Regional Anaesthesia

Product Catalogue





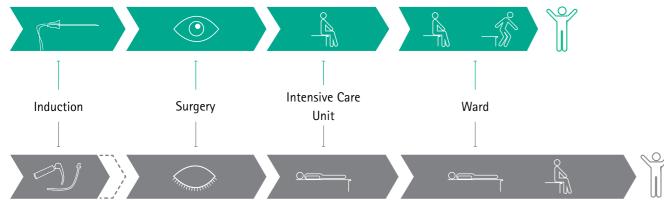
Optimise your processes

Thanks to Regional Anaesthesia

Regional anaesthesia is an essential part of pain therapy, as across several interventions, it offers clear advantages when compared to general anaesthesia.¹ For regional anaesthesia to become an important part of the peri-operative process, there are some prerequisites to consider, like the relevant indications, skilled personnel and the necessary internal processes at the clinic.

The rapid growth of use of regional anaesthesia and the numerous publications on the topic are both a testament to how regional anaesthesia can have a positive impact on both patient outcome and on efficiencies for the clinic.^{2,3}

WITH REGIONAL ANAESTHESIA



WITHOUT REGIONAL ANAESTHESIA

COMPARING TWO POTENTIAL INTERVENTIONS

WITH AND WITHOUT REGIONAL ANAESTHESIA:

Looking holistically across the patient pathway, the establishment of regional anaesthesia processes appears to be a favourable investment. When regional anaesthesia is used, patients see better outcomes, faster mobilisation and consequently earlier discharge.^{4,5}

Content

SPINAL ANAESTHESIA

EPIDURAL ANAESTHESIA

Perican[®] | Perican[®] Paed Perifix[®] Epidural Catheter | Accessories

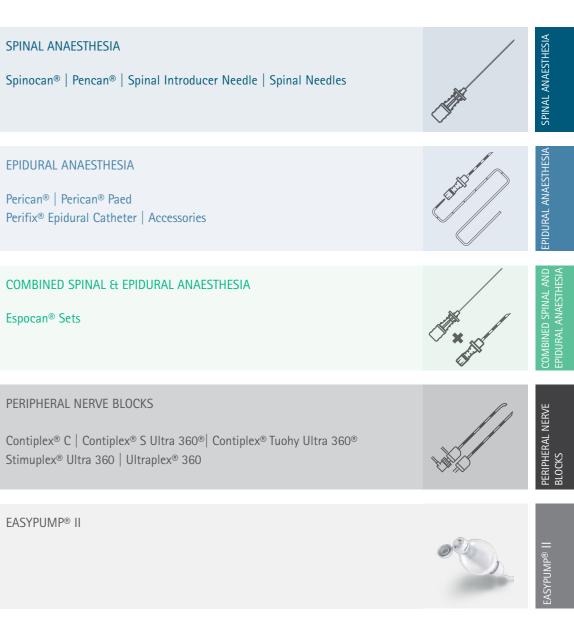
COMBINED SPINAL & EPIDURAL ANAESTHESIA

Espocan[®] Sets

PERIPHERAL NERVE BLOCKS

Stimuplex[®] Ultra 360 | Ultraplex[®] 360

EASYPUMP® II



Reducing Risks of Misconnections in Regional Anaesthesia with NRFit[®]

MEDICAL DEVICE CONNECTORS FOR NEURAXIAL & REGIONAL ANAESTHESIA APPLICATIONS ARE CHANGING TO MEET INTERNATIONAL DESIGN STANDARDS: ISO 80369-6.6

Regional Anaesthesia products with NRFit[®] connector

In line with the ISO Standard (International Organisation for Standardisation) for neuraxial and regional anaesthesia devices, B. Braun has developed a comprehensive portfolio with NRFit[®] connectors for the corresponding process steps.

Connecting what belongs together

The ISO has identified several medical application areas for which specific ISO standards have been developed. These standards are part of the ISO 80369 series. Each standard will provide design and performance specifications for these connectors. ¹

Neuraxial & Regional Anaesthesia applications

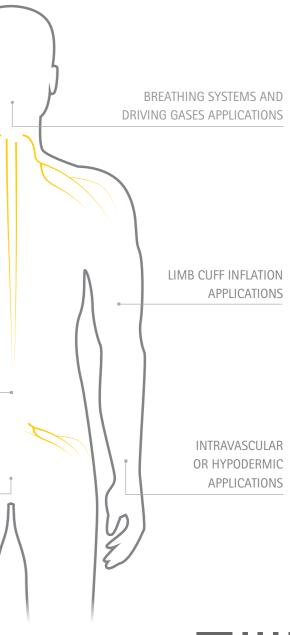
NRFit

Connector design based on ISO 80369-6

ENFit[®]

Enteral applications

URETHRAL AND URINARY APPLICATIONS





A comprehensive portfolio of needles in different bevel types for spinal anaesthesia.

SPINAL ANAESTHESIA













Products for Spinal Anaesthesia

Quality and Practicality

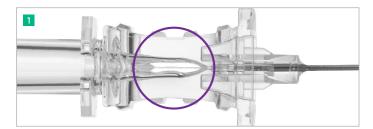


Ergonomic hub design for an individual and tactile handling position, better control of the needle and easy verification of bevel eye orientation.⁷

Thanks to our years of **EXPERIENCE** in the field, B. Braun offers spinal needles

with a range of bevel types.

Spinocan[®] and Pencan[®] have the features you need to meet today's EXACTING Pain Control demands.



CSF-flashback identification

due to the incorporated prism effect.

CSF FLASHBACK IDENTIFICATION

- Prism has a silver shine before CSF enters the hub 1
- Prism turns transparent once CSF is in the hub 2



Spinocan[®] with Quincke Bevel

- Sharp bevel for low puncture force⁷
- Fitted stylet: to reduce the risk of tissue coring and potential epidermoid tumor development⁸
- Prism included in the spinal needle hub, supports identification of CSF flashback



Spinal Introducer Needle

 Introducer needles providing needle guidance for the spinal needle during puncture⁷



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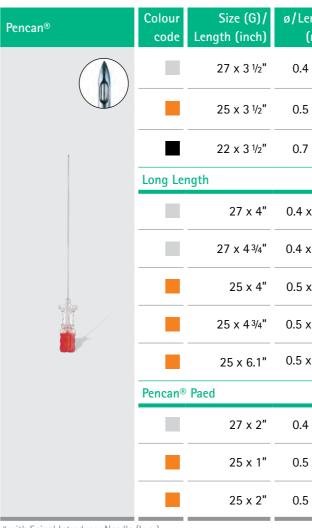
Pencan[®] with Pencil Point Bevel

- Pencil point tip and opening design allows avoidance of incomplete blocks and helps reduce PDPH⁸
- Minimal intrathecal penetration depth⁷
- Identification of tissue structures due to detectable dura click^{7,9}
- Prism included in the spinal needle hub, supports identification of CSF flashback

SPINAL NEEDLES - QUINCKE

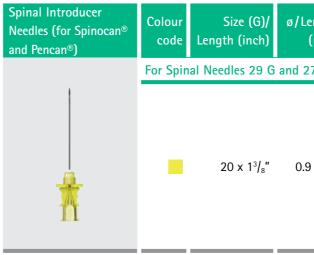
Spinocan®	Colour code	Size (G)/ Length (inch)	ø/Length (mm)	Units per box	Code no. (REF) Luer	Code no. (REF) NRFit®
		27 x 3 ½"	0.4 x 88		4503902	4503902N-01
		26 x 3 ½"	0.45 x 88		4502906	4502906N-01
		25 x 3 ½"	0.55 x 88		4505905	4505905N-01
		22 x 1 ½"	0.70 x 40		4507401	4507401N-01
		22 x 3"	0.70 x 75	25	4507754*	4507754N-01
		22 x 3 ½"	0.70 x 88		4507908	4507908N-01
		20 x 3 ½"	0.90 x 88		4509900	4509900N-01
		18 x 3 ½"	1.30 x 88		4501390*	4501390N-01
6 B	Long Le	ngth				* New Zealand Only
(19 + 19) (19 + 19)		29 x 3 ½"	0.33 x 88		-	4501900N-01#
-		29 x 4 ¾	0.33 x 120		-	4501918N-01
		27 x 4 ¾	0.4 x 120	25	4502140	4502140N-01
		25 x 4 ¾	0.55 x 120	25	4505913	4505913N-01
		22 x 4 ³ /4"	0.70 x 120		4506090	4506090N-01
		22 x 6"	0.90 x 150		-	4506095N-01

SPINAL NEEDLES - PENCIL POINT



with Spinal Introducer Needle (Luer)

INTRODUCER



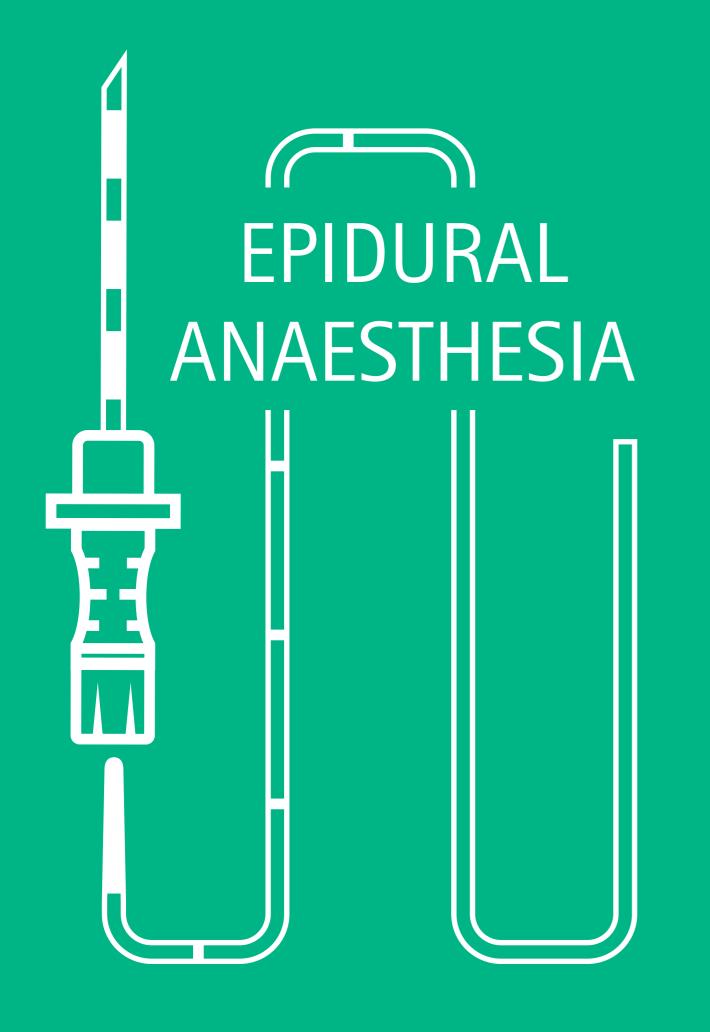
*Introducer in Luer

ength (mm)	Units per box	Code no. (REF) Luer	Code no. (REF) NRFit®
4 ~ 00		4502027	4502027N-01
4 x 88		4502051#	4502051N-01#
	25	4502019	4502019N-01
5 x 88	25	4502019	4502043N-01#
7 x 88		4502035	4502035N-01

x 103		4502124#	4502124N-01#
x 120		-	4502132N-01
x 103	25	4502116#	4502116N-01#
x 120		4502120-13	4502120N-01
x 156			333877N-01

4 x 50	-	4502175N-01
5 x 25 25	4502167	4502167N-01
5 x 50	4502159	4502159N-01

ength (mm)	Units per box	Code no. (REF) Luer	Code no. (REF) NRFit®
27 G, 2	5 G		
9 x 35	25	4505000*	4505000*



To meet individual preferences, B. Braun offers a broad range of epidural cannulas, catheters and accessories for epidural anaesthesia.





VIDURAL ANAESTHESIA





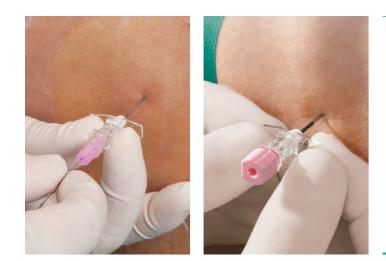


Products for Epidural Anaesthesia

Quality and Practicality

Products for Epidural Anaesthesia

Perifix® Catheters: Available with different characteristics - Soft-Tip and ONE



Adapting to the unique anatomical challenges of each patient, it is important to use the appropriate needle and accessories.

B. Braun focuses on QUALITY & PRACTICALITY.



Perifix[®] Soft-Tip Catheter

- Soft-Tip catheter with a radiopaque tip
- Length 1000 mm

- Does not contain latex, DEHP or PVC
- MRI suitable



Perican[®] Tuohy Needles

- For both continuous and single-shot techniques
- Different needle sizes (16 G, 18 G, 20 G, 22 G)
- With 1 cm graduation in length
- Polished inner bevel edge to reduce the risk of catheter shearing

USER BENEFITS:

- 1 cm marking to control the insertion depth
- High bending stiffness for control during needle advancement
- Fitted stylet: to reduce the risk of tissue coring and potential epidermoid tumor development¹¹

Perifix[®] ONE

- Epidural catheter with a relatively stiff but flexible shaft and a soft, atraumatic tip
- Length 1000 mm
- Six micro-holes enhance the spread of anaesthetic drug
- identification on x-ray images
- Does not contain latex, DEHP or PVC
- MRI suitable

JURAL ANAESTHESI

• Three micro-holes enhance the spread of anaesthetic drug • Clear blue length markings embedded in catheter material



Three radiopaque enclosed yellow barium sulphate stripes for

Products for Epidural Anaesthesia

Perifix[®] Accessories

Products for Epidural Anaesthesia

Epidural Anaesthesia for the Smallest Patients



Perifix[®] LOR-Syringe

- Easy-gliding plunger with good gliding characteristics and safety stop
- Parabolic graduation to differentiate it from conventional syringes
- Suitable for air and saline applications
- Lock or slip connection



erifix® P

PinPad Perifix

Perifix[®] Filter with PinPad

- Filter fixation on patient in combination with self-adhesive PinPad
- Filter reduces the risk of bacterial infections¹¹
- Pressure resistant up to 7 bar



Perican[®] Paed Epidural Needles

- Tuohy bevel
- For continuous or single-shot techniques
- Three different needle sizes (18 G, 20 G, 22 G)
- 5 mm markings to control the insertion depth
- Fitted stylets: to reduce the risk of tissue coring and potential epidermoid tumor development⁸



Perifix® Catheter Connector

- Available in two sizes (19 G and 20/24 G)
- Tactile and acoustic feedback upon closure
- Viewing window allows for catheter insertion control to ensure a successful connection



Perifix[®] Catheter Fixation

- Catheter fixation, consisting of fixation ring and non-woven cover foil
- Easy examination of puncture site due to exchangeable cover foils



Perifix[®] ONE Paed Epidural Sets

Perifix[®] ONE Paed epidural sets in 20/24 G for newborns and infants, and 18/20 G for older children:

- Catheters with distance markings for paediatric use
- For safe catheter insertion and position control
- Catheter with markings each 1 cm in the space between
- 2 and 20 cm from the needle tip

EPIDURAL ANAESTHESI

techniques 8 G, 20 G, 22 G) insertion depth sk of tissue coring or development⁸

ngs for paediatric use d position control 1 cm in the space between tip

EPIDURAL NEEDLES

Perican®	Colour code	Size (G)/Length (inch)	ø/Length (mm)	Units per box	Code no. (REF) Luer	Code no. (REF) NRFit®	
		18 x 3¼"	1.3 x 80	25	4512383	4512383N-01	
		16 x 3¼"	1.7 x 80	25	4512782	4512782N-01	
	Long Length	1					
ŭ		18 x 4 ³ /4"	1.3 x 120		4512453	4512453N-01	
		18 x 6"	1.3 x 150	25	4512200	4512200N-01	
		16 x 4 ³ /4"	1.7 x 120	25	-	4512785N-01	
		16 x 6"	1.7 x 150		-	4512784N-01	
Perican [®] Paed	Colour code	Size (G)/Length (inch)	ø/Length (mm)	Units per box	Code no. (REF) Luer	Code no. (REF) NRFit®	
		22 x 2"	0.73 x 50	25	4502078	4502078N-01	
		20 x 2"	0.9 x 50	20	4502094	4502094N-01	

EPIDURAL CATHETERS

Perifix [®] catheter	Catheter ø outer/inner/ Length (mm) (G)			Code no. (REF) Luer	Code no. (REF) NRFit®	
	Perifix [®] Soft Tip catheter (with 3	lateral eyes)				
	0.85/0.45/1000 (20)	18	25	4515048*	4515048N-01	
	Perifix [®] ONE catheter (with 6 lat	teral eyes)			* New Zealand Only	
	1.05/0.60/1000 (19)	16	25	4513258C	45132581N-01	
	0.85/0.45/1000 (20)	18	25	4513150C	45131501N-01	

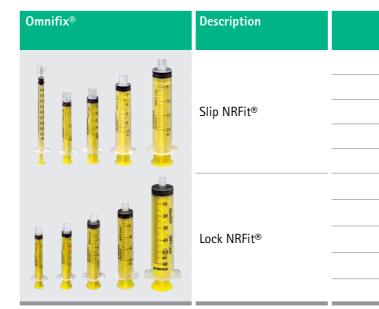
EPIDURAL ACCESSORIES

Perifix [®] Catheter Fixation	Description			Units per box	Code no. (REF)
	Perifix [®] catheter fixation, consisting of a fixation a non-woven cover foil	n ring and		25	4511200
Ó	Perifix [®] non-woven replacement cover foil			20	4511201
Perifix [®] Loss-of-Resistance (LOR) Syringe	Description			Units per box	Code no. (REF) Luer
	Perifix [®] LOR Syringe, Luer-Slip			100	4637100
	Perifix® LOR Syringe, Luer-Lock			100	4638107
	Perifix [®] LOR Syringe, Slip NRFit [®]			4637110	
	Perifix [®] LOR Syringe, Lock NRFit [®]			25	4638110
Perifix [®] catheter connector	Size (G)	Units per box	Code	no. (REF) Luer	Code no. (REF NRFit®
1 - 1	19	25 -		4513801	4513801N-01
	20/24	23		4513800	4513800N-01
Perifix® filter	Particle filter (μm)	Units per box	Code	no. (REF) Luer	Code no. (REF) NRFit®
- Ser	0.2	25		4515501	4515501N-01
Perifix [®] PinPad	Description		Unit	s per box	Code no. (REF
erifix* Pь * PinPad Periti, ad Perifix* PinPac					

EPIDURAL ACCESSORIES

Sterifix [®] filter straws	Particle filt	er (μm)	Length (cm)	Units per box	Code no. (REF)		
		5	4.50	50	4550250N		
		5	10	50	4550200N		
Sterifix [®] filter needle	Size (G)	Particle filter (μm)	Length (cm)	Units per box	Code no. (REF)		
	19	5	3.80	50	4550404N		
Infusomat [®] Space Line			Length	Units	Code no.		
			(cm) 300	per box 100	(REF) 8700132SP		
Original Perfusor [®] Line			Length (cm)	Units per box	Code no. (REF)		
 O 			200	25	8722865		
NRFit® syringe caps NRFit® stoppers	Description			Units per box	Code no. (REF)		
11	Syringe cap with	NRFit [®] connecto	r	25	4517501N		
	Stopper with NR	Fit [®] connector		25	4517502N		

EPIDURAL ACCESSORIES



Filling volume (ml)	Units per box	Code no. (REF)
1		9164001
3		4616003
5	100	4616005
10		4616014
20		4616021
3		4617003
5		4617006
10	100	4617014
20		4617021
50		4617508F-01

SETS FOR EPIDURAL ANAESTHESIA (LUER)

Legend 20 G x 2", Ø 0.9 x 50 mm 18 G x 3 ¼", Ø 1.3 x 80 mm, 18 G x 2", Ø 1.3 x 50 mm (Paed Set) 16 G x 3 ¼ ", Ø 1.7 x 80 mm										<i>,</i>		erifixt Pa PinPad Periti ad Perifixt PinPad Perifixt PinPad Perifixt PinPad Perifixt PinPad Perifixt PinP Perifixt PinP		21G, 40 m	needles m, ø 0.5 mm m, ø 0.8 mm m, ø 1.2 mm
	Perican® Tuohy needlo 50mm	e 80mm	Perifix [®] ONE epidural cath 6 lateral eyes 24G	eter,	Perifix® Soft epidural cath 3 lateral eye 20G	eter,	Perifix [®] Loss of Resistance syringe	Omnifix [®] three part syringe, 20 ml, Lock, Sterifix [®] filter needle	Omnifix [®] three part syringe, 3 ml, Lock, Sterifix [®] filter needle	Perifix [®] Filter 0.2 μm, pressure resistant up to 7 bar	Perifix® catheter connector 19 G or 20/24 G	Perifix® PinPad filter fixation	Omnifix [®] three part syringe, 3ml, Luer Lock, 3 Luer hypodermic needles*		
Set Versions	Perican [®] Tuo			with NRFit®			Perifix [®] LOR	Omnifix [®] and Sterifix [®]	Omnifix [®] and Sterifix [®]	Perifix® Filter	Perifix [®] catheter connector	Perifix® PinPad	Omnifix [®] and hypodermic needles with Luer	Units per box	Code no. (REF)
Complete Sets															۷
Perifix [®] Soft Tip 901 18G				_					-	•			-		4510305 ISH
Perifix [®] ONE 421 18G							100 A. 100 A.	1.10		1.1	1.1	10 A 10	10 A 10	10	4514211C
Perifix [®] Soft Tip 431 16G															4514319 IV
Perifix [®] ONE 431 16G							100 B			- -	100 B		-		4514319C
Filter Sets															
Perifix [®] 400 Filter Set 18G						-								20	4514009
Perifix [®] 402 Filter Set 16G						•	100 B			100 B	100 B			20	4514025
Pediatric Sets															
Perifix [®] ONE Paed 18G							•							10	4512006C
Perifix [®] ONE Paed 20G														10	4512014C

SETS FOR EPIDURAL ANAESTHESIA (NRFIT®)

Legend 20 G x 2", Ø 0.9 x 50 mm 18 G x 3 ¹ /4", Ø 1.3 x 80 mm, 18 G x 2", Ø 1.3 x 50 mm (Paed Set) 16 G x 3 ¹ /4 ", Ø 1.7 x 80 mm							Ĵ			, Series de la constante	J.J.	erifix* Pi PinPad Perih, ad Perifix* PinPac ix* PinPad Perifix* ad Perifix* PinPad * PinPad Perifix* Perifix* PinP nPad P		21 G, 40 mi	needles n, ø 0.5 mm n, ø 0.8 mm n, ø 1.2 mm
	Perican® Tuohy needle 50mm	80mm	Perifix [®] ONE epidural cath 6 lateral eyes 24G	eter,	Perifix® Soft epidural cath 3 lateral eye 20G	neter,	Perifix [®] Loss of Resistance syringe	Omnifix [®] three part syringe, 20 ml, Lock, Sterifix [®] filter needle	Omnifix [®] three part syringe, 3 ml, Lock, Sterifix [®] filter needle	Perifix [®] Filter 0.2 μm, pressure resistant up to 7 bar	Perifix® catheter connector 19 G or 20/24 G	Perifix® PinPad filter fixation	Omnifix® three part syringe, 3ml, Luer Lock, 3 Luer hypodermic needles*		odermic needles tration) stay Luer
Set Versions	Perican [®] with	n NRFit®	Perifix® ONE	with NRFit®	Perifix® Soft with NRFit®	Тір	Perifix [®] LOR with NRFit [®]	Omnifix [®] and Sterifix [®] with NRFit [®]	Omnifix [®] and Sterifix [®] with NRFit [®]	Perifix® Filter with NRFit®	Perifix [®] catheter connector with NRFit [®]	Perifix® PinPad	Omnifix [®] and hypodermic needles with Luer		Code no. (REF) NRFit®
Complete Sets															
Perifix [®] Soft Tip 901 18G NRFit							100 A.				-		-	10	4510305N-01
Perifix® ONE 421 18G NRFit							100 B							10	45142111N-01
Filter Sets															
Perifix [®] 402 Filter Set 16G NRFit		-					100 A			100 B				10	4514025N-01
Pediatric Sets															
Perifix [®] ONE Paed 18G NRFit															45120061N-01
Perifix [®] ONE Paed 20G NRFit	•						100 B		100 B	1.1	100 B	1.1		10	45120141N-01

COMBINED SPINAL AND EPIDURAL ANAESTHESIA

Combining the benefits of both techniques - sets for combined





spinal and epidural anaesthesia (CSE).



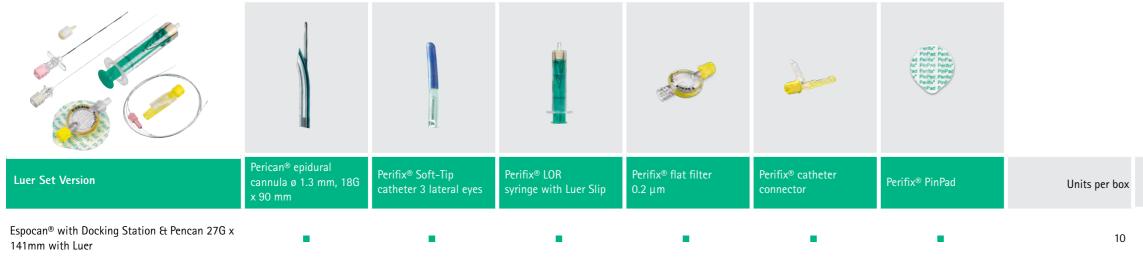




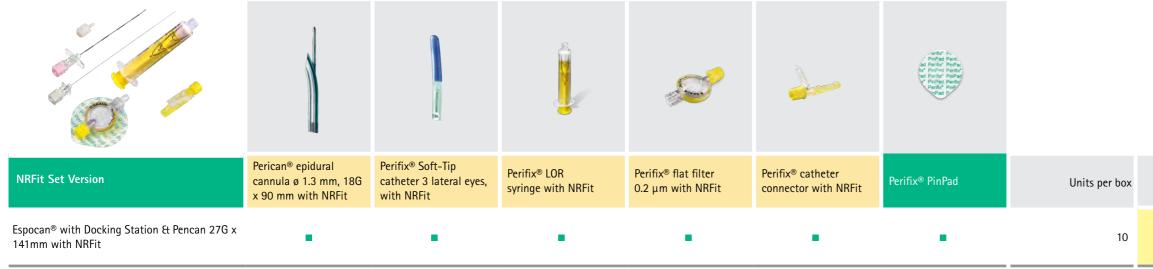


Products for Combined Spinal and Epidural Anaesthesia

SETS FOR COMBINED SPINAL AND EPIDURAL ANAESTHESIA (LUER)

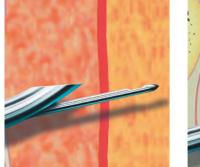


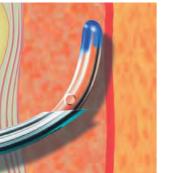
SETS FOR COMBINED SPINAL AND EPIDURAL ANAESTHESIA (NRFIT)



Combined Spinal-Epidural Anaesthesia (CSE):

THE BENEFITS of Spinal and Epidural Anaesthesia in the Espocan® Sets





Special Pencan Tuohy Epidural needle with additional back eye in the Tuohy curve plus a Pencan Spinal needle with sleeve to centre the needle inside the epidural Tuohy needle.

- Tip of the spinal needle exits straight through the back eye of the Tuohy needle
- Docking system to hold the spinal needle in place
- Sleeved spinal needle for smooth exit through the back eye



Code Number

4556763



Code Number

4556763N-01

1 Markings on the Spinal Needle

The markings on the spinal needle show, when the tip leaves the back-eye.

2 USER BENEFITS

- The docking system allows rotation of the spinal needle even in the fixed position. Avoids the difficult and uncomfortable finger grip to steady fix the spinal needle in position
- The docking system ensures fixation of the spinal needle inside the tuohy needle after successful dura puncture and injection of the local anaesthetic.

PERIPHERAL NERVE BLOCKS

Whatever option you prefer wide ranged product portfolio for stimulated and Ultrasound guided peripheral nerve blocks.













Peripheral Nerve Block Portfolio

Quality and Functionality Without Compromise

Visibility Without Compromise

The NeXt generations of Echogenic Nerve Block Needles



ULTRASOUND

B. Braun offers a large product range of echogenic needles and catheters. Stimuplex® Ultra 360®, Ultraplex® 360® and ContiplexS® Ultra 360® are B. Braun's latest generation of Ultrasound needles that combines enhanced Ultrasound visibility with smooth gliding properties and a good puncture quality. 11

NERVE STIMULATION

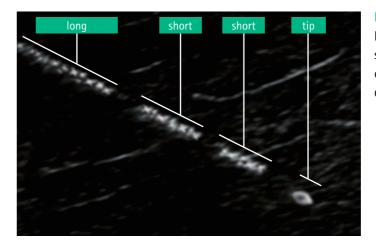
For the electrical nerve stimulation B. Braun provides a wide range of stimulating needle and catheter systems for different applications. The well established nerve stimulator Stimuplex® HNS 12 completes the offer.



X-pattern-design



Ultrasound waves





* Stimuplex® Ultra 360®, Ultraplex® 360® and ContiplexS® Ultra 360® are the latest generation of echogenic needles in the B. Braun range and not necessarily the latest generation of all echogenic needles available on the market

B. BRAUN ULTRASOUND NEEDLES

Stimuplex[®] Ultra 360[®], Ultraplex[®] 360[®] and ContiplexS[®] Ultra 360[®] needles feature B. Braun's echogenic 360° X-pattern. The 'X' is a unique shape, also combined with a clear coating, it's intended to reflect more Ultrasound waves back to the probe than previous designs. 12

The X-pattern is applied as a segmented safety-code (longshort-short-tip) and facilitates the needle tip identification. The Ultraline 360 portfolio is equipped with 30° back-cut bevel plus 360° X-shaped markings and a clear coating for better ultrasound visualisation and tip identification from all angles.¹³

NAVIGATION

For an easy identification of the needle tip, the X-pattern is strategically applied on the first 20 mm of the needle shaft to create the segmented code "long-short-short-tip". This enables distinction between the needle tip and the upper needle shaft.¹²

USER BENEFITS

- Navigation: Safety code for identification of the needle and needle tip position
- Visibility: 360° X-pattern and clear coating result in better Ultrasound visualisation and tip identification compared to previous designs
- Tactile Feedback: designed for consistent puncture same 30° back-cut bevel as previous Stimuplex® Ultra and Ultraplex® needles

Products for Peripheral Nerve Blocks

Single Shot Needles

Products for Peripheral Nerve Blocks

Sets for Continuous Peripheral Nerve Blocks



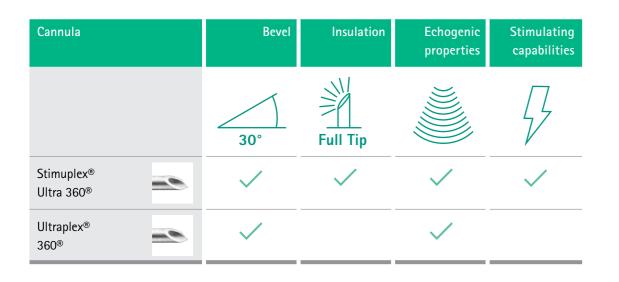
Stimuplex[®] and Ultraplex[®] single shot needles include navigation markings and an ergonomic design to provide tactile feedback and better needle tip positioning for consistent puncture.

USER BENEFITS

- Improved design allowing better puncture and gliding characteristics
- Broad portfolio of needle lengths from 35 to 150 mm and G 22 to G 20
- Ergonomic needle hub design for enhanced tactile feedback



Set			
	 15°	<u></u> 20°	<u>30°</u>
Catheter through the n	eedle technique	e	
Contiplex [®] S Ultra 360		\checkmark	
Contiplex® Tuohy Ultra 360			
Catheter over the need	le		
Contiplex [®] C			\checkmark

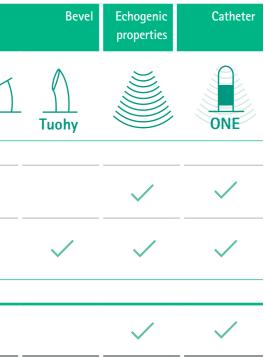




Contiplex[®] Continuous Nerve Block Sets Continuous peripheral nerve blocks provide pain relief during and after surgical procedures, for improved patient recovery.¹⁴

USER BENEFITS

- Wide range of catheter sets
- Harmonised set components
- Ultrasound visibility of Perifix[®] ONE catheter



Products for Peripheral Nerve Blocks

Nerve Stimulation with the Stimuplex[®] HNS 12

Portfolio Overview

SINGLE-SHOT BLOCK NEEDLES





1 Stimuplex[®] HNS 12 with SENSe

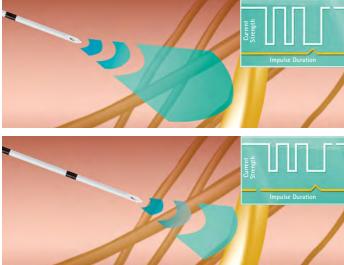
2 Stimuplex[®] Pen for cutaneous nerve mapping

B.Braun Nerve Stimulator - Stimuplex[®] HNS 12 with SENSe What is SENSe?

In practice, marginal needle movements often lead to loosing the muscle twitch. The SENSe technology (Sequential electrical Nerve Stimulation) is a sequence of two fixed impulse durations of 0.1 ms along with a third longer impulse duration.¹⁵ Most traditional nerve stimulators emit two very short pulses every second. That's because short pulses improve accuracy or specificity when closer to the nerve. The downside is that sensitivity, or the availability to elicit visual feedback at a distance from the nerve, is lost. SENSe technology increases both sensitivity and specificity by adding a third, longer pulse. This results in eliciting a motor response even when the needle is far from or not aimed directly at the nerve and requires less adjustment to the amperage control while retaining the visual feedback.

USER BENEFITS

- Stimulation with SENSe-technology designed for more efficient nerve stimulation 15
- Menus designed for easy control of sound and other settings
- Acoustic signals inform the user of any relevant deviations



As the needle is advanced, SENSe generates two short and one long pulse. From the alternating sequence of three impulses, the third longer impulse stimulates the nerve already at a distance. One muscle twitch is visible and indicates that the needle is directed to the nerve.

The stimulation needle is further advanced towards the nerve while SENSe maintains the motor response. Current strength adjustments lead to definite reductions of the third impulse.

At the threshold level of approximately 0.5 mA three muscle twitches are visible as all three impulses stimulate the nerve.

Stimuplex [®] Ultra 360 [®]	Needle ø (G) and Length (inch)	Needle ø and Length (mm)	Units per box	Code no. (REF) Luer	Code no. (REF) NRFit®
	Insulated Echogenic Need	les with 30° Bevel			
	22 G x 13/8"	0.70 x 35 mm		4892503-03	4892503NR-01
	22 G x 2"	0.70 x 50 mm		4892505-03	4892505NR-01
	22 G x 31/8"	0.70 x 80 mm	25	4892508-03	4892508NR-01
	20 G x 4"	0.90 x 100 mm		4892510-03	4892510NR-01
Come Sand	20 G x 6"	0.90 x 150 mm		4892515-03	4892515NR-01

traplex [®] 360	Needle ø (G) and Length (inch)	Needle ø and Length (mm)	Units per box	Code no. (REF) Luer	Code no. (REF) NRFit®	
9	Non-Insulated Echogenic Needle	es with 30° Bevel				
	22 G x 13/8"	0.70 x 35 mm		4892603-01	4892603NR-01	{VE
	22 G x 2"	0.70 x 50 mm		4892605-01	4892605NR-01	PERIPHERAL NERVE BLOCKS
	22 G x 31/8"	0.70 x 80 mm	25	4892608-01	4892608NR-01	HERA
	20 G x 4"	0.90 x 100 mm		4892610-01	4892610NR-01	PERIP
	20 G x 6"	0.90 x 150 mm		4892615-01	4892615NR-01	

Nerve Stimulation



Description

Stimuplex® HNS 12 Nerve Stimulator for Ultraplex[®] and Contiplex[®] needles

Nerve Stimulator Accessories and Spare Parts

- Battery cover for Stimuplex[®] HNS 12
- Carrying Case for Stimuplex® HNS 12
- Test resistor for Stimuplex® HNS 12
- Electrode cable

Knob for special handling



	Units per box	Code no. (REF)
r Stimuplex®,	1	4892098

Units per box	Code no. (REF)
	4892094
	4892095
1	4892096
	4892070
	4892283

SETS FOR CONTINUOUS NERVE BLOCKS

				Contiplex® C catheter-over- the-needle system	Contiplex® S Ultra 360	Contiplex® Tuohy Ultra 360	Contiplex [®] ONE catheter (6 lateral eyes, open tip)	Perifix [®] ONE Catheter (6 lateral eyes, Charled tire)	Perifix® Catheter Connector 19G or 20/24G	Perifix® PinPad filter fixation	Perifix® Filter 0.2 µm, Pressure resistant up to 7	Omnifix® syringe 5 ml				
		Cannula		25G	18G	18G	Contiplex®	Closed tip) 20G Perifix®			bar					
	Size	Size ø	longth				ONE Catheter	ONE catheter through nee- dle system	Perifix® Catheter Connector	Perifix® PinPad	Perifix® Filter	Omnifix®	Units per box	Code no. (REF) Luer	Code no (REF) NRFit®	
	(G)	(mm)	Length (mm)	Cannula	Bevel (°)	Tuohy Bevel	system(mm)	(mm)			Luce and NDE:t®	Luce and NDF:40				
Contiplex [®] C Sets		Luer and NRFit [®]	9		Luer and NRFit®				Luer and NRFit [®]		Luer and NRFit [®]	Luer and NRFit [®]				
Contiplex® C	25	0.53	190	15°			188					-		4898115	4898115N	R
Contiplex® C	25	0.53	190	30°			188		•	•		-	5	4898130	4898130N	R
Contiplex [®] S Ultra 360 [®] Sets																
Contiplex [®] S Ultra 360	18	1.3	50		20°			400	1.1					4898650-27	4898650NR-2	7
Contiplex [®] S Ultra 360	18	1.3	100		20°			1000	•	•		•	10	4898610-27	4898610NR-2	7
Contiplex [®] S Ultra 360	18	1.3	150		20°			500	•			•		4898615-27	4898615NR-2	7
Contiplex [®] Tuohy Ultra 360 [®] Sets																
Contiplex® Tuohy Ultra 360	18	1.3	40					400				1.1		4898704-27	4898704NR-0	1
Contiplex [®] Tuohy Ultra 360	18	1.3	50					400	•	•	•	•	10	4898705-27	4898705NR-0	1
Contiplex [®] Tuohy Ultra 360	18	1.3	100					1000		1.1	1.1	1. A. S.	10	4898710-27	4898710NR-0	1
Contiplex [®] Tuohy Ultra 360	18	1.3	150			•		1000	<u> </u>	•	· ·	•		4898715-27	4898715NR-0	1

Easypump[®] II

Easypump[®] II is a mobile elastomeric infusion pump designed to give clinicians and nurses the option of delivering pre-determined amounts of short or long-term IV therapies to a patient in a continuous and accurate manner, either at the hospital, in an ambulatory setting or at their home.

It offers a broad product portfolio of different versions and features a clear coding system that helps to identify the version that best fits the patients needs.

Cap

Comfort Cap Safe protection of the filling port.

Luer Lock filling port.

HOW IT WORKS

Medication is delivered to the patient by positive pressure applied by the elastomeric membrane. The flow rate is determined by the combination of the flow regulation device (flow restrictor) and the positive pressure of the elastomeric membrane.

This pressure delivers the solution against the back-pressure of catheters and blood pressure in the veins.

BENEFITS FOR PATIENTS

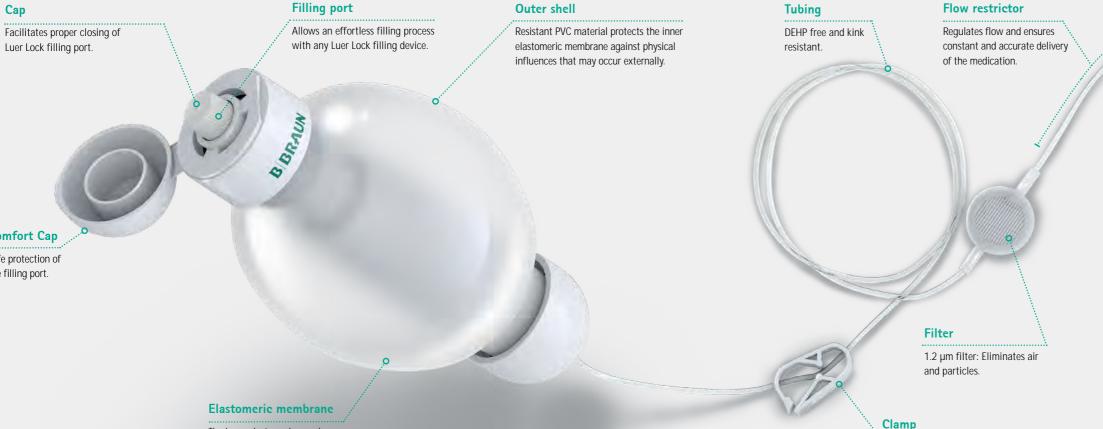
- Small and light (especially as therapy progresses)
- Carry Pouch enables discrete transport of the pump - Allows patient faster discharge from hospital
- Helps to return to normal activities quicker

- Versatile use for infusion therapies like chemotherapy and antibiotics - Broad range of therapies (extensive list of drug stability data available)

- Suitable for intravenous, subcutaneous and epidural treatment - Suitable for stationary and ambulatory use
- Preset parameters to ensure safety for both hospital and home use - Safe, single-use system for clean and easy handling

BENEFITS FOR PHARMACISTS

- Easy filling with low filling force
- Broad range of therapies (extensive list of drug stability data available)
- Preset parameters to ensure safety for hospital and home use
- No programming or rate changing necessary
- Integrated air venting and particle filter
- Fully latex-free product portfolio
- Minimal training required



The inner elastomeric membrane made of silicone is the fluid reservoir containing the medication and works as the pressure source.

Enables easy start and stop of the infusion.

- No fuss with batteries or electric devices

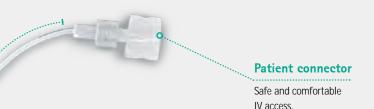
- Flow restrictor

BENEFITS FOR PHYSICIANS

- Fully latex-free product portfolio

BENEFITS FOR NURSES

- Easy maintenance, reduced workload
- Minimal training required
- Low filling force
- No programming or rate changing necessary
- Integrated air venting and particle filter
- Kink-resistant tubing



Easypump[®] II Product specifications



Long-term infusion			Filling	volume an	d deliver	y time			Short-term infusion			Filling	volume a	nd delivery	time		
Description	Color code & flow fate (ml/h)	Nominal ml	filling h	Minimur ml	n filling h	Maximu ml	m filling h	Code no. (REF)	Description	Color code & flow rate (ml/h)	Nominal ml	filling h	Minimu ml	m filling h	Maximu ml	m filling h	Code no. (REF)
Easypump® II LT 60-12-S	5 ml/h	60	12	30	6	65	13	4540002*	Easypump® II ST 100-0.5-S	200 m/h	100	30	50	15	125	38	4540040*
Easypump® II LT 80-16-S	5 ml/h	80	16	50	10	125	25	4540004*	Easypump [®] II ST 250-0.5-S	500 m/h	250	30	125	15	295	35	4540042*
Easypump® II LT 125-25-S	5 ml/h	125	25	60	12	125	25	4540006	Easypump [®] II ST 50-1-S	50 ml/h	50	60	30	36	65	78	4540044*
Easypump® II LT 270-27-S	10 ml/h	270	27	120	12	335	34	4540008	Easypump [®] II ST 100-1-S	100 m/h	100	60	50	30	125	75	4540046*
Easypump® II LT 60-30-S	2 ml/h	60	30	30	15	65	33	4540010	Easypump [®] II ST 250-1-S	250 m/h	250	60	135	32	335	80	4540048*
Easypump [®] II LT 120-30-S	4 ml/h	120	30	60	15	125	31	4540012*	Easypump [®] II ST 250-1.5-S	175 m/h	250	86	135	46	335	115	4540050*
Easypump® II LT 400-40-S	10 ml/h	400	40	240	24	560	56	4540014	Easypump [®] II ST 400-2-S	200 m/h	400	120	240	72	560	168	4540052*
Easypump® II LT 100-50-S	2 ml/h	100	50	50	25	125	63	4540016	Easypump [®] II ST 500-2-S	250 m/h	500	120	240	58	560	134	4540054*
Easypump® II LT 270-54-S	5 ml/h	270	54	135	27	335	67	4540018	Easypump [®] II ST 100-2-S	50 ml/h	100	120	50	60	125	150	4540056*
Easypump [®] II LT 400-80-S	5 ml/h	400	80	240	48	560	112	4540022	Easypump [®] II ST 400-4-S	100 ml/h	400	240	240	144	560	336	4540058*
Easypump® II LT 270-68-S	4 ml/h	270	68	135	34	335	84	4540026*									
Easypump® II LT 400-100-S	4 ml/h	400	100	240	60	560	140	4540028*									
Easypump [®] II LT 270-135-S	2 ml/h	270	135	135	68	335	168	4540032	All Easypump® II ST-LT version			ts.					

All Easypump® II ST-LT versions are provided in boxes of 10 units. Contact for availability and minimum order requirements.

REFERENCES

- 1. Neuman MD et al. Comparative Effectiveness of Regional versus General Anesthesia for Hip Fracture Surgery in Adults. Anesthesiology 2012;117(1):72–92. doi: https://doi.org/10.1097/ALN.0b013e3182545e7c.
- Ilfeld BM et al. Continuous Popliteal Sciatic Nerve Block for Postoperative Pain Control at Home: A Randomized, Double-Blinded, Placebo-Controlled Study. Anesthesiology 2002;97(4):959–965.
- Aguirre J. The economics of regional versus general anaesthesia in the ambulatory setting. Euroanaesthesia: The European Anaesthesiology Congress; 2016 May 28-30; London. http://euroanaesthesia2016.esahq.org/ the-economics-of-regional-versus-general-anaesthesia-in-the-ambulatorysetting/.
- Hu S et al. A comparison of regional and general anaesthesia for total replacement of the hip or knee: a meta-analysis. J Bone Joint Surg Br 2009; 91(7):953-42. doi: 10.1302/0301-620X.91B7.21538.
- Helwani MA et al. Effects of regional versus general anesthesia on outcomes after total hip arthroplasty: a retrospective propensity-matched cohort study. J Bone Joint Surg Am. 2015; 97(3):186–93. doi: 10.2106/JBJS.N.00612.
- ISO 80369-6:2016; Small bore connectors for liquids and gases in healthcare applications – Part 6: Connectors for neuraxial applications. https:// www.iso.org/standard/50734.html.
- 7. Lehmann, 2002, Spinalkanülen neuster Generation.
- Pillai S, Cherian A T. latrogenic Intraspinal Epidermal Inclusion Cyst with Secondary Infection: A Cause for Acute Paraparesis. Journal of Orthopaedic Case Reports 2018 Nov-Dec; 8(6): 96-99
- Vallejo MC et al. Postdural puncture headache: a randomized comparison of five spinal needles in obstetric patients. Anesth Analg. 2000 Oct; 91(4):916-20.
- Krommendijk et al. The PENCAN 25-gauge needle: A new pencil-point needle for spinal anesthesia tested in 1,193 patients. Reg Anest Pain Med, 1999;24(1):43-50.
- Bruenke J, Riemann T, Kessler P, et al. Reg Anesth Pain Med Epub ahead of print: [June 13, 2021]. doi:10.1136/rapm-2021-102517
- 12. Cooper D et al. Regional Block Needles–A Matter of Feel and Brightness. Presented at the 35th ESRA in Maastricht, Netherlands, September 2016.
- 13. B. Braun Internal testing: ETRs JMLY-8ADPR2, NPAK9VRK2K
- 14. Steinfeld T et al. Nerve injury by needle nerve perforation in regional anesthesia: does size matter? Br J Anaesth. 2010;104(2):245-53. doi: 10.1093/bja/aep366.
- Urmey WF, Grossi P. Use of sequential electrical nerve stimuli (SENS) for location of the sciatic nerve and lumbar plexus. Reg Anesth Pain Med. 2006;31(5):463–9.
- Kåsine T et al. Needle tip tracking for ultrasound-guided peripheral nerve block procedures – An observer blinded, randomised, controlled, crossover study on a phantom model. Acta Anaesthesiol Scand. 2019; 63(8): 1055–62. doi: 10.1111/aas.13379.

- Kåsine T et al. The effect of needle tip tracking on procedural time of ultrasound-uided lumbar plexus block: a randomised contolled trial. Anaesthesia 2019. 75(1): 72-79. doi: 10.1111/anae.14846.
- McLeod GA et al. An initial evaluation of the effect of a novel regional block needle with tip-tracking technology on the novice performance of cadaveric ultrasound-guided sciatic nerve block. Anaesthesia 2020;75(1):80–88. doi: 10.1111/anae.14851.
- 2019-04-06_Customer feedback_Onvision performance questionnaire_ D000228286 CER.

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