



MOTOR FEIN
MADE IN 
GERMANY

CPC PIPE CUTTING MACHINES

Economic machining of pipes
with high cutting performance


(PIPE TOOLS)

The CPC pipe cutting machines – economic machining of pipes with high cutting performance

In the field of pipe cutting technology, CPC pipe cutting machines are a household name worldwide. Their field of application ranges from cutting to length before laying to cutting pipes that have already been laid. CPC pipe cutting machines impress with their robust quality and high cost-effectiveness. They are ideal for the machining of cast iron pipes or Steel pipes suitable for oil, gas and water pipelines used, for example, in pipelines, public supply networks, power stations and process engineering plants as well as in tank construction. Optimised technology ensures high cutting performance.

Proven technology for perfect results

Especially under difficult conditions, such as pipe bursts, the system shows its operational capability. Thus, the adaptation to different pipe materials results in ideal cutting and feed speeds through the selection of the right gear graduation. This enables the economical use of HSS and carbide tools.



Advantages at a glance:

- Perfectly suited for use under extreme conditions thanks to robust machine design, powerful motors and high-quality materials.
- Use of the electric pipe cutting machines also possible at very low minus temperatures.
- Electric pipe cutting machines with supply and return (return only in load-free operation).
- Flexible use suitable for pipes from 250 mm to 3.000 mm.
- Shape and parting cuts with shape cutter or saw blade.
- Precise tracking and exact cutting due to two-chain system, adjustable track setting and double chain tension.
- Crack-free pipe ends as the basis for perfect welding results. Reason: a perfect cutting and sawing result due to high removal rate, high tool quality and no cutting misalignment.
- Easy assembly due to optimised handling.
- Available in two gearbox variants: Different feed and speed levels guarantee a cutting speed suitable for different materials (recommendation: steel pipe – slow cutting speed, cast iron pipe – fast cutting speed).
- Spot work and safe work thanks to feed that can be switched off and on (CPC 1 500 pipe cutting machines).
- Shutdown of the machine by slip clutch and thus protection of the machine in case of overload of the gearbox.



Machine overview



Electric pipe cutting machines:

Protection class I. Protection class IP X4.
In conjunction with the switch gear combination:

- Safety due to self-start lock.
- Overload protection for the three-phase motor.
Manufactured and tested according to EN 62841.

EXECUTION CPC EL:

- Particularly suitable for cuts on oil and gas pipes without transport material.
- Explosion-proof and moisture-proof three-phase motor with explosion-proof additional switch.

Compressed air pipe cutting machines:

EXECUTION CPC PN:

- Protection for work on water, oil and gas pipes without transport material by means of compressed air drive.
- Suitable for use in drinking water areas.
- Motor drive parts in stainless steel design.
- The vanes of the air motor are swell-proof.
- Even short-term dry running is possible

CPC 1500 / CPC 1800

The solution for setting up and maintaining pipe systems for precise sawing and cutting results.

ADVANTAGES

- Robust machine design, powerful motors and high-quality materials. Perfectly suited for use in extreme conditions.
- Precise offset-free cuts thanks to optionally available guide chains.



Safe use: The feed motion can be switched on and off and the integrated safety slip clutch protects the feed gear from overload.

Low weight: Two people can transport the machine and set it up on site.

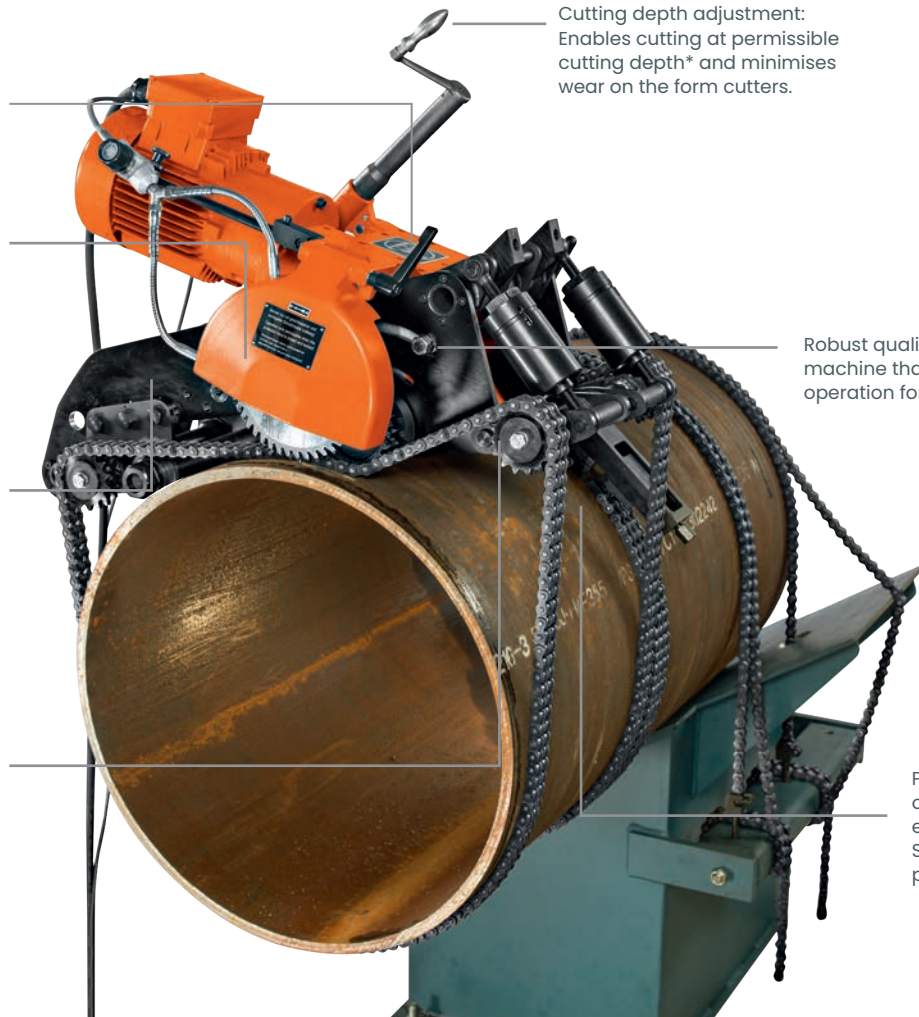
Space-saving: The shorter side plates require little working space when the cutting tool is fully retracted

Reliable guidance: The two-chain system with separate spring tensioning heads enables tension-free cuts from 250 mm to 1.500 mm pipe diameter.

Cutting depth adjustment: Enables cutting at permissible cutting depth* and minimises wear on the form cutters.

Robust quality: A reliable machine that will be in operation for decades.

Precise guide aid: An optional guide chain ensures straight cuts. Starting point = end point.



CPCEL 1500A

Powerful explosion-proof electric pipe cutting machine with a feed rate of 40 mm/min for pipes up to ø 1.500 mm.



ADVANTAGES

- Sawing of oil, gas and water pipes made of steel and grey cast iron up to 45 mm wall thickness.
- Cutting of oil, gas and water pipes made of steel and grey cast iron up to 30 mm wall thickness (with 2x circulation).
- Explosion-proof and moisture-proof three-phase motor, with explosion-proof additional switch.

Voltage V	400
Power output W	1.500
Frequency Hz	50
Idle speed motor 1/min	2.860
Idle speed tool 1/min	35
Feed mm/min	40
Protection class	I
Protection type	IP X4
Cable with plug m	40
Weight kg	80
Order No.	091506755

SCOPE OF DELIVERY

1 transport container, 4 handles, 1 chain tensioner, 1 metal tool case, 5 spalt wedges, non-sparking, 40 bolts, 80 retaining rings, 10 pieces of chain (length 31.75 mm), 1 set of keys, 1 switchgear with motor protection switch, 1 CEE coupling, 2 transport straps, 3 spacers chain

DELIVERING WITHOUT CHAIN

CPC PN 1500 A

Powerful pneumatic pipe cutting machine with a feed rate of 40 mm/min for pipes up to ø 1 500 mm.



ADVANTAGES

- Cutting of oil, gas and water pipes made of steel and grey cast iron up to 45 mm wall thickness.
- Cutting of oil, gas and water pipes made of steel and grey cast iron up to 30 mm wall thickness (with 2x circulation).
- Motor drive parts in stainless steel design. The blades of the air motor are swell-proof.

Operating pressure bar	6
Air consumption m³/min	4,3
Power output W	2.000
Idling speed motor 1/min	6.000
Idle speed Tool 1/min	35
Feed rate mm/min	40
Weight kg	68
Order No.	091506756

SCOPE OF DELIVERY

1 transport container, 4 handles, 1 chain tensioner, 1 metal tool case, 1 crank handle, 10 splitting wedges, 20 bolts, 40 retaining rings, 10 chain pieces (length 31.75 mm), 1 set of keys, 1 can of oil, 1 maintenance unit with hose, 2 trans- port straps, 4 spacers chain

DELIVERING WITHOUT CHAIN

CPL EL 3000 A

Powerful explosion-proof electric pipe cutting machine with a feed rate of 40 mm/min for pipes up to ø 3.000 mm.



ADVANTAGES

- Cutting of oil, gas and water pipes made of steel and grey cast iron up to 45 mm wall thickness.
- Cutting of oil, gas and water pipes made of steel and grey cast iron up to 30 mm wall thickness (with 2x circulation).
- Explosion-proof and moisture-proof three-phase motor, with explosion-proof additional switch.

CPL PN 3000 A

Powerful pneumatic pipe milling machine with a feed rate of 40 mm/min for pipes up to ø 3.000 mm.



ADVANTAGES

- Sawing of oil, gas and water pipes made of steel and grey cast iron up to 45 mm wall thickness.
- Cutting of oil, gas and water pipes made of steel and grey cast iron up to 30 mm wall thickness (with 2x circulation).
- Motor drive parts in stainless steel design. The blades of the air motor are swell-proof.

Voltage V	400
Power output W	1.500
Frequency Hz	50
Idle speed motor 1/min	2.860
Idle speed tool 1/min	35
Feed mm/min	40
Protection class	I
Protection type	IP X4
Cable with plug m	40
Weight kg	80
Order No.	091506757

SCOPE OF DELIVERY

1 transport container, 1 metal tool case, 1 crank handle, 4 handles, 5 splitting tools wedges, non-sparking, 20 bolts, 20 circlips, 10 pieces of chain (length 31.75 mm), 1 set of keys, 1 switchgear with motor protection switch, 1 CEE coupling, 2 transport straps, plate 32433027017 mounted

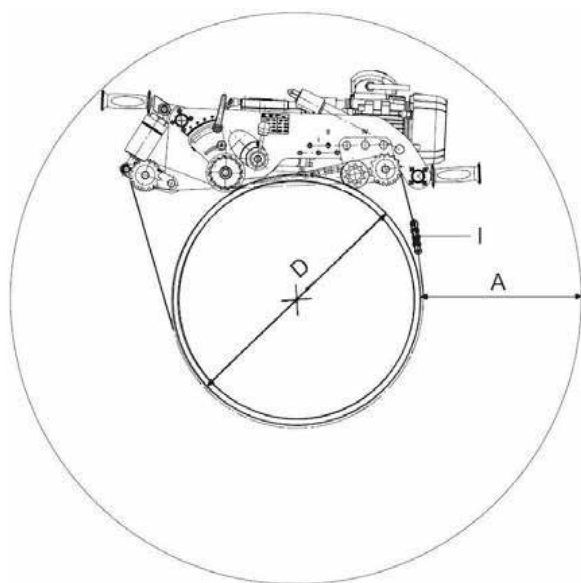
Operating pressure bar	6
Air consumption m³/min	4,3
Power output W	2.000
Idling speed motor 1/min	6.000
Idle speed Tool 1/min	35
Feed rate mm/min	40
Weight kg	89
Order No.	091506758

SCOPE OF DELIVERY

1 transport container, 1 metal tool case, 1 hand crank, 10 splitting wedges, 20 bolts, 20 circlips, 10 pieces of chain (length 31.75 mm), 1 set of keys, 1 can of oil, 1 maintenance unit with hose, 2 transport belts, plate 32433027017 mounted



Drive chains for clamping the CPC 1500 pipe milling machines.



"D "

"A"

"i "

Outer diameter of the pipe

Required working space at maximum cutting depth

Number of chain pieces for pipe diameter "D"

POSITION OF THE RUNNING AXLE1	D [MM]	A [MM]	REQUIRED CHAIN LENGTH PER PAGE [MM]	TOTAL-CHAIN LENGTH [MM]	NUMBER OF CHAIN PIECES
I	250	400	1.427	2.854	5
	300	392	1.525	3.050	5
	350	384	1.632	3.264	6
	400	378	1.744	3.488	6
II	400	381	1.800	3.600	6
	450	375	1.898	3.796	7
	500	369	2.020	4.040	7
	550	364	2.147	4.294	7
	600	360	2.278	4.556	8
III	600	362	2.319	4.638	8
	650	357	2.449	4.898	8
	700	352	2.582	5.164	9
	750	348	2.718	5.436	9
	800	344	2.856	5.712	10
	850	340	2.996	5.992	10
	900	337	3.138	6.276	10
	950	333	3.283	6.566	11
IV	900	348	3.148	6.296	10
	950	345	3.291	6.582	11
	1.000	342	3.436	6.872	11
	1.050	340	3.581	7.162	12
	1.100	337	3.728	7.456	12
	1.150	335	3.875	7.750	13
	1.200	333	4.023	8.046	13
	1.300	331	4.321	8.642	14
	1.400	329	4.622	9.244	15
	1.500	328	4.924	9.848	16

Example:

With a pipe diameter of
D = 400 mm 6 pieces of chain
(order number 091506762) needed.

¹Remove the fitting screws and remount the running axle to the current pipe outside diameter according to the information in the table.

Guide chains for track guidance CPC

PIPE- THROUGH H- KNIFE	CHAIN LENGTH	A	B	C
		NUMBER OF		
		CHAIN PIECES 635 MM	CHAIN PIECES 63.5 MM	CHAIN PIECES 31.7 MM
250	710	1	1	1
300	870	1	4	0
350	1.030	1	6	1
400	1.190	1	8	1
450	1.344	2	1	1
500	1.500	2	4	0
550	1.660	2	6	1
600	1.809	2	8	1
650	1.970	3	1	1
700	2.130	3	4	0
750	2.290	3	6	1
800	2.440	3	8	1
850	2.600	4	1	1
900	2.760	4	4	0
950	2.921	4	6	0
1.000	3.079	4	8	1
1.100	3.397	5	3	1
1.200	3.714	5	8	1
1.300	4.032	6	3	1
1.400	4.330	6	8	1
1.500	4.640	7	3	1



Example calculation of the guide chain :

With a pipe diameter of D = 400 mm, the

A = 1 piece of chain 635 mm,

B = 8 chain pieces 63.5 mm and

C = 1 chain piece 31.7 mm is required.

Order numbers:

A (635 mm) = 091506759

B (63,5 mm) = 091506760

C (31,7 mm) = 091506761

Mature and effective. Compressed air cooling lubrication.

The high cutting and feed rates of pipe cutting machines place the highest demands on lubrication and cooling - particularly in tools for machining steel.

All pipe milling machines are equipped with the proven pressure air cooling lubrication. It extends the life of the tool and ensures above-average lubrication.

long service life. The functional principle of the pressure air-cooling lubrication: The coolant tank is lubricated by

The compressed air that is constantly supplied is pressurised so that the air and coolant can be sprayed through two adjustable nozzles.

The mist droplets evaporate immediately and thus remove the heat from the tool. Lubrication is provided by the greasy components of the coolant, which stick to the cutting edges of the tool. Thanks to the low spray consumption, contamination of the soil is avoided.

COMPRESSED AIR COOLING LUBRICATION SYSTEM

For extending the life of the cutting tools.



ADVANTAGES

- The coolant tank is pressurised by a constant supply of compressed air so that air and coolant are sprayed through two adjustable nozzles onto the tool cutting edges.
- Lubrication is provided by the greasy components of the coolant, which adhere to the tool cutting edges.
- Thanks to the low spray consumption, contamination of the soil is avoided.

COMPRESSOR

For the operation of the cooling lubrication device. Required for the operation of the three-phase variable RSG/RSG Ex.



ADVANTAGES

- Protection class I.
- Protection class IP 42.

	COOLING LUBRICATION DEVICE
Container volume l	1,8
Tank internal pressure max. bar	7
Feed compressor pressure max. bar	10
Opening pressure safety valve bar	7
Operating pressure bar	0,5 - 7
Air consumption m³/min	0,02 - 0,05
Sprayconsumption l/h	0,3
Weight kg	8,5
Order number	091506775

	COMPRESSOR
Voltage V	230
Rated input W	520
Operating pressure bar	3,8
Air flow l/min	132
Cable with plug m	2,8
Weight kg	18,3
Order number	On Request

ACCESSORIES FOR THE PIPE CUTTER



CIRCULAR SAW BLADES, SHAPE 1

HSS, for gear type:
a, b - for machining steel pipes.

Width [mm]	Ø [mm]	Number of Teeth	max. Cutting depth [mm] ²	Order number
4	160	50	25	091506763
4	180	60	35	091506764
4	200	64	45	091506765
5	220	70	55	091506766



CIRCULAR SAW BLADES, SHAPE 3

HSS, with carbide teeth, for gear type:
b - for machining cast iron pipes (also with cement chuck) and for machining unalloyed steel pipes up to 400 N/mm².

Width [mm]	Ø [mm]	Number of teeth	max. cutting depth [mm] ²	Order number
4	160	40	25	091506767
4	180	44	35	091506768
4	200	50	45	091506769



SHAPING CUTTER, V-SHAPE 30°

HSS, for gear type:
a - for machining steel pipes, high-alloy.
b - for machining unalloyed steel and cast iron pipes.

Width [mm]	Ø [mm]	Number of teeth	max. cutting depth [mm] ²	Order number
25	125	32	25	091506770
30	160	36	25	091506771
42	180	36	25	091506772

Special cutters available on request.



SHAPING CUTTER, V-SHAPE 37.5°

HSS, for gear type:
a - for machining steel pipes, high-alloy.
b - for machining unalloyed steel and cast iron pipes.

Width [mm]	Ø [mm]	Number of teeth	max. cutting depth [mm] ²	Order number
30	160	36	25	091506773
42	180	36	25	091506774



SHAPE CUTTER, U-SHAPE

HSS, for gear type:
a - for machining steel pipes, high-alloy.
b - for machining unalloyed steel and cast iron pipes.

Width [mm]	Ø [mm]	Number of teeth	max. cutting depth [mm] ²	Order number
25	160	40	25	On Request

LUBRICANTS BIOCUT 3000

For temperatures down to 0°C

Content l	Order number
1	On Request
5	On Request

LUBRICANT COLD RESISTANT

For temperatures down to -25°C

Content l	Order number
1	On Request
5	On Request

COUPLING SLEEVE

For connecting the compressed air cooling lubrication device to the maintenance unit.

Order number
On Request

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