

COMAGRAV DIGI Product information



COMAGRAV DIGI are industrial flatbed cutting tables for cutting and routing in high quality.

Quick, reliable and strong machine for professionals. Wide range of knives and tools brings unlimited possibilities to your business.

Ideal for industrial cutting, sign-makers, designers, textile and leather processing, composites, packaging, and much more.

The RC and RCX versions cuts media from a roll.

COMAGRAV DIGI cuts all materials including Forex, Kapa, Di-bond, PVC, textile, fabric, re-board, corrugated cardboard, vinyl, leather, aluminium, acrylic, plastic, banner, etc.

Main features

- working size from 1060x850mm to 3400x5000mm
- speed up to 1150mm/s
- 60mm material thickness cutting
- two cutting modules
- automatic tool length measuring
- spindle for routing up to 2kW 60000 RPM
- heavy duty aluminium vacuum worktable with powerful blower
- 6 vacuum zones controlled from the software (excl. RCX)
- library of materials and presets
- camera system for registration marks
- QR codes support
- compatibility with RIP softwares
- automatic cutting mode (DIGI RC, RCX)
- conveyor belt (DIGI RC, RCX)
- automatic centering of conveyor belt (DIGI RC)
- PILOT TDP controller
- DELL PC and Windows 10 IoT Enterprise
- Teamviewer software for remote support
- control panel for operator with space for PC, LCD and ON/OFF/E-STOP buttons
- Vetric Cut2DPro software

Optional features

- pen tool (as separate tool)
- vacuum silencer
- material cut-off tool
- roll-off units passive and active for rolls up to 1000kg
- worktable extensions (DIGI RC)

Parameters

	DIGI	DIGI RC	DIGI 25XX/34XX	DIGI RC 25XX/34XX
Baseframe	steel			
Gantry	aluminium 92x92mm		steel 150x100mm	
Drive system	rack&pinion			
Motors	XYZ 400W AC servo Mitsubishi		X 750W, YZ 400W AC servo Mitsubishi	
Planetary gearboxes	standard			
Controller type	PILOT Advanced			
Z sensors	static laser sensor for cutting tools (precision <0,05mm) and flexible Z sensor for routing tools (precision <0,01mm)			
Worktable	heavy duty aluminium cast vacuum table			
Vacuum	blower 1,5kW or 5,5kW			
Vacuum zones	1 or 6 zones, operated from the controller			
Controller software	PILOT TDP			
Spindle tool change	manual			
MULTI heads	2 modules			
Pen tool	option			
Material cut-off	option			
Camera system	standard			
Controller PC	DELL Corei3			
OS	Windows 10 IoT Enterprise			
Conveyor	no	yes	no	yes

COMAGRAV DIGI



COMAGRAV DIGI RC



Working sizes and weights

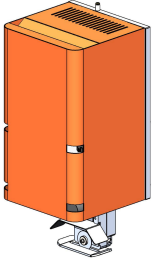
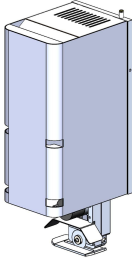
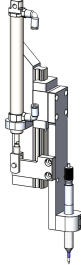

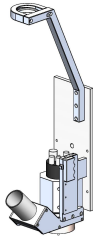
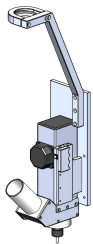
Type	Working area [mm]	Width [mm]	Length [mm]	Height [mm]	Z axis [mm]	Clearance under gantry [mm]	Weight [kg]	Resolution [mm]	Maximum milling speed [mm/s]	Maximum moving speed [mm/s]	Max. acceleration [mm/s ²]	Spindle: See label [kW/RPM]	Max. power [kW]	Compressed air pressure [bar]	Supply	Power requirement [kW]
DIGI 815	850 x 1500	A: 1830 B: 1180	A: 2350 B: 2250 C: 2850	A: 1450 B: 810 C: 3000	130	75	A: 620 B: 350 C: 670	0,00078	1150	5000	MAN 0,73/24000 2/60000	2	7	3 x 400VAC/50Hz /16A	2,6 kW + Spindle power	
DIGI 1008	1000 X 850	A: 1970 B: 1300	A: 1700 B: 1600 C: 2200	A: 1450 B: 810 C: 3000			A: 550 B: 300 C: 600									
DIGI 1108	1060 X 850	A: 2030 B: 1360	A: 1700 B: 1600 C: 2200	A: 1450 B: 810 C: 3000			A: 565 B: 310 C: 615									
DIGI 1617	1590 X 1700	A: 2560 B: 1890	A: 2550 B: 2450 C: 3050	A: 1450 B: 810 C: 3000			A: 790 B: 550 C: 840									
DIGI 1626	1590 X 2550	A: 2560 B: 1890	A: 3430 B: 3330 C: 3930	A: 1450 B: 810 C: 3000			A: 1380 B: 960 C: 1430									
DIGI 1634	1590 X 3400	A: 2560 B: 1890	A: 4280 B: 4180 C: 4780	A: 1450 B: 810 C: 3000			A: 1610 B: 1190 C: 1660									
DIGI 1715	1700 X 1500	A: 2670 B: 2000	A: 2350 B: 2250 C: 2850	A: 1450 B: 810 C: 3000			A: 770 B: 530 C: 820									
DIGI 1720	1700 X 2000	A: 2670 B: 2000	A: 2850 B: 2750 C: 3350	A: 1450 B: 810 C: 3000			A: 1170 B: 750 C: 1220									
DIGI 1725	1700 X 2500	A: 2670 B: 2000	A: 3380 B: 3280 C: 3880	A: 1450 B: 810 C: 3000			A: 1370 B: 950 C: 1420									
DIGI 1730	1700 X 3000	A: 2670 B: 2000	A: 3880 B: 3780 C: 4380	A: 1450 B: 810 C: 3000			A: 1570 B: 1150 C: 1620									
DIGI 1755	1700 X 5500	A: 2670 B: 2000	A: 6350 B: 6280 C: 6880	A: 1450 B: 810 C: 3000			A: 1970 B: 1550 C: 2020									
DIGI 2034	2000 X 3400	A: 2970 B: 2300	A: 4280 B: 4180 C: 4780	A: 1450 B: 810 C: 3000			A: 1720 B: 1300 C: 1770									
DIGI 2051	2000 X 5100	A: 2970 B: 2300	A: 5980 B: 5880 C: 6480	A: 1450 B: 810 C: 3000			A: 1930 B: 1510 C: 1980									
DIGI 2134	2120 X 3400	A: 3090 B: 2420	A: 4280 B: 4180 C: 4780	A: 1450 B: 810 C: 3000			A: 1770 B: 1350 C: 1820									
DIGI 2142	2120 X 4250	A: 3090 B: 2420	A: 5130 B: 5030 C: 5630	A: 1450 B: 810 C: 3000			A: 1875 B: 1455 C: 1925									
DIGI 3425	3400 x 2500	A: 4330 B: 3740	A: 3350 B: 3250 C: 3850	A: 1700 B: 930 C: 3000	A: 2370 B: 1900 C: 2420											
DIGI 3430	3400 x 3000	A: 4330 B: 3740	A: 3850 B: 3750 C: 4350	A: 1700 B: 930 C: 3000	A: 2620 B: 2150 C: 2670											
DIGI 3450	3400 x 5000	A: 4330 B: 3740	A: 5870 B: 5770	A: 1700 B: 930	A: 2720 B: 2250											
DIGI 1617 RCX	1590 X 1700	A: 2560 B: 1890	A: 2670 B: 2570 C: 3170	A: 1450 B: 810 C: 3000	130	85	A: 900 B: 530 C: 950	0,00078	1150	5000	MAN 0,73/24000 2/60000	2	7	3 x 400VAC/50Hz /16A	2,6 kW + Spindle power	
DIGI 1617 RC	1590 X 1700	A: 2560 B: 1890	A: 2870 B: 2770 C: 3370	A: 1450 B: 810 C: 3000			A: 990 B: 620 C: 1040									
DIGI 1626 RC	1590 X 2550	A: 2560 B: 1890	A: 3660 B: 3560 C: 4160	A: 1450 B: 810 C: 3000			A: 1580 B: 1160 C: 1630									
DIGI 1634 RC	1590 X 3400	A: 2560 B: 1890	A: 4800 B: 4500 C: 5000	A: 1450 B: 810 C: 3000			A: 1810 B: 1390 C: 3000									
DIGI 1711 RCX	1700 X 1060	A: 2670 B: 2000	A: 2230 B: 2130 C: 2730	A: 1450 B: 810 C: 3000			A: 720 B: 320 C: 770									
DIGI 1715 RCX	1700 X 1500	A: 2670 B: 2000	A: 2670 B: 2570 C: 3170	A: 1450 B: 810 C: 3000			A: 920 B: 550 C: 970									
DIGI 1715 RC	1700 X 1500	A: 2670 B: 2000	A: 2670 B: 2570 C: 3170	A: 1450 B: 810 C: 3000			A: 990 B: 620 C: 1040									
DIGI 1720 RC	1700 X 2000	A: 2670 B: 2000	A: 3110 B: 3010 C: 3610	A: 1450 B: 810 C: 3000			A: 1370 B: 820 C: 1420									
DIGI 1725 RC	1700 X 2500	A: 2670 B: 2000	A: 3610 B: 3510 C: 4110	A: 1450 B: 810 C: 3000			A: 1570 B: 1150 C: 1620									
DIGI 1730 RC	1700 X 3000	A: 2670 B: 2000	A: 4090 B: 3990 C: 4590	A: 1450 B: 810 C: 3000			A: 1770 B: 1350 C: 1820									
DIGI 2034 RC	2000 X 3400	A: 2970 B: 2300	A: 4590 B: 4490 C: 5090	A: 1450 B: 810 C: 3000			A: 1820 B: 1400 C: 1870									
DIGI 2134 RC	2120 X 3400	A: 3090 B: 2420	A: 4590 B: 4490 C: 5090	A: 1450 B: 810 C: 3000			A: 1870 B: 1450 C: 1920									

A: Základní stroj / Machine in basic configuration
 B: Velikost stolu bez portálu (Pro transport) / Table size w/ithout gantry (For transport)
 C: Konzole odsávání, výška +/- 100mm / Dust collector steel ramp, height +/- 100mm

Available modules and tools

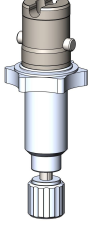
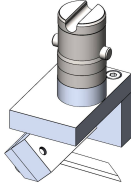

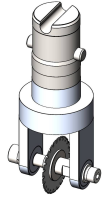
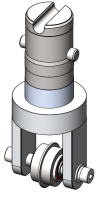
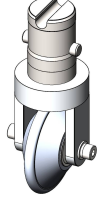
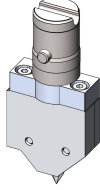



	MODULE A	MODULE B	DRAG TOOL
<p>POT9k Pneumatic oscillating knife 9000 strokes/min, 8mm stroke height</p>			
<p>EOT18k Electric oscillating knife 18000 strokes/min, 0.6mm stroke height</p>			
<p>EOT14k Electric oscillating knife 14000 strokes/min, 1.6mm stroke height</p>			
<p>U1 universal module - with tangential rotation - quick lock system for tools (tools are replaceable by hand)</p>			

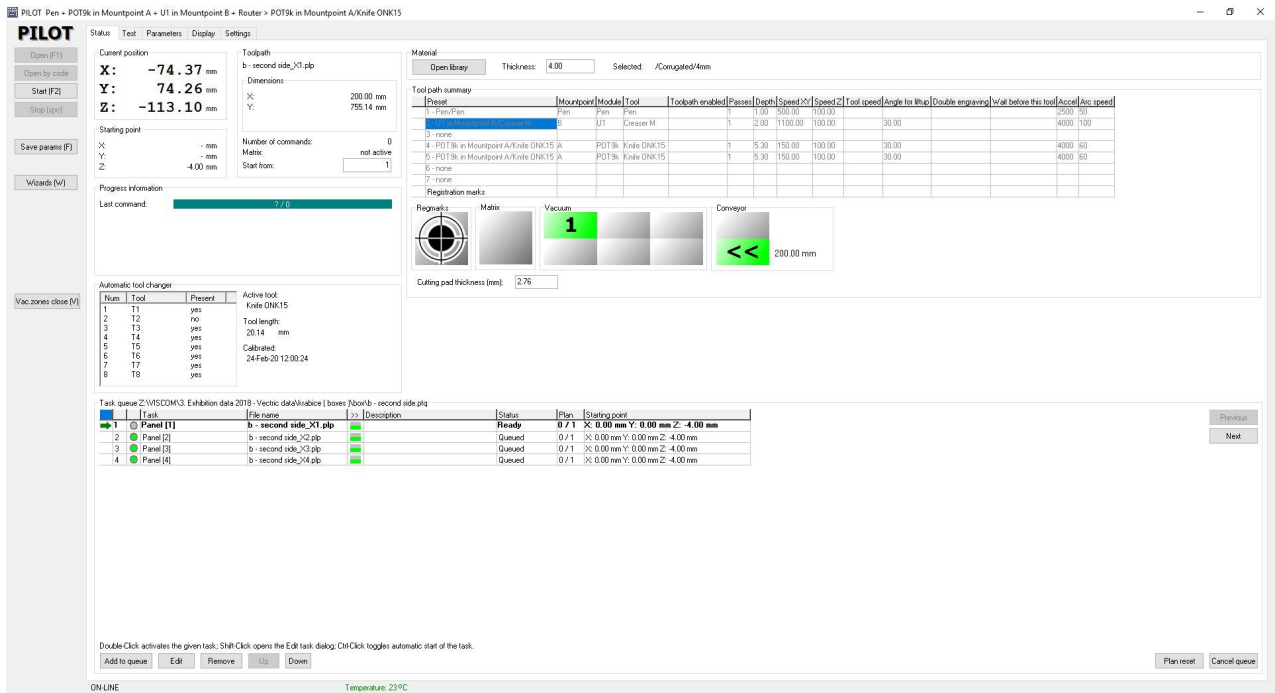
<p>Motorised cutting disc For rotary cutting tools 25mm, 28mm, 32mm, 66mm Custom for 160mm discs.</p>			
<p>Pen</p>			
<p>Drag knife</p>			
<p>Router 2kW 60.000RPM Liquid cooled spindle, max. tool diameter 7mm. With dust collector and steel ramp.</p>			
<p>Router 730W 24.000RPM Fan cooled spindle, max. tool diameter 12mm. With dust collector and steel ramp.</p>			

U1 tools
(for U1 universal module)

Tools for cutting, creasing, etc.

							
Kiss-cut	V-cut	Pen	CUW Pizza knife	CRW 2PT Creasing wheel in sizes 2pt, 3pt, 4pt	U1 CRW Creasing wheel in sizes S,M,L	U1 DR 1.45 Direct knife	U1 DR 0.63 Direct knife

PILOT controller and Software compatibility



PILOT TDP is vector based CNC controller for the highest precision and dynamics.

PILOT TDP is compatible with HP-GL format, DXF and G-code.

There exist drivers for COMAGRAV in many popular RIP softwares, making the cutting process very intuitive. Expect support from Caldera, Onyx, Colorgate, Asanti, Flexi, PrintFactory, ...

We have available plug-ins for Adobe Illustrator and CorelDraw (creates registration marks and exports cutting data).

Roll-off units

For continuous cutting of rolls with COMAGRAV DIGI RC machine, customer can choose from several solutions.

For vinyl cutting and for rigid light rolls the passive roll-off unit is fine.

For heavy rolls (100kg and more) and for sticky media the active roll-off unit is required, because solely the moving cutting pad and pneumatic bars on back side of the gantry cannot ensure precise unwinding. In some cases, passive is still enough.

For long jobs (ie. 20, 30, 50 meters), the active unit with lateral movement is recommended.

For other specific requirements, please ask us.

COMAGRAV roll-off units:

Passive (no motors) **or active** units - with motorised unwinding are available.

The unit can have **quick locks** for easy fixing of the roll.

We can supply **pneumatic cylinders** for the media. (specify inner diameter).

The active unit can be equipped with **lateral movement** with sensor for parallel winding. It is ideal for long jobs and for big diameter of rolls.

The unit can be programmed for **roll-off or roll-on function** (for rewinding) or both.

For special purposes (requirement for quick material change, special roll storage, etc.) we can produce roll-off unit with **trolley system**. Rolls are fixed for cutting in advance in the trolley, and trolley is easy to remove and install without additional loading mechanism. It means **no time wasted** during unloading and loading.

During request, specify maximum weight and maximum diameter of rolls. We can supply roll-off units for **up to 1000kg heavy rolls!**

The active roll-off units are programmed with PLC.

Roll-off units features and options

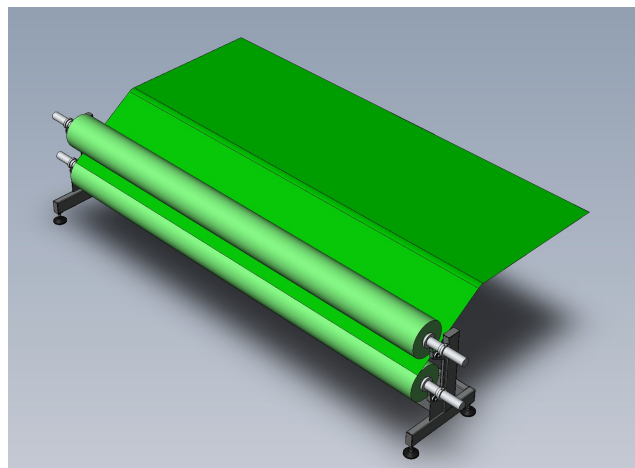
- passive
- passive with central shaft
- active (motorised unwinding, rewinding)
- with additional lateral movement
- for heavy rolls up to 1000kg
- with quick lock system
- with pneumatic cylinders
- with removable trolleys



Passive unroller with two cylinders



Passive unroller with central shaft



Passive unroller with 2 central shafts

Active unwinder

With dancer, pneumatic cylinder and quick locks, for heavy rolls up to 1000kg.



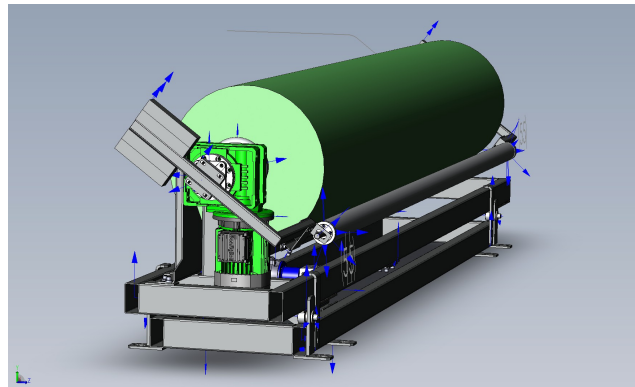
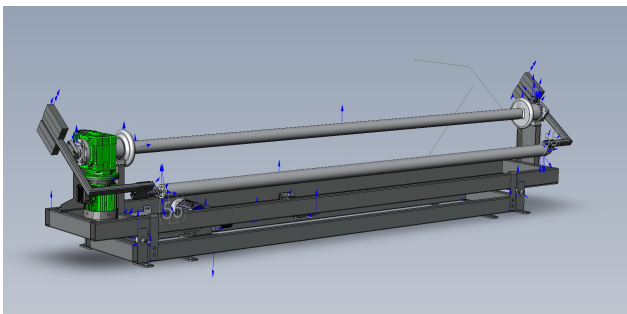
COMAGRAV DIGI 3430RC with active unwinder

Active unwinder with lateral movement.

With dancer, pneumatic cylinder and quick locks, for heavy rolls up to 1000kg. This solution ensures that material is securely loaded straight.

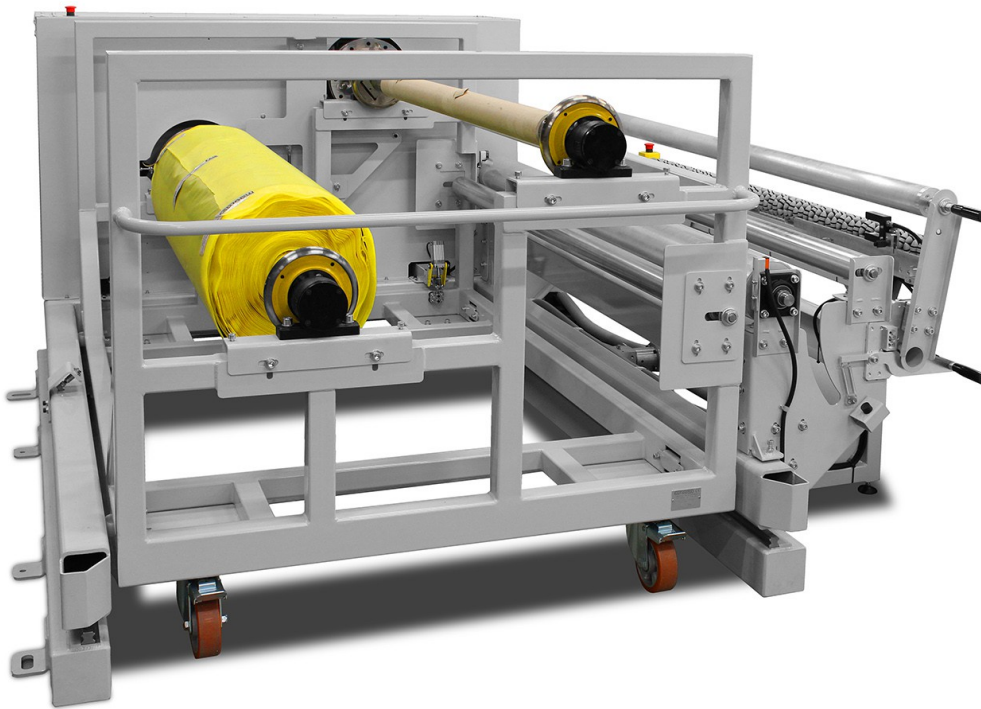


COMAGRAV DIGI 3450RC with active unwinder with lateral

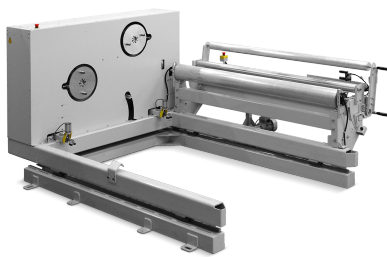


Active unwinder with lateral movement, rewinding shaft and trolley system.

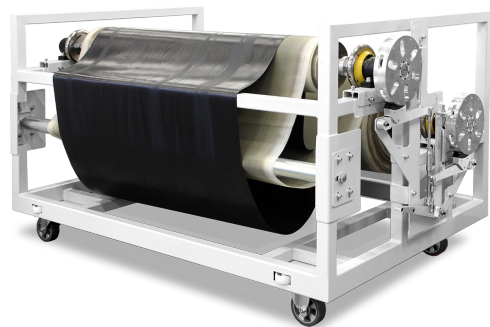
Includes quick locks, pneumatic cylinders, dancer, additional cylinder for media distribution. This is customised roll-off unit with all available features.



Complete system.

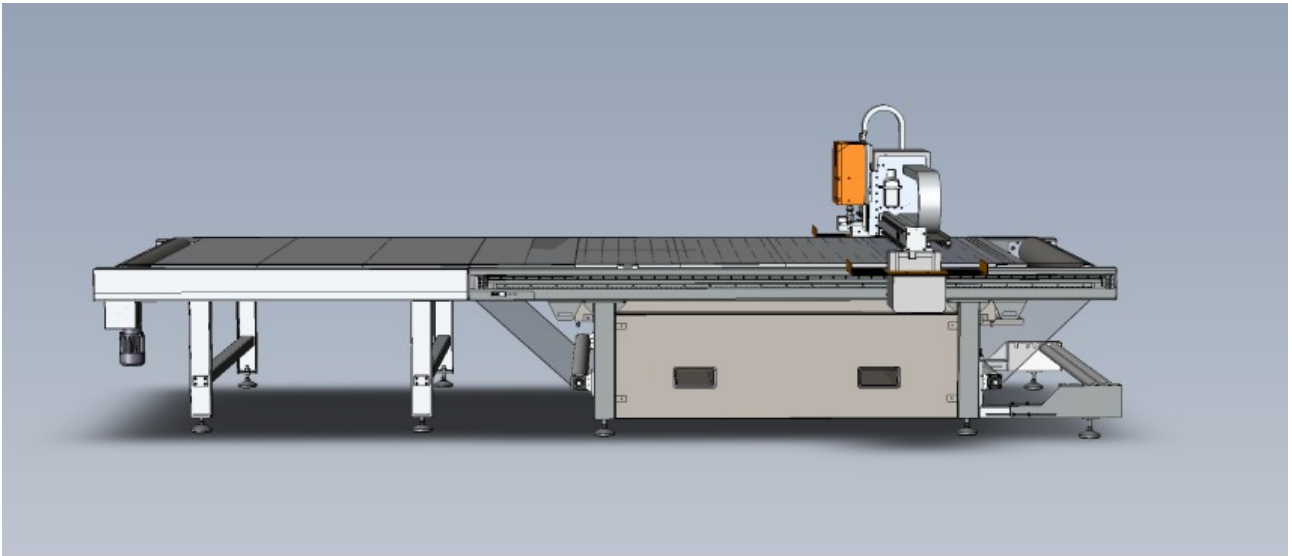


Roll-off base for the trolley.



The trolley with installed media.

Worktable extensions (DIGI RC)



Adds extra space in front of worktable for picking cut material safely (even when machine is running).

Depending on the model, different extension lengths are available (+1500mm, +2000mm, +2500mm, +3000mm, ...).

The extension creates safe zone for workers.

The extension is available also for loading side - means no machine standstill during serial production.

This feature is upgradeable for all installed DIGI RC machines.
During the upgrade, the conveyor belt must be installed new.



Additional devices installed at DIGI RC and DIGI RCX

- cylinders for endless move of cutting pad
- pneumatic clamps on both sides of the gantry to fix cutting pad during move
- pneumatic bars on back side of the gantry to hold down material during move

Additional devices installed at DIGI RC

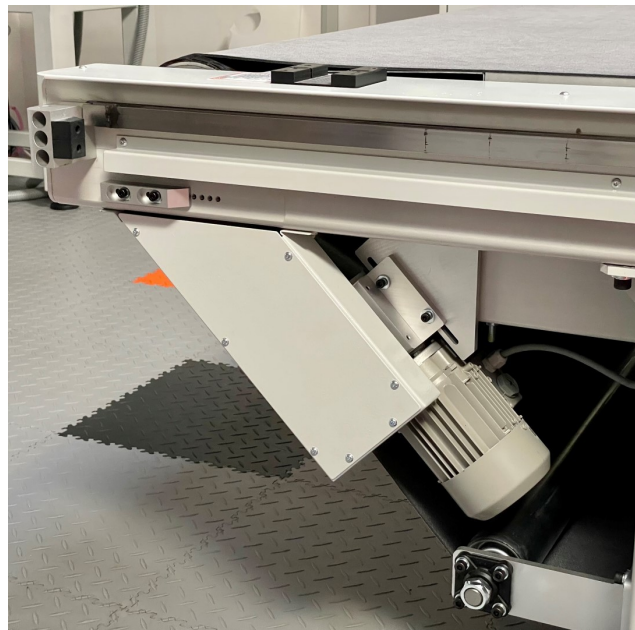
- automatic centering of the conveyor belt
- one cylinder is motorised



Pneumatic bars



Pneumatic clamps



Motorised cylinder

Pneumatic clamps

Pneumatic clamps hold the cutting pad during unwinding. This helps to ensure accurate movement of the media.

Pneumatic bars at back side of the gantry

Pneumatic bars automatically push the media against the cutting pad during unwinding. This prevents media to slip.

Bars are adjustable in position and depending on gantry size, there are installed 2, 3 or more pieces.

Automatic centering of the conveyor belt

This is a unique feature of COMAGRAV system. One of cylinders has free joint on a side. The cutting pad is controlled by an optical sensor during move and the belt is centered on the fly. This prevents the belt to move to one side during long jobs.

Customised machines

(custom sizes, loading zone, unloading zone, etc.)

COMAGRAV has team of developers and they are ready to implement your special demands. In example we can produce customised loading zone, unloading zone, customised roll-off units, custom tools, and much more.

