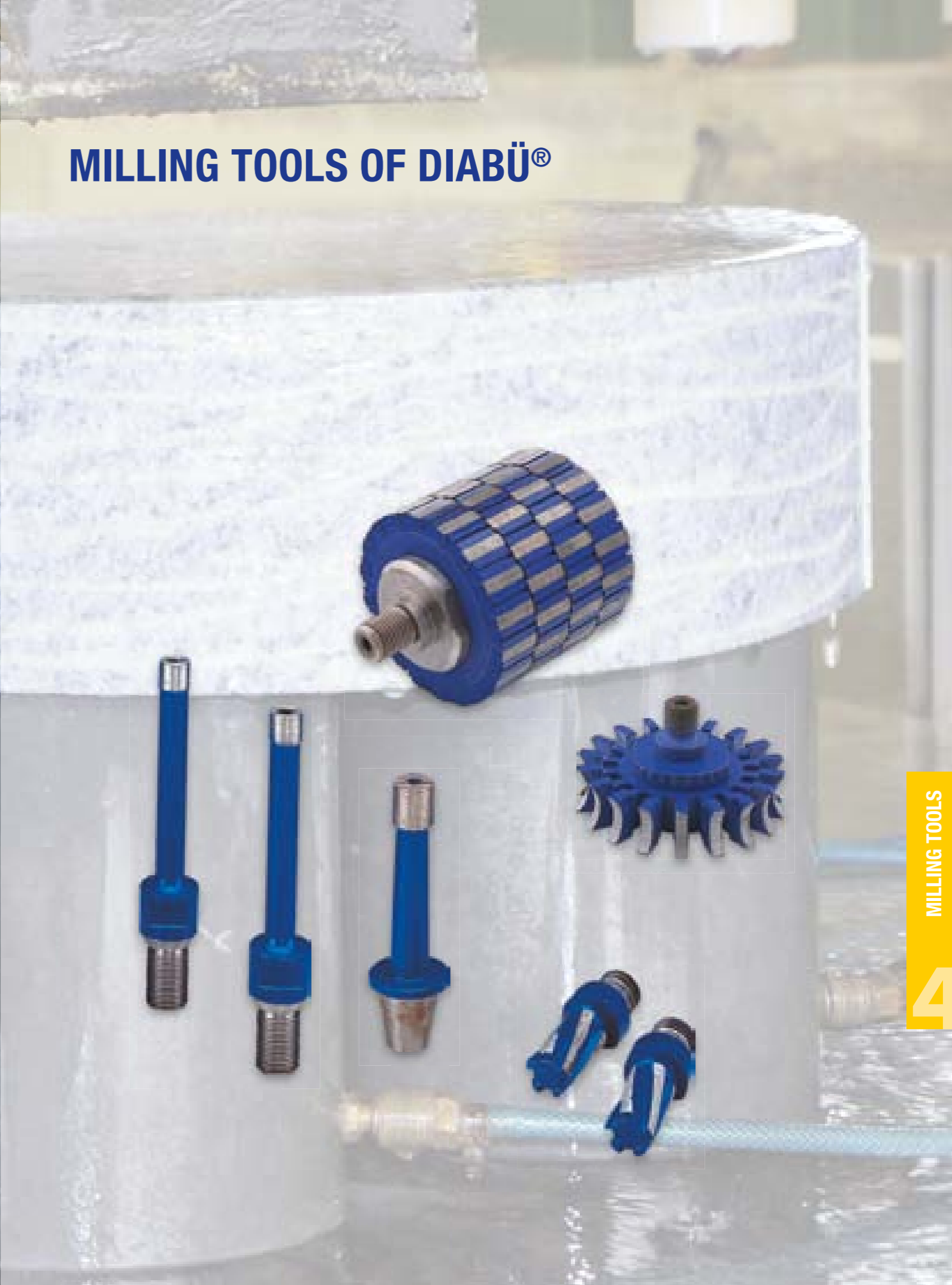




MILLING TOOLS OF DIABÜ®

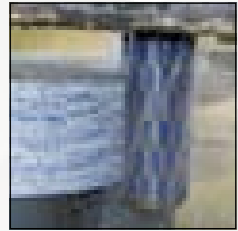




Diamond Peripheral Milling Tools

Poly / Steel

For bridge saws, radial arm milling machines and curve milling machines



Tool body		Segments (pcs.)	Segment			Bore (mm)
Ø Outside (mm)	Milling width (mm)		Length (mm)	Width (mm)	Height (mm)	
150	35	18	35	8; 10	6; 9	60
150	40	18	40	8; 10	6; 9	60
300	35	32	35	8; 10	6; 9	60
300	40	32	40	8; 10	6; 9	60
350	25	36	25	8; 10	6; 9	60
350	30	42	30	8; 10	6; 9	60
350	35	36	35	8; 10	6; 9	60
350	40	32; 36; 40	40	8; 10	6; 9	60
400	20	48	20	10	6; 9	60
400	30	42	30	10	6; 9	60
400	40	42; 46	40	10	6; 9	60
400	50	40	50	10	6; 9	60
400	55	42	55	10	6; 9	60
400	60	42	60	10	6; 9	60
450	40	42	40	10	6; 9	60
500	40	42	40	10	6; 9	60
600	30	62	30	10	6; 9	60
700	60	55	60	10	6; 9	60
800	50	70	50	10	6; 9	60

Low vibrations, low noise and these milling tools can be re-tipped.
Single millers with side protection are available.

- Alternative bores and mounting hole configurations
- Segments are available for re-tipping by yourselves
- Different milling widths are available
- It's important to check the clamping width before ordering!



Polyamid core with steel ring
at the circumference

Diamond Peripheral Milling Tools

Steel

For bridge saws, radial arm milling machines and curve milling machines

Tool body		Segments (pcs.)	Segment			Bore (mm)
Ø Outside (mm)	Milling width (mm)		Length (mm)	Width (mm)	Height (mm)	
100	35	14	35	8; 10	6; 9	60
100	40	14	40	8; 10	6; 9	60
150	35	18	35	8; 10	6; 9	60
150	40	18	40	8; 10	6; 9	60
250	40	22	40	8; 10	6; 9	60
300	30	36	30	8; 10	6; 9	60
300	40	30; 32	40	8; 10	6; 9	60
300	50	24	50	8; 10	6; 9	60
300	60	30	60	8; 10	6; 9	60
350	15	25	15	20	6; 9	60
350	20	25	20	15	6; 9	60
350	25	36	25	8; 10	6; 9	60
350	30	40	30	8; 10	6; 9	60
350	35	25; 40; 45	35	8; 10	6; 9	60
350	40	40; 45	40	8; 10	6; 9	60
350	50	40	50	8; 10	6; 9	60
350	60	40	60	8; 10	6; 9	60
400	20	28	20	8; 10	6; 9	60
400	30	48	30	8; 10	6; 9	60
400	40	45; 46	40	8; 10	6; 9	60
400	50	40	50	8; 10	6; 9	60
400	70	43	70	8; 10	6; 9	60
500	40	50	40	10	6; 9	60
600	20	42	20	10	6; 9	60



Milling Tools with high cutting rate and they can be re-tipped.
Single millers with side protection are available.

- Alternative bores and mounting hole configurations
- Segments are available for re-tipping by yourselves
- Different milling widths are available

Milling package with spindle

Spindle		Miller	
Ø Shaft (mm)	Length (mm)	No. of (pcs.)	Width (mm)
60	120	3	40
60	140	4	35
60	160	4	40
60	175	5	35
60	200	5	40

Please give the following details on your order:

Material for example: Granite
 Type for example: Poly / Steel
 Diameter for example: 350 mm
 Segment size for example: 35 mm milling width, 6 mm height
 Bore for example: 60 mm
 Mounting Holes for example: no



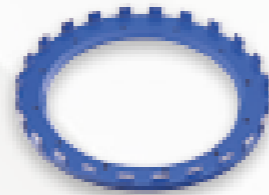


Millers, Calibrating Tools

Calibrating Rings

For milling/calibrating of workpiece surfaces

Ø Outside (mm)	Machine	Segment Length (mm)	Segment Width (mm)	Segment Height (mm)
112 to 1050	for example Hensel Löfler Karl Meyer Wassmer etc.	12; 20; 22; 24; 25	5 – 14	6 – 20



Also available with support segments for protection of the carrier body.

Further configuration of the tools such as

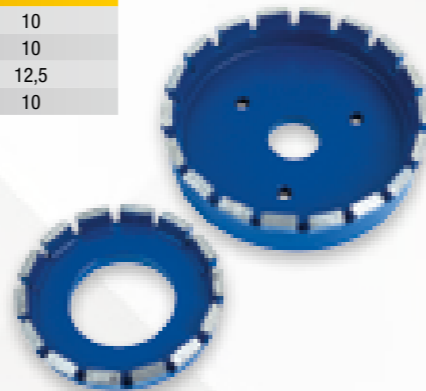
- Number of segments
- Segment width
- Segment height

will be adjusted individually.

Cup-shaped Millers

For milling/calibrating of workpiece surfaces

Ø Outside (mm)	Machine	Segment Length (mm)	Segment Width (mm)	Segment Height (mm)
100	for example	12,5	6	10
125	Hensel	20	10	10
200	Löfler	25	8	12,5
300	Karl Meyer etc.	25	10	10



Also available with support segments for protection of the carrier body.

Further configuration of the tools such as

- Number of segments
- Segment width
- Segment height

will be adjusted individually.

Surface Millers

Applicable from both sides; for drain boards and shower base

Grinding ring			
Ø Outside (mm)	Ø Inside (mm)	Height (mm)	Tool Bodies
53	40	10; 20	R 1/2"
60	47	10; 20	R 1/2"
100	85	10; 20	R 1/2"
150	135	10; 20	R 1/2"

Other tool bodies on request.

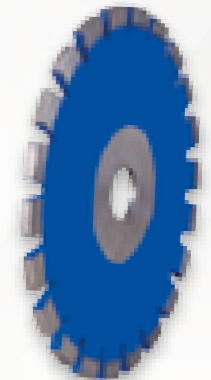


Milling Tools

Water Slot Cutter / Groove Miller

For milling of dripping grooves / For milling of reinforcement grooves

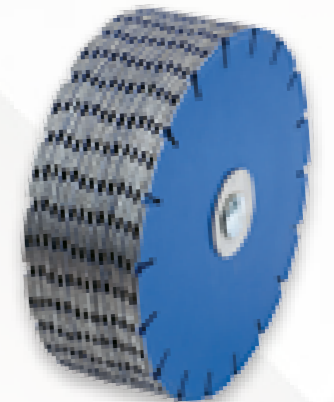
Ø Outside (mm)	Machine	Segment Length (mm)	Segment Width (mm)	Segment Height (mm)
125	Universal	20; 25	4; 6; 8; 10	8; 10; 12,5
130		20; 25	4; 6; 8; 10	8; 10; 12,5
150		20; 25	4; 6; 8; 10	8; 10; 12,5
160		20; 25	4; 6; 8; 10	8; 10; 12,5
200		20; 25	4; 6; 8; 10	8; 10; 12,5
250		20; 25	4; 6; 8; 10	8; 10; 12,5
300		20; 25	4; 6; 8; 10	8; 10; 12,5
350		20; 25	4; 6; 8; 10	8; 10; 12,5
400		20; 25	4; 6; 8; 10	8; 10; 12,5
450		20; 25	4; 6; 8; 10	8; 10; 12,5
500		20; 25	4; 6; 8; 10	8; 10; 12,5
550		20; 25	4; 6; 8; 10	8; 10; 12,5
625		20; 25	4; 6; 8; 10	8; 10; 12,5



Milling Package

For thickness calibrating or contour processing

Ø Outside (mm)	Machine	Segment Length (mm)	Segment Width (mm)	Segment Height (mm)
115	Universal	20; 25; 40	2,6 – 3,5	8; 10; 12,5
200		20; 25; 40	2,6 – 3,5	8; 10; 12,5
250		20; 25; 40	2,6 – 3,5	8; 10; 12,5
300		20; 25; 40	2,6 – 3,5	8; 10; 12,5
350		20; 25; 40	2,6 – 3,5	8; 10; 12,5



Form, measurement and specification of the tools will be made on individual request.

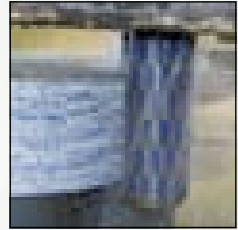
Please give the following details on your order:

Material	for example: Granite
Type	for example: Water Slot Cutter
Diameter	for example: 350 mm
Segment size	for example: 25x8x10 mm
Bore	for example: 60 mm
Mounting Holes	for example: no



Recommended Parameters

Calibrating Rings



	Hard Stone	Soft Stone
Vertical feed	up to 2 mm per stage	up to 3 mm per stage
Traverse speed	up to 1,5 m/min	up to 2 m/min
Cross feed	1/4 – 1/2 of the tool diameter	
Peripheral speed	20 – 30 m/s	

Tool Diameter (mm)	Generated Power (kW)	Recommended Water Qty. (l/min)	Axial run-out Tolerance (mm)	Radial run-out Tolerance (mm)
150	5 – 10	10 – 15	0,05	0,10
200	5 – 10	10 – 15	0,05	0,10
250	8 – 11	12 – 15	0,05	0,10
300	8 – 11	15 – 20	0,05	0,10
400	15 – 18	20 – 30	0,08	0,10
500	15 – 18	25 – 35	0,10	0,15
700	22 – 35	35 – 45	0,15	0,20

Cooling:

Amount of cleanness of the cooling water affects the tool performance. The supply of cooling water can be effected from the outside by a water ring or from the inside by a hollow spindle resp. water channels inside the tool.

Hollow spindle and water channels support a direct water supply by means of centrifugal force. Through this, the water reaches specifically the cutting surfaces of the diamond segments. A hollow spindle demands a distributing sheet, in order to guarantee a sufficient water supply during the initial shaping stage as well.

Diamond Peripheral Milling Tools

Tool Diameter (mm)	Generated Power (kW)	Recommended Water Qty. (l/min)	Peripheral Speed (m/s)	Traverse Speed (m/min)	Verical Speed (mm)	Axial run-out Tolerance (mm)	Radial run-out Tolerance (mm)
100 – 200	3 – 8	20 – 30	15 – 30	high quartz content	up to 20 mm per process	0,06	0,10
250	6 – 10	30 – 40		0,08		0,10	
300	15 – 20	40 – 50		0,5 – 0,8		0,10	0,10
350	15 – 20	40 – 50		0,10		0,12	
400	15 – 20	50 – 60		low quartz content		0,15	0,10
500	30 – 35	60 – 70		0,8 – 1,2		0,15	0,15
700	35 – 40	60 – 70		0,15		0,20	

Cooling:

Is effected by wide flat pipes at the circumference and in addition partly by centrifugal action, is most effective when coolant supply is done from both sides.

Down feed:

Depending on the type of stone the excess material can be removed in one or several stages.

Hard stones with a high quartz content can take a higher down feed compared to materials with a low quartz content.

All parameters are only to be considered as standard values and recommendations. They can vary depending on the machine type, material processed and other influencing parameters.

Trouble Shooting Diamond Peripheral Milling Tools

Problem	Solution
Miller runs uneven	Check axial and radial run-out, check bore
Miller works hard	Change from materials with high quartz content to softer materials with a low quartz content
Inaccurate milling surface	Check axial and radial run-out Check bearings, replace if necessary
Grooves in milling direction	With double millers insert or remove distance washers
Uneven wear	Re-set miller frequently (milling package)

