



MULTICUT

Quality + Competence since 1959



„We solve your cutting tasks!“

**Cutting Systems, Caterpillars,
take-off systems /
discharge conveyors**

for pipes, hoses, profiles, strips in
the plastic and rubber extrusion

quick | precise | clean | flexible

Version: 06-2022

CUTTING

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ROTARY CUTTER

The rotary cutter is used in the plastics and rubber industry for cutting profiles, hoses and stranded profiles used in the extrusion. Other applications like food sector etc. are possible.

The product is carried out by two quickly exchangeable cutting bushes, each equipped with a monitoring sensor.

The speed in continuous cutting operation depends on the selected product length, line speed and cutting speed of the cutting blade.

A Lenze control ensures perfect length precision. All process parameters can be entered by means of a swiveling panel.

The rotary cutter can be delivered movable. This way it can be used quickly and without larger setup effort in the production line. Depending on the profile cut and the hardness of the material different cutting blades are used.

Further technical data and options can be found in the table "Technical Data of the Rotary Cutter".



ADVANTAGES

- ✓ Newly developed double electronic cam disc
- ✓ Highly precise length tolerance: 1% (depending on material)
- ✓ Quick change of cutting bushes
- ✓ Flexible to use: inline and offline
- ✓ servo drive
- ✓ Lenze PLC by frequency converter
- ✓ Rectangular clean cut
- ✓ Swiveling panel
- ✓ Standard for dry and wet cutting

FEATURES

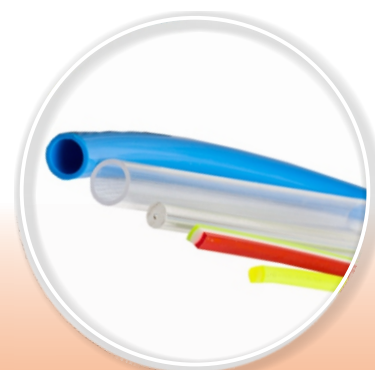
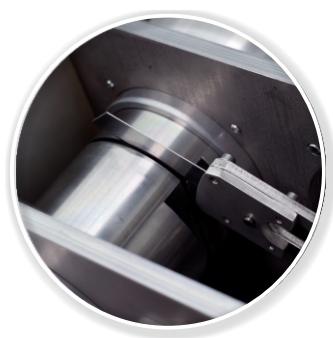
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ROTARY CUTTER

Model:	MC-40 NG	MC-80 NG	MC-100 NG
Product diameter:	max. Ø 39 mm	max. Ø 79 mm	max. Ø 99 mm
Transport speed:	max. 100 m/min.		
Cutting frequency with 1 blade:	max. 3300 cuts/min.*		
Cutting performance with one blade, cycle controlled with double electronic cam:	max. 1450 cuts/min.*		
Drive power:	Servo motor 3.3 kW		
Connected load:	400 V, 50 Hz, 3 phases		
Control:	Lenze PLC control via frequency converter		
Operation:	swiveling operator panel		
Line height:	1100 mm ±50 mm		
Dimensions:	Length: 700 mm Depth: 600 mm Height: 1350 mm		Length: 700 mm Depth: 850 mm Height: 1400 mm
Weight:	approx. 180 kg		approx. 300 kg
Options:	User management		
	Recipe management		
	Can be integrated in line control / inline or offline		
	Wet cut in stainless steel, spray or drop lubrication can be dosed		
	FDA conform		

**depending on material*

Technical alterations reserved. Special machines are available on request.



TECHNICAL DATA

CLAMP CUTTING BUSHES

If high demands are placed on a right-angled cut, the solution is called clamp cutting bushes!

The newly developed, segmented clamp cutting bushes enable the cutting material to be clamped inline and held for a brief moment without any loss of speed. This means that the material stands still in the pair of cutting bushes for a fraction of a second. As a result, the tolerances are significantly smaller and the cutting pattern is optimized.

The specially developed high-speed process, which is characterized by especially high quality and cutting accuracy, is preferred for short elastomers such as precision seals.

Suitable for all hard, semi-hard and soft products, such as hoses, seals and pipes.

ADVANTAGES

- ✓ Improved squareness
- ✓ High cutting performance
- ✓ High quality and parallelism
- ✓ Small tolerances
- ✓ Improved cpk values
- ✓ Absolutely parallel cuts with cutting lengths of 1 mm min.
- ✓ Can be retrofitted to existing MC systems
- ✓ Short delivery time
- ✓ Ideal for precision seals

TECHNICAL DATA

Product dimension:	min. Ø5 mm to max. Ø99 mm (depending on material)
Cutting length:	from 1 mm min. (depending on material)
Cutting performance with one blade:	max. 900 cuts / min. (depending on material)
Features:	segmented socket
	low vibration due to counterweight

Technical changes reserved.



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MCS MODULAR CUTTING SYSTEM

The MCS is a modular system for the extrusion sequence, which can be delivered in different combinations. Different modes of operation and equipment options, depending on the material to be cut, can be adapted individually and according to your wishes.

The cutting module can be changed at any time without tools, depending on the material to be cut. We offer modules for die cut, shear cut, blade cut and tool cut.

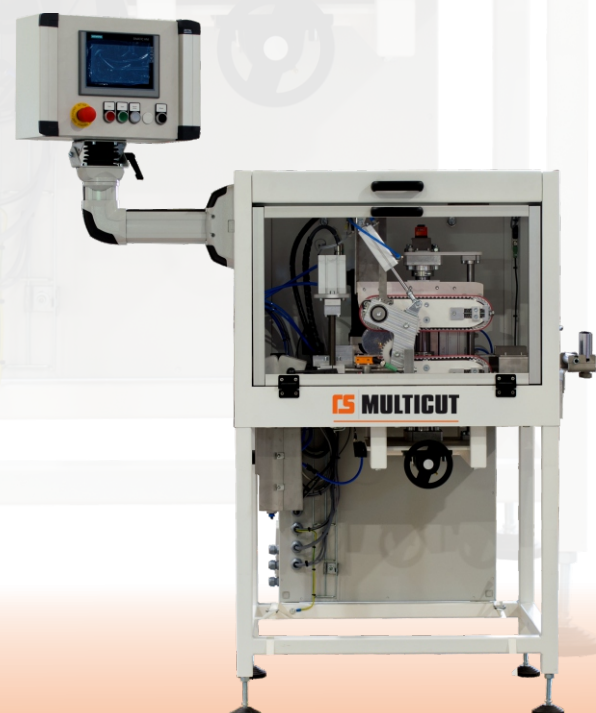
Completely individually according to your wishes. The MCS modular system is prepared for additional peripheral devices as standard.

TECHNICAL DATA

Cutting height:	max. 80 mm, 30 mm
Material width:	max. 90 mm
Feeding speed:	max. 60 m/Min.
Cutting performance:	max. 55 cuts/Min. (depending on material)
Length tolerance:	$\pm 1\%$ at $L \geq 100$, at $L \leq 100 \pm 1.0$ mm
Connection values:	3~400 VAC, 50/60 Hz, 16 A
Control:	Lenze PLC by frequency converter
User administration:	Standard
Line height:	1100 mm ± 50 mm
Dimensions:	depending on the composition
Weight:	depending on the composition

ADVANTAGES

- ✓ MCS with modular system
- ✓ Wide range of available cutting technologies (die cut, shear cut, blade cut and tool cut)
- ✓ Tool-free quick change of the cutting modules
- ✓ Setup time optimized



FEATURES

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ORBITAL CUTTER

The orbital cutter **RS MULTICUT OC-NG** is suitable for semi-hard and hard pipes with a diameter of 5 to 70 mm.

The system is characterized by a clean, chip-free and right-angled cut and is used for precise and fast cutting of semi-hard and hard pipes made of plastic, rubber, plastic composite with aluminum, copper pipe inside, rubber with Kevlar, etc. The cut is done on the fly.

Thanks to a standard servo linear drive for the tool carrier, the moving cutting unit achieves excellent cutting quality and, at the same time, extremely short cycle times of around 1-2 seconds for processing high line speeds.

All important cutting parameters can be adjusted in the control during the process and optimized according to requirements. The new **OC NG** extrusion downstream machine is offered in the usual quality, but now at a particularly attractive price. This model is also available as high speed version **OC NG HS**.

A revolutionary cutting system instead of saws, guillotines etc.

Delivery of special machines on request. Subject to technical modifications

Further technical data and options can be found in the table "Technical Data of the Orbital Cutter"



ADVANTAGES

- ✓ absolute right-angled cut
- ✓ clean cut surface
- ✓ chipless cutting of round products
- ✓ the cut is done on the fly
- ✓ no deformation when cutting
- ✓ high cutting force

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ORBITAL CUTTER

Model:	OC-30 NG	OC-30 NG HS	OC-70 NG	OC-70 NG HS
Product diameter:	max. Ø 29 mm	max. Ø 29 mm	max. Ø 69 mm	max. Ø 69 mm
Product speed:	max. 12 m/min.	max. 20 m/min.	max. 12 m/min.	max. 20 m/min.
Cutting performance:	25 cuts/min.*	50 cuts/min.*	25 cuts/min.*	50 cuts/min.*
Number of orbital rotations:	3 per cut			
Cutting motor:	Servo Drive			
Material thickness:	6,00 mm max.			
Operation of the blade:	mechanically by gear motor drive			
Connection values:	3~400 VAC, 50/60 Hz, 16 A			
Control:	Siemens S7			
User administration:	Standard			
Line hight:	1100 mm ±50 mm			
Dimensions:	Length: 1200 mm Depth: 600 mm Hight: 1400 mm			
Weight:	approx. 282 kg	approx. 303 kg	approx. 313 kg	approx. 332 kg

*depending on material and product speed

Technical alterations reserved. Special machines are available on request.



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COMBI-CUTTER CC NG

Highest cutting performance with up to 4000 cuts per minute with one knife.

The combination cutting system consists of the RB NG caterpillar haul-off and the MC NG rotary cutter for cutting plastic or rubber profiles/hoses to length in the extrusion sequence. Both systems are perfectly matched to each other.

In the caterpillar take-off, a servo motor with digital drive controllers guarantees a precise and constant transport speed of the product. The speed signal is processed internally to control the integrated rotary cutter.

The downstream rotary cutter is used in the plastics and rubber sector for cutting profiles, hoses and solid strand profiles in extrusion. Other applications, such as food production, etc., are possible.

The product is passed through a pair of quick-change cutting bushes, each equipped with a monitoring sensor.

Precise cuts require the highest possible energy of the rotary knife at the time of the cut. This cutting energy is achieved by means of the use of a newly developed double electronic cam disc. It accelerates the knife with every rotation so that the maximum speed is applied during the cutting process when it hits the product to be cut. The knife is then braked again to accelerate the next cycle. In interaction with the upstream transport unit, extremely precise tolerances in terms of length and squareness can be achieved, usually with a caterpillar conveyor.

A Lenze PLC control guarantees optimum length precision. The process parameters are entered using a panel.

Our cutting machines can usually be delivered within a short time according to customer specifications. Even complex profile cross-sections can be produced extremely quickly.

If high demands are placed on a right-angled cut, the solution is called the clamp cutting bush. Our newly developed segmented clamp cutting bush allows the material to be cut to be stopped for a short moment without intermittent loss of speed. This significantly reduces tolerances and optimizes the cutting pattern.

For further technical data and options, please refer to the "Technical data of the combi cutter" table.

ADVANTAGES

- ☑ Newly developed cam disc
- ☑ Servo drive
- ☑ Highly precise length tolerance: 1% (depending on material)
- ☑ Lenze PLC by frequency converter
- ☑ Quick change of cutting bushes
- ☑ Rectangular clean cut
- ☑ Optionally with stop & go cut or continuous cut
- ☑ Low space requirement
- ☑ Flexible to use: inline and offline
- ☑ Standard for dry and wet cutting

60
YEARS
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TECHNICAL DATA

COMBI-CUTTER CC NG

Model:	CC-250 40 NG	CC-600 40 NG	CC 600 80 NG	CC 1000 - 80 NG
Belt length:	250 mm	600 mm	600 mm	1000 mm
Traction max.:	250 N	800 N	800 N	800 N
Material dimensions width max.:	40 mm	40 mm	80 mm	80 mm
Material dimensions height max.:	20 mm	40 mm	80 mm	80 mm
Cutting performance with one blade max.:	4000 cuts / min.*			
Cutting performance stop & go with one blade cycle controlled with double electronic cam disc max:	1450 cuts /Min*			
Length tolerance:	1%*			
Feed speed max.:	100 m/min.			
Drive power:	servo motor 3.3 KW			
Connected load:	400 V, 50 Hz, 3 phases			
Control:	Lenze PLC by frequency converter			
Operation:	operator panel			
peripheral interface:	yes			
Line hight:	1100 mm ±50 mm			
Dimensions LxDxH:	length: 1200 mm depth: 600 mm hight: 1400 mm	length: 1750 mm depth: 600 mm hight: 1400 mm	length: 1750 mm depth: 600 mm hight: 1400 mm	length: 1950 mm depth: 600 mm hight: 1750 mm
Weight:	430 kg	580 kg	580 kg	730 kg
Tape feed:	servo motor and integrated length measuring system			
Options:	User management, recipe management, can be integrated in line control / inline or offline, wet cutting in stainless steel, dosable spray or drop lubrication, FDA-compliant			

*depending on material

Subject to technical changes. Special machines are available on request.



COMBI CUTTER HEATING

RS MULTICUT CCH-XX

CombiCutterHeating CCH-XX (5-39 mm) is a combination cutting unit with an integrated heating tunnel for cutting brittle and tough-hard materials with perfect cuts for products of min. 5 to max. 39 mm diameter.

Hard materials sometimes have the property of splintering or generating cutting chips when they are chipped if cold.

By heating the material in the inline process, we achieve a clean and chip-free cut. There is no need for expensive post-processing.

Our heating tunnel works ideally in connection with our RS MULTICUT rotary cutter MC-NG.

The heat supply is speed-controlled. In addition, an extremely fast on/off function is integrated so that the amount of heat can be precisely controlled.

Different heat levels are available for different polymer types, product sizes and line speeds.

All of our heating tunnels are fully safeguarded to protect the user and avoid the risk of fire.

Suitable polymers: impact-resistant, hard PVC, HDPE, PB, PP.

TECHNICAL DATA

- ☑ 2 infrared panels
- ☑ Length: 500 mm
- ☑ Control device for adapting the heating power to the product speed
- ☑ Integration into the PLC possible
- ☑ suitable for most plastic polymers
- ☑ swiveling panel



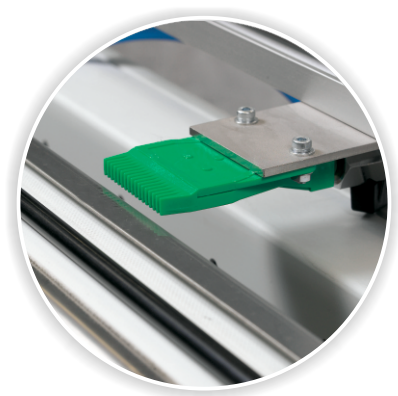
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TAKE-OFF SYSTEMS / DISCHARGE CONVEYORS

On request we supply complete plants with deposit systems.

Designed according to your specifications:

- length, depth of the discharge conveyors
- blower unit or mechanical ejection
- can be integrated in line control
- self-sufficient using by means of Siemens control
- counting station
- sorting function



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CATERPILLARS

The caterpillars were designed to provide or transport profiles, hoses, stranded profiles, pipes and cables without slip and deformation.

Depending on the production requirement, caterpillars with a contact length of 250, 600 and 1000 mm can be chosen.

The belts are driven by servomotors. In addition, an upper drive can be selected to achieve a slip- and deformation-free pull and an increased pulling force of the products.

The upper belt can be adjusted manually by handwheel or electrically to the product-dependent gap.

For better insertion of the products the upper belt can be raised pneumatically by pressing a button.

For the various product materials different belt materials can be used. This guarantees a gentle deduction and transport.

Further technical data and options can be found in the table "Technical Data of the Caterpillar".



ADVANTAGES

- ✓ Newly developed double electronic cam disc
- ✓ Highly precise length tolerance: 1% (depending on material)
- ✓ Quick change of cutting bushes
- ✓ Flexible to use: inline and offline
- ✓ servo drive
- ✓ Lenze PLC by frequency converter
- ✓ Rectangular clean cut
- ✓ Swiveling panel
- ✓ Standard for dry and wet cutting

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TECHNICAL DATA

CATERPILLARS

Model:	RB-250/XXX NG	RB-600/XXX NG	RB-1000/XXX NG
Contact length:	250 mm	600 mm	1000 mm
Belt width:	50 mm	100 mm	100/200 mm
Pulling force, dependent on max. V m/min.	250 N (1 Drive)	400 N (1 Drive) 800 N (2 Drive)	2000 N (2 Drive)
Transport speed:	max. 100 m/min.		
Drive power:	0.37 kW	1.5 kW	2.2 kW
Control:	Lenze		
Operation:	operator panel		
Connected load:	400 V, 50 Hz, 3 phases		
Line height:	1100 mm ±50 mm		
Dimensions:	Length: 500 mm Depth: 500 mm Hight: 1200 mm	Length: 1400 mm Depth: 600 mm Hight: 1400 mm	Length: 2000 mm Depth: 600 mm Hight: 1400 mm
Weight:	approx. 180 kg	approx. 280 kg	approx. 350 kg
Options:	User management		
	Recipe management		
	Can be integrated in line control / inline or offline		
	Start/stop positioning		
	FDA conform		

Technical alterations reserved. Special machines are available on request.

ACCESSORY OPTIONS CATERPILLAR RB-XXX/XXX NG

- ☒ External interface start / stop, fault, setpoint 0-10 VDC
- ☒ Digital servo drive with digital frequency output for coupling the Multicut machine
- ☒ Electric gap adjustment with digital display
- ☒ Drive upper belt by means of 2nd servomotor
- ☒ Pneumatic pressure of the upper belt, only in conjunction with electrical gap adjustment
- ☒ Feeding roller set for guiding the extrudates into the caterpillar, longitudinal and transverse rollers
- ☒ Dancer with base frame incl. programming

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WINDERS

RS MULTICUT Winder according to customer request

Where we do not cut, we offer winders in the extrusion sequence with strapping, tying, shrinking as well as ejection and storage systems on pallets or conveyor belts. If you are interested in a winder, please contact us.

TURNTABLE WINDER

(Example 1 according to customer request)

Turntable winder diameter:	600 mm
Turntable height:	1000 mm
Turntable material:	screen printing plate with POM ring
Max. centric load:	approx. 50 kg
Drive:	with three-phase asynchronous
Geared motor:	approx. 0.5 kW, controlled by a frequency converter max. $n = 30 \frac{1}{min}$
Product handling:	2 transverse rolls and 2 finger rolls for product handling
Frame:	steel frame, powder coated
Control cabinet:	powder coated RAL 7035
Rolls:	2 castors, 2 guide rolls



TURNTABLE WINDER

(Example 2 according to customer request)

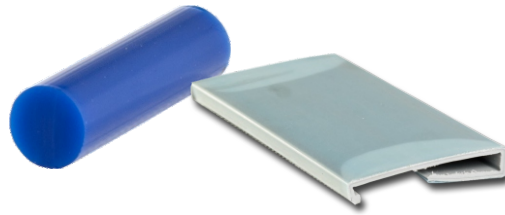
Turntable winder with 2 pins on the turntable	
Turntable winder diameter:	1600 mm
Turntable height:	800 mm
Turntable material:	Birke sieve film 30 mm
Max. centric load:	approx. 100 kg
Drive:	with three-phase asynchronous
Geared motor:	approx. 0.5 kW
Turntable speed:	1....20/min, controlled by a frequency converter, adjustable by interface 0-10 Volt
Harting Plug	
Connection:	voltage 400 V 50 Hz 3 Ph, N, PE; 5 m connecting cable without plug
Frame:	steel frame, powder coated 7021
Control cabinet:	powder coated RAL 3020
Rolls:	4 guide rollers with brake



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CUTTING SAMPLE



FEATURES

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TECHNICAL DATA

SYSTEM SOLUTIONS FOR CUTTING TASKS

The ROLF SCHLICHT GmbH offers a wide range of system solutions for versatile cutting tasks. Where is not cut, we offer a comprehensive program on semi- or fully automatic winders with strapping, setting, shrinkage as well as ejection or depositing systems on pallets or conveyor belts.

The field of application for our systems is the production area plastic and rubber extrusion for the production of hoses, pipes, profiles, strips of smallest diameter ranges from less than 1 mm in the medical technology up to tubes of approx. 100 mm diameter.

We also supply our feeding and cutting systems in GMP version for the pharmaceutical industry and medical technology for the clean room. The plants work in the extrusion line or outside the line of the coil, from the winding band or out of the pallet.

We adapt the systems to your wishes and needs to achieve the best possible effectiveness for you.

We can realize further special solutions with our partners at any time.



RS POWDERTECH **RS MULTICUT**

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