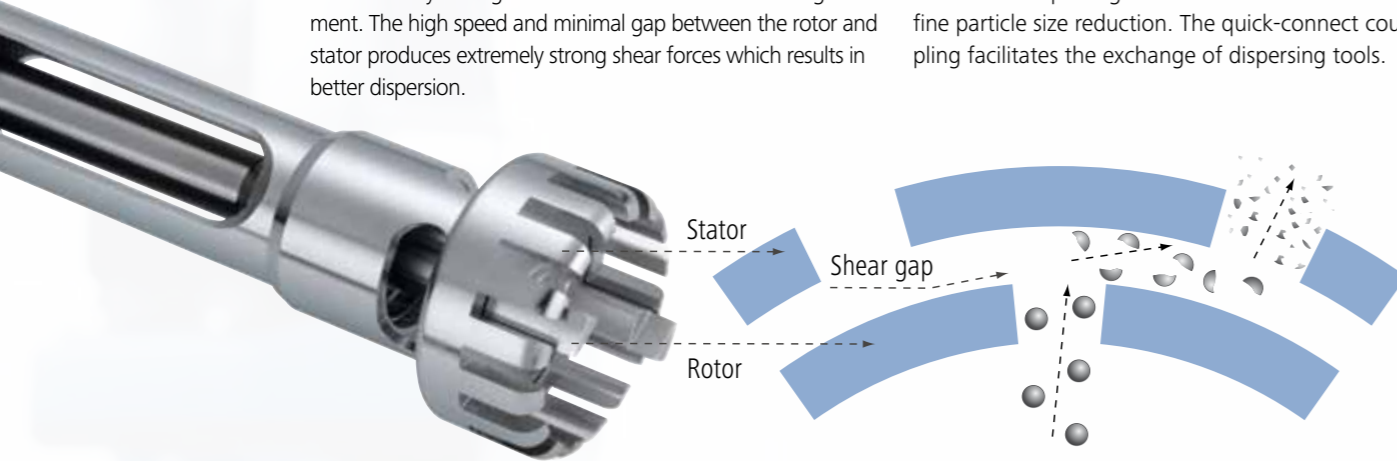


IKA® dispersing technology works by using the rotor-stator principle. The system consists of a rotor within a stationary stator. Due to the high circumferential speed, the medium to be processed is drawn axially into the dispersion head and then forced radially through the slots in the rotor-stator arrangement.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

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.



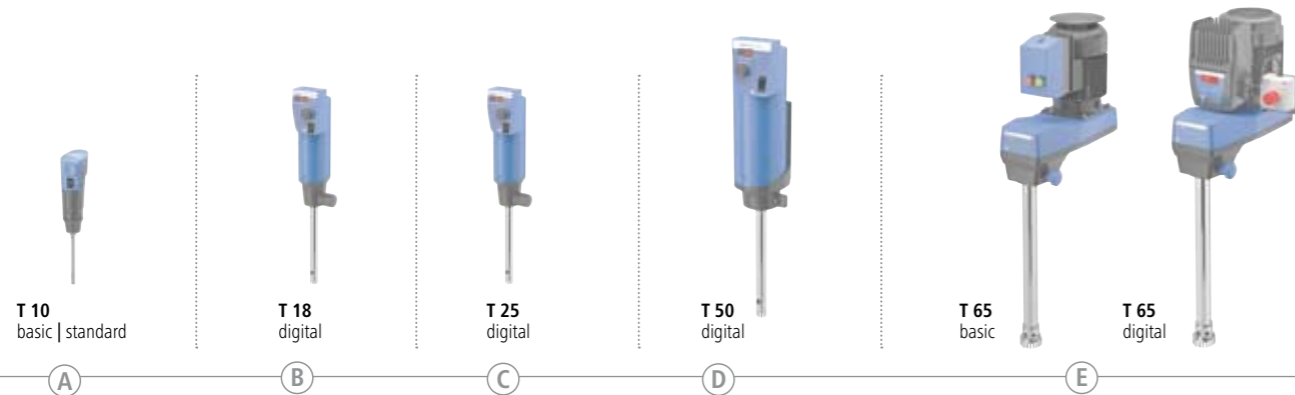
For dispersing instrument	Dispersing element Shaft / Agitator shaft	With seal or bearing type*	Generator or element**	With outer diameter (mm)	Degree of fineness achieved***
T 10 basic	S 10	N	–	5 / 8 / 10	G
T 18 digital	S 18	N	–	10 / 19	G
T 25 digital	S 25	N / KV / NK / KR	–	8 / 10 / 18 / 19 / 25	G /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

*N = PTFE bearing
 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 FPM seals rings
 B = Bronze bearing

KR = Ball bearing with FKM or FPM seal
 **G = Proved configuration
 W = Special element
 ***G = Coarse
 M = Medium
 F = Fine

IKA+ Special accessories!

- > Bronze bearings to serve in a variety of applications
- > FDA-variant KV shafts are only available through special order



Volume Range Liter	Volume Range								Vacuum operation	Circumferential speed (m/s)	Ultimate fineness, suspensions (µm)	Ultimate fineness, emulsions (µm)
	10 ml	50 ml	100 ml	500 ml	2 l	10 l	20 l	50 l				
A	S 10 N – 5 G	■							No	6.0	5 – 25	1 – 10
	S 10 N – 8 G	■	■						No	9.6	5 – 25	1 – 10
	S 10 N – 10 G	■	■	■					No	11.9	5 – 25	1 – 10
	S 10 D – 7 G – KS – 65	■	■						No	7.5	10 – 50	5 – 20
	S 10 D – 7 G – KS – 110	■	■						No	7.5	10 – 50	5 – 20
B	S 18 N – 10 G	■	■	■					No	9.8	10 – 50	1 – 10
	S 18 N – 19 G	■	■	■	■				No	16.6	10 – 50	1 – 10
	S 18 D – 10 G – KS	■	■						No	8.8	10 – 50	5 – 20
	S 18 D – 14 G – KS	■	■	■					No	12.4	10 – 50	5 – 20
	S 25 N – 8 G	■	■						No	8	10 – 50	1 – 10
C	S 25 N – 10 G	■	■	■					No	9.8	10 – 50	1 – 10
	S 25 N – 18 G	■	■	■	■				No	16.6	10 – 50	1 – 10
	S 25 KV – 18 G	■	■	■					Yes	16.6	10 – 50	1 – 10
	S 25 NK – 19 G	■	■	■					No	16.6	10 – 50	1 – 10
	S 25 N – 25 G	■	■	■	■				No	22.3	15 – 50	1 – 10
	S 25 KV – 25 G	■	■	■	■				Yes	22.3	15 – 50	1 – 10
	S 25 N – 25 F	■	■	■	■	■			No	23.6	5 – 25	1 – 5
	S 25 KV – 25 F	■	■	■	■	■			Yes	23.6	5 – 25	1 – 5
	S 25 D – 10 G – KS	■	■						No	8.8	10 – 50	5 – 20
	S 25 D – 14 G – KS	■	■	■					No	12.4	10 – 50	5 – 20
D	S 25 - KR - 18 G	■	■	■	■				Yes	16.5	10 - 50	1 - 10
	S 25 - KR - 25 G	■	■	■	■				Yes	22.2	15 - 50	1 - 10
	S 25 - KR - 25 F	■	■	■	■				Yes	23.6	5 - 25	1 - 5
	S 50 N – G 45 G					■	■	■	No	18.8	40 – 100	10 – 30
	S 50 N – G 45 M					■	■	■	No	21.2	25 – 50	5 – 20
	S 50 N – G 45 F					■	■	■	No	20.9	10 – 30	1 – 10
	S 50 B - G 45 G					■	■	■	No	18.8	40 - 100	10 - 30
	S 50 B - G 45 M					■	■	■	No	21.2	25 - 50	5 - 20
	S 50 B - G 45 F					■	■	■	No	20.9	10 - 30	1 - 10
	S 50 KR - G 45 G					■	■	■	Yes	18.8	40 - 100	10 - 30
E	S 50 KR - G 45 M					■	■	■	Yes	21.2	25 - 50	5 - 20
	S 50 KR - G 45 F					■	■	■	Yes	20.9	10 - 30	1 - 10
	S 50 KG - HH - G 45 G					■	■	■	Yes	18.8	40 - 100	10 - 30
	S 50 KG - HH - G 45 M					■	■	■	Yes	21.2	25 - 50	5 - 20
	S 50 KG - HH - G 45 F					■	■	■	Yes	20.9	10 - 30	1 - 10
	S 65 KG – HH – G 65 G					■	■	■	Yes	21.9 (28.8: T 65 digital)	25 – 75	5 – 25
	S 65 KG – HH – G 65 M					■	■	■	Yes	21.9 (28.8: T 65 digital)	25 – 50	5 – 15
	S 65 KG – HH – G 65 F					■	■	■	Yes	21.9 (28.8: T 65 digital)	5 – 20	1 – 10
	S 65 KR - G 65 G					■	■	■	Yes	21.9 (28.8: T 65 digital)	25 – 75	5 – 25
	S 65 KR - G 65 M					■	■	■	Yes	21.9 (28.8: T 65 digital)	25 – 50	5 – 15
S 65 KR - G 65 F					■	■	■	Yes	21.9 (28.8: T 65 digital)	5 – 20	1 – 10	

IKA® Original | Dispersing tools



Plastic disposable tools D

- > Ideal for applications where cross-contamination is not permitted
- > Disposable & single-use
- > No cleaning required



Disposable Tube

S 18 / 25 - ET50
 0003452500
 For attaching onto plastic tools from S 18 D and S 25 D series.
 Material PP

T 10 basic | T 10 standard

Dispersing element	S 10 N - 5 G	S 10 N - 8 G	S 10 N - 10 G	S 10 D - 7 G - KS - 65	S 10 D - 7 G - KS - 110
Ident. No.	0003304000	0003305500	0003370100	0020002076 (24 pcs.)	0020002075 (24 pcs.)
Working range	0.5 - 10 ml	1 - 50 ml	1 - 100 ml	1 - 20 ml	1 - 40 ml
Stator diameter	5 mm	8 mm	10 mm	7 mm	7 mm
Rotor diameter	3.8 mm	6.1 mm	7.6 mm	4.8 mm	4.8 mm
Gap between rotor and stator	0.1 mm	0.25 mm	0.2 mm	0.3 mm	0.3 mm
Min. / max. immersion depth	20 / 75 mm	20 / 95 mm	20 / 100 mm	20 / 50 mm	20 / 90 mm
Shaft length	92 mm	115 mm	115 mm	65 mm	110 mm
Materials in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	Polycarbonate (PC) Polysulfon (PSU)	Polycarbonate (PC) Polysulfon (PSU)
pH range	2 - 13	2 - 13	2 - 13	-	-
Suitable for solvents	yes	yes	yes	-	-
Max. temperature	180 °C	180 °C	180 °C	100 °C	100 °C
Sterilization methods	all methods	all methods	all methods	yes, autoclavable	yes, autoclavable

1
 2
 3
 4 D
 5 D

T 18 digital

Dispersing element	S 18 N - 10 G	S 18 N - 19 G	S 18 D - 10 G - KS	S 18 D - 14 G - KS
Ident. No.	L004639	L004640	0003452400	0003452300
Working range	1 - 100 ml	10 - 1500 ml	10 - 100 ml	10 - 500 ml
Stator diameter	10 mm	19 mm	10 mm	14 mm
Rotor diameter	7.5 mm	12.7 mm	6.75 mm	9.5 mm
Gap between rotor and stator	0.35 mm	0.4 mm	0.25 mm	0.35 mm
Min. / max. immersion depth	25 / 70 mm	35 / 170 mm	15 / 85 mm	15 / 85 mm
Shaft length	108 mm	204 mm	150 mm	150 mm
Materials in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	Polycarbonate (PC) Polyetheretherketon (PEEK)	Polycarbonate (PC) Polyetheretherketon (PEEK)
pH range	2 - 13	2 - 13	-	-
Suitable for solvents	yes	yes	-	-
Max. temperature	180 °C	180 °C	100 °C	100 °C
Sterilization methods	all methods	all methods	yes, autoclavable	yes, autoclavable

6
 7
 8 D
 9 D
 10

IKA® Original | Dispersing tools



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

T 25 digital

Dispersing element	S 25 N – 8 G	S 25 N – 10 G	S 25 N – 18 G	S 25 KV – 18 G	S 25 NK – 19 G
Ident. No.	0001024200	0000594000	0000593400	0002348000	0002494700
Working range	1 – 50 ml	1 – 100 ml	10 – 1500 ml	10 – 1500 ml	25 – 1500 ml
Stator diameter	8 mm	10 mm	18 mm	18 mm	19 mm
Rotor diameter	6.1 mm	7.5 mm	12.7 mm	12.7 mm	12.7 mm
Gap between rotor and stator	0.25 mm	0.35 mm	0.3 mm	0.3 mm	0.3 mm
Min. / max. immersion depth	27 / 85 mm	22 / 85 mm	40 / 165 mm	40 / 225	40 / 165 mm
Shaft length	108 mm	105 mm	194 mm	270 mm	194 mm
Materials in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	FFPM / SIC, 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
Max. temperature	180 °C	180 °C	180 °C	220 °C	120 °C
Sterilization methods	all methods	all methods	all methods	wet chemical	wet chemical
Min. vacuum	–	–	–	1 mbar	–
Max. pressure	–	–	–	6 bar	–

10

11

12

T 25 digital

Dispersing element	S 25 – KR – 18 G	S 25 – KR – 25 G	S 25 – KR – 25 F
Ident. No.	0020002971	0020002972	0020002975
Working range	10 – 1500 ml	50 – 2000 ml	100 – 2000 ml
Stator diameter	18 mm	25 mm	25 mm
Rotor diameter	12.7 mm	17 mm	18 mm
Gap between rotor and stator	0.3 mm	0.5 mm	0.5 mm
Min. / max. immersion depth	40 – 185 mm	40 – 185 mm	40 – 185 mm
Shaft length	194 mm	194 mm	194 mm
Materials in contact with medium	FKM, PTFE, AISI 316L	FKM, PTFE, AISI 316L	FKM, PTFE, AISI 316L
pH range	2 – 13	2 – 13	2 – 13
Suitable for solvents	no	no	no
Max. temperature	110 °C	110 °C	110 °C
Sterilization methods	wet chemical	wet chemical	wet chemical
Min. vacuum	50 mbar	50 mbar	50 mbar

TS 25-3

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).

Material tubes PP
Material lid PP
Material stand aluminum anodized
Ident. No. 0020003013

Fits the following dispersing elements:

S25N-18G/18G-ST
S25N-25G/F/25G-ST
S25KR-18G/18G-ST
S25KR-25G/25F/25G-ST
S25KV-18G/25G/25F

T 25 digital

S 25 N – 25 G	S 25 KV – 25 G	S 25 N – 25 F	S 25 KV – 25 F	S 25 D – 10 G – KS	S 25 D – 14 G – KS
0001713300	0002466900	0001713800	0002404000	0003452200	0003452100
50 – 2000 ml	50 – 2000 ml	100 – 2000 ml	100 – 2000 ml	10 – 100 ml	10 – 500 ml
25 mm	25 mm	25 mm	25 mm	10 mm	14 mm
17 mm	17 mm	18 mm	18 mm	6.75 mm	9.5 mm
0.5 mm	0.5 mm	0.5 mm	0.5 mm	0.25 mm	0.35 mm
40 / 165 mm	40 / 225 mm	40 / 165 mm	40 / 225 mm	15 / 85 mm	15 / 85 mm
194 mm	270 mm	194 mm	270 mm	150 mm	150 mm
PTFE, AISI 316L	FFPM / SIC, AISI 316L	PTFE, AISI 316L	FFPM / SIC, AISI 316L	Polycarbonate (PC) Polyetheretherketon (PEEK)	Polycarbonate (PC) Polyetheretherketon (PEEK)
2 – 13	2 – 13	2 – 13	2 – 13	–	–
yes	yes	yes	yes	–	–
180 °C	220 °C	180 °C	220 °C	100 °C	100 °C
all methods	wet chemical	all methods	wet chemical	yes, autoclavable	yes, autoclavable
–	1 mbar	–	1 mbar	–	–
–	6 bar	–	6 bar	–	–

13

14

15 D

16 D

T 50 digital

Dispersing element	S 50 N – G 45 G	S 50 N – G 45 M	S 50 N – G 45 F
Ident. No.	0008003000	0008003300	0008003900
Working range	0.5 – 20 l	0.5 – 15 l	0.25 – 10 l
Stator diameter	45 mm	45 mm	45 mm
Rotor diameter	36 mm	40.5 mm	40 mm
Gap between rotor and stator	0.5 mm	0.25 mm	0.5 mm
Min. / max. immersion depth	70 / 250 mm	70 / 250 mm	70 / 250 mm
Shaft length	300 mm	290 mm	290 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
Max. temperature	180 °C	180 °C	180 °C
Sterilization methods	all methods	all methods	all methods

17

18

19

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IKA® Original | Dispersing tools



T 50 digital

	S 50 KG – HH – G 45 G	S 50 KG – HH – G 45 M	S 50 KG – HH – G 45 F
Dispersing element	S 50 KG – HH – G 45 G FDA	S 50 KG – HH – G 45 M FDA	S 50 KG – HH – G 45 F FDA
Ident. No.	0008003200	0008003500	0008004100
Working range	0.5 – 20 l	0.5 – 15 l	0.25 – 10 l
Stator diameter	45 mm	45 mm	45 mm
Rotor diameter	36 mm	40.5 mm	40 mm
Gap between rotor and stator	0.5 mm	0.25 mm	0.5 mm
Min. / max. immersion depth	70 / 260 mm	70 / 250 mm	70 / 250 mm
Shaft length	300 mm	300 mm	290 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
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

T 65 basic I digital

	S 65 KG – HH – G 65 G	S 65 KG – HH – G 65 M	S 65 KG – HH – G 65 F
Ident. No.	0008005500	0008005700	0008005900
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
Gap between rotor and stator	0.5 mm	0.5 mm	0.5 mm
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
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

T 50 digital

S 50 B – G 45 G	S 50 B – G 45 M	S 50 B – G 45 F	S 50 KR – G 45 G	S 50 KR – G 45 M	S 50 KR – G 45 F	
Ident. No.	0010000633	0010000634	0010000635	0010000629	0010000630	0010000631
Working range	0.5 – 20 l	0.5 – 15 l	0.25 – 10 l	0.5 – 20 l	0.5 – 15 l	0.25 – 10 l
Stator diameter	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm
Rotor diameter	36 mm	40.5 mm	40 mm	36 mm	40.5 mm	40 mm
Gap between rotor and stator	0.5 mm	0.25 mm	0.5 mm	0.5 mm	0.25 mm	0.5 mm
Min. / max. immersion depth	70 – 250 mm	70 – 250 mm	70 – 250 mm	70 – 260 mm	70 – 260 mm	70 – 260 mm
Shaft length	300 mm	300 mm	300 mm	300 mm	300 mm	300 mm
Materials in contact with medium	AISI 316L, bronze	AISI 316L, bronze	AISI 316L, bronze	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L
pH range	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13	2 – 13
Suitable for solvents	yes	yes	yes	no	no	no
Max. temperature	180 °C	220 °C	180 °C	110 °C	110 °C	110 °C
Sterilization methods	all methods	all methods	all methods	wet chemical	wet chemical	wet chemical
Min. vacuum	–	–	–	100 mbar	100 mbar	100 mbar
Max. pressure	–	–	–	–	–	–

T 65 basic I digital

	S 65 KR – G 65 G	S 65 KR – G 65 M	S 65 KR – G 65 F
Ident. No.	0010000641	0010000642	0010000643
Working range	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
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	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L
pH range	2 – 13	2 – 13	2 – 13
Suitable for solvents	no	no	no
Max. temperature	80 °C	80 °C	80 °C
Sterilization methods	wet chemical	wet chemical	wet chemical
Min. vacuum	100 mbar	100 mbar	100 mbar
Max. pressure	–	–	–



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IKA® Original | Special dispersing tools



IKA+

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

	T 10 basic	
Dispersing element	S 10 N – 8 G – ST	S 10 N – 10 G – ST
Ident. No.	0004446500	0004446700
Working range	1 – 50 ml	1 – 100 ml
Stator diameter	8 mm	10 mm
Rotor diameter	6.1 mm	7.6 mm
Gap between rotor and stator	0.25 mm	0.2 mm
Min. / max. immersion depth	20 / 95 mm	20 / 100 mm
Shaft length	115 mm	115 mm
Materials in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L

①

	T 25 basic					
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	S 25 – KR – 18 G – ST	S 25 – KR – 25 G – ST
Ident. No.	0004446900	0004447100	0004447300	0004447500	0020002973	0020002974
Working range	1 – 50 ml	1 – 100 ml	10 – 1500 ml	50 – 2000 ml	10 – 1500 ml	50 – 2000 ml
Stator diameter	8 mm	10 mm	18 mm	25 mm	18 mm	25 mm
Rotor diameter	6.1 mm	7.5 mm	12.7 mm	17 mm	13.4 mm	20 mm
Gap between rotor and stator	0.25 mm	0.35 mm	0.3 mm	0.5 mm	0.25 mm	0.5 mm
Min. / max. immersion depth	27 / 85 mm	22 / 85 mm	40 / 165 mm	40 / 165 mm	40 – 185 mm	40 – 185 mm
Shaft length	108 mm	105 mm	194 mm	194 mm	194 mm	194 mm
Materials in contact with medium	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	PTFE, AISI 316L	FKM, PTFE, AISI 316L	FKM, PTFE, AISI 316L

②

③

	T 50 digital		
Dispersing element	R 50 "high speed" stirring shaft	S 50 N – W 65 SK Cutting head	S 50 N – W 80 SMK Jet mixer head
Ident. No.	0001689300*	0008005100	0008006300
Working range	0.25 – 30 l	1 – 10 l	1 – 50 l
Max. circumferential speed	15.7 – 23 m/s	–	–
Max. permissible rotor diameter	50 mm	–	–
Material	Stainless steel (AISI 316L)	–	–
Generator diameter	–	65 mm	80 mm
Min. / max. immersion depth	–	80 / 350 mm	140 / 350 mm
Available seals	–	S 50 N	S 50 N

④

⑤

⑥

* Included with delivery:
R 1402 Dissolver
Ident. No. 0001243300

	T 50 digital			
Dispersing element	S 50 N – G 45 G – ST	S 50 B – G 45 G – ST	S 50 KR – G 45 G – ST	S 50 KG – HH – G 45 G – ST S 50 KG – HH – G 45 G – ST, FDA
Ident. No.	0008039500	0010000636	0010000632	0010000648 0010000640
Working range	0.5 – 20 l	0.5 – 15 l	0.5 – 20 l	0.5 – 20 l
Stator diameter	45 mm	45 mm	45 mm	45 mm
Rotor diameter	36 mm	38 mm	38 mm	38 mm
Gap between rotor and stator	0.5 mm	0.5 mm	0.5 mm	0.5 mm
Min. / max. immersion depth	70 / 250 mm	70 – 250 mm	70 – 260 mm	70 – 260 mm
Shaft length	300 mm	300 mm	300 mm	300 mm
Materials in contact with medium	PTFE, AISI 316L	AISI 316L, bronze	PTFE, AISI 316L	PTFE, AISI 316L
pH range	–	2 – 13	2 – 13	2 – 13
Suitable for solvents	–	yes	no	no
Max. temperature	–	180 °C	110 °C	110 °C
Sterilization methods	–	all methods	wet chemical	wet chemical

Silentstream

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

Ident. No. 0003754000

Fits the following dispersing elements:

S 25 N-18 G	S 25 KV-18 G
S 25 N-25 G	S 25 KV-25 G
S 25 N-25 F	S 25 KV-25 F
S 25 NK-19 G	S 18 N-19 G

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