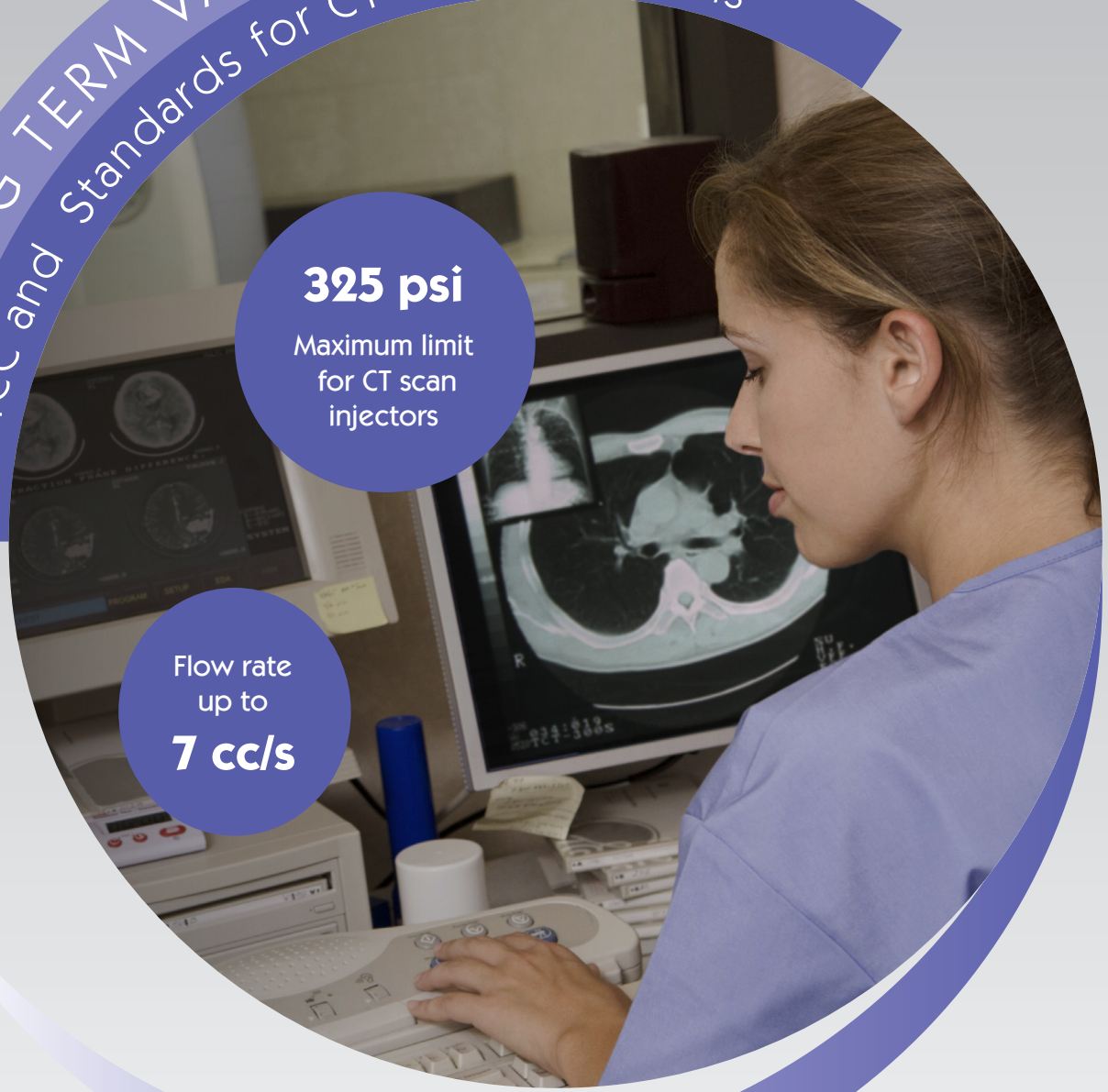




LONG TERM VASCULAR ACCESS
CT PICC and Standards for CT scan injections



325 psi
Maximum limit
for CT scan
injectors

Flow rate
up to
7 ccl/s



Value Life

Advantage of power injectable PICC-Lines:

Patient comfort and safety

- › **Preserve peripheral access:** no need to puncture the patient several times causing pain and damaging peripheral veins.
- › **Prevent complications** due to multiple and unsuccessful IV cannula placement attempts¹.
- › **Offer reliable IV access for patients with cancer** who might have an infusion therapy and multiple CT examinations.

Technical requirements for contrast media delivery

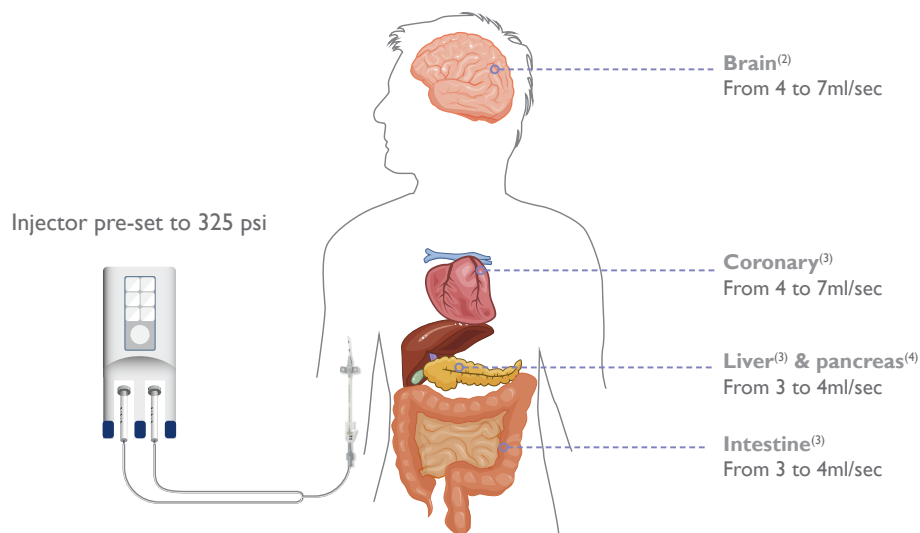
Parameters	Angiography	CT	MRI
Flow rates	0-40 cc/s	0.1-7 cc/s	0.1-7 cc/s
Injector pressure limit	1200 psi	325 psi	325 psi

Source: ECRI Report 2009 : Injectors, Contrast Media, Angiography, CT

• Flow rate

- › The primary consideration in any angiography or CT procedure.
- › Depends on the nature of the disease/organ and the type of procedure.

Power injectable PICCs allowing flow rates up to 6 or 7 cc/s make possible the CT examination of a wide number of organs.



Higher flow rates up to 6cc/s or greater are frequently required for larger patients, and in general for shorter acquisitions^{5,6}.

• Injection pressure

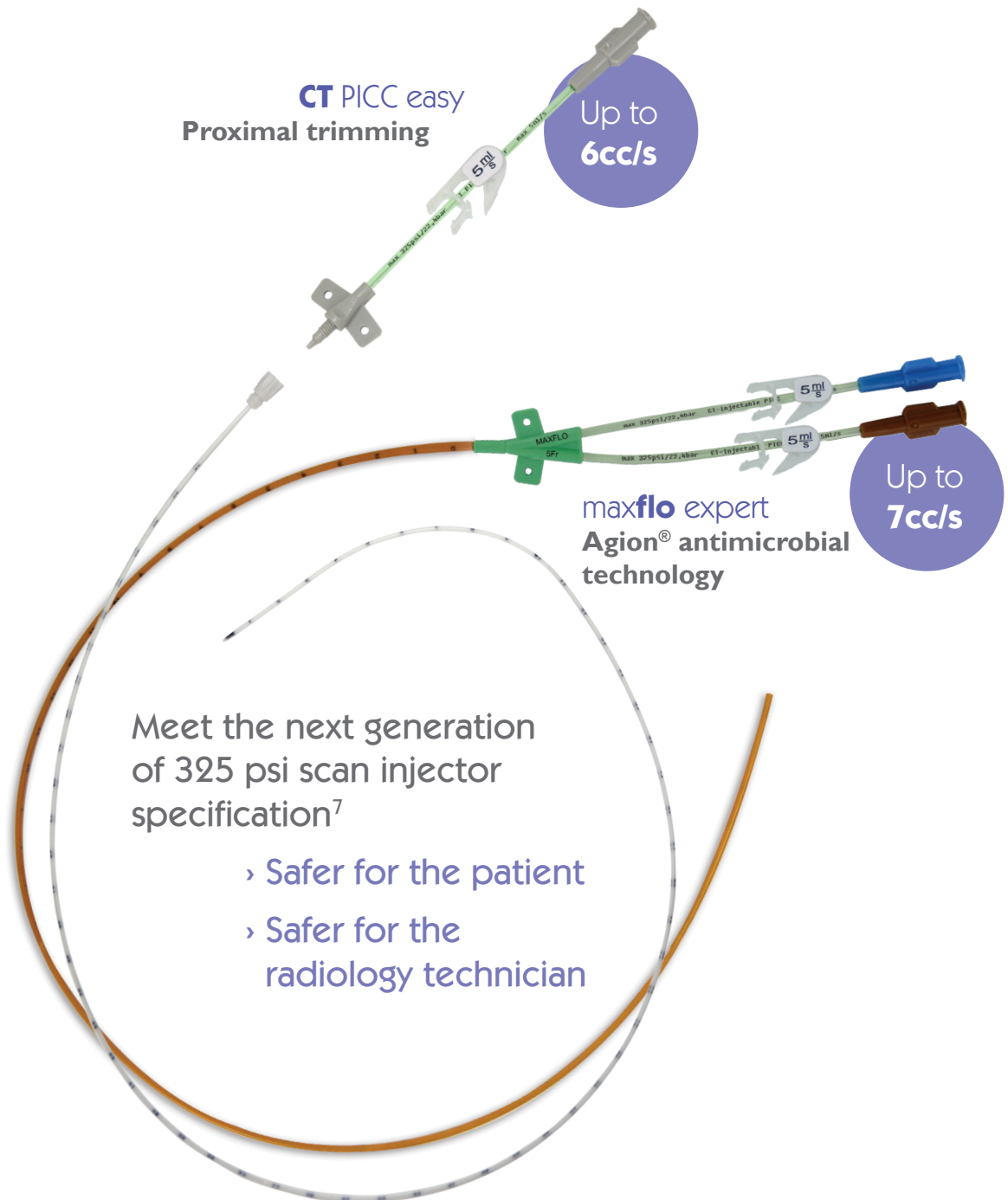
- › New generations of CT contrast media injectors with pressure limit pre-settings of 325 psi.⁷

No need to change the injector pre-settings with PICCs that withstand 325 psi, offering improved patient safety.

Vygon CT PICC range

Highest flow rate

› better quality image and tissue visualisation



1 A A O Plumb et al, The use of central venous catheters for intravenous contrast injection for CT examinations, The British Journal of Radiology, 84 (2011), 197-203

2 MRI Multi-modal CT scanning in the evaluation of cerebrovascular disease patients Vol4, No 3 (June 2014) Saba L et al.

3 Guide pratique d'imagerie diagnostique à l'usage des médecins radiologues (diagnosis imaging practical guide for radiologist), french society of radiology, updated 03/2013

4 Kandel S et al. Whole-organ perfusion of the pancreas using dynamic volume CT in patients with primary pancreas carcinoma: acquisition technique, post-processing and initial results Eur Radiol. 2009 Nov;19(11):2641-6

5 ACR - ASNR - SPR Practice parameter for the performance and interpretation of cervicocerebral computed tomography angiography (CTA); Revised 2015 American College of Radiology

6 Abbara S et al. SCCT guidelines for performance of coronary computed tomographic angiography: a report of the Society of Cardiovascular Computed Tomography Guidelines Committee, Journal of Cardiovascular Computed Tomography (2009) 3, 190-204

7 Contrast media injector with 325 psi pressure limit : Medrad Spectris; Medrad Stelland D and 5x; Guerbet Optivantage DH

Lumen	Size Fr	Ext. Ø mm	Maximum flow rate	Maximum pressure	Codes		
					With Micro Seldinger Kit 50 cm guidewire	With Micro Seldinger Kit 67 cm guidewire for fluoroscopy	Over-the-wire Seldinger 135 cm guidewire for fluoroscopy
1	4	1.35	5 ml/s	325psi (22.4bar)	8394.14*	8394.414*	8394.514*
1	5	1.70	6 ml/s	325psi (22.4bar)	8394.15	8394.415	8394.515
1	5	1.75	7 ml/s	325psi (22.4bar)	8394.105*	8394.405*	8394.505*
2	5	1.75	5 ml/s	325psi (22.4bar)	8394.25*	8394.425*	8394.525*
2	6	2.0	5 ml/s	325psi (22.4bar)	8394.26	8394.426	8394.526
2	6	2.0	6 ml/s	325psi (22.4bar)	8394.206*	8394.406*	8394.506*
3	6	2.0	5 ml/s	325psi (22.4bar)	8394.36*	8394.436*	8394.536*

*Reverse taper

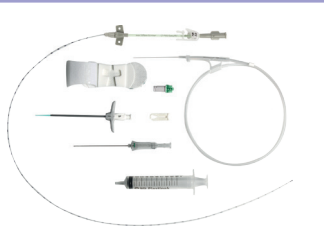
Tray description:

- 1 totally radiopaque antimicrobial catheter (55cm long) in biostable polyurethane
- 1 «T» proximal connector. The lateral port of the T connector can be used to inject saline solution
- 1 safety introducer needle 21G x 7cm
- 1 Nitinol guidewire with thumb-feed advancer, Ø 0,018" x L. 50cm/67cm/135cm
- 1 peelable sheath
- 1 safety scalpel
- 1, 2 or 3 **bionector**
- 1 **griplok**, securement device
- 1 Luer slip syringe 10 ml
- 1 measuring tape

 CT PICC easy

PICC trays including accessories for Micro-Seldinger technique placement.

Catheter					
Size Fr	Ext. Ø (mm)	Int. Ø (mm)	Maximum indicated power injection flow rate	Maximum pressure	Codes
3	1.0	0.6	1 ml/s	325psi (22.4bar)	V021292213
4	1.35	0.9	5 ml/s	325psi (22.4bar)	V021292214
5	1.67	1.1	6 ml/s	325psi (22.4bar)	V021292215



Micro Seldinger kit:

- 1 totally radiopaque catheter (60cm long) in biostable polyurethane with temporary wings
- 1 metallic stilet to make the catheter more rigid and thus make insertion easier
- 1 «T» proximal connector. The lateral port of the T connector can be used to inject saline solution
- 1 detachable extension line with a Robert clamp
- 1 safety introducer needle 21G x 7cm
- 1 Nitinol guidewire with thumb-feed advancer 0.018" x L.50cm
- 1 peelable sheath + dilator
- 1 Luer slip syringe 10 ml
- 1 slide clamp
- 1 measuring tape
- 1 **griplok**, securement device
- 1 **bionector**
- 1 safety scalpel

 INTRAVASCULAR THERAPIES

For further information, please contact: questions@vygon.com

The specifications shown in this leaflet are for information only and are not, under any circumstances, of a contractual nature.

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