

Best **TOOLS** for **CUTTERS**



■ MADE
■ IN
■ GERMANY



PRODUCT CATALOG 2021

Tools and **accessoris**

for your **sewer rehabilitation robot**

EN

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Terms and conditions of business

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Connection: Ø 56/22 mm + Pin

For your Sewer Rehab Robots:

KA-TE, PMO, Pipetronics FR/EF 250, Hächler HF200,
Streicher HF/EF200, ...

EN

Connection: Ø 56/22 mm + Pin

KA-TE, PMO, Pipetronics FR/EF 250, Hächler HF200, Streicher HF/EF200, ...

Milling tools suitable for **CONCRETE, VITRIFIED CLAY**



Diamond finger milling tool

Field of application: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
33/37	200-300	40	5	21 49 80 005
33/27	300-400	44	5	21 49 80 009
33/37	300-600	55	5	21 49 80 006



Diamond inflow pipe milling tool - with flushing holes-

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
70	200	38	16	21 49 59 997
85	300	47	18	21 49 60 004
85	300	47	18 - soft	21 49 60 051
85	300	47	18 - hard	21 49 60 076
85	300	47	9 + 9 wedges	21 49 60 097



Diamond mushroom shaped milling tool - spring loaded -

Field of application: Preparatory milling of laterals,
removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
100	170	45	20	21 49 70 070
100	200	45	20	21 49 70 071
120	250	45	20	21 49 70 072
120	300	45	20	21 49 70 073
120	350-400	45	20	21 49 70 074
120	450-500	45	20	21 49 70 075
120	600	45	20	21 49 70 076



Diamond plate peripheral milling tool - spring loaded -

Field of application: Preparatory milling of laterals,
removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
116	170	45	30	21 49 70 080
116	200	45	30	21 49 70 081
136	250	45	30	21 49 70 082
136	300	45	30	21 49 70 083
136	350-400	45	30	21 49 70 084
136	450-500	45	30	21 49 70 085
136	600	45	30	21 49 70 086



Diamond combination milling tool - spring loaded -

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
100	100	53	33	21 49 60 073
97	200	47	36	21 49 60 071
97	300	43	36	21 49 60 052
97	400	42	36	21 49 60 072



Diamond grooving milling tool

Einsatzgebiet: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
35/30	200	40	3	21 49 80 015
35/30	300	50	3	21 49 80 010



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
70	200	38	8	21 49 59 998
83	300	50	2	21 49 60 001



Diamond mushroom shaped milling tool - spring loaded -

Field of application: Opening of laterals and inlet lines

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
100	170	45	12	21 49 70 025
100	200	45	12	21 49 70 019
120	250	45	12	21 49 70 020
120	300	45	12	21 49 70 021
120	350-400	45	12	21 49 70 022
120	450-500	45	12	21 49 70 023
120	600	45	12	21 49 70 024



Diamond mushroom shaped peripheral milling tool - spring loaded -

Field of application: Opening of laterals and inlet lines

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
115	170	45	18	21 49 70 035
115	200	45	18	21 49 70 029
135	250	45	18	21 49 70 030
135	300	45	18	21 49 70 031
135	350-400	45	18	21 49 70 032
135	450-500	45	18	21 49 70 033
135	600	45	18	21 49 70 034

Connection: Ø 56/22 mm + Pin

KA-TE, PMO, Pipetronics FR/EF 250, Hächler HF200, Streicher HF/EF200, ...

Milling tools suitable for **CONCRETE, VITRIFIED CLAY**



Diamond injection milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Form	Height mm	Segments	Code-No.
80/60	conical	74	12	21 49 60 021
80	cylindrical	74	12	21 49 80 022
80	zylindrisch	76	16	21 49 80 023



Diamond plate milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
115	300-600	35	8	21 49 60 011



Diamond grooving milling tool - long -

Field of application: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
33/37	300-600	80	3	21 49 80 012
33/27	450-600	110	3	21 49 80 013



Diamond joint milling tool 15°

Field of application: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
33/37	300-600	55	3	21 49 80 030



Diamond inflow pipe milling tool 15°

Field of application: Preparatory milling of laterals
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
83	300	50	12	21 49 60 012

Connection: Ø 56/22 mm + Pin

KA-TE, PMO, Pipetronics FR/EF 250, Hächler HF200, Streicher HF/EF200, ...

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cone milling tool - with flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
55/15	38	16	21 49 40 046
75/20	50	20	21 49 40 012

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - with carbide tip + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
55/20	38	14 + 1	21 49 40 064

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - asymmetrical segments + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
60/15	47	asymmetrical + 2	21 49 40 148

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - with carbide tip, flutes, smooth running cut -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
60/20	50	14 + 1	21 49 40 226

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - with flutes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
70/18	52	24	21 49 40 072

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Connection: Ø 56/22 mm + Pin

KA-TE, PMO, Pipetronics FR/EF 250, Hächler HF200, Streicher HF/EF200, ...

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cylinder milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
55	35	25	21 49 40 013

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond inflow pipe milling tool- with flushing holes -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
70	38	30	21 49 40 034

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond inflow pipe milling tool - with flutes + flushing holes -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
70	40	33	21 49 40 073

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
90	40	18	21 49 40 010

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond combination milling tool - spring loaded -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
91	35	44	21 49 40 352

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

NEW!



Diamond cone-cylinder milling tool - with carbide tip, flutes + flushing holes -
Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
70	54	28	21 49 40 180

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond grooving milling tool - with flushing holes -
Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
33	57	18	21 49 40 031
25	50	12	21 49 40 033
25	65	15	21 49 40 011

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond radius milling tool
Field of application: Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
90	30	27	21 49 40 023

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond mushroom shaped peripheral milling tool
- with flutes, spring loaded -
Field of application: Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
100	200	30	40	21 49 40 244
120	250	30	48	21 49 40 245
120	300	30	48	21 49 40 221
120	350-400	30	48	21 49 40 236
120	450-500	30	48	21 49 40 237
120	600	30	48	21 49 40 238

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide halfglobe milling tool
Field of application: Opening of laterals and inlet lines, finishing

Ø mm	Height mm	Granulate	Code-No.
65	34	2,5/3	21 45 00 051
85	48	2,5/3	21 45 00 050

ACCESSORIES



Corund grindstone

Field of application: Grinding of metal and cast iron pipes, removal of intruding obstacles

Ø mm	Borehole / Thread	Height mm	Code-No.
80	22,2	27	21 50 00 102
90/110	22,2	53	21 50 00 101



Brushes

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Brushes	Ø mm	Height mm	Code-No.
Cup Brush	65	50	21 50 00 201
Cup Brush	80	70	21 50 00 200



Extensions

Ø mm	Length mm	Code-No.
55	15	21 50 01 014
55	25	21 50 01 016
55	50	21 50 01 015

1.1



Connection: Ø 56/22 mm + Pin

For your Sewer Rehab Robots:
ProKasro Hydro

Connection: Ø 56/22 mm + Pin

ProKasro Hydro

Milling tools suitable for **CONCRETE, VITRIFIED CLAY**



Diamond finger milling tool

Field of application: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
33/37	200-300	40	5	21 49 80 005
33/27	300-400	44	5	21 49 80 009
33/37	300-600	55	5	21 49 80 006



Diamond inflow pipe milling tool - with flushing holes-

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
70	200	38	16	21 49 59 997
85	300	47	18	21 49 60 004
85	300	47	18 - soft	21 49 60 051
85	300	47	18 - hard	21 49 60 076
85	300	47	9 + 9 wedges	21 49 60 097



Diamond mushroom shaped milling tool - spring loaded -

Field of application: Preparatory milling of laterals,
removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
100	170	45	20	21 49 70 170
100	200	45	20	21 49 70 171
120	250	45	20	21 49 70 172
120	300	45	20	21 49 70 173
120	350-400	45	20	21 49 70 174
120	450-500	45	20	21 49 70 175
120	600	45	20	21 49 70 176



Diamond plate peripheral milling tool - spring loaded -

Field of application: Preparatory milling of laterals,
removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
116	170	45	30	21 49 70 180
116	200	45	30	21 49 70 181
136	250	45	30	21 49 70 182
136	300	45	30	21 49 70 183
136	350-400	45	30	21 49 70 184
136	450-500	45	30	21 49 70 185
136	600	45	30	21 49 70 186



Diamond combination milling tool - spring loaded -

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
100	100	53	33	21 49 60 073
97	200	47	36	21 49 60 071
97	300	43	36	21 49 60 052
97	400	42	36	21 49 60 072



Diamond grooving milling tool

Einsatzgebiet: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
35/30	200	40	3	21 49 80 015
35/30	300	50	3	21 49 80 010



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
70	200	38	8	21 49 59 998
83	300	50	2	21 49 60 001



Diamond mushroom shaped milling tool - spring loaded -

Field of application: Opening of laterals and inlet lines

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
100	170	45	12	21 49 70 125
100	200	45	12	21 49 70 119
120	250	45	12	21 49 70 120
120	300	45	12	21 49 70 121
120	350-400	45	12	21 49 70 122
120	450-500	45	12	21 49 70 123
120	600	45	12	21 49 70 124



Diamond mushroom shaped peripheral milling tool - spring loaded -

Field of application: Opening of laterals and inlet lines

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
115	170	45	18	21 49 70 135
115	200	45	18	21 49 70 129
135	250	45	18	21 49 70 130
135	300	45	18	21 49 70 131
135	350-400	45	18	21 49 70 132
135	450-500	45	18	21 49 70 133
135	600	45	18	21 49 70 134

Connection: Ø 56/22 mm + Pin

ProKasro Hydro

Milling tools suitable for **CONCRETE, VITRIFIED CLAY**



Diamond injection milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Form	Height mm	Segments	Code-No.
80/60	conical	74	12	21 49 60 021
80	cylindrical	74	12	21 49 80 022
80	zylindrisch	76	16	21 49 80 023



Diamond plate milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
115	300-600	35	8	21 49 60 011



Diamond grooving milling tool - long -

Field of application: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
33/37	300-600	80	3	21 49 80 012
33/27	450-600	110	3	21 49 80 013



Diamond joint milling tool 15°

Field of application: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
33/37	300-600	55	3	21 49 80 030



Diamond inflow pipe milling tool 15°

Field of application: Preparatory milling of laterals
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
83	300	50	12	21 49 60 012

Connection: Ø 56/22 mm + Pin

ProKasro Hydro

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cone milling tool - with flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
55/15	38	16	21 49 40 046
75/20	50	20	21 49 40 012

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - with carbide tip + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
55/20	38	14 + 1	21 49 40 064

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - asymmetrical segments + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
60/15	47	asymmetrical + 2	21 49 40 148

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - with carbide tip, flutes, smooth running cut -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
60/20	50	14 + 1	21 49 40 226

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - with flutes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
70/18	52	24	21 49 40 072

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Connection: Ø 56/22 mm + Pin

ProKasro Hydro

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cylinder milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
55	35	25	21 49 40 013

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond inflow pipe milling tool- with flushing holes -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
70	38	30	21 49 40 034

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond inflow pipe milling tool - with flutes + flushing holes -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
70	40	33	21 49 40 073

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
90	40	18	21 49 40 010

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond combination milling tool - spring loaded -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
91	35	44	21 49 40 352

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

NEW!



Diamond cone-cylinder milling tool - with carbide tip, flutes + flushing holes -
Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
70	54	28	21 49 40 180

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond grooving milling tool - with flushing holes -
Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
33	57	18	21 49 40 031
25	50	12	21 49 40 033
25	65	15	21 49 40 011

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond radius milling tool
Field of application: Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
90	30	27	21 49 40 023

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond mushroom shaped peripheral milling tool
- with flutes, spring loaded -
Field of application: Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
100	200	30	40	21 49 40 319
120	250	30	48	21 49 40 320
120	300	30	48	21 49 40 321
120	350-400	30	48	21 49 40 322
120	450-500	30	48	21 49 40 323
120	600	30	48	21 49 40 324

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide halfglobe milling tool
Field of application: Opening of laterals and inlet lines, finishing

Ø mm	Height mm	Granulate	Code-No.
65	34	2,5/3	21 45 00 051
85	48	2,5/3	21 45 00 050

ACCESSORIES



Corund grindstone

Field of application: Grinding of metal and cast iron pipes, removal of intruding obstacles

Ø mm	Borehole / Thread	Height mm	Code-No.
80	22,2	27	21 50 00 102
90/110	22,2	53	21 50 00 101



Brushes

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Brushes	Ø mm	Height mm	Code-No.
Cup Brush	65	50	21 50 00 201
Cup Brush	80	70	21 50 00 200



Extensions

Ø mm	Length mm	Code-No.
55	15	21 50 01 014
55	25	21 50 01 016
55	50	21 50 01 015

2.1



Connection: Ø 45/22 mm + Pin

For your Sewer Rehab Robots:

KA-TE FR150, PMO-Mini, Pipetronics FR/EF 150, ...

EN

Connection: Ø 45/22 mm + Pin

KA-TE FR 150, PMO-Mini, Pipetronics FR/EF 150, ...

Milling tools suitable for **CONCRETE, VITRIFIED CLAY**



Diamond grooving milling tool

Field of application: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
30	150	40	3	21 49 80 016
30	150	37	5	21 49 80 026



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
61	150	31	8	21 49 60 008
65	200	31	12	21 49 60 009



Diamond inflow pipe milling tool - with flushing holes -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
65	250	32	9 + 9 wedges	21 49 60 109



Diamond mushroom shaped milling tool - spring loaded -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
80	150	42	12	21 49 70 087
80	200	42	12	21 49 70 088
80	250	42	12	21 49 70 004



Diamond mushroom shaped peripheral milling tool - spring loaded -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
98	150	42	18	21 49 70 010
98	200	42	18	21 49 70 011
98	250	42	18	21 49 70 005

Milling tools suitable for **CIPP, PVC** and **ROOTS**



Diamond grooving milling tool - diamond tip + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-Nr.
28	45	asymmetrical	21 49 40 508

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - carbide tip + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-Nr.
45/15	40	10 + 1	21 49 40 184

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - asymmetrical segments, carbide tip + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-Nr.
45/15	40	asymmetrical + 1	21 49 40 239

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cylinder milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-Nr.
45	30	16	21 49 40 024

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Milling tools suitable for **CIPP, PVC** and **ROOTS**



Diamond inflow pipe milling tool - with flutes + flushing holes -

Field of application: Opening of laterals and inlet lines

Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-Nr.
58	27	28	21 49 40 246

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond mushroom shaped peripheral milling tool - spring loaded -

Field of application: Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
80	150 right cut	30	27	21 49 40 093
80	150 left cut	30	27	21 49 40 092
80	200 right cut	30	27	21 49 40 043
80	200 left cut	30	27	21 49 40 042
80	250 right cut	30	27	21 49 40 249
80	250 left cut	30	27	21 49 40 250

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide cone milling tool

Field of application: Opening of laterals and inlet lines,, finishing

Ø mm	Height mm	Granulate	Code-Nr.
45/15	34	2,5/3 + 2 Carbide tips	21 45 00 035

ACCESSORIES



Extensions

Ø mm	Length mm	Code-Nr.
45	18	21 50 01 012
45	25	21 50 01 018
45	50	21 50 01 017

2.1



Connection: Ø 45/22 mm + Pin

For your Sewer Rehab Robots:
ProKasro Hydro 150, ...

Connection: Ø 45/22 mm + Pin

ProKasro Hydro 150, ...

Milling tools suitable for **CONCRETE, VITRIFIED CLAY**



Diamond grooving milling tool

Field of application: Preparatory milling of cracks and joints

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
30	150	40	3	21 49 80 016
30	150	37	5	21 49 80 026



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
61	150	31	8	21 49 60 008
65	200	31	12	21 49 60 009



Diamond inflow pipe milling tool - with flushing holes -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
65	250	32	9 + 9 wedges	21 49 60 109



Diamond mushroom shaped milling tool - spring loaded + flushing holes -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
80	150	42	12	21 49 70 187
80	200	42	12	21 49 70 188
80	250	42	12	21 49 70 189



Diamond mushroom shaped peripheral milling tool - spring l. + flushing h. -

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
98	150	42	18	21 49 70 110
98	200	42	18	21 49 70 111
98	250	42	18	21 49 70 112

Milling tools suitable for **CIPP, PVC** and **ROOTS**



Diamond grooving milling tool - diamond tip + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-Nr.
28	45	asymmetrical	21 49 40 508

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - carbide tip + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-Nr.
45/15	40	10 + 1	21 49 40 184

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - asymmetrical segments, carbide tip + flushing holes -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-Nr.
45/15	40	asymmetrical + 1	21 49 40 239

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cylinder milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-Nr.
45	30	16	21 49 40 024

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Milling tools suitable for **CIPP, PVC** and **ROOTS**



Diamond inflow pipe milling tool - with flutes + flushing holes -

Field of application: Opening of laterals and inlet lines

Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-Nr.
58	27	28	21 49 40 246

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond mushroom shaped peripheral milling tool - spring loaded + flushing holes -

Field of application: Removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-Nr.
80	150 right cut	30	27	21 49 40 139
80	150 left cut	30	27	21 49 40 140
80	200 right cut	30	27	21 49 40 143
80	200 left cut	30	27	21 49 40 142
80	250 right cut	30	27	21 49 40 153
80	250 left cut	30	27	21 49 40 154

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide cone milling tool

Field of application: Opening of laterals and inlet lines, finishing

Ø mm	Height mm	Granulate	Code-Nr.
45/15	34	2,5/3 + 2 Carbide tips	21 45 00 035

ACCESSORIES



Extensions

Ø mm	Length mm	Code-Nr.
45	18	21 50 01 012
45	25	21 50 01 018
45	50	21 50 01 017

3



Thread: M14

For your Sewer Rehab Robots:

Schwalm, ProKasro, I.S.T PC, ID-TEC, IBAK MicroGator,
IBG-Hydro-Tech, Hächler HF130, Streicher EF/HF130, ...

EN

THREAD M14

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
30/10	29	10	21 49 40 063

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
40/20	47	16	21 49 40 014

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - with dia-tip -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
30/15	44	4+2	21 49 40 101

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - asymmetrical segments + dia-tip -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
28/18	45	asymmetrical +2	21 49 40 504

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool

- with carbide-tip, with chip run-off grooves, smooth running cut -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
28/14	47	14+1	21 49 40 227

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Milling tools suitable for **CIPP, PVC** and **ROOTS**



Diamond double-cone milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
45	60	34 - 6 wings	21 49 40 343

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
32	35	14	21 49 40 057
42	45	14	21 49 40 039
42	45	28 double	21 49 40 032

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
50	57	30 - 6 wings	21 49 40 344

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

- with chip run-off grooves, smooth running cut -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
50	50	24	21 49 40 231
60	65	30	21 49 40 230

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - asymmetrical segments -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
50	54	asymmetrical	21 49 40 501
70	79	asymmetrical	21 49 40 502

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone-cylinder milling tool - with carbide-tip, asymmetrical segments -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
50	55	asymmetrical +1	21 49 40 583
70	65	asymmetrical +1	21 49 40 503

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

THREAD M14

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cone-cylinder milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	Code-No.
42	33	22	21 49 40 077

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cylinder milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	Code-No.
32	32	12	21 49 40 097
45	30	20	21 49 40 025

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond inflow pipe milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	Code-No.
58	31	28	21 49 40 242

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond plate milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	Code-No.
50	20	20	21 49 40 096
63	27	24	21 49 40 044

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond plate milling tool - center cutting -

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	Code-No.
63	27	20+4	21 49 40 144

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond finger milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
12	60	3	21 49 40 099

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

THREAD M14

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
36	37	8	21 49 70 058



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
48	47	21	21 49 70 054



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
60	64	16	21 49 70 056



Diamond halfglobe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
65	30	10	21 49 60 074



Diamond plate milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Radius / Tube	Height mm	Segments	Code-No.
50	60 / 200-300	23	10	21 49 60 034
70	60 / 200-300	34	10	21 49 60 012
70	80 / 300-450	34	10	21 49 60 013
70	100 / 450-600	34	10	21 49 60 014
70	60 / 200-300	34	15	21 49 60 016
70	80 / 300-450	34	15	21 49 60 017
70	100 / 450-600	34	15	21 49 60 018

THREAD M14

Milling tooling suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond cone milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
38/28	52	6	21 49 60 059
48/40	24	9	21 49 00 067
55/45	40	9	21 49 00 069



Diamond plate milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
70	200-300	30	18	21 49 60 155
70	300-450	30	18	21 49 60 156
70	450-600	30	18	21 49 60 157
80	200-300	30	21	21 49 60 055
80	300-450	30	21	21 49 60 056
80	450-600	30	21	21 49 60 057



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
68	300	33	16	21 49 60 094



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
53	100	30	8 DN100	21 49 60 042
75	200	30	8 DN200	21 49 60 041
85	250-300	33	12 DN250	21 49 60 040



Diamond plate milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Pipe DN mm	Height mm	Segments	Code-No.
95	250	34	12	21 49 70 015

ACCESSORIES - THREAD M14



Extensions

Ø mm	Length mm	Code-No.
22	33	21 50 01 021
22	40	21 50 01 037
22	50	21 50 01 026



Corundum grindstone

Field of application: Grinding of metal and cast iron pipes, removal of intruding obstacles

Ø mm	Borehole / Thread	Height mm	Code-No.
40	M14	55	21 50 00 110
40	12	30	21 50 00 113
80	M14	30	21 50 00 103
80	22,2	27	21 50 00 102
90/110	M14	57	21 50 00 104
90/110	22,2	53	21 50 00 101



Multifunctional key for changing the screw connection

(Corundum grindstone Ø 80 + Ø 90/110):

Total length mm	SW	Pins	Code-No.
160	24	2	21 50 00 111



Diamond cutting disc

Field of application: Cutting of inliners, GRP, PE,...

Ø mm	Borehole / Thread	Height mm	Code-No.
50	M14	42	21 49 60 033
50	6,0	2	21 28 27 112
75	6,0	2	21 28 27 113
115	M14	47	21 49 60 133
115	22,2	2	21 28 27 110
125	22,2	2	21 28 27 111



Brushes

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Brushes:	Ø mm	Height mm	Code-No.
Cup Brush	65	50	21 50 00 205
Cup Brush	80	71	21 50 00 208
Cup Brush	100	65	21 50 00 236
Conical Disc Brush	100	37	21 50 00 203
Disc Brush	100	27	21 50 00 206

4



Thread: M 10x0,75

For your Sewer Rehab Robots:
ProKasro light, ROBOCANA, ...

EN

Thread M10x0,75

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
30/10	26	10	21 49 40 026

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - with dia-tip -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
28/15	36	4 + 2	21 49 40 102

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
32	35	14	21 49 40 035

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond plate milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	Code-No.
35	20	12	21 49 40 098

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone-cylinder milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
32	22	12	21 49 40 109

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Thread M10x0,75

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond plate milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
44	24	10	21 49 60 036



Diamond cone milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
30/20	20	5	21 49 60 037



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
36	37	8	21 49 70 210

5



Thread: 5/8"UNC

For your Sewer Rehab Robots:

IMS TURBO 3/MIDI/MINI,

SUBTECH Titan 200/250, KRE large, ...

EN

THREAD 5/8"UNC

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
40/20	47	16	015 01 307	21 49 40 051

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool - with dia-tip -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
30/15	44	4 + 2	015 01 616	21 49 40 151

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond double-cone milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
45	60	34 - 6 wings	015 01 618	21 49 40 347

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
42	45	14	015 01 109	21 49 40 037
42	45	28 double	015 01 308	21 49 40 432

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
42	45	14 - 4 wings	015 01 619	21 49 40 341

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Milling tools suitable for **CIPP, PVC** and **ROOTS**



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
50	57	30 - 6 wings	015 01 620	21 49 40 350

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - with chip run-off grooves, smooth running cut -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
50	57	36	015 01 621	21 49 40 182

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
56	40	33 - 6 wings	015 01 171	21 49 40 138

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - asymmetrical segments -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
50	54	asymmetrical	015 01 304	21 49 40 511
70	79	asymmetrical	015 01 622	21 49 40 512

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone-cylinder milling tool - with carbide-tip, asymmetrical segments -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
50	55	asymmetrical +1	015 01 623	21 49 40 584
70	64	asymmetrical +1	015 01 468	21 49 40 585

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

THREAD 5/8"UNC

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cone-cylinder milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
42	33	22	015 01 624	21 49 40 240

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cylinder milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
45	30	20	015 01 306	21 49 40 018

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond inflow pipe milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
58	31	28	015 01 625	21 49 40 243

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond plate milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
63	27	24	015 01 108	21 49 40 065

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide granulate globe milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Grain size	IMS-No.	Art.-Nr.
55	50	2,5/3,0	015 01 110	21 45 00 064

THREAD 5/8"UNC

Milling tools suitable for **CONCRETE**, **VITRIFIED CLAY** and **DEPOSITS**



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
48	47	21	015 01 107	21 49 70 059



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
60	64	16	015 01 106	21 49 70 051



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
53	30	8 DN100	015 01 105	21 49 60 062
75	30	8 DN200	015 01 302	21 49 60 061
85	33	12 DN250	015 01 104	21 49 60 060



Diamond halfglobe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
65	30	10	015 01 300	21 49 60 029

THREAD 5/8"UNC

Milling tools suitable for **CONCRETE**, **VITRIFIED CLAY** and **DEPOSITS**



Diamond cone milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
38/28	52	6	015 01 626	21 49 60 075
55/45	40	9	015 01 301	21 49 00 068



Diamond plate milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
80	30	21 DN200/300	015 01 627	21 49 60 078



Diamond mushroom shaped milling tool - elastic/spring loaded -

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
80	38	12 DN200	015 01 120	21 49 70 078
120	50	12 DN300	015 01 122	21 49 70 321



Diamond mushroom shaped milling tool - elastic/spring loaded -

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
98	38	18 DN200	015 01 121	21 49 70 027
135	50	18 DN300	015 01 123	21 49 70 331

ACCESSORIES - THREAD 5/8"UNC



Corundum grindstone

Field of application: Grinding of metal and cast iron pipes, removal of intruding obstacles

Ø mm	Borehole / Thread	Height mm	IMS-No.	Code-No.
40	5/8"UNC	55	015 01 628	21 50 00 124
40	12	30	015 01 160	21 50 00 113
80	5/8"UNC	30	015 01 156	21 50 00 107
80	22,2	27	015 01 154	21 50 00 102
90/110	5/8"UNC	57	015 01 157	21 50 00 105
90/110	22,2	53	015 01 155	21 50 00 101



Multifunctional key for changing the screw connection

(Corundum grindstone Ø 80 + Ø 90/110):

Total length mm	SW	Pins	IMS-No.	Code-No.
160	24	2	015 01 158	21 50 00 111



Diamond cutting disc

Field of application: Cutting of inliners, GRP, PE,...

Ø mm	Borehole / Thread	Height mm	IMS-No.	Code-No.
50	5/8"UNC	42	015 01 629	21 49 60 131
50	6,0	2	015 01 167	21 28 27 112
75	6,0	2	015 01 631	21 28 27 113
115	5/8"UNC	47	015 01 630	21 49 60 132
115	22,2	2	015 01 632	21 28 27 110
125	22,2	2	015 01 633	21 28 27 111



Grinding wheel holder thread 5/8 "UNC to ø22,2

Ø mm	Length mm	IMS-No.	Code-No.
45	45	015 01 063	21 50 00 248



Brushes

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Brushes	Ø mm	Height mm	IMS-No.	Code-No.
Cup Brush	65	50	015 01 024	21 50 00 211
Cup Brush	80	70	015 01 111	21 50 00 210
Cup Brush	100	65	015 01 035	21 50 00 237



Extensions

Ø mm	Length mm	IMS-No.	Code-No.
24	33	015 01 009	21 50 01 019

6.1



Thread: ISS IMS-Special thread
For your Sewer Rehab Robots:
IMS TURBO 4

EN

THREAD: ISS IMS-Special thread

IMS TURBO 4

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**

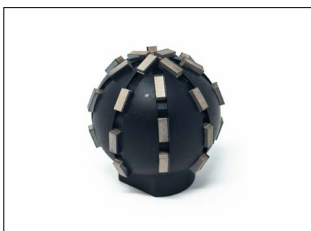


Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
40/20	47	16	015 01 241	21 49 40 160

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
42	45	28 double	015 01 243	21 49 40 162

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
42	45	14 - 4 wings	015 01 203	21 49 40 345

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
50	57	30 - 6 wings	015 01 213	21 49 40 351

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
56	40	33 - 6 wings	015 01 242	21 49 40 161

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond plate milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
63	27	24	015 01 215	21 49 40 165

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide granulate globe milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Grain size	IMS-No.	Code-No.
55	50	2,5/3,0	015 01 212	21 45 00 185

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
48	47	21	015 01 202	21 49 70 109



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
60	64	16	015 01 201	21 49 70 079



Diamond halfglobe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
65	30	10	015 01 244	21 49 60 095

THREAD: ISS IMS-Special thread

IMS TURBO 4

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond cone milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
38/28	52	6	015 01 210	21 49 60 079



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
53	30	8 DN100	015 01 211	21 49 60 082
85	33	12 DN250	015 01 200	21 49 60 080



Diamond inflow pipe milling tool - elastic/spring loaded -

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
85	35	12 DN250	015 01 214	21 49 60 092



Diamond mushroom shaped milling tool - elastic/spring loaded -

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
80	38	12 DN200	015 01 216	21 49 70 178
120	50	12 DN300	015 01 231	21 49 70 221



Diamond mushroom shaped milling tool - elastic/spring loaded-

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
98	38	18 DN200	015 01 233	21 49 70 127
135	50	18 DN300	015 01 232	21 49 70 231

ACCESSORIES - ISS IMS-Special thread

IMS TURBO 4



Corundum grindstone

Field of application: Grinding of metal and cast iron pipes, removal of intruding obstacles

Ø mm	Borehole / Thread	Height mm	IMS-No.	Code-No.
80	ISS-IMS	30	015 01 207	21 50 00 133
80	22,2	27	015 01 154	21 50 00 102
90/110	ISS-IMS	57	015 01 208	21 50 00 134
90/110	22,2	53	015 01 155	21 50 00 101



Multifunctional key for changing the screw connection

(Corundum grindstone Ø 80 + Ø 90/110):

Total length mm	SW	Pins	IMS-No.	Code-No.
160	24	2	015 01 158	21 50 00 111



Extensions IMS-ISS-Special thread

Ø mm	Useful length mm	IMS-No.	Code-No.
24	30	015 01 209	21 50 00 132



Adapter: IMS-ISS-Special thread to 5/8"UNC

Ø mm	Useful length mm	IMS-No.	Code-No.
24	30	015 01 206	21 50 00 131



Adapter: IMS-ISS-Special thread to IMS-Micro/...

Ø mm	Useful length mm	IMS-No.	Code-No.
24	39	015 01 240	21 50 00 246

ACCESSORIES - ISS IMS-Special thread

IMS TURBO 4



Brushes

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Brushes	Ø mm	Height mm	IMS-No.	Code-No.
Cup brushes	65	50	015 01 234	21 50 00 213
Cup brushes	80	70	015 01 204	21 50 00 214
Cup brushes	100	65	015 01 235	21 50 00 215



Round brush + Mounting

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Brushes	Ø mm	Height mm	IMS-No.	Code-No.
Round brush	80	18	015 01 227	21 50 00 238
Mounting for round brush Ø80mm H18	30	42	015 01 220	21 50 00 242
Round brush	80	25	015 01 228	21 50 00 239
Mounting for round brush Ø80mm H25	30	49	015 01 221	21 50 00 243
Round brush	100	20	015 01 229	21 50 00 240
Mounting for round brush Ø100mm H20	38	47	015 01 225	21 50 00 244
Round brush	100	28	015 01 230	21 50 00 241
Mounting for round brush Ø100mm H28	38	50	015 01 226	21 50 00 245



Grinding wheel mounting IMS-ISS-Special thread to ø22,2

Ø mm	Useful length mm	IMS-No.	Code-No.
45	34	015 01 239	21 50 00 247

6.2



Thread: ISS IMS-Special thread

For your Sewer Rehab Robots:

IMS MIDI 4 large motor/ **DRIVEplus** large motor

EN

THREAD: ISS IMS-Special thread

IMS MIDI 4 large motor/ DRIVEplus large motor

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**

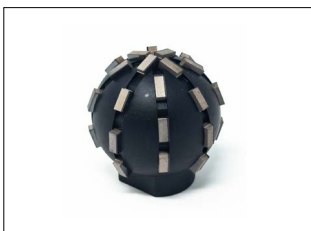


Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
40/20	47	16	015 01 241	21 49 40 160

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
42	45	28 double	015 01 243	21 49 40 162

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
42	45	14 - 4 wings	015 01 203	21 49 40 345

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
50	57	30 - 6 wings	015 01 213	21 49 40 351

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
56	40	33 - 6 wings	015 01 242	21 49 40 161

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond plate milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
63	27	24	015 01 215	21 49 40 165

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide granulate globe milling tool

Field of application: Opening of laterals and inlet lines, removes deposits

Ø mm	Height mm	Grain size	IMS-No.	Code-No.
55	50	2,5/3,0	015 01 212	21 45 00 185

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
48	47	21	015 01 202	21 49 70 109



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
60	64	16	015 01 201	21 49 70 079



Diamond halfglobe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
65	30	10	015 01 244	21 49 60 095

THREAD: ISS IMS-Special thread

IMS MIDI 4 large motor/ DRIVEplus large motor

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond cone milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
38/28	52	6	015 01 210	21 49 60 079



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
53	30	8 DN100	015 01 211	21 49 60 082
85	33	12 DN250	015 01 200	21 49 60 080



Diamond inflow pipe milling tool - elastic/spring loaded -

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
85	35	12 DN250	015 01 214	21 49 60 092



Diamond mushroom shaped milling tool - elastic/spring loaded -

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
80	38	12 DN200	015 01 216	21 49 70 178

ACCESSORIES - ISS IMS-Special thread

IMS MIDI 4 large motor/ DRIVEplus large motor



Corundum grindstone

Field of application: Grinding of metal and cast iron pipes, removal of intruding obstacles

Ø mm	Borehole / Thread	Height mm	IMS-No.	Code-No.
80	ISS-IMS	30	015 01 207	21 50 00 133
80	22,2	27	015 01 154	21 50 00 102



Multifunctional key for changing the screw connection

(Corundum grindstone Ø 80 + Ø 90/110):

Total length mm	SW	Pins	IMS-No.	Code-No.
160	24	2	015 01 158	21 50 00 111



Extensions IMS-ISS-Special thread

Ø mm	Useful length mm	IMS-No.	Code-No.
24	30	015 01 209	21 50 00 132



Adapter: IMS-ISS-Special thread to 5/8"UNC

Ø mm	Useful length mm	IMS-No.	Code-No.
24	30	015 01 206	21 50 00 131



Adapter: IMS-ISS-Special thread to IMS-Micro/...

Ø mm	Useful length mm	IMS-No.	Code-No.
24	39	015 01 240	21 50 00 246

ACCESSORIES - ISS IMS-Special thread

IMS MIDI 4 large motor/ DRIVEplus large motor



Brushes

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Brushes	Ø mm	Height mm	IMS-No.	Code-No.
Cup brush	65	50	015 01 234	21 50 00 213
Cup brush	80	70	015 01 204	21 50 00 214



Round brush + Mounting

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

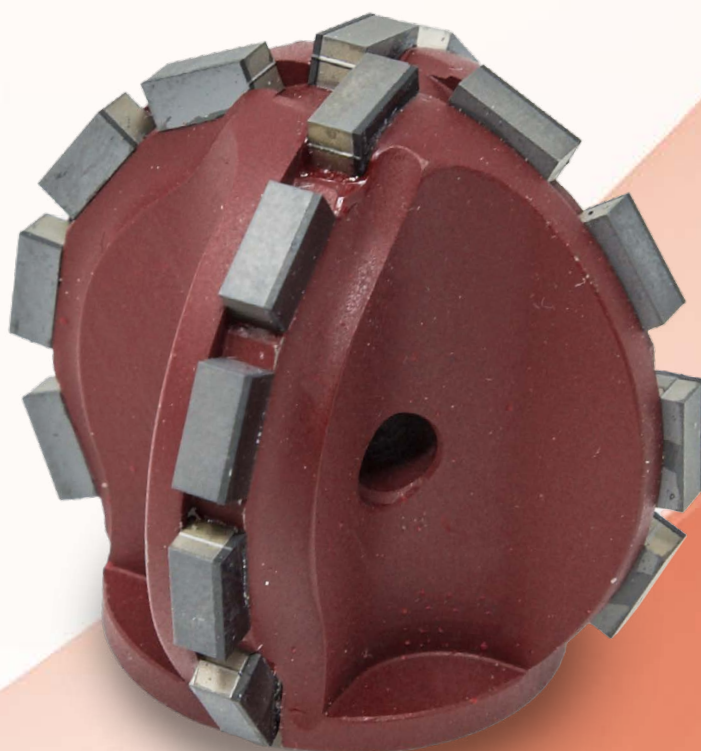
Brushes	Ø mm	Height mm	IMS-No.	Code-No.
Round brush	80	18	015 01 227	21 50 00 238
Mounting for round brush Ø80mm H18	30	42	015 01 220	21 50 00 242
Round brush	80	25	015 01 228	21 50 00 239
Mounting for round brush Ø80mm H25	30	49	015 01 221	21 50 00 243



Grinding wheel mounting IMS-ISS-Special thread to ø22,2

Ø mm	Useful length mm	IMS-No.	Code-No.
45	34	015 01 239	21 50 00 247

7



For your Sewer Rehab Robots:
IMS MICRO/DRIVE/MICRO S/MIDI 4 small motor/
DRIVEplus small motor

EN

THREAD

IMS MICRO/DRIVE/MICRO S/MIDI 4 small motor/DRIVEplus small motor

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**

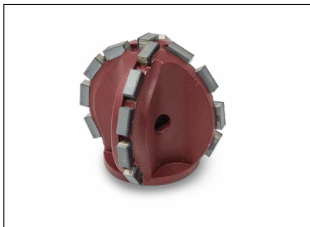


Diamond halfglobe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
40	29	12	015 01 126	21 49 40 174

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
42	40	18	015 01 134	21 49 40 126

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
50	50	30	015 01 613	21 49 40 228

* only for IMS DRIVE, DRIVEplus + MIDI 4

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
56*	43	22 - 4 wings	015 01 139	21 49 40 130

* only for IMS DRIVE, DRIVEplus + MIDI 4

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



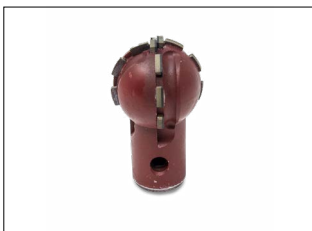
Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
56*	43	33 - 6 wings	015 01 142	21 49 40 131

* only for IMS DRIVE, DRIVEplus + MIDI 4

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

**Diamond globe milling tool - long shaft -**

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
30	50	14	015 01 162	21 49 40 147

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!**Diamond cone milling tool**

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
30/10	30	10	015 01 165	21 49 40 198

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!**Diamond double-cone milling tool- transparent -**

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
36	45	16	015 01 614	21 49 40 229

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!**Diamond inflow pipe milling tool**

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
50	44	28	015 01 131	21 49 40 122

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!**Diamond milling crown**

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
40	29	15	015 01 169	21 49 40 213

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!**Carbide halfglobe milling tool**

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	IMS-No.	Code-No.
40	29	1,2 - 1,8	015 01 128	21 45 00 158

**Carbide globe milling tool**

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	IMS-No.	Code-No.
30*	30	2,5 - 3	015 01 600	21 45 00 183
34*	35	2,5 - 3	015 01 604	21 45 00 182
45	45	2,5 - 3	015 01 605	21 45 00 181

* only to open small inlets DN50/75 or with an extension

THREAD

IMS MICRO/DRIVE/MICRO S/MIDI 4 small motor/DRIVEplus small motor

Milling tools suitable for **CIPP, PVC** and **ROOTS**



Carbide globe milling tool - long shaft -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	IMS-No.	Code-No.
31	50	1,2 - 1,8	015 01 163	21 45 00 168



Carbide cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	IMS-No.	Code-No.
23/7	35	1,2 - 1,8	015 01 150	21 45 00 165
23/7	40	1,2 - 1,8	015 01 148	21 45 00 164



Diamond halfglobe milling tool

Field of application: Preparatory milling of laterals, fine finishing of foil residuals (UV)liner

Ø mm	Height mm	Surface	IMS-No.	Code-No.
40	29	Dia-Gran.	015 01 129	21 49 70 046

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond halfglobe milling tool

Field of application: Preparatory milling of laterals, Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
40	29	9	015 01 127	21 49 70 090



Diamond globe milling tool

Field of application: Preparatory milling of laterals, Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
38	38	13	015 01 601	21 49 70 203
45	45	13	015 01 607	21 49 70 204
50*	44	19	015 01 602	21 49 70 202

* only for IMS DRIVEplus + MIDI 4



Diamond inflow pipe milling tool

Field of application: Preparatory milling of laterals, Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
40	43	12	015 01 144	21 49 70 097

ACCESSORIES



Diamond cutting disc + Connection for IMS MICRO/...

Ø mm	Height mm	Borehole / Connection	IMS-No.	Code-No.
50	2	6	015 01 167	21 28 27 112
28	32	IMS MICRO	015 01 166	21 50 00 074



Extensions

Ø mm	Height mm	Thread	IMS-No.	Code-No.
20	28	IMS MICRO	015 01 133	21 50 01 038



Corundum grindstone + Connection for IMS MICRO/...

Field of application: Grinding of metal and cast iron pipes, removal of intruding obstacles

Ø mm	Height mm	Borehole / Connection	IMS-No.	Code-No.
40	30	12	015 01 160	21 50 00 113
28	34	IMS MICRO	015 01 161	21 50 00 068



Cup Brushes + Connection for IMS MICRO/...

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Ø mm	Height mm	Borehole / Connection	IMS-No.	Code-No.
40	29	8	015 01 062	21 50 00 224
28	40	IMS MICRO	015 01 070	21 50 00 066



Disk Brushes + Connection for IMS MICRO/...

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Ø mm	Height mm	Borehole / Connection	IMS-No.	Code-No.
50	8	12	015 01 058	21 50 00 172
63	8	12	015 01 059	21 50 00 173
28	28	IMS MICRO (1 Brush)	015 01 067	21 50 00 170
28	33	IMS MICRO (2 Brushes)	015 01 068	21 50 00 171



Cylinder Brushes + Connection for IMS MICRO/...

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Ø mm	Height mm	Borehole / Connection	IMS-No.	Code-No.
40	25	10	015 01 060	21 50 00 230
28	53	IMS MICRO	015 01 069	21 50 00 169

8



Thread: M8 + Cone
For your Sewer Rehab Robots:
IMS MICRO (Former Version)

EN

THREAD M8 + Cone (IMS MICRO Former Version)

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**

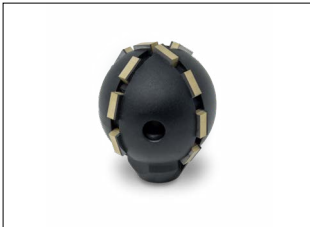


Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
30/10	35	10	015 01 118	21 49 40 027
30/10	50	10	015 01 114	21 49 40 104

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
36	41	14	015 01 103	21 49 40 095

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - long shaft -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
30	50	14	015 01 102	21 49 40 090

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
42	42	18	015 01 136	21 49 40 127

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cylinder milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
32	32	12	015 01 115	21 49 40 115

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

THREAD M8 + Cone (IMS MICRO Former Version)

Milling tools suitable for **CIPP, PVC** and **ROOTS**



Carbide granulate globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	IMS-No.	Code-No.
34	37	1,2 - 1,8	015 01 116	21 45 00 057
31	55	1,2 - 1,8	015 01 117	21 45 00 101



Diamond globe milling tool

Field of application: Preparatory milling of laterals, fine finishing of foil residuals (UV)liner

Ø mm	Height mm	Surface	IMS-No.	Code-No.
37	42	Dia-Korn	015 01 124	21 49 70 063

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond globe milling tool

Field of application: Preparatory milling of laterals, Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
36	38	8	015 01 101	21 49 70 057
34	58	8	015 01 125	21 49 70 047

ACCESSORIES



Corundum grindstone + Thread for IMS-MICRO (Former Version)

Field of application: Grinding of metal and cast iron pipes, removal of intruding obstacles

Ø mm	Height mm	Borehole / Thread	IMS-No.	Code-No.
40	30	12	015 01 160	21 50 00 113
22	36	MICRO F.v.	015 01 616	21 50 00 174

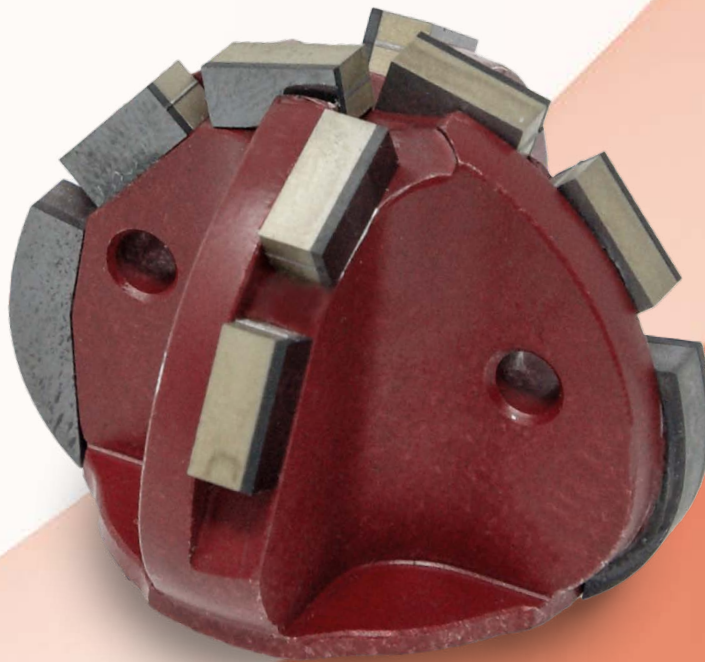


Cup Brushes + Thread for IMS-MICRO (Former Version)

Field of application: Post-processing of inliner openings, removal of residual film, Cleaning, roughening work, ...

Ø mm	Height mm	Borehole / Thread	IMS-No.	Code-No.
40	29	8	015 01 062	21 50 00 224
18,6	34	MICRO F.v.	015 01 617	21 50 00 055

9



For your Sewer Rehab Robots:
IMS NANO

EN

THREAD IMS NANO

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond halfglobe milling tool- short -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
35	35	10	015 01 132	21 49 40 176

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond halfglobe milling tool - long -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	IMS-No.	Code-No.
35	28	10	015 01 137	21 49 40 177

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide-halfglobe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	IMS-No.	Code-No.
36	26	0,8 - 1,2	015 01 152	21 45 00 161



Carbide granulate globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	IMS-No.	Code-No.
30	30	2,5 - 3	015 01 611	21 45 00 186
34	35	2,5 - 3	015 01 612	21 45 00 187

THREAD IMS NANO

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond halfglobe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	IMS-No.	Code-No.
34	37	5	015 01 138	21 49 70 093



Diamant-Kugelfräser - transparent -

Einsatzgebiet: Vorfräsen von Hausanschlüssen,
Entfernen von einragenden Stützen und Ablagerungen

Ø mm	Höhe mm	Segmente	IMS-Nr.	Art.-Nr.
38	37	13 - 6 flügelig	015 01 615	21 49 70 206

Accessories



Extensions

Ø mm	Height mm	Thread	IMS-No.	Code-No.
22	15	IMS NANO	015 01 153	21 50 01 035



Corund grindstone + Thread for IMS NANO

Field of application: Grinding of metal and cast iron pipes,
removal of intruding obstacles

Ø mm	Height mm	Borehole / Thread	IMS-No.	Code-No.
40	30	12	015 01 160	21 50 00 113
22	31	IMS NANO	015 01 168	21 50 00 148



Cup Brushes + Thread for IMS NANO

Field of application: Post-processing of inliner openings, removal of residual film,
Cleaning, roughening work, ...

Ø mm	Height mm	Borehole / Thread	IMS-No.	Code-No.
40	29	8	015 01 062	21 50 00 224
22	31	IMS NANO	015 01 634	21 50 00 147



Disk Brushes + Connection for IMS NANO

Field of application: Post-processing of inliner openings, removal of residual film,
Cleaning, roughening work, ...

Ø mm	Height mm	Boreh. / Connection	IMS-No.	Code-No.
40	8	12	015 01 186	21 50 00 249
20	25	IMS-NANO	015 01 183	21 50 00 250

10



Thread: 3/8" UNF

For your Sewer Rehab Robots:

RS-Cutter, Dancutter, I.S.T-Bull Eye, I.S.T PC Micro, SE-Cutter,
Bodus MRW-10/20, Hächler Climb 80, Streicher CL 80/70, ...

EN

THREAD 3/8" UNF

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
30/10	26	10	21 49 40 112

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
45/7	38	12	21 49 40 020

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond double-cone milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
36	40	16 - 4 wings	21 49 40 342

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
32	35	14	21 49 40 047
42	45	14	21 49 40 022
42	45	28 - double -	21 49 40 332

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
42	45	14 - 4 wings	21 49 40 340

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - with chip run-off grooves -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
30	30	14	21 49 40 191
40	41	18	21 49 40 068

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond globe milling tool - with chip run-off grooves -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
50	44	20	21 49 40 168
50	44	36 - double -	21 49 40 167

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
50	42	30 - 6 flüglig	21 49 40 346

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond combi-halfglobe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
55/30	40	18	21 49 40 193

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond plate milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
35	20	12	21 49 40 110

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cylinder milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
32	22	22	21 49 40 111

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	Code-No.
33	35	1,2-1,8	21 45 00 066
38	42	1,2-1,8	21 45 00 060

THREAD 3/8" UNF

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
36	37	8	21 49 70 062



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
48	47	21	21 49 70 055



Diamond halfglobe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
36	17	6	21 49 70 049
53	26	12	21 49 60 093
65	30	10	21 49 60 044



Diamond plate milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
44	22	10	21 49 60 039

ACCESSORIES 3/8" UNF



Extensions

Ø mm	Usable length mm	Code-No.
16	15	21 50 01 024
16	30	21 50 01 027



Corund grindstone

Field of application: Grinding of metal and cast iron pipes.
Removal of intruding obstacles.

Ø mm	Ø Borehole / Thread	Height mm	Code-No.
40	3/8UNF	40	21 50 00 125
40	12	30	21 50 00 113
80	3/8UNF	30	21 50 00 106
80	22,2	27	21 50 00 102



Multifunctional key for changing the screw connection (Corund grindstone Ø 80)

Total length mm	SW	Pins	Code-No.
160	24	2	21 50 00 111



Cup brush

Field of application: Post-processing of inliner openings, removal of residual film,
Cleaning, roughening work, ...

Ø mm	Ø Borehole / Thread	Height mm	Code-No.
40	3/8"UNF	40	21 50 00 336
40	8,0	29	21 50 00 224



Disc brushes + holder for thread 3/8" UNF

Field of application: Post-processing of inliner openings, removal of residual film,
Cleaning, roughening work, ...

Ø mm	Ø Borehole / Thread	Height mm	Code-No.
50	12	8	21 50 00 335
63	12	8	21 50 00 232
22	3/8"UNF (for 2 brushes)	34	21 50 00 126



Diamond cutting disc

Field of application: Cutting of inliners, GRP, PE, ...

Ø mm	Ø Borehole / Thread	Height mm	Code-No.
50	3/8"UNF	25	21 49 60 130
30	6,0	2	21 28 27 104
50	6,0	2	21 28 27 112
75	6,0	2	21 28 27 113

11



Thread: M12 x1,5

For your Sewer Rehab Robots:
IBAK Flexigator, ...

EN

THREAD M12x1,5



Milling tools suitable for **CIPP, PVC** and **ROOTS**



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
32	29	14	21 49 40 171

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	Code-No.
32	28	1,2-1,8	21 45 00 102

Milling tooling suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond globe milling tool

Field of application: Preparatory milling of laterals, removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
36	30	8	21 49 70 068

ACCESSORIES



Cup Brush

Field of application: Fine finishing of inline openings, removal of foils, cleaning

Ø mm	Borehole / Thread	Height mm	Code-No.
40	M12x1,5	48	21 50 00 337
40	8,0	29	21 50 00 224



Extensions

Ø mm	Usable length mm	Code-No.
19	30	21 50 01 033

12



Thread: 1/4"UNC

For your Sewer Rehab Robots:

Hächler Climbolino P / Streicher CL 50

EN

THREAD 1/4"UNC

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond globe milling tool - with chip run-off grooves -
Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
30	29	14	21 49 40 206

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - with chip run-off grooves -
Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
40	40	18	21 49 40 205

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -
Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
42	45	14 - 4 wings	21 49 40 348

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide globe milling tool
Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	Code-No.
33	36	1,2 - 1,8	21 45 00 170

THREAD 1/4"UNC

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
36	37	8	21 49 70 200

ACCESSORIES



Corundum grindstone

Field of application: Grinding of metal and cast iron pipes,
Removal of intruding obstacles

Ø mm	Borehole / Thread	Height mm	Code-No.
40	1/4UNC	40	21 50 00 127
40	12	30	21 50 00 113

13



Thread: M8

For your Sewer Rehab Robots:
Hächler Climbolino E, ...

THREAD M8

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
32	29	14	21 49 40 118

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
42	45	14 - 4 wings	21 49 40 349

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool - transparent -

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
50	42	30 - 6 wings	21 49 40 353

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
30/10	26	10	21 49 40 119

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond cylinder milling tool

Field of application: Opening of laterals and inlet lines. Remove deposits

Ø mm	Height mm	Segments	Code-No.
32	22	22	21 49 40 120

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines,
fine finishing of (UV) liner

Ø mm	Height mm	Surface	Code-No.
31	30	diamond-grit	21 49 70 066

THREAD M8

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond globe milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals and deposits

Ø mm	Height mm	Segments	Code-No.
36	37	8	21 49 70 064

ACCESSORIES:



Corundum grindstone

Field of application: Grinding of metal and cast iron pipes,
Removal of intruding obstacles

Ø mm	Borehole / Thread	Height mm	Code-No.
40	M8	40	21 50 00 128
40	12	30	21 50 00 113

14

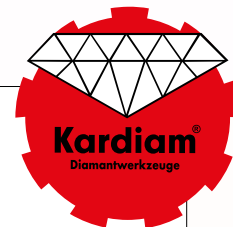


COSMIC

For your Sewer Rehab Robots:
C120 + C100

EN

COSMIC C120



Milling tools suitable for **CIPP, PVC** and **ROOTS**



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
73/20	65	36	21 49 40 078

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
72	57	36	21 49 40 159

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond cone milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals

Ø mm	Height mm	Segments	Code-No.
80/30	65	24	21 49 00 082

COSMIC C100

Milling tools suitable for **CIPP, PVC** and **ROOTS**



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code-No.
55/17	47	20	21 49 40 117

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!

Milling tools suitable for **CONCRETE, VITRIFIED CLAY** and **DEPOSITS**



Diamond cone milling tool

Field of application: Preparatory milling of laterals,
Removal of intruding laterals

Ø mm	Height mm	Segments	Code-No.
64/24	49	12	21 49 00 083

15



Pin Ø 1/4" – shank for collet

For your Sewer Rehab Robots:

KRE, Kangaroo, TryTek, Lateral Tap Cutter, ...

EN

Pin Ø 1/4 " – shank for collet

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code - No.
30/10	26 + Pin	10	21 49 40 067

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Diamond globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Segments	Code - No.
32	30 + Pin	14	21 49 40 066

Kardiam-BLACK-POWERLINE® Not for steel-reinforced concrete!



Carbide cone milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	Code - No.
30/10	25 + Pin	1,2 - 1,8	21 45 00 046

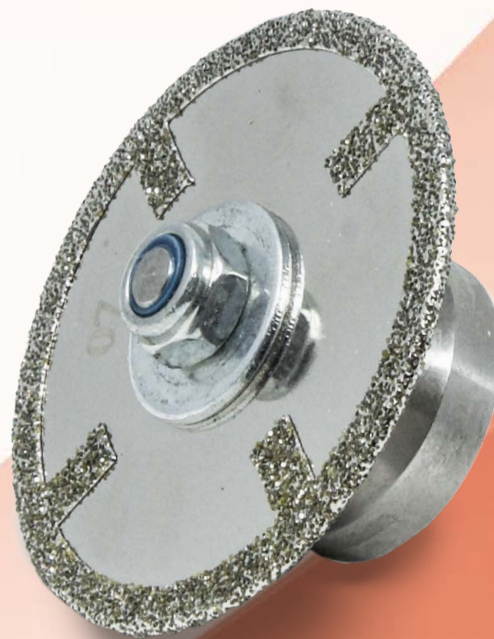


Carbide globe milling tool

Field of application: Opening of laterals and inlet lines

Ø mm	Height mm	Granulate	Code - No.
32	32 + Pin	1,2 - 1,8	21 45 00 045

20

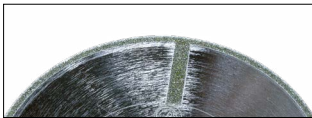


**Cutting disks
for the machining of inliners
and concrete (hand renovation):**

For your Sewer Rehab Robots,
Angle grinder or Straight grinder (hand renovation)

Cutting disks

Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cutting disk GALVANO

Field of application: Machining of inliners, GFK, PE, ...

Ø mm	Borehole	Height mm	Code-No.
30	6,0	2	21 28 27 104
50	6,0	2	21 28 27 112
75	6,0	2	21 28 27 113
75	10,0	2	21 28 27 129
75	16,0	2	21 28 27 116
100	12,0	2	21 28 27 107
100	16,0	2	21 28 27 109
100	22,2	2	21 28 27 108
115	22,2	2	21 28 27 110
125	22,2	2	21 28 27 111
150	22,2	2	21 28 27 120
180	22,2	2	21 28 27 115
230	22,2	2	28 28 27 114



Diamond cutting disk mit Gewindeaufnahme GALVANO

Field of application: Machining of inliners, GFK, PE, ...

Ø mm	Thread	Height mm	Code-No.
50	3/8"UNF	25	21 49 60 130
50	M14	42	21 49 60 033
50	5/8"UNC	42	21 49 60 131
50	IMS MICRO	32	21 49 60 129
115	M14	47	21 49 60 133
115	5/8"UNC	47	21 49 60 132

Cutting disks

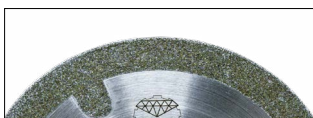
Milling tools suitable for **CIPP**, **PVC** and **ROOTS**



Diamond cutting disk GALVANO PREMIUM - wide edge -

Field of application: Machining of inliners, GFK, PE, ...

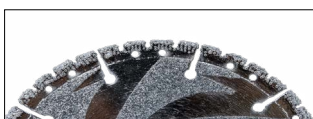
Ø mm	Borehole	Height mm	Code-No.
115	22,2	2	21 28 27 210
125	22,2	2	21 28 27 211



Diamond cutting disk VACUUM BRACED - rougher and more robust -

Field of application: Machining of inliners, GFK, PE, (Universal cutter)

Ø mm	Borehole	Height mm	Code-No.
115	22,2	2	21 28 28 110
125	22,2	2	21 28 28 111



Milling tools suitable for **CONCRETE**, **VITRIFIED CLAY**



Diamond cutting disk

Field of application: Machining of concrete, vitrified clay

Ø mm	Borehole	Height mm	Code-No.
115	22,2	2	21 28 15 005
230	22,2	2	21 28 15 013



21



Drill bits for the inliner treatment:
For the hand renovation
with your angle grinder or drilling machine

EN

Drill bits for the hand renovation

Milling tools suitable for **CIPP**, **PVC** and **plastic pipes**



Diamond drill bits GALVANO

Field of application: Opening of laterals and inlet lines

Ø mm	UL mm	Coating	Code-No.
111	43	Dia-GALVANO	21 49 60 148
140	43	Dia-GALVANO	21 49 60 147

Mounting mandrel 6-edged + Centerdrill

Ø mm	GL mm	Mounting	Code-No.
38	108	6-edged / Thread	21 97 00 119



Diamond drill bits VACUUM-BRACED

Field of application: Opening of laterals and inlet lines

Ø mm	NL mm	Thread	Coating	Code-No.
100	50	M14	Dia-VACUUM	21 97 00 306
120	45	M14	Dia-VACUUM	21 97 00 304
150	40	M16	Dia-VACUUM	21 97 00 305



Mounting mandrel + Centerdrill

Ø mm	GL mm	Mounting	Code-No.
21	182	6-edged / M14	21 97 00 121
21	182	6-edged / M16	21 97 00 122



Carbide Milling - drill bit - carbide granulate-

Field of application: Opening of laterals and inlet lines

Ø mm	Heigh mm	Thread	Grain size	Code-No.
52	92	M14	1,2-1,8	21 45 01 033

22



Corundum grinding pots for metal and cast iron pipe machining:

For your Sewer Rehab Robots or
angle grinder (hand renovation):

For your Sewer Rehab Robots or angle grinder (hand renovation):

Tools for **metal** and **cast iron pipe** machining



Corundum grinding pots

Field of application: for metal and cast iron pipe machining
Removing of intruding obstacles

Ø mm	Borehole/Thread	Height mm	Code-No.
40	Ø 12	30	21 50 00 113
40	3/8"UNF	40	21 50 00 125
40	M8	40	21 50 00 128
40	M14	55	21 50 00 110
40	5/8"UNC	55	21 50 00 124
40	1/4"UNC	40	21 50 00 127
40	IMS NANO	40	21 50 00 177
40	IMS MICRO	40	21 50 00 176
40	IMS MICRO-OLD	40	21 50 00 178
80	Ø 22,2	27	21 50 00 102
80	3/8"UNF	30	21 50 00 106
80	M14	30	21 50 00 103
80	5/8"UNC	30	21 50 00 107
80	IMS-ISS	30	21 50 00 133
90/110	Ø 22,2	55	21 50 00 101
90/110	M14	58	21 50 00 105
90/110	5/8"UNC	58	21 50 00 105
90/110	IMS-ISS	58	21 50 00 134



Multifunction key for changing the screw connection; (Grinding pot Ø 80 + Ø 90/110):

Total length mm	SW	Pins	Code-No.
160	24	2	21 50 00 111

Allgemeine Geschäftsbedingungen (AGB) der Kardiam Diamantwerkzeuge GmbH, Fassung 01.04.2019



§ 1 Geltung der Bedingungen

1) Die Lieferungen, Leistungen und Angebote des Verkäufers erfolgen ausschließlich aufgrund dieser Geschäftsbedingungen. Diese gelten somit auch für alle künftigen Geschäftsbeziehungen, auch wenn sie nicht nochmals ausdrücklich vereinbart werden. Spätestens mit der Entgegennahme der Ware oder Leistung gelten diese Bedingungen als angenommen. Gegenbestätigungen des Käufers unter Hinweis auf seine Geschäfts- bzw. Einkaufsbedingungen wird hiermit widersprochen.

2) Abweichungen von diesen Geschäftsbedingungen sind nur wirksam, wenn der Verkäufer sie schriftlich bestätigt.

§ 2 Angebot und Vertragsschluss

1) Die Angebote des Verkäufers sind freibleibend und unverbindlich. Annahmeerklärungen und sämtliche Bestellungen bedürfen zur Rechtswirksamkeit der schriftlichen oder fernschriftlichen Bestätigung des Verkäufers. Das gleiche gilt für Ergänzungen, Abänderungen oder Nebenabreden.

2) Zeichnungen, Abbildungen, Maße, Gewichte oder sonstige Leistungsdaten sind nur verbindlich, wenn dies ausdrücklich schriftlich vereinbart wird.

§ 3 Preise

Soweit nicht anders angegeben, hält sich der Verkäufer an die in seinen Angeboten enthaltenen Preise 30 Tage ab deren Datum gebunden. Maßgebend sind die in der Auftragsbestätigung des Verkäufers genannten Preise zzgl. der jeweiligen gesetzlichen Umsatzsteuer. Zusätzliche Lieferungen und Leistungen werden gesondert berechnet.

2) Die Preise verstehen sich, falls nicht anders vereinbart, ab Werk frei. Die Verpackung wird zu Selbstkosten berechnet und nicht zurückgenommen.

§ 4 Liefer- und Leistungszeit

1) Die vom Verkäufer genannten Termine und Fristen sind unverbindlich, sofern nicht ausdrücklich schriftlich etwas anderes vereinbart wurde.

2) Liefer- und Leistungsverzögerungen aufgrund höherer Gewalt und aufgrund von Ereignissen, die dem Verkäufer die Lieferung wesentlich erschweren oder unmöglich machen - hierzu gehören auch nachträglich eingetretene Materialbeschaffungsschwierigkeiten, Betriebsstörungen, Streik, Aussperrung, Personalmangel, Mangel an Transportmitteln, behördliche Anordnungen usw., auch wenn sie bei Lieferanten des Verkäufers oder deren Unterprioritäten eintreten -, hat der Verkäufer auch bei verbindlich vereinbarten Fristen und Terminen nicht zu vertreten. Sie berechtigen den Verkäufer, die Lieferung bzw. Leistung um die Dauer der Behinderung zzgl. einer angemessenen Anlaufzeit hinauszuschieben oder wegen des noch nicht erfüllten Teils ganz oder teilweise vom Vertrag zurückzutreten.

3) Wenn die Behinderung länger als 3 Monate dauert, ist der Käufer nach angemessener Nachfristenregelung berechtigt, hinsichtlich des noch nicht erfüllten Teils vom Vertrag zurückzutreten.

4) Sofern der Verkäufer die Nichteinhaltung verbindlich zugesagter Fristen und Termine zu vertreten hat oder sich in Verzug befindet, hat der Käufer Anspruch auf eine Verzugsentschädigung in Höhe von 1/2 % für jede vollendete Woche des Verzuges, insgesamt jedoch höchstens bis zu 5 % des Rechnungswertes der vom Verzug betroffenen Lieferungen und Leistungen. Darüber hinausgehende Ansprüche, insbesondere Schadensersatzansprüche jedweder Art sind ausgeschlossen.

5) Der Verkäufer ist zu Teillieferungen und Teilleistungen jederzeit berechtigt.

§ 5 Gefahrübergang

Die Gefahr geht auf den Käufer über, sobald die Sendung an die den Transport ausführende Person übergeben worden ist oder zwecks Versendung das Lager des Verkäufers verlassen hat. Falls der Versand ohne Verschulden des Verkäufers unmöglich wird, geht die Gefahr mit der Meldung der Versandbereitschaft auf den Käufer über.

§ 6 Gewährleistung

1) Der Verkäufer haftet für nachweisbar durch ihn verschuldete Mängel nur mit Ersatzlieferung oder Reparatur nach eigener Wahl im Rahmen der gesetzlichen Bestimmungen.

2) Die Ausbesserung erfolgt grundsätzlich im Lieferwerk. Bei Reparaturarbeiten beim Besteller trägt dieser die hierdurch entstehenden Mehrkosten des Monteurs und etwaiger Hilfskräfte. Garantierarbeiten in Werkstätten dritter Personen bedürfen der vorherigen Genehmigung durch den Verkäufer.

3) Die Gewährleistung erlischt, wenn der Käufer selbst oder dritte Personen Eingriffe an dem Kaufgegenstand vornehmen.

Bei Anlass zur Beanstandung eines Diamant-Werkzeuges ist dieses sofort aus der Maschine zu nehmen. Zur Wahrung der Interessen des Käufers und um eine sachgerechte Prüfung durchführen zu können, ist eine Segmenthöhe von mind. 50 % erforderlich. Für den Fall der Nichtbeachtung dieser Punkte gelten Ersatzansprüche als ausgeschlossen.

§ 7 Eigentumsvorbehalt

1) Bis zur Erfüllung aller (auch Saldo-) Forderungen, die dem Verkäufer und seinen Konzernunternehmen aus jedem Rechtsgrund gegen den Käufer und sein Konzernunternehmen jetzt oder künftig zustehen, werden dem Verkäufer die folgenden Sicherheiten gewährt, die er auf Verlangen nach seiner Wahl freigegeben wird, soweit ihr Wert die Forderungen nachhaltig um mehr als 20 % übersteigt

2) Die Ware bleibt Eigentum des Verkäufers. Verarbeitung oder Umbildung erfolgen stets für den Verkäufer als Hersteller, jedoch ohne Verpflichtung für ihn. Erlischt das (Mit-) Eigentum des Verkäufers durch Verbindung, so wird bereits jetzt vereinbart, daß das (Mit-) Eigentum des Käufers an der einheitlichen Sache wertanteilmäßig (Rechnungswert) auf den Verkäufer übergeht. Der Käufer verwahrt das (Mit-) Eigentum des Verkäufers unentgeltlich. Ware, an der dem Verkäufer (Mit-) Eigentum zusteht, wird im folgenden als Vorbehaltsware bezeichnet.

3) Der Käufer ist berechtigt, die Vorbehaltsware im ordnungsgemäßen Geschäftsverkehr zu verarbeiten und zu veräußern, solange er nicht in Verzug ist. Verpfändungen oder Sicherungsübereignungen sind unzulässig. Die aus dem Weiterkauf oder einem sonstigen Rechtsgrund (Versicherung, unerlaubte Handlung) bezüglich der Vorbehaltsware entstehenden Forderungen tritt der Käufer bereits jetzt sicherungshalber in vollem Umfang an den Verkäufer ab. Der Verkäufer ermächtigt ihn widerruflich, die an den Verkäufer abgetretenen Forderungen für dessen Rechnung im eigenen Namen einzuziehen. Auf Aufforderung des Verkäufers hin wird der Käufer die Abtretung offen legen und jenem die erforderlichen Auskünfte und Unterlagen geben.

4) Bei Zugriffen Dritter auf die Vorbehaltsware wird der Käufer auf das Eigentum des Verkäufers hinweisen und diesen unverzüglich benachrichtigen. Kosten und Schäden trägt der Käufer.

5) Bei vertragswidrigem Verhalten des Käufers - insbesondere Zahlungsverzug - ist der Verkäufer berechtigt, die Vorbehaltsware auf Kosten des Käufers zurückzunehmen oder ggf. Abtretung der Herausgabeansprüche des Käufers gegen Dritte zu verlangen. In der Zurücknahme sowie in der Pfändung der Vorbehaltsware durch den Verkäufer liegt - soweit nicht das Abzahlungsgesetz Anwendung findet - kein Rücktritt vom Verträge.

§ 8 Zahlung

1) Soweit nicht anders vereinbart, sind die Rechnungen des Verkäufers 30 Tage nach Rechnungsstellung ohne Abzug zahlbar - oder nach Wahl des Kunden innerhalb 10 Tagen ab Rechnungsdatum mit 2 % Skonto vom Rechnungsbetrag.

Der Verkäufer ist berechtigt, trotz anders lautender Bestimmungen des Käufers Zahlungen zunächst auf dessen ältere Schulden anzurechnen. Sind bereits Kosten und Zinsen entstanden, so ist der Verkäufer berechtigt, die Zahlung zunächst auf die Kosten, dann auf die Zinsen und zuletzt auf die Hauptleistung anzurechnen.

2) Eine Zahlung gilt erst dann als erfolgt, wenn der Verkäufer über den Betrag verfügen kann. Im Falle von Schecks gilt die Zahlung erst als erfolgt, wenn der Scheck eingelöst wird.

3) Für den Fall der Überschreitung des Zahlungszieles werden Fälligkeitszinsen in Höhe des von den Geschäftsbanken berechneten Zinssatzes für offene Kontokorrentkredite, mindestens jedoch in Höhe von 5 % über dem jeweiligen Diskontsatz der Deutschen Bundesbank berechnet. Die genannte Zinshöhe gilt auch für den Fall des Verzuges als vertraglich vereinbarter Mindestschaden.

4) Wenn der Käufer seinen Zahlungsverpflichtungen nicht nachkommt, insbesondere einen Scheck nicht einlöst oder seine Zahlungen einstellt, oder wenn dem Verkäufer andere Umstände bekannt werden, die die Kreditwürdigkeit des Käufers in Frage stellen, so ist der Verkäufer berechtigt, die gesamte Restschuld fällig zu stellen, auch wenn er Schecks angenommen hat. Der Verkäufer ist in diesem Fall außerdem berechtigt, Vorauszahlungen oder Sicherheitsleistungen zu verlangen.

5) Der Käufer ist zur Aufrechnung, Zurückbehaltung oder Minderung, auch wenn Mängelrügen oder Gegenansprüche geltend gemacht werden, nur berechtigt, wenn der Verkäufer ausdrücklich schriftlich zugestimmt hat oder wenn die Gegenansprüche rechtskräftig festgestellt worden sind.

6) Der Käufer erklärt sich mit der Verrechnung seiner Forderungen und Verbindlichkeiten gegenüber dem Verkäufer und dessen Konzernunternehmen einverstanden. In gleicher Weise können auch Forderungen und Verbindlichkeiten der Konzernunternehmen des Käufers verrechnet werden.

§ 9 Haftungsbeschränkung

Schadensersatzansprüche aus Unmöglichkeit der Leistung, aus positiver Forderungsverletzung, aus Verschulden bei Vertragsschluss und aus unerlaubter Handlung sind sowohl gegen den Verkäufer als auch gegen dessen Erfüllungs- bzw. Verrichtungshilfen ausgeschlossen, soweit nicht vorsätzliches oder grob fahrlässiges Handeln vorliegt.

§ 10 Anwendbares Recht, Gerichtsstand, Teilnichtigkeit

1) Für diese Geschäftsbedingungen und die gesamten Rechtsbeziehungen zwischen Verkäufer und Käufer gilt das Recht der Bundesrepublik Deutschland.

2) Soweit gesetzlich zulässig ist Ravensburg ausschließlicher Gerichtsstand für alle sich aus dem Vertragsverhältnis unmittelbar oder mittelbar ergebenden Streitigkeiten.

3) Sollte eine Bestimmung in diesen Geschäftsbedingungen oder eine Bestimmung im Rahmen sonstiger Vereinbarungen unwirksam sein oder werden, so wird hiervon die Wirksamkeit aller sonstigen Bestimmungen oder Vereinbarungen nicht berührt.



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