





### Who are we?

We are a company which focuses on products for environmental technology. Our focus is on the mixing, care and cleaning of industrial fluids.

The products we have developed and patented are being constantly further developed and optimized according to the latest findings and standards.

We don't do everything, but what we do is oriented toward your expectations, problems and needs. Efficient, modular, durable and with a good price-to-performance ratio.

### What you can expect from us!

### Expertise

We use our expert knowledge and our many years of experience to benefit you.

### Reliability

We keep our promises and are there for you when you need us!

### Service

Personal and on-demand service in combination with state-of-the-art technology is available to you.

#### Friendliness

We understand cooperation to mean partnership. Understanding and the ability to communicate characterize this partnership.

### Proximity



A safe and high-performance cooling lubricant is extremely important for modern and future-oriented production. A cooling lubricant which conserves resources, is hygienic and is adapted to production is the key to more success.



# **BIOBALANCE**

### WHAT IS THAT?



Cooling lubricants are fluids in which undesirable biological and mechanical processes occur over time. Bacteria and suspended matter upset the balance in the cooling lubricant.

This gives off an unpleasant odor and is harmful to health.

**BIOBALANCE** is a system of devices which are tuned to each other and have properties which.

### HOW DOES THAT WORK?

### MISCEO MIXING DEVICE

To get off to the right start, use the fully electronic MISCEO mixing device to get a high-performance, durable cooling lubricant.

This way, the desired product properties of your cooling lubricant will be able to completely unfold.

#### RAPID OIL SKIMMER

In the care phase of your cooling lubricant, the **RAPID** oil skimmer removes undesirable floating oils, lime soaps and suspended matter.

#### MIKRO MICRO AERATOR

During the utilization period of your cooling lubricant, the **MIKRO** micro aerator provides tiny air bubbles to ensure a sufficient oxygen supply. The skin hygiene properties of the fluid are drastically improved. Suspended matter is transported to the surface and can be removed by the **RAPID** oil skimmer.

The **RAPID** oil skimmer and **MIKRO** micro aerator maintain the quality of your cooling lubricant over a considerably prolonged time period.

This results in up to 50% higher cutting speeds, up to 70% longer service life of your tools and up to 60% longer service life of your machines. Your employees will be healthier and will be spared unpleasant odors.

#### **CLEAN TOWER CARE SYSTEM**

The mobile **CLEAN TOWER** combines removal and aerating in one unit. The principle of dissolved air flotation increases the efficiency of care compared to **RAPID** and **MIKRO** many times over. You get a cooling lubricant of the highest quality.

# **PRODUCT OVERVIEW**

# **MISCEO**

### Mixing device







## **MISCEO**

Mix cooling lubricant quickly and exactly. Easy operation with state-of-the-art mixing, measuring and control technology.

The Misceo allows you to mix cooling lubricant very exactly, quickly and reliably. It will spoil you with its easy operation, filling level detection, automatic shutdown when the filling level has been reached, as well as its state-of-the-art mixing, measuring and control technology.

The Misceo offers you easy mixing from 0.5% to 15% in steps of 0.1%. Its unique rotation initiation method makes the best mixing result possible, which guarantees you the best service life for your tools and machine. The Misceo will warn you before your cooling lubricant goes bad and detects empty concentrate containers.

With its options, the Misceo will be the perfect helper in your production department.

#### No more overflowing of machines

The overflow monitor monitors the filling level of your machine.

#### Protection against unauthorized use

With the key switch, you protect the Misceo from being used or being manipulated during a started mixing operation.

#### Intelligent pressure control

The Misceo can detect falling pressures via the pressure control and switches the mixing operation on and off.

### Automatic filling

Your machine will be filled completely automatically with the automatic function.

#### External information output

Here, for optical or acoustic warnings, signal lamps, a signal horn or relay can be installed.

### **MIXING DEVICE**

Stable, homogeneous and highly productive cooling lubricant through Misceo



Overflow monitoring



Key switch



Automatic

- perfectly mixed cooling lubricant
- exact mixing result
- detects an empty container
- flexible hose lengths
  - automatic shutdown
- can be locked with key switch
  - automatic machine filling
  - simple operation

Technical data	
Mixing capacity	from 600 to 2000 I/h
Mixing ratio	0.5 - 15 % (in steps of 0.1)
Dimensions	365 mm x 274 mm x 150 mm l/w/h
Weight	8.5 kg
Connection voltage	100-240 V/50-60 Hz
Operating voltage	24 V
Power	65 W

# Three steps to your

# MISCEO mixing device Perfectly mixed cooling lubricant in seconds

Step 1 Select your basic unit

Article no.: Designation

2001000 Misceo, fully electronic mixing device, including standard

Step 2 Select your optionsn

-0.0

Article no.: Designation

2001110 Overflow monitor for Misceo

The monitoring support helps you to prevent overfilling the tank. Connecting cable, 3 m. Including bridging plugs

Extension cables in every length available separately, article no.: 2001125

2001160 Key switch, including 2 keys and key ring

The key switch gives you the option to protect your Misceo from unauthorized use.

A spare key is separately available, article no.: 2001169

Intelligent pressure control for Misceo for fixed piping

2001130 Automatic system for Misceo for automatic filling

The automatic function uses the floating Min, Max and Emergency Stop switches of your machine to fill this automatically.

Including 3 connection plugs (Min., Max., Emergency Stop), 3 bridging plugs (Min., Max., Emergency Stop), connection diagram, without connecting cable (available separately, article no.: 72001311)

for using a filling gun, a check valve or drain cock.

It is possible to fill several machines using a closed circular pipeline.

Function: If the pressure in a line drops, the Misceo starts

the mixing operation and fills the machine until the pressure rises again

by closing a check valve, for example.

2001210 External information output for Misceo, for using external signal lamps, signal horns or for integration in machine controls.

Including connection diagram and plug

2001220 Operation counter for Misceo for detecting flow rates

Cycle counter for water, concentrate and time
 Total operation counter for water, concentrate and time

- Including maintenance function for concentrate according to set amount

R

MAX MIN STOP

2001150

Step 3	
Article no.:	Designation
82001120	Wall console, including mounting material
<b>3</b> 3	Signaling devices for Misceo: - Signal lamp for external information output (art. no.: 2001212) - Signal horn for the external information output (art. no.: 2001211)
71001001	Hand-held refractometer for cooling lubricant 0-18% (step size =0.1%)

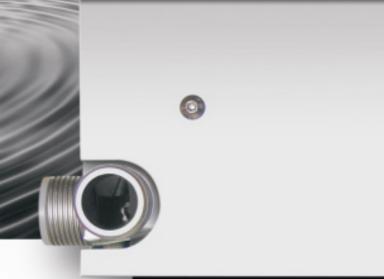
Customer service

Article no.:	Designation
2002012	Savings package: Cleaning, calibration (art. no.: 2001210) and update (art. no.: 2001211) Interval recommendation: Every 2 years
Replacements	Select your replacement parts
Article no.:	Designation
2001107	Concentrate suction hose, including foot valve (2 m)
2001106	Water supply hose, including water tap connection, 3/4" (2 m)
2001105	Outlet hose, mixing, complete (2 m)
2001103	Plug-in power supply, including European plug adapter - plug adapters for other countries upon request (art. no.: 82001120)
72001219	Fast-action coupling
	Water tap connection - 3/4" internal thread (art. no.: 72001218) - 1/2" internal thread (art. no.: 72001232)
72001225	Concentrate suction hose, black (per meter)
72001224	Hose, fluorescent orange (per meter)

# **RAPID**

### **OIL SKIMMER**

For removing floating foreign oils









### Standard:

- Powerful motor with stainless steel housing
- With or without timer
- Double wipers
- ¾" connection
- Oil drain hose
- Galvanized transport and loading roller
- Safety bracket for loading roller



# RAPID SELECTION

Select the type which is right for you... the right solution for every area of application.



### RAPID 2.1 BELT SKIMMER

for tanks up to 2 m<sup>2</sup> surface area for temperatures up to 70°C for a pH value from 4 to 13

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### RAPID 1.1 BELT SKIMMER

for tanks up to 6 m<sup>2</sup> surface area for temperatures up to 70°C for a pH value from 4 to 13

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### **RAPID 3.1** HOSE SKIMMER

for tanks up to 15 m<sup>2</sup> surface area for temperatures up to 70°C for a pH value from 6 to 13

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## RAPID 4 DISK SKIMMER

for tanks up to 2 m<sup>2</sup> surface area for temperatures up to 40°C for a pH value from 7 to 11

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### **BELT SKIMMER**

Maintained and highly productive cooling lubricant thanks to Rapid

# RAPID 2.1

Free cooling lubricant of foreign oils quickly and easily



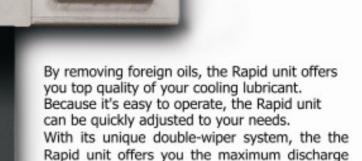


Special wiper / double wiper



Universal bolt-on corner

Prolonged service life of tools,
the machine and cooling lubricant
Clear view in the machine
Improved production quality
No overlubrication
No unpleasant odors
Operating costs go down
Improvements to health



Thanks to its easy-to-operate timer, The Rapid unit is able to adjust and control the skimming times (hours or days) to the operator requirements.

The universal bolt-on corner bracket allows you to easily mount the Rapid unit. The special wiper will further help you to remove coarse contamination and greases. Thanks to the care of the cooling lubricant, your skin can finally breathe again. If you have any requests with regard to belt length, voltage or the connection line, let us know. We'll be happy to help.

rate of the foreign oils.

Combine the RAPID oil skimmer with the MIKRO micro aerator By combining both products, you will achieve a constantly clean and biostable cooling lubricant with optimal production properties.

Technical data	
Discharge rate	3 - 12 l/h
Belt width	60 mm
Belt length	starting from 600 mm
Submersion depth	starting from 185 mm
Standard conveyor belt temperature	up to 40 °C
Standard conveyor belt working range	pH 7 - 11
Special conveyor belt temperature	up to 70 °C
Special conveyor belt working range	pH 4 - 13
Weight	4.7 kg
Voltage	230 V / 50 Hz
Power	35 W

# Three steps to your

# RAPID 2.1 Oil skimmer

Removal of foreign oils for surface areas up to 2 m<sup>2</sup>

Step 1	Select your basic Rapid 2.1 unit for cooling lubricants
Article no.:	Designation
07.02.108	RAPID 2.1 with timer
07.02.107	RAPID 2.1 without timer
	Select your basic Rapid 2.1 unit for hot applications
	, , ,
Article no.:	Designation
Article no.: 07.02.102	Designation  RAPID 2.1 with stainless steel rollers and timer

### Step 2

### Select your skimmer belt for cooling lubricants up to 40°C, pH 7-11



Article no.	Dimensions	Submersion depth
07.01.008	600 x 60 mm	185 mm
07.01.009	800 x 60 mm	285 mm
07.01.010	1000 x 60 mm	385 mm
07.01.017	1200 x 60 mm	485 mm
07.01.011	1500 x 60 mm	635 mm
07.01.012	2000 x 60 mm	885 mm
every additional one	500 mm	250 mm

### Select your skimmer belt for hot applications up to 70°C, pH 4-13



Article no.	Dimensions	Submersion depth
07.01.108	600 x 60 mm	185 mm
07.01.109	800 x 60 mm	285 mm
07.01.110	1000 x 60 mm	385 mm
07.01.117	1200 x 60 mm	485 mm
07.01.111	1500 x 60 mm	635 mm
07.01.112	2000 x 60 mm	885 mm
every additional one	500 mm	250 mm

Step 3	Select your accessories
Article no.:	Designation
07.00.106	Universal bolt-on corner bracket for mounting the Rapid
8.07.01.107	Special wiper for RAPID 2.1
8.07.01.008	Transport roller, stainless steel, for RAPID 2.1
8.07.01.015	Loading roller, stainless steel, for RAPID 2.1

### **BELT SKIMMER**

Maintained and highly productive cooling lubricant thanks to Rapid

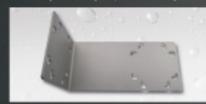
# RAPID 1.1

Free cooling lubricant of foreign oils quickly and easily



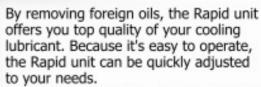


Special wiper / double wiper



Universal bolt-on corner

Prolonged service life of tools, the machine and cooling lubricant Clear view in the machine Improved production quality No overlubrication No unpleasant odors Operating costs go down Improvements to health



With its unique double-wiper system, the the Rapid unit offers you the maximum discharge rate of the foreign oils.

Thanks to its easy-to-operate timer, The Rapid unit is able to adjust and control the skimming times (hours or days) to the operator requirements.

The universal bolt-on corner bracket allows you to easily mount the Rapid unit. The special wiper will further help you to remove coarse contamination and greases. Thanks to the care of the cooling lubricant, your skin can finally breathe again. If you have any requests with regard to belt length, voltage or the connection line, let us know. We'll be happy to help.

Combine the RAPID oil skimmer with the MIKRO micro aerator By combining both products, you will achieve a constantly clean and biostable cooling lubricant with optimal production properties.

Technical data	
Discharge rate	10 - 20 l/h
Belt width	100 mm
Belt length	starting from 600 mm
Submersion depth	starting from 185 mm
Standard conveyor belt temperature	up to 40 °C
Standard conveyor belt working range	pH 7 - 11
Special conveyor belt temperature	up to 70 °C
Special conveyor belt working range	pH 4 - 13
Weight	5.9 kg
Voltage	230 V / 50 Hz
Power	35 W

# Three steps to your

# RAPID 1.1 Oil skimmer

Removal of foreign oils for surface areas up to 6 m<sup>2</sup>

Step 1	Select your basic Rapid 1.1 unit for cooling lubricants
Article no.:	Designation
07.12.108	RAPID 1.1 with timer
07.12.107	RAPID 1.1 without timer
	Select your basic Rapid 1.1 unit for hot applications
Article no.:	Designation
07.12.102	RAPID 1.1 with stainless steel rollers and timer

### Step 2

### Select your skimmer belt for cooling lubricants up to 40°C, pH 7-11



Article no.:	Dimensions	Submersion depth
07.10.108	600 x 100 mm	185 mm
07.10.109	800 x 100 mm	285 mm
07.10.110	1000 x 100 mm	385 mm
07.10.117	1200 x 100 mm	485 mm
07.10.111	1500 x 100 mm	635 mm
07.10.112	2000 x 100 mm	885 mm
every additional one	500 mm	250 mm

### Select your skimmer belt for hot applications up to 70°C, pH 4-13



Article no.:	Dimensions	Submersion depth
07.11.108	600 x 100 mm	185 mm
07.11.109	800 x 100 mm	285 mm
07.11.110	1000 x 100 mm	385 mm
07.11.117	1200 x 100 mm	485 mm
07.11.111	1500 x 100 mm	635 mm
07.11.112	2000 x 100 mm	885 mm
every additional one	500 mm	250 mm

Step 3	Select your accessories
Article no.:	Designation
07.00.106	Universal bolt-on corner bracket for mounting the Rapid
8.07.10.005	Special wiper for RAPID 1.1
8.07.10.007	Transport roller, stainless steel, for RAPID 1.1
8.07.10.015	Loading roller, stainless steel, for RAPID 1.1 including retaining bracket

### HOSE SKIMMER

Maintained and highly productive cooling lubricant thanks to Rapid

# RAPID 3.1

Free cooling lubricant of foreign oils quickly and easily





Universal bolt-on corner bracket

By removing foreign oils, the Rapid unit offers you top quality of your cooling lubricant. Thanks to its easy operation, The Rapid unit can be quickly adjusted to your needs.

Thanks to its unique oil-wiping system, the Rapid unit offers you a maximum discharge rate of foreign oils. With ist flexible hose, which floats on the surface, the Rapid unit can also skim off long and narrow tanks.

> Thanks to its easy-to-operate timer, timer, the Rapid unit is able to adjust and control the skimming times over hours or days to the operator requirements.

The universal bolt-on corner bracket provides you with an easy way to mount the the Rapid units.

Thanks to the care of the cooling lubricant, your skin can finally breathe again. If you have any requests regarding the hose length, voltage or connection line, let us know. We will be happy to help.

Combine the RAPID oil skimmer with the MIKRO micro aerator. By combining both products, you will achieve a constantly clean and biostable cooling lubricant with optimal production properties.

Prolonged service life of tools, the machine and cooling lubricant Clear view in the machine Improved production quality No overlubrication No unpleasant odors Operating costs go down Improvements to health

Technical data	
Discharge rate	8 - 25 l/h
Hose width	Ø 12 mm
Hose length	1 - 20 m
Temperature	up to 70 °C
Working range	pH 6 - 13
Weight	3.1 kg
Voltage	230 V / 50 Hz
Power	35 W

# Three steps to your Removal of foreign RAPID 3.1 Oil skimmer oils for surface areas up to 15 m<sup>2</sup>

Step 1	Select your basic Rapid 3.1 unit for cooling lubricants and hot applications			
Article no.:	Designation			
07.22.108	RAPID 3.1 with time	RAPID 3.1 with timer		
07.22.107	RAPID 3.1 without t	RAPID 3.1 without timer		
Step 2	Select your skimmer hose up to 70°C, pH 6-13			
	Article no.:	Dimensions		
	07.20.006	1 m		
	07.20.007	2 m		
( }	07.20.008 07.20.009	3 m 4 m		

5 m

6 m

1 m

07.20.010

07.20.011

every additional one

Step 3	Select your accessories
Article no.:	Designation
07.00.106	Universal bolt-on corner bracket for mounting the Rapid
07.00.109	Drain extension for Rapid 3.1 (0.5 m)

### **DISK SKIMMER**

## RAPID 4

Maintained and highly productive cooling lubricant thanks to Rapid Free cooling lubricant of foreign oils quickly and easily

The Rapid unit gives you top cooling lubricant quality by removing the foreign oils. Because it's easy to operate, the Rapid unit can be quickly adjusted to your needs. Thanks to its unique oil -wiping system, the Rapid unit offers you a maximum discharge rate of the foreign oils.

The magnetic stand makes it easy to mount the Rapid 4. Ist robust and compact design

promises a long service life and easy use.

Thanks to the care of the cooling lubricant, your skin can finally breathe again.

Combine the RAPID oil skimmer with the MIKRO micro areator System. By combining both products, you will achieve a constantly clean and biostable cooling lubricant with optimal production properties.

Prolonged service life of tools, the machine and cooling lubricant Clear view in the machine Improved production quality No overlubrication No unpleasant odors Operating costs go down Improvements to health

Technical data	
Discharge rate	3 - 12 l/h
Disc diameter	250 mm
Submersion depth	up to 40 mm
Temperature	up to 40 °C
Working range	pH 7 - 11
Weight	2.5 kg
Input voltage	230 V / 50 - 60 Hz
Output voltage	24 V / 50 - 60 Hz
Current consumption	21.7 mA
Power	5 W
Dimensions L x W x H	290 x 225 x 250

# Price overview RAPID 4 Oil skimmer

Removal of foreign oils for surface areas up to 2 m<sup>2</sup>

Select your basic Rapid 4 unit for cooling lubricants
Designation
RAPID 4 including skimmer disc and mounting magnet
Select your replacement parts
Designation
Skimmer disc for Rapid 4, Ø 250 mm
Skimmer disc for Rapid 4, Ø 250 mm



# MIKRO SELECTION

Select the type which is right for you... the right solution for every area of application.



### MIKRO 200 AERATOR

for tanks up to 300 I for temperatures up to 55°C for a pH value from 4 to 12

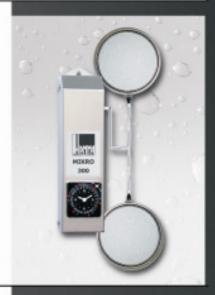
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### MIKRO 300 AERATOR

for tanks up to 500 I for temperatures up to 55°C for a pH value from 4 to 12

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### MIKRO 1000 AERATOR

for tanks up to 1000 I for temperatures up to 55°C for a pH value from 4 to 12





### MICRO AERATOR

Constant oxygen aeration of cooling lubricants by the Mikro

# **MIKRO**

aerating cooling lubricant quickly and easily



By adding air, the micro aerator offers you the maximum quality of your cooling lubricant. Due to ist easy installation and operation, the Mikro can be quickly adjusted to the requirements of your cooling lubricant.

> The Mikro can be controlled as needed via ist timer.

With the help of ist aerating plates, tiny air bubbles float through the cooling lubricant. Hereby, the cooling lubricant has the property of

re-enriching the used oxygen. The biobalance is re-established.

As a result of the floating air bubbles, foreign oils and very small suspended matter are carried to the surface and can be removed by the RAPID oil skimmer.

This way, you will get a very highly productive cooling lubricant which makes up to 50% higher cutting speeds, up to 70% higher service life of your tools and up to 60% higher service life of your machine possible. A major advantage is the high skin hygiene achieved this way. You will live healthier.

Prolonged service life of tools, the machine and cooling lubricant Clear view in the machine Improved production quality
No overlubrication
No unpleasant odors
Operating costs go down
Improvements to health

Technical data	MIKRO 200	MIKRO 300	MIKRO 1000
Basin sizes	up to 300 l	up to 500 l	up to 1000 l
Submersion depth	up to 750 mm	up to 1250 mm	up to 1250 mm
Voltage	230 V / 50 Hz / 5 W	230 V / 50 Hz / 5 W	230 V / 50 Hz / 10 W
Working temperature	55 °C	55 °C	55 °C
Working range	pH 4 - 12	pH 4 - 12	pH 4 - 12
Ceramic aerat body	1 Piece	2 Piece	4 Piece
Air line to the aerat body	3 m	3 m	2 x 3 m
Distances between aerat bodies	-	1 m	2 x 1 m
Dimensions L x W x H	310 x 83 x 62 mm	310 x 83 x 62 mm	550 x 83 x 62 mm
Weight	2.4 kg	3.0 kg	4.7 kg

# Price overview MIKRO Micro aerator

aerating of your cooling lubricant for tanks up to 1000 l

Mikro	Select your Mikro
Article no.:	Designation
21.01.000	Micro aerator 200 including aerating unit with 1 aerating plate - Aerates tanks up to 300 liters
21.02.000	Micro aerator 300 including aerating unit with 2 aerating plates - Aerates tanks up to 500 liters
21.03.000	Microaerator 1000 including aerating unit with 4 aerating plates - Aerates tanks up to 1000 liters
Replacements	Select your replacement parts
Article no.:	Designation
21.01.002	Aerator unit Mikro 200 including 1 aerating plate
21.02.002	Aerator unit Mikro 300 / 1000 including 2 aerating plates
<b>6</b>	
7.21.10.007	Aerator plate, round, Ø 132 mm
7.12.10.015	Hose for Mikro 200 / 300 / 1000 per meter
7.21.10.012	Hose clamp, black, for Mikro hose
43	
7.21.10.002	T-hose connection nozzle
7.21.10.011	Y-hose connection nozzle
Y	
7.21.30.001	Angled hose connection nozzle
U	



# **CLEAN TOWER**

Cooling lubricant treated quickly and easily

### CARE SYSTEM

Complete care with pressure release by Clean Tower

The Clean Tower offers you complete care for your cooling lubricant. By using pressure release flotation, foreign oils, suspended matter and oxygen deficits are a thing of the past.

From now on, work with the highly productive and healthier cooling lubricant.

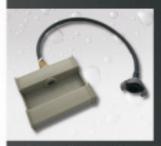
The mobile Clean Tower can be moved from machine to machine. There are two suction systems available for efficiently removing top-floating contamination.

### The principle:

With the introduced air, the Clean Tower floats foreign oils and suspended matter to the surface, transfers them to the built-in dirt tank, enriches your cooling lubricant with oxygen and transfers this to the manufacturing machine again.

#### The future means:

Healthy and highly performance cooling lubricant without compromises... in other words, Clean Tower.



Suction float AS 100



Suction system AS 200

- Prolonged service life of tools, the machine and cooling lubricant
- Clear view in the machine
- Improved production quality
  - No overlubrication
- No unpleasant odors
- Operating costs go down
- Improvements to health

Technical data	
Capacity	150 - 300 l/h
Working temperature	50 °C
Working range	рН 6 - 11
Return height	0.7 m
Suction and return hose length	3 m
Working tank	60 I / V2A
Dirt tank	60 I / V2A
Mains connection	230 V / 50 Hz / 0.15 kWh
Mains cable length	5 m
Dimensions L x W x H	575 x 500 x 1300 mm
Weight	68 kg

# Two steps to your

# **CLEAN TOWER care system**

Step 1	Select your basic unit
Article no.:	Designation
15.01.000	Clean Tower 150 including suction float AS 100
Step 2	Select your accessories
Article no.:	Designation
15.50.000	Suction float AS 100
15.50.300	Suction system AS 200, for small and narrow openings
8.15.01.021	Hood for Clean Tower

	Select your service	
Article no.:	Designation	
11.38.002	Commissioning / introduction within West Germany including all expenses	
15.99.100	Test run, basic fee	
15.99.000	Test run lease (per week)	

Replacements	Replacement parts
Article no.:	Designation
15.01.100	Filter fleece for Clean Tower
7.01.05.007	Fabric hose for Clean Tower (per meter)
15.52.000	Pre-filter for suction pump, complete, including attachment parts, 350 µm
7.15.52.003	Support body for pre-filter
15.53.000	Pre-filter insert, washable, 350 μm



Feel the force of your cooling lubricant...

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