

# MULTICUT

The All-in-One Drilling and Turning solution  
that maximizes your productivity!



The All-in-One Drilling and Turning Solution that Maximizes Your Productivity!

Do you find yourself constantly changing tools during your machining process, causing delays and reducing efficiency? Say goodbye to those problems with Multicut! Our innovative design and high-performance coatings make Multicut the perfect solution for a broad range of materials, reducing the need for tool changeovers and leading to shorter cycle times and reduced costs.

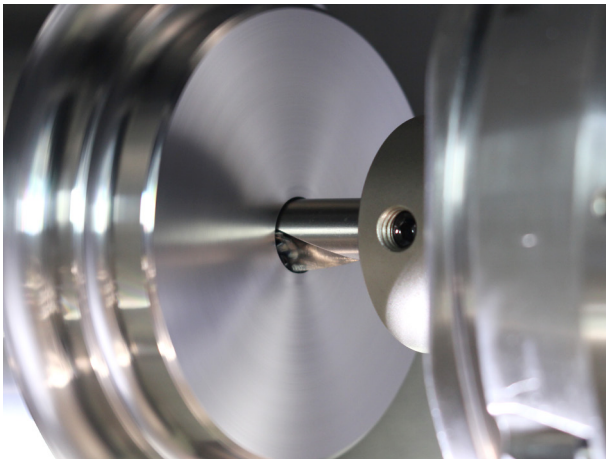
With a  $\text{ØDc}$  range of 8mm to 32mm, Multicut offers efficiency and high-quality machining. Our two innovative high-performance grades, PH7920 and PHS225, are coated to cover all materials in the ISO material groups P, M, and S, ensuring that the cutting edges remain stable and heat-resistant. PH7920 is ideal for universal applications and PHS225 is the first choice for Stainless Steel. Our tool holders are designed to provide better stability and the smooth surface of the tool holders also makes it easy to evacuate swarf, enhancing your machining process.

Multicut offers a unique method with a flat bottom hole, making it the perfect problem solver for insufficient tool storage. With Multicut, you can minimize the need for tool changeovers, leading to a significant reduction in cycle time. This approach is particularly advantageous when processing times are short.

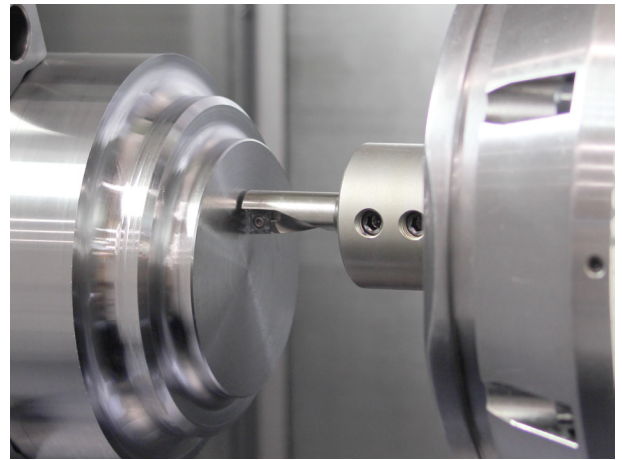
Maximize your productivity with Multicut - upgrade your machining process today!

With MultiCut, you can perform four machining operations using just one tool:

## FLAT BOTTOM DRILLING (stationary or rotary)



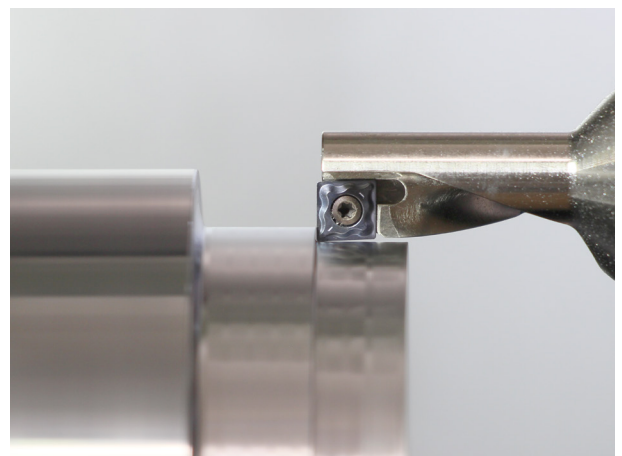
## FACE TURNING



## INTERNAL TURNING

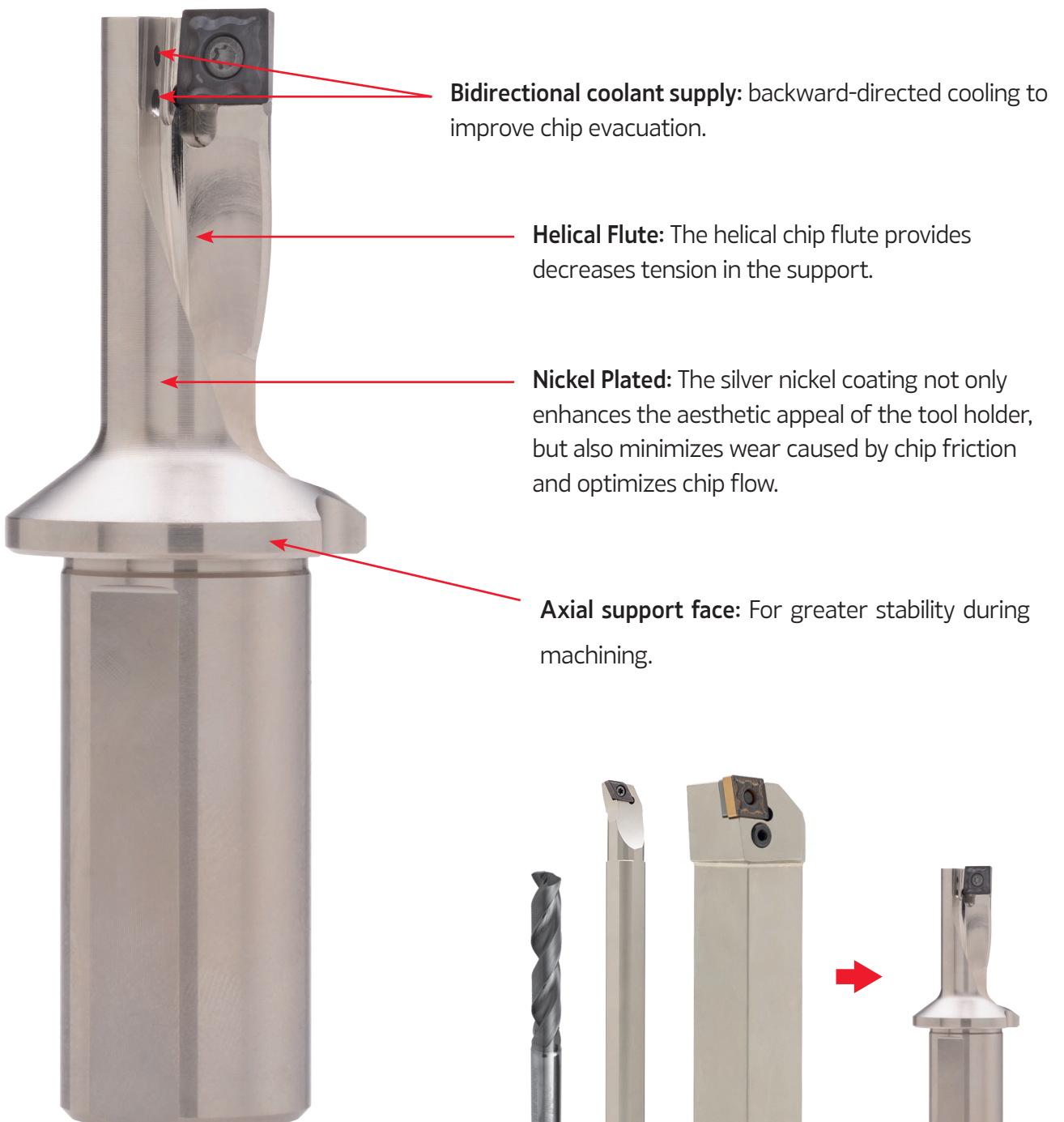


## EXTERNAL TURNING

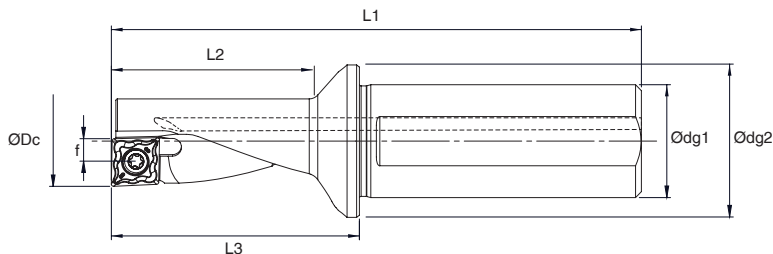


## Advantages of Multicut

- Minimize your tool changeover time
- Reduce your inventory costs
- Reduce downtime
- Solve the problem of insufficient tool storage
- Save programming effort



## XMS TOOLHOLDERS



\*Right hand style show

Order code Código	Reference Referência Referencia	Hand		Dimensions   Dimensões   Dimensiones (mm)							Kg	Insert	Stock
				ØDc	Ødg1	Ødg2	f	L1	L2	L3			
182021200	XMS-R 08010-2,25D	Right	1	8	10	12	4	60,0	18,0	22,0	0,027	XCMT 0401.. ER	
182021300	XMS-R 10012-2,25D	Right	1	10	12	16	5	69,5	22,5	27,5	0,046	XCMT 0502..	
182021400	XMS-R 12016-2,25D	Right	1	12	16	20	6	78,0	27,0	33,0	0,089	XCMT 0602..	
182021500	XMS-R 14016-2,25D	Right	1	14	16	20	7	83,5	31,5	38,5	0,094	XCMT 0703..	
182021600	XMS-R 16020-2,25D	Right	1	16	20	25	8	94,0	36,0	44,0	0,154	XCMT 0803..	
182021700	XMS-R 18025-2,25D	Right	1	18	25	32	9	109,5	40,5	53,5	0,293	XCMT 09T3..	
182021800	XMS-R 20025-2,25D	Right	1	20	25	32	10	111,0	45,0	55,0	0,311	XCMT 10T3..	
182021900	XMS-R 25032-2,25D	Right	1	25	32	40	13	129,0	56,5	69,0	0,563	XCMT 1304..	
182022000	XMS-R 32040-2,25D	Right	1	32	40	50	17	158,0	72,0	88,0	1,117	XCMT 1705..	
182022100	XMS-L 08010-2,25D	Left	1	8	10	12	4	60,0	18,0	22,0	0,027	XCMT 0401.. EL	
182022200	XMS-L 10012-2,25D	Left	1	10	12	16	5	69,5	22,5	27,5	0,046	XCMT 0502..	
182022300	XMS-L 12016-2,25D	Left	1	12	16	20	6	78,0	27,0	33,0	0,089	XCMT 0602..	
182022400	XMS-L 14016-2,25D	Left	1	14	16	20	7	83,5	31,5	38,5	0,094	XCMT 0703..	
182022500	XMS-L 16020-2,25D	Left	1	16	20	25	8	94,0	36,0	44,0	0,154	XCMT 0803..	
182022600	XMS-L 18025-2,25D	Left	1	18	25	32	9	109,5	40,5	53,5	0,293	XCMT 09T3..	
182022700	XMS-L 20025-2,25D	Left	1	20	25	32	10	111,0	45,0	55,0	0,311	XCMT 10T3..	
182022800	XMS-L 25032-2,25D	Left	1	25	32	40	13	129,0	56,5	69,0	0,563	XCMT 1304..	
182022900	XMS-L 32040-2,25D	Left	1	32	40	50	17	158,0	72,0	88,0	1,117	XCMT 1705..	

Stock item | Produto de stock | Itens de stock

Available under request | Disponível sobre consulta | Disponible bajo consulta

XCMT | Inserts | Pastilhas | Plaquetas

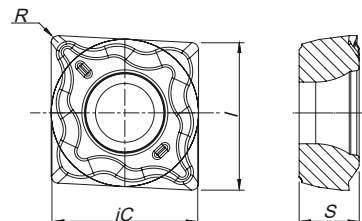
XCMT-MP  
(PH7 grade)



XCMT-MP  
(PHS grade)



XCMT-MP

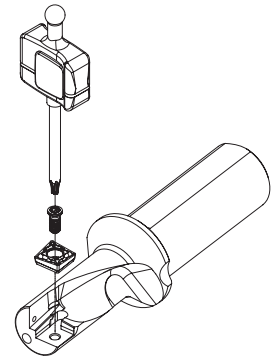


		P	M		S	Dimensions   Dimensões   Dimensiones (mm)				Hand
		PVD	CVD	PVD	PVD	iC	S	I	R	
		G4	U5	G4	G4					
<sup>(1)</sup> Geometry code	ISO Reference	PH7920	PHS225	PH7920	PH7920					
1124790	XCMT 040104-MP ER	⊗	⊗	⊗	⊗	4,40	1,89	4,00	0,40	Right
1124791	XCMT 040104-MP EL	⊗	⊗	⊗	⊗	4,40	1,89	4,00	0,40	Left
1124792	XCMT 050204-MP EN	⊗	⊗	⊗	⊗	5,65	2,14	5,00	0,60	Neutral
1123788	XCMT 060204-MP EN	⊗	⊗	⊗	⊗	6,40	2,47	6,00	0,40	Neutral
1124784	XCMT 070304-MP EN	⊗	⊗	⊗	⊗	7,50	3,25	7,00	0,40	Neutral
1124785	XCMT 080304-MP EN	⊗	⊗	⊗	⊗	8,40	3,26	8,00	0,40	Neutral
1124786	XCMT 09T304-MP EN	⊗	⊗	⊗	⊗	9,45	4,00	9,00	0,40	Neutral
1124787	XCMT 10T308-MP EN	⊗	⊗	⊗	⊗	10,40	4,00	10,00	0,80	Neutral
1124788	XCMT 130408-MP EN	⊗	⊗	⊗	⊗	13,35	4,85	12,50	0,80	Neutral
1124789	XCMT 170508-MP EN	⊗	⊗	⊗	⊗	17,30	5,58	16,00	0,80	Neutral

⊗ First choice | Primeira opção | 1ª opción    ⊗ Stock item | Produto de stock | Itens de stock    ○ Available under request | Disponível sobre consulta | Disponible bajo consulta    Insert order code = (1) Geometry Code + (2) Grade Code

## SPARE PARTS | Complementos | Repuestos

Cutter ØDc	Insert Screw	Key (Torx)	Order separately	
			Key (Torx - Nm)	Torque Value
XMS-R/L 08010-2,25D	P0180400	XT06IP	DT0606IP	0,60
XMS-R/L 10012-2,25D	P0200500	XT06	DT0606	0,60
XMS-R/L 12016-2,25D	P0220500	XT07	DT0709	0,90
XMS-R/L 14016-2,25D	P0250704	XT08	DT0812	1,20
XMS-R/L 16020-2,25D	P0300701	XT08	DT0812	1,20
XMS-R/L 18025-2,25D	P0300701	XT08	DT0812	1,20
XMS-R/L 20025-2,25D	P0350900	PT15	DT1530	3,00
XMS-R/L 25032-2,25D	P0500900	PT20	DT2050	4,00
XMS-R/L 32040-2,25D	P0501302	PT20	DT2050	4,00



## GRADES SELECTION GUIDE | Guia para selección de graus | Tabla para selección de calidades

ISO	PSM	Material	HB (Brinell)	Grades			
				← Wear Resistance →		Toughness →	
				PH7920	PH5740	PH7920	PH5740
P	1	Unalloyed Steel	125-170	●			
	2	Low-Alloyed Steel	180-350	●			
	3	High-Alloyed Steel	200-325	●			
M	4	SS - Ferritic / Martensitic	200-330	●		●	
	5	SS - Austenitic	180-330	●		●	
	6	SS - Austenitic-ferritic (Duplex)	230-260	●		●	
S	11	Heat Resistant Super Alloys	200-320	●			

- Good Conditions
- Average Conditions
- Difficult Conditions



RECOMMENDED CUTTING CONDITIONS | Condições de corte recomendadas | Condiciones de corte recomendables

ISO	PSM	Material	HB (Brinell)	Grades			
				← Wear Resistance →		Toughness →	
				PH7920	PHS740		
P	1	Unalloyed Steel	125-170	110-220	-		
	2	Low-Alloyed Steel	180-350	100-210	-		
	3	High-Alloyed Steel	200-325	85-190	-		
M	4	SS - Ferritic / Martensitic	200-330	95-210	70-230		
	5	SS - Austenitic	180-330	85-205	65-225		
	6	SS - Austenitic-ferritic (Duplex)	230-260	80-195	55-215		
S	11	Heat Resistant Super Alloys	200-320	25-210	-		

Reference	fn (mm/r)			ap (mm)	
	Face Turning	Int/Ext Turning	Drilling	Face Turning	Int/Ext Turning
XCMT 040104-MP ER/L	0,02-0,09	0,02-0,13	0,01-0,04	0,50-1,90	0,50-2,70
XCMT 050204-MP EN	0,02-0,12	0,02-0,15	0,01-0,05	0,50-2,20	0,50-3,20
XCMT 060204-MP EN	0,02-0,14	0,02-0,16	0,01-0,06	0,70-2,70	0,70-3,70
XCMT 070304-MP EN	0,02-0,16	0,02-0,18	0,01-0,08	0,80-3,00	0,80-4,00
XCMT 080304-MP EN	0,03-0,18	0,03-0,20	0,02-0,08	0,90-3,40	0,90-4,20
XCMT 09T304-MP EN	0,03-0,20	0,03-0,22	0,03-0,09	0,90-3,80	0,90-4,70
XCMT 10T308-MP EN	0,03-0,22	0,03-0,24	0,03-0,10	1,00-4,20	1,00-5,30
XCMT 130408-MP EN	0,03-0,24	0,03-0,26	0,04-0,12	1,00-5,00	1,00-6,50
XCMT 170508-MP EN	0,03-0,27	0,03-0,30	0,04-0,15	1,00-6,00	1,00-7,00

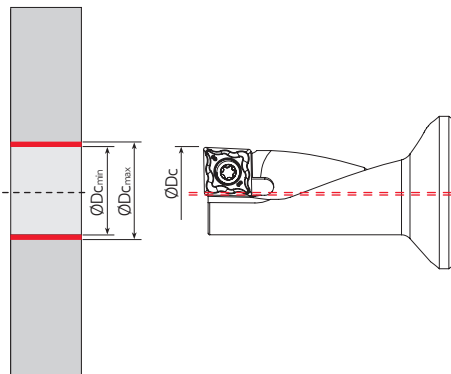
**Position the insert:**

The insert has two marks that indicate which are the cutting edges. For the insert to be properly mounted, one of the two marks must be pointing outward, as shown in the pictures.



**Off-center drilling:**

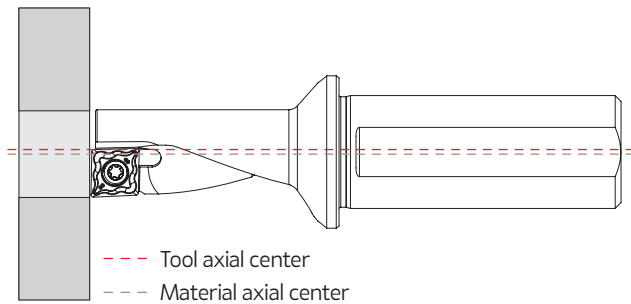
Thanks to MultiCut's unique geometry, it is possible to perform off-center drilling. Therefore, with slight deviations from the center of the workpiece, it is possible to make holes with diameters different from the nominal diameter, as shown in the table below.



Reference	Drilling (mm)		
	ØDc nominal	ØDcmin	ØDcmax
XMS-R/L 08010-2,25D	8	7,85	8,30
XMS-R/L 10012-2,25D	10	9,85	10,50
XMS-R/L 12016-2,25D	12	11,85	12,50
XMS-R/L 14016-2,25D	14	13,80	14,50
XMS-R/L 16020-2,25D	16	15,80	16,50
XMS-R/L 18025-2,25D	18	17,80	18,50
XMS-R/L 20025-2,25D	20	19,75	20,50
XMS-R/L 25032-2,25D	25	24,75	25,80
XMS-R/L 32040-2,25D	32	31,75	33,00

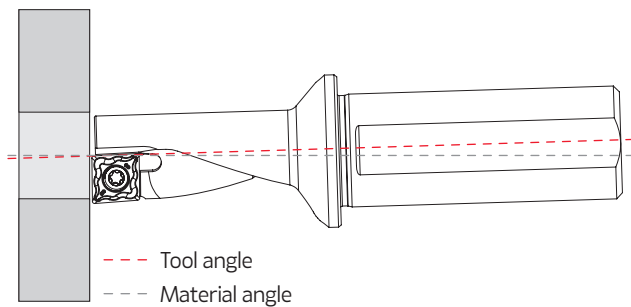


In order to achieve the best performance and minimize the risks you need to take some things in considerations:



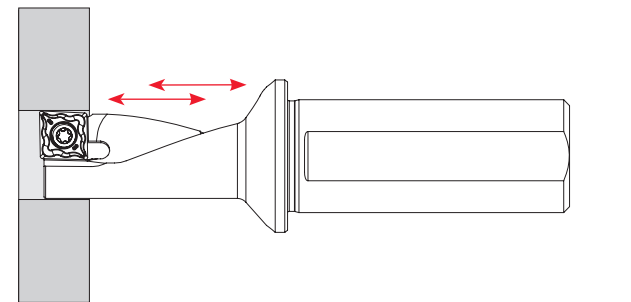
**Displacement in x-direction:**

This displacement must not exceed the limits presented in the table on page 8.



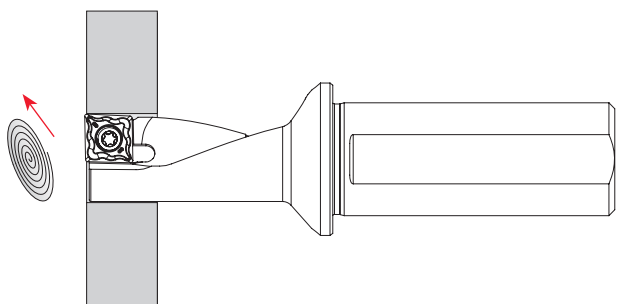
**Angular error:**

The tool and the machined material must be perpendicular. That means the tool should make exactly 90° to the machined material.



**Coolant use:**

Coolant must be applied throughout the machining process. If this is not possible, machining with an interrupted cut should be carried out in order to speed up the output of the chip.



**Through hole:**

It is normal to have a sharpened-edged disk when the tool finish the trough hole. We recommend to apply safety measures in order to avoid damages.

**Machining across center line:**

Due to the limitations of the maximum movement across the centerline, left tools on right turrets cannot perform external turning, and the same is true for right tools on left turrets.

If you are uncertain or have any questions, please request technical support



MULTICUT

NEW

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