.4571
2 - 13	2 - 13	2 - 13	2 - 13	2 - 13	2 - 13
yes	no	yes	yes	yes	yes
yes	no	no	no	no	no
180 °C	80 °C	220 °C	180 °C	180 °C	180 °C
all methods	wet chemical	wet chemical	wet chemical	wet chemical	wet chemical
-	100 mbar	1 mbar	1 mbar	1 mbar	1 mbar
-	-	6 bar	6 bar	6 bar	6 bar
10 - 30 µm	10 - 30 µm	40 - 100 µm	40 - 100 µm	25 - 50 µm	10 - 30 µm
1 - 10 µm	1 - 10 µm	10 - 30 µm	10 - 30 µm	5 - 20 µm	1 - 10 µm

Dispersers

Crushing

IKA® Crushing

Special dispersing elements (T 50 basic)



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.

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 (1.4571)

Accessories (Page) :

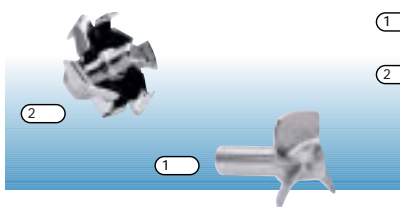
Dispersing elements (56): R 1405 , R 1402

Included with delivery (Page):

Dissolver R 1402 (56)

Ident. No.

1689300



1 R 1405 Propeller

2 R 1402 Dissolver

Working range	0.25 - 10 l
Rotor diameter	45 mm
Working range	1 - 30 l
Rotor diameter	42 mm

Ident. No.

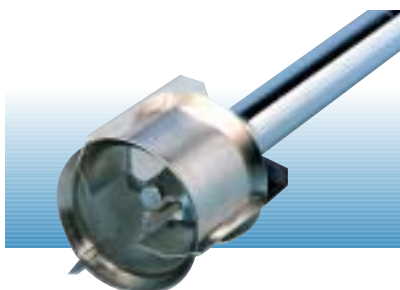
1289800

1243300

Product

R 1405

R 1402



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.

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.

8006300

8006400

Product

S 50 N - W 80 SMK

S 50 KR - W 80 SMK



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.

Min. / max. immersion depth	80 / 350 mm
Working range	1 - 10 l
Generator diameter	65 mm
Available seal	S 50 N

Ident. No.

8005100

IKA® Crushing Dispersers (inline operation)

UTL 25 basic 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, emulsifying 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**



Flow rate (H ₂ O)	11.6 l/min
Speed range	6,500 - 24,000 rpm
Materials in contact with medium	stainl. steel (1.4571), FFPM
Max. operating temperature	180 °C
Dimensions (W x D x H)	450 x 100 x 120 mm
Weight	3.8 kg
Permissible ambient temperature	5 - 40 °C
Permissible humidity	80 %
Protection class acc. to DIN EN 60529	IP 21
Chamber volume	26 ml
Min. vacuum	1 mbar
Max. pressure	6 bar

Accessories (Page):

Dispersing element S 25 KV - 25 F - IL (53)

Included with delivery (Page):

T 25 basic (49), AD 25 Mounting (58),

DK 25.11 Flow chamber (58),

Dispersing element S 25 KV - 25 G - IL (53)

Ident. No.	Ident. No.
8014400	8014401
230 V 50/60 Hz	115 V 50/60 Hz

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 basic inline.



Flow rate (H ₂ O)	24 l/min.
Speed range	4,000 - 10,000 rpm
Materials in contact with medium	stainl. steel (1.4571), FFPM
Max. operating temperature	180 °C
Dimensions (W x D x H)	130 x 150 x 500 mm
Weight	6.1 kg
Permissible ambient temperature	5 - 40 °C
Permissible humidity	80 %
Protection class acc. to DIN EN 60529	IP 21
Chamber volume	94 ml
Min. vacuum	1 mbar
Max. pressure	6 bar

Accessories (Page):

R 2723 Telescopic stand (90),

R 271 Boss head clamp (92)

Included with delivery (Page):

T 50 basic (49),

DK 50.11 Flow chamber (58),

Dispersing element S 50 KV - G 45 G - IL (55)

Ident. No.	Ident. No.
8015900	8015901
230 V 50/60 Hz	115 V 50/60 Hz

IKA® Crushing

Disperser accessories



DK 25.11 Flow chamber

For S 25 KV - 25 ... - IL dispersing elements. Allows inline operation mode, see UTL 25 basic, page 57.

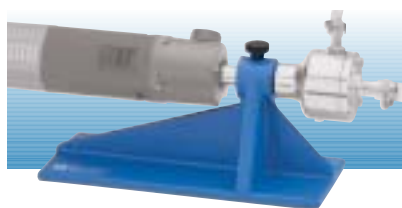
Chamber volume	26 ml
Vacuum	1 mbar
Pressure	6 bar

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.

Ident. No.

2518000

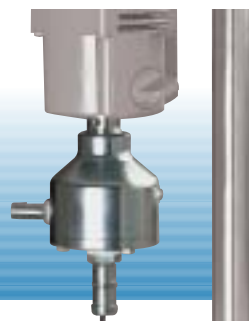


AD 25

Mounting support for DK 25.11

Ident. No.

2562500



DK 50.11 Flow chamber

For S 50 KV - G 45 ... - IL dispersing elements. Allows operation in inline mode, see UTL 50 basic, page 57.

Chamber volume	94 ml
Vacuum	1 mbar
Pressure	6 bar

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

Ident. No.

2810000



T 8.10 Dispersion station

Allows the T 8 to be used as a stand-supported device.

- Used to hold dispersing elements
- Sterilizable, removable working surface
- Serves as a protective cover for the power pack

Stands for T 25 basic and T 50 basic

See mechanical accessories, page 90.

Ident. No.

2602500

IKA® Crushing Dispersers (LABOR-PILOT)

LABOR-PILOT 2000/4

New, multifunctional table-top dispersing system for upscaling to production size. No dispersing laboratory should be without this continuous pilot system with a flow capacity of approx. 300 l/h.

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 of up to 40 m/s
- CIP / SIP (clean-in-place) capable
- All parts in contact with the medium are made of stainless steel (1.4571)
- The control system allows a product-specific adaptation to rheological characteristics
- The ultra-modern control unit LABOR-PILOT Controller permits easy adjustment of process parameters and their evaluation

You can find our complete range of machines and systems on the web at www.ikaprocess.com.



LABOR-PILOT 2000/4

Single-stage dispersing machine consisting of:

- 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 LABOR-PILOT-Controller.

Additional generators can be selected from the list of accessories, page 60.

Power	1.5 kW
Output speed	7,900 rpm (3,160 - 13,750)
Max. flow capacity (H ₂ O)	300 - 700 l/h
Circumferential speed	23.5 (9.4 - 41) m/s
Dimensions (W x D x H)	450 x 250 x 350 mm
Values in parentheses for operation with LABOR-PILOT-Controller, see below.	

Ident. No.	Ident. No.
T056762 3x220-240 V 50/60 Hz	S097950 for FC-operation
T055396 3x380-420 V 50/60 Hz	

LABOR-PILOT Controller

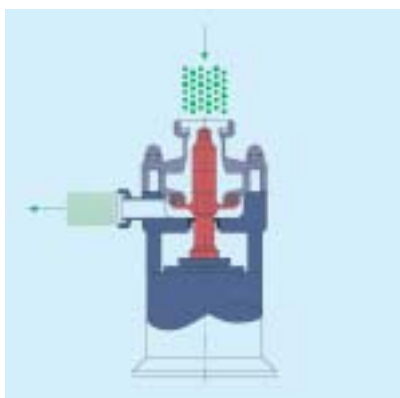
Housing complete with frequency converter, speed indicator, temperature indicator, timer and adapter DN 15 with temperature sensor PT 100 at the product outlet.

Power	1.5 kW
Frequency range	20 - 87 Hz
Dimensions (W x D x H)	220 x 300 x 450 mm

Ident. No.	Ident. No.
T054916 3x220-240 V 50/60 Hz	T055171 3x380-420 V 50/60 Hz



LABOR-PILOT (modular accessories UTL)

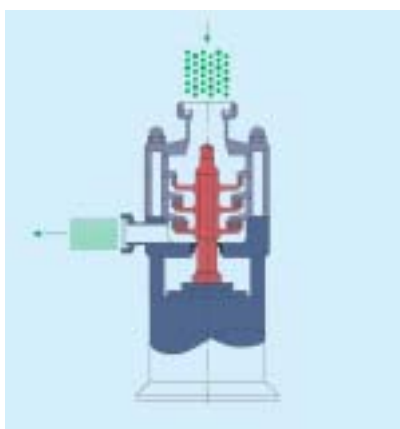


Accessories for basic unit with module UTL:

Generator 2P		coarse with pump blades
Generator 2G		coarse
Generator 4M		medium
Generator 6F		fine
Sealing set O-rings standard	Material	Viton®
Sealing set O-rings FFPM / FEP	Material in contact with medium / double jacket	FFPM / FEP
Shaft sealing ring	Material	PTFE compound

	Ident. No.
	T055002 2P
	T055001 2G
	T054949 4M
	T055000 6F
	T056678 O-rings standard
	T056680 O-rings FFPM / FEP
	T054617 Shaft sealing ring

LABOR-PILOT (Modules)



Module DISPAX-REACTOR®

Extension module for a three-stage dispersing machine, consisting of:

- Longer screws
- Viton® O-rings
- 2 additional generators 2G (coarse) and 6F (fine)

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

Additional generators can be selected from the accessories of the basic unit with module UTL.

Material: stainl. steel (1.4571 / Viton®)

Accessories:

Sealing set O-rings standard of Viton®
 Sealing set O-rings of FFPM / FEP
 (in contact with medium / double jacket)
 PTFE-compound shaft sealing ring

	Ident. No.
	T055013 Module DISPAX-REACTOR®
	T056687 O-rings standard
	T056688 O-rings FFPM / FEP
	T054617 Shaft sealing ring

IKA® Crushing

LABOR-PILOT (modules)



Module MHD

Extension module for incorporation and dispersing of powdery materials into liquids, consisting of:

- Inlet flange
- Mixing chamber
- Injection unit
- Feeding screw
- Mixing blades
- Longer screws, Viton® O-rings
- Generator 2P (coarse with pump blades)

The generators 2P, 2G and 4M can be selected from the accessories for the basic unit with module UTL.

Material stainl. steel (1.4571 / Viton®)

Accessories:

Sealing set O-rings standard of Viton®
 Sealing set O-rings of FFPM / FEP
 (in contact with medium / double jacket)
 PTFE compound shaft sealing ring

Dosing system available on request.

Ident. No.

T055142	MHD module
T056689	O-rings standard
T056691	O-rings FFPM / FEP
T054617	Shaft sealing ring



Module colloid mill MK

Extension stage for getting a colloid mill, consisting of:

- Fixed inlet flange
- Housing with adjustment ring
- Spiral gearing milling tool, stainless steel (1.4571)
- Longer screws, Viton® O-rings

Material stainl. steel (1.4571 / Viton®)

Accessories:

Sealing set O-rings standard of Viton®
 Sealing set O-rings of FFPM / FEP
 (in contact with medium / double jacket)
 Spiral gearing milling tool made of stainless steel (1.4571)
 PTFE compound shaft sealing ring

Ident. No.

T054917	MK module
T056693	O-ring standard
T056694	O-rings FFPM / FEP
T056698	Spiral gearing milling tool
T054617	Shaft sealing ring



Module cone mill MKO

Extension stage for getting a cone mill, consisting of:

- Fixed inlet flange
- Housing with adjustment ring
- Milling tool WCCO-coated (tungsten carbid-cobalt)
- Longer screws, Viton® O-rings

All parts in contact with medium are made of stainless steel (1.4571).

Material stainl. steel (1.4571 / Viton®)

Accessories:

Sealing set O-rings standard of Viton®
 Sealing set O-rings of FFPM / FEP
 Milling tool WCCO-coated
 PTFE compound shaft sealing ring

Ident. No.

T061069	MKO module
T061081	O-rings standard
T061084	O-rings FFPM / FEP
T061389	WCCO-coated milling tool
T054617	Shaft sealing ring

IKA® Crushing

LABOR-PILOT (accessories)



Accessories for circulation operation

Funnel, inside electro-polished, double-jacketed for heating or cooling.

Also possible for inlet side

Two-way ball valve

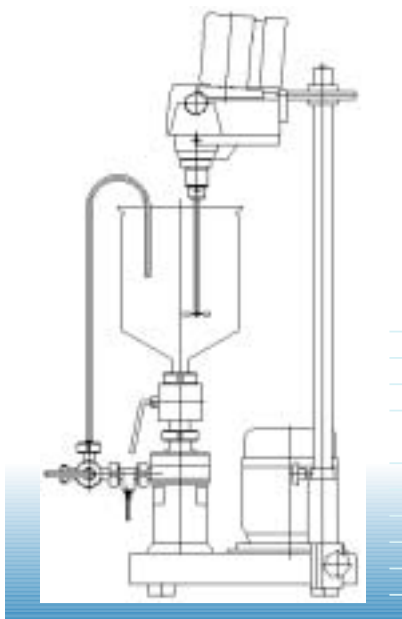
Recirculation in the funnel

Telescopic stand column
RW 28 basic (page 19)
Anchor stirrer
PTFE-wipers for anchor stirrer
Boss head clamp

Outlet side

3-way stop cock KM / -G -G
Circulating bend with intermediate piece
FPM sealing set for circulation bend
Blind nut DN 15
Hose nozzle DN 15 K

Capacity	8 l
Material	stainl. steel (1.4571)



Ident. No.	
T056458	Funnel
T056468	Two-way ball valve
T055330	Telescopic stand
2760000	RW 28 basic, page 19
T058564	Anchor stirrer
T058714	PTFE-wipers for anchor stirrer
2664000	R 271 Boss head clamp, page 92
T056482	3-Way stop cock
T057796	Circulating bend with intermediate piece
T056730	Sealing set for circulation bend
T056484	Blind nut DN 15
T056486	Hose nozzle DN 15

Accessories for continuous operation

Inlet side:

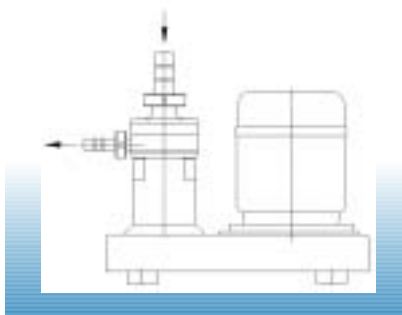
Hose nozzle K / M DN 25

Internal diameter of hose	25 mm
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Outlet side:

Hose nozzle DN 15 K

Internal diameter of hose	19 mm
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Ident. No.	
T057251	K / M DN 25
T056486	DN 15 K