

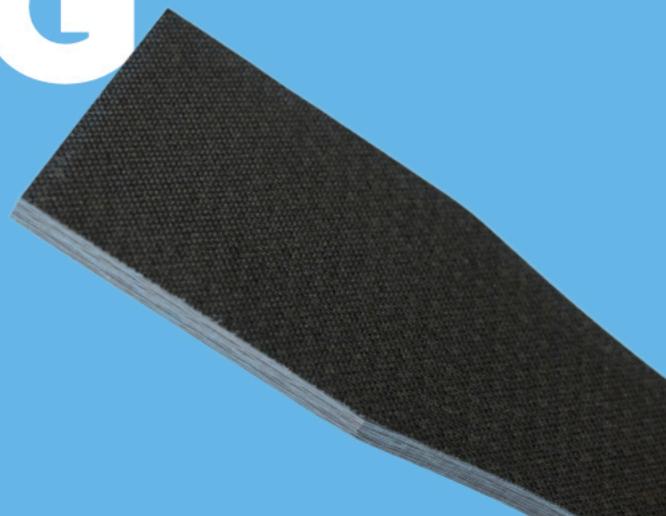
**COMPCUT<sup>®</sup>**  
ADVANCED COMPOSITE MACHINING

6th edition

# CUTTING EDGE

## NEWSLETTER

Read about the composite cutting revolution.



# Start machining your composites...

## News and developments

Read articles about ALS – Yozgat Bozok University's latest COMPCUT installation, new composite test and evaluation work, ongoing collaboration with TU Delft, our expanding global presence, and SHD's recent application story.

## The COMPCUT challenge

Experience a live COMPCUT demonstration and see composite test coupons being cut and machined in real time, with no polishing or deburring required. Watch how easily you can produce accurate, repeatable specimens straight from the saw or router in a clean, safe and highly efficient environment, and get the chance to discuss your own applications with our team.

## Machine specifications

Explore the key machine specifications to see how COMPCUT systems deliver the precision, capacity and ease of use required for demanding composite test coupon preparation.

## 1. SAFELY

Eliminate health and safety issues with Compcut's fully enclosed automated process.

*"Using the Compcut so far, we are really pleased with its effectiveness, it has made lone working acceptable with its Health and Safety benefits"*

**Mikaela Toutouzi**  
Laboratory technician for Mechanical Engineering, University of Surrey

## 2. CLEANLY

No need for a specially ventilated area – with no dust to contend with you can even cut composites in a lab.

*"The Compcut saw ensures our technicians cut highly accurate test specimens quickly and easily in a safe and clean working environment, which ensures dust and debris isn't released into the workshop"*

**Alix Sauget**  
Research & Development Manager  
SHD Composite Materials Ltd

## 3. QUICKLY

Test coupons can be cut in under a minute and go straight from cut to test.

*"We received and commissioned the Compcut saw in February and within weeks it reduced the specimen cutting queue dramatical. The queue used to be measured in weeks and now it is measured in hours"*

**Matt Finch**  
Technical Manager (Workshop & Operations) - University of Bristol

## 4. COST EFFECTIVELY

Reduce costs, increase efficiency and improve productivity.

*"Productivity of the materials testing laboratory has increased significantly"*

**Maria Brooks**  
Senior Technology Materials  
Technician Alpine Racing Limited.

## 5. PRECISELY

Eliminate coupon and part rejection and ensure consistent test results and outputs.

*"The Compcut saws cut test specimens to such a high quality edge finish that no post preparation is required"*

**Paul Yeo**  
Managing Director Composite Test  
and Evaluation (CTE)

## 6. ENVIRONMENTALLY

Use less energy and produce less scrap.

*"The exceptional accuracy of our Compcut saw has enabled us to reduce the amount of waste material generated in the production of test samples, which is an important step for us and for the environment"*

**Professor, Dr Markus Grob**  
Head of the Institute FHNW-University  
of Applied Science NW Switzerland

## 7. EASILY

Free up your skilled personnel - Test coupons can be easily cut with no specialist skills involved.

*"The intelligent functionality of the unit coupled with its inherent ease of use, offers students the opportunity to cut their own samples with the minimum of training"*

**Myles Jenkinson**  
FEPS Mechanical Workshop  
Technician University of Surrey

## 8. RELIABLY

Take control of your composite test coupon, prototype and production machining process.

*"The Compcut saw is a major factor in ensuring the reliable consistency of our test results"*

**Dr Geraint Havard**  
Composite Manager R-Tech Materials

## 9. IN THE LAB

Eliminate the need for a special "dirty" cutting area that has to be ventilated and cleaned.

*"We see the Compcut saw as a key component in our test lab set-up"*

**Professeur Simon Joncas**  
Département de génie des systèmes,  
École de technologie supérieure,  
(ETS) part of the Université du Québec  
based in Montreal



# Compcut & ALS: Supporting Turkish Research



We are thrilled to announce a significant milestone in our global expansion: ALS LABORATUVAR CİHAZLARI ([www.als.com.tr](http://www.als.com.tr)) has officially joined us as our primary distributor for Turkey. With a wealth of experience and a highly skilled team of engineers, ALS is now our dedicated sales and support hub in the region.

We are already seeing the impact of this partnership with the delivery of a COMPCUT ACS 300 to Yozgat Bozok University. The machine was acquired by Professor Yekta Karaduman to support his team's advanced material research.

Murat Serdaroğlu, Managing Director of ALS LABORATUVAR CİHAZLARI, noted: "We are looking forward to working with COMPCUT. Their technology meets a specific demand in our market, and we have already identified numerous opportunities to deliver these innovative solutions across Turkey."



*"The COMPCUT ACS 300 is incredibly intuitive. I am very impressed with the accuracy and the pristine surface finish it provides. Furthermore, the service from ALS LABORATUVAR CİHAZLARI was flawless—from the initial consultation through to installation and training."*

Professor Karaduman

# CTE & Compcut: Driving Global Testing Standards

CTE based in Honiton were originally established to offer support to the aerospace industry in the accurate testing and evaluation of composite, adhesive and other non-metallic materials and components. After very extensive trialling of Sharp & Tappin's then newly developing range of Composite Saws, the company bought its first COMPCUT saw, as it more than met CTE's exacting requirements as well as exceeding accepted international standards. This was the start of a long and continuing working relationship with Sharp & Tappin, Ten years on and CTE have experienced continual demand for their extremely high standard testing services, working with an ever-expanding range of industries, both within the UK and increasingly worldwide, each with its specific and varied demands.

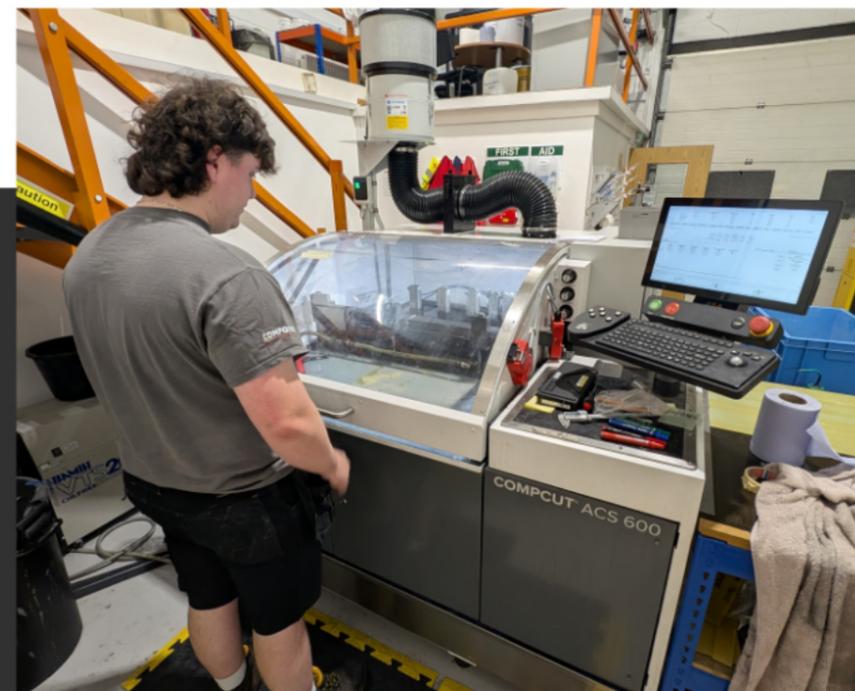
Sectors currently supported include: Aerospace, Space, Defence, Automotive, Motorsport, Rail, Renewable Energy, Oil & Gas, Construction, Civil Engineering. During this period of growth and diversification CTE has continually sought to ensure that its Test Centre is equipped with the very best in testing technology and has continued to work closely with Sharp & Tappin, helping to influence new product development whilst adding to their arsenal of COMPCUT machining solutions to meet demand for their services.

The company currently operates two COMPCUT ACS Saws, and a COMPCUT PCR router, followed by another ACS 600 advanced composite saw to ensure rapid specimen cutting throughput. The COMPCUT machines continue to support the testing processes by

consistently achieving remarkable and highly accurate standards of machining, quickly and efficiently – qualities that first brought Compcut to CTE's attention.

CTE's success has been hard won through a proactive approach to its expanding customer base, anticipating demands as materials technology continues to evolve bringing new challenges. At the core and root of its success has been the ability to adapt to industry demands whilst offering top quality professional testing services to the highest standards – accurate, competitive and timely. Underpinning this of course is the confidence of having highly professional technical staff and investing in the best equipment to support them.

Paul Yeo ' CTE's position as a well-respected Test Centre is both satisfying but equally challenging and we are working to expand our customer base and range of services through careful, measured, strategic growth – never ever losing sight of our core values. To achieve this goal we need to ensure that our technical resources are 'state of the art' and 'future proofed'. To these ends we are delighted to continue to integrate Compcut machining technology into our testing processes in the knowledge that our high standards are being continually and consistently met. Hence we have expanded our COMPCUT resources and acquired another COMPCUT ACS 600'



*"When the COMPCUT Composite Saw range first emerged we really put a machine through its paces running extensive tests – in one case machining 240 laminates into 3840 specimens, without losing a single specimen through lack of tolerance."*

CTE MD Paul Yeo

# COMPCUT® ACS

## Advanced Composite Saws COMPARISON CHART



	COMPCUT® ACS 300	COMPCUT® ACS 600	COMPCUT® ACS 1200
<b>Material Capacity</b>			
CLEARED PANEL SIZE	300 X 300 MM	600 X 600 MM @ 20 MM 500 X 500MM @ 50 MM	1200 X 1200 MM @20 MM 1140 X 1200 MM @ 50 MM
MATERIAL THICKNESS/CUT DEPTH*	0 - 20 MM / 0 - 30 MM	0 - 50 MM / 0 - 100 MM	0 - 50 MM / 0 - 100 MM
FRONT SPECIMEN TABLE	350 MM	400 MM	400 MM
COOLANT CAPABILITY	FLOOD COOLANT WITH BAG FILTER	FLOOD COOLANT WITH BAG FILTER	FLOOD COOLANT WITH BAG FILTER
<b>Enclosure</b>			
ENCLOSURE	FULLY ENCLOSED - EXTRACTABLE	FULLY ENCLOSED - EXTRACTABLE	FULLY ENCLOSED - EXTRACTABLE
<b>Spindle</b>			
SPEED	2,000 TO 4,500 RPM	2,000 TO 4,500 RPM	2,000 TO 4,500 RPM
SPINDLE POWER	1.5 KW	2.4 KW	2.4 KW
BLADE SIZE	200 - 250 MM	250 - 300 MM	300 - 400 MM
BLADE THICKNESS	1.5 - 3.5 MM	1.5 - 4.5 MM	1.5 - 4.5 MM
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<b>Speeds</b>			
RAPID SPEEDS X, Y, Z	60 MM/S	150 MM/S	125 MM/S
CUTTING SPEEDS	0.1 - 40 MMS	0.1 - 40 MMS	0.1 - 40 MMS
<b>Accuracy, Perpendicularity, parallelism</b>			
TYPICAL SPECIMEN PERPENDICULARITY	0.03 MM	0.03 MM	0.03 MM
TYPICAL SPECIMEN PARALLELISM / 100MM*	0.03 MM	0.03 MM	0.03 MM
TYPICAL SPECIMEN PARALLELISM / 300MM*	0.04 MM	0.04 MM	0.04 MM
TYPICAL SPECIMEN PARALLELISM / PANEL	N/A	0.07 MM	0.08 MM
TYPICAL SPECIMEN DIMENSIONAL ACCURACY	0.05 MM	0.05 MM	0.05 MM
TYPICAL SPECIMEN PARALLELISM Z PLANE	0.03 DEG	0.03 DEG	0.03 DEG
<b>External Dimensions: (W)x(D)x(H)</b>			
WIDTH	1220 MM	1870 MM	2150 MM
DEPTH	1040 MM	1920 MM	2470 MM
HEIGHT	1500 MM	1650 MM	1650 MM
<b>Required Services</b>			
POWER	220V 1PH 16A	415V 3PH 32A	415V 3PH 32A
AIR - DRIED & FILTERED	70 - 100 PSI	70 - 125 PSI	70 - 125 PSI
EXTRACTION	APPLICATION SPECIFIC	APPLICATION SPECIFIC	APPLICATION SPECIFIC

\*Specification subject to change without notice. Test conditions apply using Approved Blade, Weights are approximate and exclude packaging/shipping.

# COMPCUT® PCR

## Precision Composite Routers COMPARISON CHART



	COMPCUT® PCR 300		COMPCUT® PCR 600	COMPCUT® PCR 1200
<b>Material Capacity</b>				
CLEARED PANEL SIZE	300 X 300 MM		600 X 600 MM	1200 X 1200 MM
MATERIAL THICKNESS/CUT DEPTH*	0 - 50 MM - SUBJECT TO TOOL		0 - 50 MM - SUBJECT TO TOOL	TBA MM - SUBJECT TO TOOL
AXIS TRAVEL X, Y, Z	310, 310, 165 MM		620, 620, 165 MM	1250, 1250, 800 MM
BRIDGE / TABLE CLEARANCE	165 MM		165 MM	800 MM
COOLANT CAPABILITY	FLOOD COOLANT WITH BAG FILTER		FLOOD COOLANT WITH BAG FILTER	FLOOD COOLANT WITH BAG FILTER
<b>Enclosure</b>				
ENCLOSURE	FULLY ENCLOSED - EXTRACTABLE		FULLY ENCLOSED - EXTRACTABLE	FULLY ENCLOSED - EXTRACTABLE
<b>Spindle</b>				
	<i>PCR300 Lite</i>	<i>PCR300 Pro</i>		
SPEED	5,000 TO 50,000 RPM	5,000 TO 50,000 RPM	5,000 TO 50,000 RPM	5,000 TO 50,000 RPM
SPINDLE POWER	St: 3.6KW, Max 5.7KW	St: 3.6KW, Max 5.7KW	St: 3.6KW, Max 5.7KW	St: 3.6KW, Max 5.7KW
TOOL HOLDER & COLLET	HSK-E25 & ER16	HSK-E25 & ER16	HSK-E25 & ER16	HSK-E25 & ER16
AUTOTOOL CHANGER	OPTION	3 STATION	5 STATION	10 STATION
TOOL SHANK	1 - 10 MM	1 - 10 MM	1 - 10 MM	1 - 10 MM
CONCENTRICITY / RUN-OUT	< 1uM	< 1uM	< 1uM	< 1uM
<b>Speeds</b>				
	<i>PCR300 Lite</i>	<i>PCR300 Pro</i>		
RAPID SPEEDS X, Y, Z	50 MM/S	300 MM/S	300 MM/S	300 MM/S
CUTTING SPEEDS	0.1 - 50 MMS	0.1 - 100 MMS	0.1 - 100 MMS	0.1 - 100 MMS
<b>Accuracy, Perpendicularity, Parallelism</b>				
TYPICAL SPECIMEN PERPENDICULARITY		TBA	TBA	TBA
TYPICAL SPECIMEN PARALLELISM / 100MM*		TBA	TBA	TBA
TYPICAL SPECIMEN PARALLELISM / 300MM*		TBA	TBA	TBA
TYPICAL SPECIMEN PARALLELISM / PANEL		TBA	TBA	TBA
TYPICAL SPECIMEN PARALLELISM / CUT L		TBA	TBA	TBA
TYPICAL SPECIMEN DIMENSIONAL ACCURACY		TBA	TBA	TBA
TYPICAL SPECIMEN PARALLELISM Z PLANE		TBA	TBA	TBA
<b>External Dimensions: (W)x(D)x(H)</b>				
WIDTH		1400 MM	1830 MM	2800 MM
DEPTH		1500 MM	1900 MM	2400 MM
HEIGHT		1680 MM	1770 MM	4000 MM
<b>Required Services</b>				
POWER	220V 1PH 16A	415V 3PH 16A	415V 3PH 16A	415V 3PH 32A
AIR - DRIED & FILTERED	70 - 150 PSI	70 - 150 PSI	70 - 150 PSI	70 - 150 PSI
EXTRACTION	APPLICATION SPECIFIC	APPLICATION SPECIFIC	APPLICATION SPECIFIC	APPLICATION SPECIFIC

\* PCR300 PRO, PCR600, PCR1200. \*Specification subject to change without notice. Test conditions apply. Weights are approximate and exclude packaging/shipping.

# COMPCUT Global Presence – Local Support

As Compcut continues to be adopted as the cutting method of choice by many of the world's leading advanced engineering organisations, we are expanding the capacity and capability of our international partner programme to ensure customers receive the world-class service and technical support they need and expect.

Over the last 12 months, we have welcomed new Compcut partners in Spain, Portugal, across DACH, North America, China, Israel and Turkey, with additional partners expected soon in Italy and France. This growing network of local competence reflects both increasing global demand for advanced composite cutting solutions and our commitment to supporting customers with strong, locally based expertise.

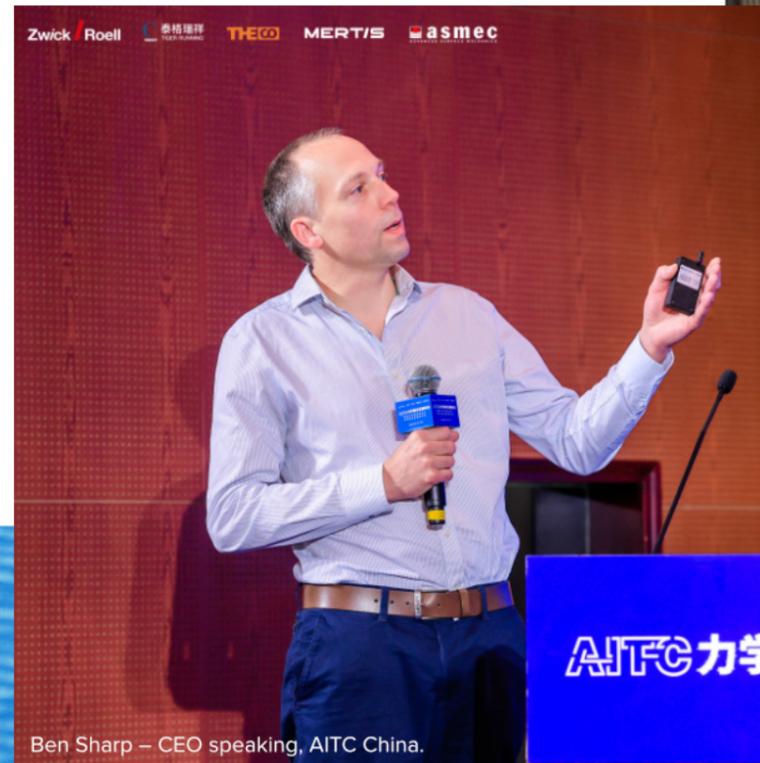
Investing in a composite cutting machine or router is not simply about selecting the most effective option, but also ensuring the long-term performance which can be enhanced with diligent local support once the machine is in operation. Our local partners play a key role in helping customers integrate their systems effectively and supporting them throughout the working life of the machine.

Purchasing consultations typically include a detailed product introduction, live demonstrations and proof-of-concept trials, development of a machine specification aligned to operational needs, and a clear business case outlining the benefits of Compcut technology. This includes analysis of potential return on investment and objective comparisons with alternative cutting and machining solutions, enabling informed decision-making.

Once a machine is installed, support continues through certified Compcut engineering services. Our partners deliver preventative maintenance programmes and provide technical troubleshooting, helping customers maximise uptime, maintain cutting accuracy and protect long-term asset value. The result is smoother integration, predictable performance and reduced operational disruption.

By strengthening our international partner network, we combine global experience with local accountability – ensuring that wherever Compcut machines are installed, customers benefit from responsive support and long-term partnership.

If you are interested in representing Compcut in your territory, please contact International Director David Bone at [david.b@sharpandtappin.com](mailto:david.b@sharpandtappin.com).



Ben Sharp – CEO speaking, AITC China.

# TU Delft Enhances Materials Lab with ACS600 Technology



The Delft Aerospace Structures and Materials Laboratory at TU Delft recently installed the ACS600 cutting machine for cutting various composite materials. The machine has been operational for a few months now, and it has proven to be a real blessing in terms of ease of use, cutting speed, and cleanliness compared to many other machines on the market.

Accurate cutting of fiber-reinforced composites with low tolerances, parallel cutting lines, and without delamination is crucial for further processing of the cut material, whether in manufacturing or testing operations. The clamping method and automatic cutting of multiple coupons from a laminate are very handy and help reduce the time spent at the machine since the less time spent cutting, the more time can be devoted to conducting research.

The fully enclosed system ensures safe operation for various operators, including researchers and students in our lab. So far, we are very satisfied with the results and expect to continue benefiting from the machine in the future.



# SHD Composites from 2018 to 2025 and beyond

SHD Composites based in Sleaford, Lincolnshire are leading developers of advanced composite prepreg materials and technology. Part of Cambium Biomaterials Inc, the company operates multiple sites across the UK, Slovenia and the US.

The application and development of sustainable materials remains firmly at the core of the company's activities and SHD has continually invested in ensuring that their Technical Centre facilities are able to fully support various characterisation techniques including mechanical testing, thermal analysis and rheology – vital elements for R&D, product development and prototyping.

As part of the drive to maximise the application of the best available technology in their materials testing processes, in 2018 after critically assessing its capabilities, the company installed a Compcut 200 composite saw manufactured by Sharp & Tappin. The aim was to produce fine quality test specimens across a wide range of cured composite laminates. An early customer for this unique machine, SHD almost immediately found the Compcut 200 was meeting both expectations and the vigorous practical demands of

SHD's busy Technical Centre.

Alix Sauget, SHD Research & Development Director, was able to quickly assess the saw's positive performance, "In less than a month, the Compcut 200 had already delivered a measurable transformation in our production output and efficiency. In short, the Compcut 200 quickly enabled us to easily and consistently produce high quality test samples, which all have an exceptional cut, perpendicularity and parallelism. We were able to test our samples straight from the saw without needing to deburr or polish them first, saving us a significant amount of time and effort every day." Since that time the Compcut 200 unit has established itself as a vital tool at SHD's main testing facility.

In addition to the original COMPCUT 200, SHD have also in 2025 installed the new and enhanced COMPCUT ACS 300 model at their Sleaford Technical Centre, as well as acquiring a further ACS 300 unit for their facility in Krško, Slovenia.



*"We have been highly satisfied with the performance of our original COMPCUT 200, backed by Sharp & Tappin's excellent customer service and training. As demand grew, expanding our capabilities with the new COMPCUT ACS 300 was the natural next step. Its working area just over 300mm x 300mm and compact footprint make it an ideal fit for our high-traffic Technical Centre labs."*

*Both machines are the workhorses of our facility, primarily tasked with cutting test specimens from cured composite laminates such as carbon, glass, aramids and natural fibres. It has been rewarding to see our feedback from the COMPCUT 200 integrated into the ACS 300's development; the new model offers even greater accuracy and significantly enhanced operator usability. The advanced control software on the COMPCUT machines has been a genuine game-changer, allowing us to create and apply programs with ease. This, combined with fast cutting speeds, has drastically improved our overall efficiency. Having two machines now ensures we can meet high demand with constant, reliable throughput."*

*Furthermore, our new ACS 300 unit in Slovenia is now fully operational with ongoing support from the COMPCUT team. While our Sleaford site continues to handle R&D, the Slovenia facility allows us to be more reactive to specific customer requests, significantly strengthening our international service."*

*Alix Sauget*



# COMPCUT CHALLENGE

[www.compcutacm.com/compcut-challenge](http://www.compcutacm.com/compcut-challenge)

Supply a selection of your materials to be cut on the Compcut Machines, to find out if you can enhance or improve your sample cutting process.



# COMPCUT<sup>®</sup>

ADVANCED COMPOSITE MACHINING

POWERED BY SHARP&TAPPIN

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