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VYGON

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VYGON

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www.vygon.com

VYGON

Vygon Group Presentation

Since its creation in 1962 in Ecouen, the name Vygon has been synonymous with quality and reliability in the field of single use medical and surgical products.

Represented worldwide through a network of 20 integrated sister-companies and exclusive distributors, the Vygon Group, with its 1500 employees, makes available over 120 million products for patients and health-care professionals.

With an annual turnover of over 175 million Euros, Vygon confirms its industrial expertise in such hight-tech medical fields as:

- Neonatology and paediatrics
- Intensive care (endotracheal tubes, CPAP)
- Anaesthesia (neurostimulation, epidural and spinal access)
- Management of postoperative pain (PCA)
- Vascular access (short I.V. cannulae, central venous catheters and accessories, implantable ports)
- Surgery (a complete range of drainage and suction products, drapes,
  and custom kits made to the customer's own requirements).

Conceived and designed by our engineers and technicians and manufactured in one of our 7 plants, Vygon products meet ISO 9001 and ISO 13485 standards as well as the environmental ISO standard 14001. These products regularly benefit from the experience and know-how of our employees constantly trained to reach the highest level of performance and the quality which made the reputation of Vygon.

Quality is a company priority.
Vygon quality is about constantly striving to develop products that are simpler and safer to use. We create products that are as appropriate to the needs of hospital staff as they are to those in emergency medical services (pre-hospital care) and home care because we are constantly listening to the people who use them.

The quality of Vygon products can also be seen in our continual research into materials that are better tolerated by the body and that protect it against infection.

The quality of Vygon products is not just a question of good design, but also involves assessing the value of a product, and applying stringent control testing and quality assurance procedures at every stage of manufacture. The quality of Vygon products is also assured by stringent pharmaceutical testing of raw materials, biocompatibility and apyrogenicity.

Finally, Vygon quality is about its policy of continuous improvement in extrusion, injection and assembly methods.

Vygon supports the medical aid organization "Les Mamans du Soleil".

Summary

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Products Information

Liability:

The physical, chemical and biological testing performed by Vygon ensures that its products are of high quality and can be relied on to perform the functions expected of them.
All products manufactured by Vygon should only be used by specialist staff with necessary skills.
Vygon cannot take responsibility for any misuse of its products nor for any damage, loss or expenditure resulting directly or indirectly from misuse.
The liability of the company does not apply if products are re-used, resterilised or if the packaging is damaged.

Vygon is constantly striving to improve the quality and performance of its products, and therefore reserves the right to make certain changes without prior notice.

Labelling:

Use of the following standard symbols (EN 980):

Symbol		Meaning
②		**Do not reuse.**
STERILE	EO	**Sterile.** Sterilized with ethylene oxide.
STERILE	R	**Sterile.** Radiation sterilized.
⚠		**Read the instructions** for use and/or warning inclued.
⧗		**Product expiry date:** 4 figures for the year followed by 2 for the month, e.g. 2007 - 01 = January 2007
REF		Replaces the words **code**, reference, item, number, etc…
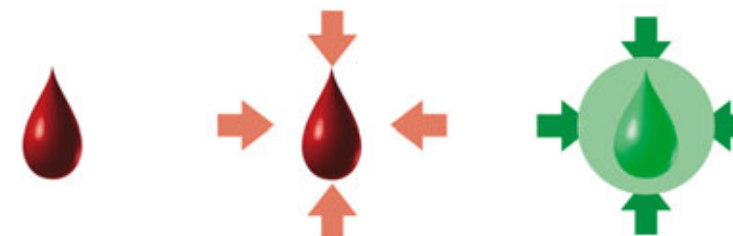
This logo indicates a **safety device**

The batch number is indicated on the packaging and on the single unit packaging. This number corresponds to the date of manufacture of the product. The characters following the date of manufacture form part of the batch number.

Shelf-life:

When the packaging is undamaged and the correct conditions of storage are respected (store away from heat, humidity and direct sunlight) sterility can be assured for several years. The expiry date is indicated on the single unit packaging as well as on the multi unit packaging in accordance with European legislation. This expiry date is usually five years (see list page 172).

Nota Bene :

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

Vygon has pharmaceutical status. Its Public Health registration number is 826. August 3rd , 1972.

Vygon Quality Certificates

Numerical list of products

Code	Pages	Code	Pages	Code	Pages	Code	Pages	Code	Pages	Code	Pages
38	107	410	144	828	34	1251	78	5195	133	70141	100
100	26	420	39-144	829	32	1252	13-14	5197	134	70530	44
101	26	451	144	831	104	1253	14			70531	159
106	26-82	460	39	832	104	1254	14	5222	93	70533	44-159
109	26-83	461	39	833	104	1261	10	5223	91	70545	44-160
112	83	469	144	834	104	1266	54	5291	122	70565	45-160
113	26-83	478	144	836	29	1268	54			70876	98
114	83			841	93-99	1270	15	5511	43-158	70903	108
115	50	501	43-155	850	106	1272	15	5516	40		
121	26-83	509	153	851	105	1274	15	5520	40	71100	101
122	83	514	153	852	140	1276	114	5557	43-150	71101	102
124	52	516	40	856	94	1277	114	5558	149		
130	85	518	153	870	97	1284	11	5559	150	390015	135
135	85	520	40	871	98	1294	66	5561	147	398014	126
137	85	523	153	872	98	1297	25-67	5562	147		
140	100	524	153	873	97			5563	149	410807	126
141	100	526	158	874	106	1310	36	5566	149		
155	60	527	149	875	98	1311	36	5570	147	08081512B	103
157	19-58	528	158	876	98	1340	38-140	5571	148	08750302A	135
158	61	530	44-159	879	98	1361	32	5572	148		
159	61	531	159	880	106	1362	32	5574	164		
160	86	533	44-159	881	167	1363	32	5575	164		
167	86	534	45-161	882	168	1364	32	5576	158		
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181	118	538	161	886	106	1396	37-138	5801	79		
183	31-119	545	44-160	888	106			5802	34		
184	120	551	156	889	107	2171	23-68	5803	135		
185	125	553	157	891	106	2180	23-68	5827	95		
186	123-124	555	150	892	106	2181	23-68	5828	94-95-96		
187	125	565	45-160	893	106	2182	69	5841	30		
188	31-119-123-124	580	43	896	92	2183	69	5842	30-91		
189	123-124-125	595	151			2184	11	5897	90		
191	123-124-125	596	151	901	108	2191	24-70				
192	129	597	151	902	108	2193	70	6102	10-12		
193	126	598	151	903	108	2194	24-71	6155	65		
199	130			985	108	2195	71	6158	65		
		620	165			2196	69	6159	65		
214	28	621	46-165	1015	33			6186	129		
219	86	623	166	1018	127	2201	77				
220	100	624	46-165	1019	127	2211	76	6202	20-57-58		
221	101	625	46	1057	78	2215	75	6203	20-57-58		
222	101	626	46-162	1058	78	2216	75	6206	57		
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247	28-84	639	47-163	1132	111	2296	73	6209	59		
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255	110	651	164	1135	81	2300	141	6233	22		
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364	32	808	126	1239	78	5124	52	8195	71		
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140	102	424	38-148	815	105	1225	53	2396	36-143	6209	59
141	102	425	38-148	816	167	1227	25-67			6231	22
143	87	451	149	817	34	1231	21	2430	148	6233	22
146	87	460	38	818	34	1233	21	2484	12	6252	56
155	60	461	38	821	34-96-106	1235	56				
157	19-58	469	149	828	34	1239	80			6508	160
158	61	478	149	829	32	1240	18-56	2593	40		
159	61			831	106	1241	18	2595	40	7301	139
160	88	501	42-161	832	106	1243	18	2596	40	7302	139
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179	122	514	159	834	106	1248	55	2633	168	7366	10
180	31-123	516	39	836	29	1249	81				
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187	129	526	164	870	99	1261	10	5118	51	8157	63
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189	127-128-129	528	164	872	100	1268	54	5141	95	8159	63
191	127-128-129	530	43-165	873	99	1270	15	5180	31-123	8191	73
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257	112	596	157			1396	36-142	5558	155	70565	44-166
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270	15			1015	33	2171	23-68	5562	153	71100	103
275	16			1018	131	2180	23-68	5563	155	71101	104
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295	119	624	45	1022	33	2182	69	5570	153	080.815.12B	105
296	119	625	45	1057	80	2183	69	5571	154	087503.02A	138
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		636	45-168	1130	112	2193	71	5577	154		
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VYGON

Neonatology
Paediatrics

POLYURETHANE CATHETERS FOR PREMATURE BABIES

1261 Premicath - 1Fr / 28G
10/50

Peripherally inserted central venous polyurethane catheter (XRO – Int. ? 0.17 mm, ext. ? 0.36mm) for long-term venous access in very low weight premature babies, less than 800 g (parenteral nutrition, administration of medication).
- Introducer: Splitting needle ext. ? 0.7 mm – L. 18 mm
                       Neocath Split ext. ? 0.9 mm – L. 20 mm
                       Bioflow code 100.06 ext. ? 0.7 mm – L. 15 mm
                       Peelable cannula ext. ? 1.1 mm – L. 21 mm
- Catheter markings every centimetre
- Wings and integral extension tube to give comfortable fixation: length of extension tube (PUR) 8 cm.

Tray presentation containing:
- 1 PUR catheter (XRO)
- 1 introducer (splitting needle or split short I.V. cannula).

Premicath

Code	Catheter (PUR)					Introducer
	Length cm	Stylet	Type	Priming volume ml	Flow rate (ml/min) (Pressure: 1 bar)	
1261.152	15	No	Standard	0.06	1.1	Bioflow 100.06
1261.153	15	Yes	Soft	0.06	1.1	Bioflow 100.06
1261.20	20	No	Standard	0.07	1.0	Splitting needle
1261.22	20	No	Standard	0.07	1.0	Peelable cannula
1261.203	20	Yes	Soft	0.07	1.0	Splitting needle
1261.204	20	No	Soft	0.07	1.0	Neocath Split
1261.205	20	Yes	Soft	0.07	1.0	Neocath Split
1261.206	20	Yes	Soft	0.07	1.0	No introducer – No fixation wings
1261.302	30	No	Standard	0.08	0.7	Bioflow 100.06 – No fixation wings
1261.306	30	Yes	Soft	0.08	0.7	No introducer – No fixation wings
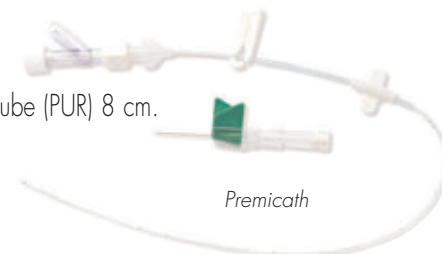
6102.01 Neocath Split
10/100

Introducer (split short I.V. cannula) for size 1 Fr catheters, Premicath type.
Polyurethane split cannula, totally withdrawn after catheter insertion.

Neocath Split

Code	Cannula			For catheter Ø
	Ext. Ø mm	G	Length mm	
6102.01	0.90	22	20	1Fr

7366.510 Splitting needle
1/25

Introducer needle for size 1 Fr catheters, Premicath type.

Splitting needle

Code	Needle		For catheter Ø
	Ext. Ø mm	Length mm	
7366.510	0.70	18	1Fr

SILICONE AND PUR CATHETERS FOR PREMATURE BABIES AND NEONATES

EPICUTANEO-CAVE CATHETER NEOCATH®

Peripherally inserted catheter for long-term venous access
(parenteral nutrition, administration of medication) in premature babies and neonates.
- Avoids repeated punctures with scalp vein sets or I.V. cannulae: preserves peripheral vein integrity
- Allows infusion of hyperosmolar solutions
- Haemocompatibility
- Soft catheter, very well tolerated, even in very low weight premature babies.

2184 Epicutaneo-cave catheter Neocath - 24G
30/150

Tray presentation containing:
- 1 radiopaque silicone catheter, with markings every centimetre
- 1 introducer winged needle type
- 1 removable connector Easy-lock type (allows easy withdrawal of the introducer needle) with integral PUR extension tube (length 10 cm).

Epicutaneo-cave catheter

Code	Catheter (Silicone)					Introducer		
	Int. Ø - Ext. Ø mm	Fr	Length cm	Priming volume ml	Flow rate ml/min* (under 1 bar pressure)	Ext. Ø mm	G	Length mm
2184.015	0.3 - 0.6	2	15	0.10	5.8	1.0	19	27
2184.00	0.3 - 0.6	2	30	0.12	5.0	1.0	19	27
2184.005	0.3 - 0.6	2	50	0.16	4.0	1.0	19	27

* Flow rate by gravity under 1 m H_2O code 2184.015: 0.7 ml/min
Code 2184.00: 0.6 ml/min – Code 2184.005: 0.5 ml/min

1284 Polyurethane epicutaneo-cave catheter – 24G / 2 Fr
30/150

Peripherally inserted central venous polyurethane catheter slightly more rigid than silicone, facilitating insertion.

Tray presentation containing:
- 1 radiopaque PUR catheter with markings at 5, 10, 15 and 20 cm from the distal tip
- 1 peel-apart short I.V. cannula introducer
- 1 removable connector Easy-lock type with integral PUR extension tube (length 10 cm).

PUR ECC

Code	Catheter (PUR)					Introducer		
	Int. Ø - Ext. Ø mm	Fr	Length cm	Priming volume ml	Flow rate ml/min	Ext. Ø mm	G	Length mm
1284.00	0.3 - 0.6	2	30	0.2	0.7	1.1	19	21

VYGON

SILICONE CATHETERS FOR PREMATURE BABIES AND NEONATES

2484
10/50

Epicutaneo 2 catheter - 24G - 2 Fr

Silicone radiopaque catheter for long-term venous access.
Peripherally inserted central venous catheter with wings and integral extension tube (PUR) with clamp (length: 8 cm).
Epicutaneo 2 is inserted with a Neocath Split introducer, split short I.V. cannula, totally withdrawn after catheter placement.
Benefits:
- One-piece construction means less manipulation during insertion
- Integral extension tube offers optimal safety of use
- Silicone wings for comfortable fixation.

Tray presentation containing:
- 1 XRO silicone catheter with markings every centimetre
- 1 Neocath Split type introducer.

Epicutaneo 2

Code	Catheter (Silicone)					Introducer		
	Int. Ø - Ext. Ø mm	Fr	Length cm	Priming volume ml	Flow rate ml/min*	Ext. Ø mm	G	Length mm
2484.152	0.3 - 0.6	2	15	0.11	7.1	1.15	20	25
2484.302	0.3 - 0.6	2	30	0.12	4.4	1.15	20	25
2484.502	0.3 - 0.6	2	50	0.13	2.9	1.15	20	25

* Pressure: 1 bar

6102.02
10/100

Neocath Split

Introducer (split short I.V. cannula) for size 2 Fr catheters, Epicutaneo 2 or Nutriline Twinflo type.
Polyurethane split cannula, totally withdrawn after catheter insertion.

Neocath Split

Code	Cannula			For catheter Ø
	Ext. Ø mm	G	Length mm	
6102.02	1.15	20	25	2 Fr

DOUBLE-LUMEN CATHETER FOR PREMATURE BABIES AND NEONATES

1252
10/50

Nutriline Twinflo - 2 Fr / 24G

**Double-lumen radiopaque polyurethane I.V. catheter for premature babies and neonates.**
Nutriline Twinflo is a peripherally inserted central venous catheter, designed for neonates who need multiple infusions.
The introducer is a Neocath Split, polyurethane split short I.V. cannula, totally withdrawn after catheter placement.
Catheter markings every centimetre.

Benefits:
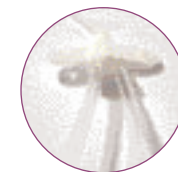
Double-lumen catheter
- Allows simultaneous administration of incompatible drugs or solutions
- Preserves peripheral vein integrity
- Prevents trauma linked to repeated punctures
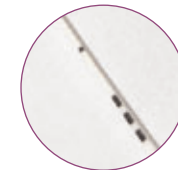
Centimetre graduations and black distal marking
- Visualise the length of catheter introduced
- Identify that the catheter has been totally removed from the baby

Unique catheter taper
- Prevents the risk ok kinking

Colour-coded hubs
- Infusion without confusion

Nutriline Twinflo is introduced with a Neocath Split. The insertion technique is the same as the one used for a short I.V. cannula. Thanks to Neocath Split, the cannula can be totally withdrawn from the catheter.
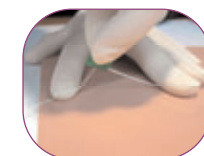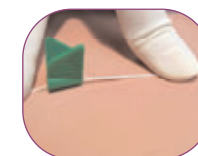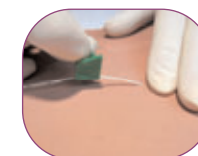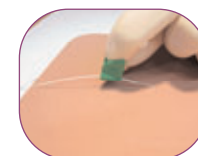
Code	Catheter (PUR)					Neocath Split		
	Length cm	G	Fr	Priming volume ml	Flow rate ml/min (Pressure: 1 bar)	Ext. Ø mm	G	Length mm
1252.231	30	24	2	2 x 0.2	2 x 1.45	1.15	20	20
1252.232	30	24	2	2 x 0.2	2 x 1.45	No introducer		

0,20 mm 0,20 mm 0,60 mm
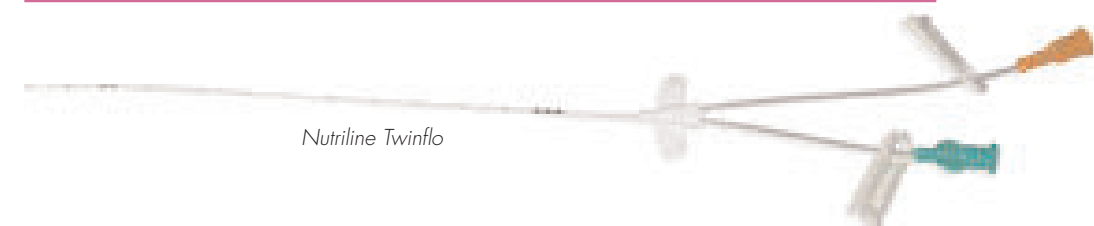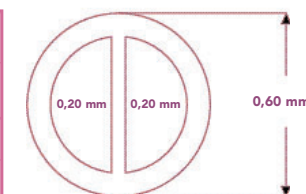
Nutriline Twinflo

NEONATAL AND PAEDIATRIC POLYURETHANE CATHETERS

1252 **Nutriline** - 2 Fr
25

1253 **Nutriline** - 3 Fr
10

1254 **Nutriline** - 4 Fr
10

Catheters for premature babies, neonates, infants and children.
Peripherally inserted polyurethane radiopaque I.V. catheter, for long-term venous access (drug administration, parenteral nutrition).
- 1 **splitting** introducer needle, completely removed after insertion of the catheter
- Catheter markings every centimetre and black mark on the distal end allowing the user to check that the entire catheter has been withdrawn
- Catheter in highly thermo-sensitive polyurethane which makes catheter insertion easy, yet softens quickly after insertion
- Wings and integral extension tube to give comfortable fixation. Length of extension tube (PUR) 14 cm.

Tray presentation containing:
- 1 PUR catheter with integral extension tube
- 1 splitting introducer needle
- 1 3 ml syringe
- 1 syringe adaptor (blunt needle type) to connect the syringe to the introducer (adaptor not supplied
  with code 1253.30, as the syringe connects directly onto the hub of the splitting needle).

Code	Catheter (PUR)					Introducer	
	Int. Ø - Ext. Ø mm	G	Length cm	Priming volume ml	Flow rate ml/min	G	Length mm
1252.15	0.3 - 0.6	23	15	0.18	3.0*	20	25
1252.30	0.3 - 0.6	23	30	0.21	2.0*	20	25
1252.50	0.3 - 0.6	23	50	0.23	1.0*	20	25
1253.15	0.5 - 1.0	19	15	0.18	6.1	17	30
1253.30	0.5 - 1.0	19	30	0.21	3.0	17	30
1253.60	0.5 - 1.0	19	60	0.23	2.0	17	30
1254.30	0.8 - 1.3	18	30	0.32	1.0	16	30
1254.60	0.8 - 1.3	18	60	0.40	5.2	16	30

*Flow rate under 1 bar pressure. Other flow rates are calculated by gravity under 1 m H_2O, according to ISO 10555.

Nutriline

UMBILICAL CATHETERS

270 **Umbilical catheter**
15/225

Catheter in radiopaque and transparent PVC*****, can be used by the venous or arterial routes (pressure measurements, infusions, administration of medication, blood samples, exchange transfusion, etc.)
Distance markings every centimetre from 5 to 25 cm.
- Flexible, thermo-sensitive material with open and rounded distal tip to reduce vascular trauma
- Choice of 6 catheter diameters
  Fr 3.5* - 04 - 05 - 06 - 07 - 08 - Length 40 cm
* to be ordered under code number 270.03

* Within 2007, DEHP-free PVC

Umbilical catheter (PVC)

1270 **Polyurethane umbilical catheter**

Catheter in radiopaque and transparent PUR, can be used for venous or arterial access.
Supplied with a small Luer locking stopcock.
Actual distance from the distal tip is printed numerically from 4 to 25 cm.
- Polyurethane has good haemocompatibility (reduced risk of thrombosis)
- No plasticiser release (DEHP-free)
- Can be left in place for longer than a PVC catheter
Fr 2.5* (length 30 cm) - 3.5* (length 40 cm). Quantity box/case: **8/120**
Fr 04 - 05 - 08 - Length 40 cm. Quantity box/case: **20/180**
* to be ordered under code number 1270.02 - 1270.03.
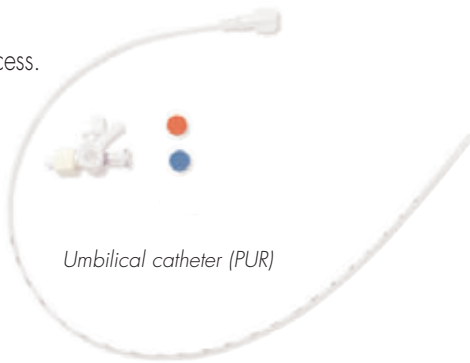
Umbilical catheter (PUR)

1272/1274 **Double-lumen umbilical catheter**
10/150

Venous catheter in fully radiopaque **polyurethane** with distal eye and lateral eye. Rounded distal tip.
Centimetre graduations 4 to 20 cm from distal tip (code 1272.14), and 4 to 25 cm from distal tip (codes 1274.14 and 1274.17).
Proximal extension tubes (PUR) length: 5 cm, with clamp.
- Reduces the number of subsequent peripheral routes required
- Fewer attempts at peripheral insertion required: increases the comfort of neonates.

Presented in a blister pack (code 1272), in a rigid tubular pack (code 1274).

Double-lumen umbilical catheter

Code	Catheter (PUR)				Priming volume ml		Flow rate ml/min	
	Ext. Ø mm	Fr	Length cm	Lumen	Distal	Proximal	Distal	Proximal
1272.14	1.4	4	20	2 x 20G	0.26	0.26	15	15
1274.14	1.4	4	40	2 x 20G	0.28	0.28	6	6
1274.17	1.7	5	40	2 x 19G	0.30	0.30	9	9

VYGON

Umbilical catheterisation

Single lumen Seldinger catheters

275 Exchange transfusion tray
1/8

Contents:
- 1 four-way stopcock equipped with 1 injection site
  (for injections of additional medication)
- 1 extension tube for the evacuation of the discarded blood
- 1 5 Fr exchange transfusion catheter (PVC - XRO)
- 1 7 Fr exchange transfusion catheter (PVC - XRO)
- 2 20 ml Luer-lock syringes
- 1 10 ml Luer-lock syringe
- 1 15 x 0.5 mm (25G) Luer hypodermic needle
- 1 graduated plastic container
- 1 transfusion set
- 1 15 cm ruler for venous pressure measurement
- 3 50 x 50 mm gauze dressings
- 1 50 x 60 cm fenestrated drape
- 1 pair of gloves
- 1 control sheet.

Exchange transfusion tray

1212 Leader-Flex - 22G - 2 Fr
20

Paediatric I.V. catheter introduced by the Seldinger technique.
Radiopaque polyurethane catheter with **integral extension** tube (length 4.5 cm) and fixation wings. Intended for internal jugular or subclavian access in infants. Leader-Flex code 1212.04 may also be used for monitoring arterial blood pressure by the radial or femoral routes, etc.

Presented in a peel-pack containing:
- 1 polyurethane catheter
- 1 introducer needle
- 1 straight guidewire with a flexible tip
- 1 50 x 50 cm drape.

Leader-Flex code 1212

Code	Catheter (PUR)					Straight guidewire		Needle		
	Int. Ø - Ext. Ø mm	G	Fr	Length cm	Flow rate ml/min	Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm
1212.04	0.5 - 0.7	22	2	4	17	0.5	23	0.5 - 0.8	21	42
1212.06*	0.5 - 0.7	22	2	6	15	0.5	23	0.5 - 0.8	21	42
1212.08	0.5 - 0.7	22	2	8	12	0.5	26	0.5 - 0.8	21	42
1212.20*	0.5 - 0.7	22	2	20	4.4	0.5	50	0.5 - 0.8	21	42

* Available on request

1211 Leader-Flex - 20G
1213 Leader-Flex - 18G
20/180

Paediatric I.V. catheter introduced by the Seldinger technique.
Radiopaque polyurethane catheter with winged hub for skin fixation. For internal jugular or subclavian access in paediatrics.

Presented in a rigid blister pack containing:
- 1 polyurethane catheter
- 1 introducer needle
- 1 straight guidewire with a flexible tip.

Leader-Flex code 1211

Code	Catheter (PUR)					Straight guidewire		Needle		
	Int. Ø - Ext. Ø mm	G	Fr	Length cm	Flow rate ml/min	Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm
1211.04	0.6 - 0.9	20	3	4	30	0.5	20	0.6 - 0.9	20	38
1211.06	0.6 - 0.9	20	3	6	27	0.5	20	0.6 - 0.9	20	38
1211.08	0.6 - 0.9	20	3	8	24	0.5	20	0.6 - 0.9	20	38
1211.12	0.6 - 0.9	20	3	12	20	0.5	30	0.6 - 0.9	20	38
1213.06	0.8 - 1.2	18	4	6	55	0.7	20	0.8 - 1.1	19	54
1213.10	0.8 - 1.2	18	4	10	44	0.7	30	0.8 - 1.1	19	54

PAEDIATRIC CATHETERS FOR SELDINGER TECHNIQUE

1241 Leader-Cath 2 E.L. - 20G / 3 Fr
## 1243 Leader-Cath 2 E.L. - 18G / 4 Fr
5/45

Paediatric I.V. catheter introduced by the Seldinger technique.
Radiopaque polyurethane catheter with fixation wings and integral extension tube with clamp.
Flexible and transparent extension tube (PUR).
Intended for vascular access by the jugular or subclavian route.

Tray presentation containing:
- 1 polyurethane I.V. catheter
- 1 introducer needle
- 1 "J" guidewire with wishbone type guidewire advancer
- 1 5 ml syringe.
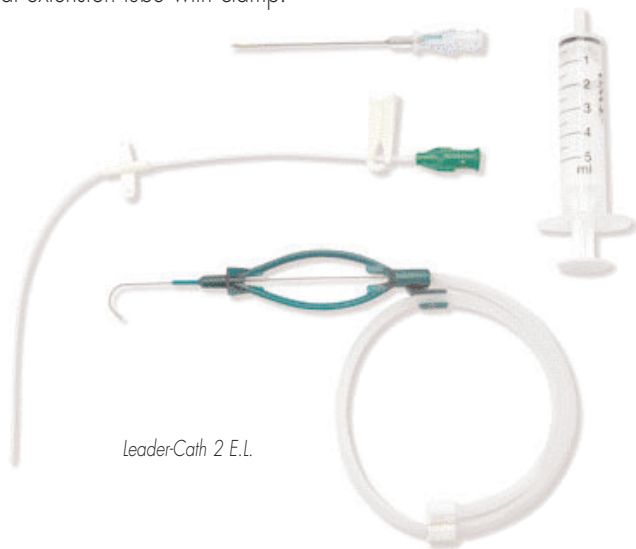
Leader-Cath 2 E.L.

Code	Catheter (PUR)						"J" Guidewire		Needle			Extension tube	
	Int. Ø - Ext. Ø mm	G	Fr	Length cm	Priming volume ml	Flow rate ml/min	Ext. Ø mm	Length cm	Ext. Ø mm	G	Length mm	Int. Ø - Ext. Ø mm	Length cm
1241.06	0.6 - 0.9	20	3	6	0.23	16	0.5	30	0.90	20	38	1.2 - 2.0	6
1243.10	0.8 - 1.2	18	4	10	0.30	26	0.7	40	1.10	19	54	1.2 - 2.0	8

1240 Leader-Flex Tunnel
1/15

Fully radiopaque polyurethane venous catheter, for internal jugular, subclavian or femoral access.
A tunnelling needle (length 8 cm) is bonded onto the proximal tip of the catheter.
This set allows the tunnelling of the catheter introduced using the Seldinger technique.

Presented in a peel-pack containing:
- 1 catheter with integral tunnelling needle
- 1 introducer needle
- 1 "J" guidewire
- 1 detachable compression hub
- 2 clamps
- 1 scalpel
- 1 Vyflow™ flow regulator.

Code	Catheter (PUR)					"J" Guidewire		Needle		
	Int. Ø - Ext. Ø mm	G	Fr	Length cm	Flow rate ml/min	Ø Ext. mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm
1240.13	0.8 - 1.2	18	4	25	13	0.7	53	0.8 - 1.1	19	54

18

VYGON

PAEDIATRIC CATHETERS FOR SELDINGER TECHNIQUE

157 3 Fr double-lumen Multicath
10

Paediatric double-lumen central venous catheter.
Radiopaque central venous polyurethane catheter for injecting or infusing different solutions and/or medications simultaneously.
This 3 Fr catheter is presently the smallest double-lumen Seldinger catheter available on the market.

Tray presentation containing:
- 1 double-lumen catheter with centimetre markings from 4 cm from distal tip
- 1 short I.V. cannula 24G - Length 19 mm
- 1 straight guidewire
- 2 dilators 3 Fr (Length 3 cm and 5 cm)
- 1 secondary fixation wing
- 2 injection caps
- 1 scalpel
- 1 5 ml syringe.

3 Fr double-lumen Multicath

3Fr
1.05 mm

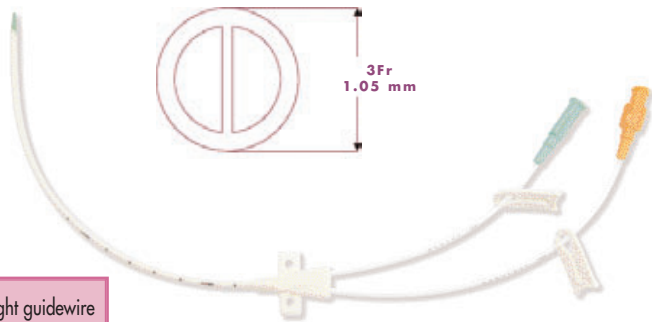| Code	Catheter (PUR)	Priming volume ml		Flow rate ml/min		Straight guidewire	
	Length cm	Distal	Proximal	Distal	Proximal	Length cm	Ø mm
157.114	10	0.07	0.09	3.1	3.1	50	0.3
157.154	15	0.11	0.10	2.3	2.3	50	0.3
157.204	20	0.15	0.13	1.8	1.8	50	0.3

1202/1203 Double-lumen Multicath - 4,5 Fr
10

Paediatric double-lumen central venous catheter.
Radiopaque central venous polyurethane catheter for injecting or infusing different solutions and/or medications simultaneously.
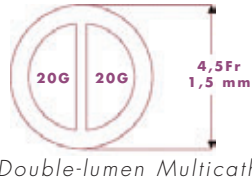Code 1203: centimetre markings from 5 to 12 cm (code 1202: no markings).
The user can choose from 2 types of introducer, i.e. needle or I.V. cannula.
This product is also available with a straight Teflon coated guidewire (codes 1202.061, 1203.121) and with a kink-resistant Nitinol "J" guidewire (codes 1202.062/1203.122/1203.202/1203.302)).

Tray presentation containing:
- 1 double-lumen catheter
- 1 introducer needle (Ext. Ø 0.8 mm – 21G - Length 40 mm)
- 1 short I.V. cannula 22G - Length 25 mm
- 1 "J" or straight guidewire (Length 40 cm - Ø 0.46 mm)
- 2 dilators (length: 38 mm and 62 mm)
- 1 secondary fixation wing
- 2 injection caps
- 1 scalpel
- 1 5 ml syringe.

Double-lumen Multicath

4,5Fr
1,5 mm
20G 20G

Multicath 2

Code	Catheter (PUR)					Straight guidewire	Straight Teflon coated guidewire	Nitinol "J" guidewire
	Length cm	Priming volume ml		Flow rate ml/min				
		Distal	Proximal	Distal	Proximal			
1202.061	6	0.20	0.20	22	24		x	
1202.062	6	0.20	0.20	22	24			x
1202.063	6	0.20	0.20	22	24	x		
1203.121	12.5	0.25	0.25	15	18		x	
1203.122	12.5	0.25	0.25	15	18			x
1203.123	12.5	0.25	0.25	15	18	x		
1203.202	20	0.34	0.34	12	15			x
1203.304	30	0.37	0.37	9	11			x

VYGON

19

Antimicrobial paediatric catheters

6202/6203 Double-lumen Multistar - 4,5 Fr
10

Paediatric double-lumen central venous catheter impregnated with antibiotics.
Antimicrobial catheter impregnated with Rifampicin and Miconazole (for further information on Multistar 64).
Code 6203: centimetre markings from 5 to 12 cm, (code 6202: no markings).
The user can choose from 2 types of introducer, i.e. needle or I.V. cannula.
The diameter of the distal lumen is the same as that of the proximal lumen: 2 x 20G.
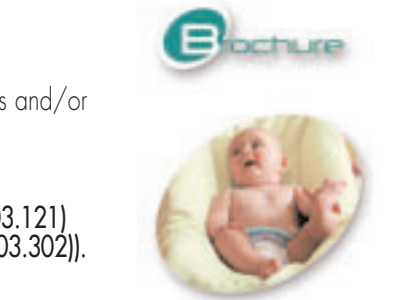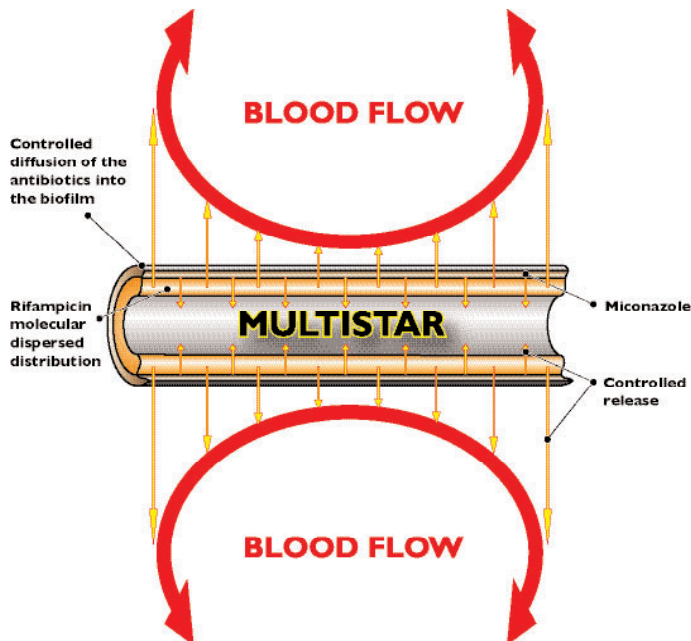Kink-resistant Nitinol "J" guidewire.

Tray presentation containing:
- 1 double-lumen catheter totally radiopaque
- 1 introducer needle (Ext. Ø 0.8 mm – 21G - Length 40 mm)
- 1 short I.V. cannula 22G
- 1 "J" guidewire (Length 40 cm - Ø 0.46 mm)
- 2 dilators (length 38 mm and 62 mm)
- 1 secondary fixation wing
- 2 injection caps
- 1 scalpel
- 1 5 ml syringe.

Double-lumen Multistar

20G 20G   4.5Fr 1.5 mm

Nitinol "J" guidewires have kink-resistant properties

Code	Length cm	Priming volume ml		Flow rate ml/min		Nitinol "J" guidewire	
		Distal	Proximal	Distal	Proximal	Length cm	Ø mm
6202.063	6	0.20	0.20	22	24	40	0.46
6203.123	12.5	0.25	0.25	15	18	40	0.46

BLOOD FLOW

Controlled diffusion of the antibiotics into the biofilm
Rifampicin molecular dispersed distribution
MULTISTAR
Miconazole
Controlled release

BLOOD FLOW

Paediatric catheters for Seldinger technique

1231/1233 Triple lumen Multicath - 4,5 Fr
10

Paediatric triple lumen catheter.
Radiopaque central venous polyurethane catheter for injecting or infusing different solutions and/or medications simultaneously.
Centimetre markings from 5 to 12 cm. The user can choose from 2 types of introducer, i.e. needle or I.V. cannula.
This product is also available with a straight Teflon coated guidewire (codes 1233.061/081/101 and 1231.121)
and with a kink-resistant Nitinol "J" guidewire (codes 1233.062/082/102/202/302, 1231.122).

Tray presentation containing:
- 1 triple lumen catheter totally radiopaque
- 1 introducer needle (Ext. Ø 0.8 mm – 21G – Length 40 mm)
- 1 short I.V. cannula 22G
- 1 "J" or straight guidewire (Length 40 cm - Ø 0.46 mm)
- 2 dilators (Length 38 mm and 62 mm)
- 1 secondary fixation wing
- 3 injection caps
- 1 scalpel
- 1 5 ml syringe.

20G 23G 23G   4.5Fr 1.5 mm
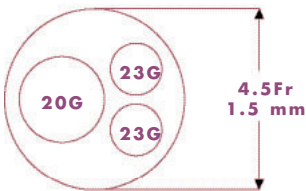
Triple lumen Multicath

Nitinol "J" guidewires have kink-resistant properties

Code	Length cm	Priming volume ml			Flow rate ml/min			Straight guidewire	Straight Teflon coated guidewire	Nitinol "J" guidewire
		Distal	Middle	Proximal	Distal	Middle	Proximal			
1233.061	6	0.12	0.11	0.11	14.8	7.1	8.1		x	
1233.062	6	0.12	0.11	0.11	14.8	7.1	8.1			x
1233.063	6	0.12	0.11	0.11	14.8	7.1	8.1	x		
1233.081	8	0.14	0.12	0.12	14.4	6.7	7.5		x	
1233.082	8	0.14	0.12	0.12	14.4	6.7	7.5			x
1233.101	10	0.16	0.14	0.14	13.5	5.8	6.1		x	
1233.102	10	0.16	0.14	0.14	13.5	5.8	6.1			x
1231.121	12.5	0.18	0.16	0.16	10	3	4		x	
1231.122	12.5	0.18	0.16	0.16	10	3	4			x
1231.123	12.5	0.18	0.16	0.16	10	3	4	x		
1233.202	20	0.20	0.17	0.17	7.4	2	2.1			x
1233.302	30	0.24	0.19	0.19	5.8	1.5	1.6			x
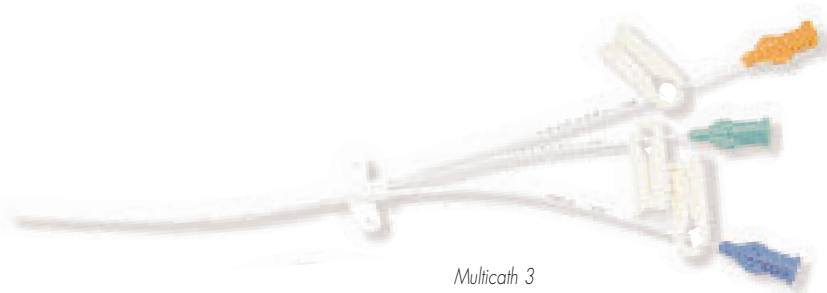
Multicath 3

ANTIMICROBIAL PAEDIATRIC CATHETERS

6231/6233 Triple lumen Multistar - 4,5 Fr
10

Paediatric triple lumen central venous catheter impregnated with antibiotics.
Antimicrobial catheter impregnated with Rifampicin and Miconazole (for further information on Multistar see page 64)
Code 623: centimetre markings from 5 to 12 cm. (Code 6233: no markings).
The user can choose from 2 types of introducer, i.e. needle or I.V. cannula.
Kink-resistant Nitinol "J" guidewire.

Tray presentation containing:
- 1 triple lumen catheter totally radiopaque
- 1 introducer needle (Ext. Ø 0.8 mm – 21G - Length 40 mm)
- 1 short I.V. cannula 22G
- 1 "J" guidewire (Length 40 cm - Ø 0.46 mm)
- 2 dilators (Length: 38 mm and 62 mm)
- 1 secondary fixation wing
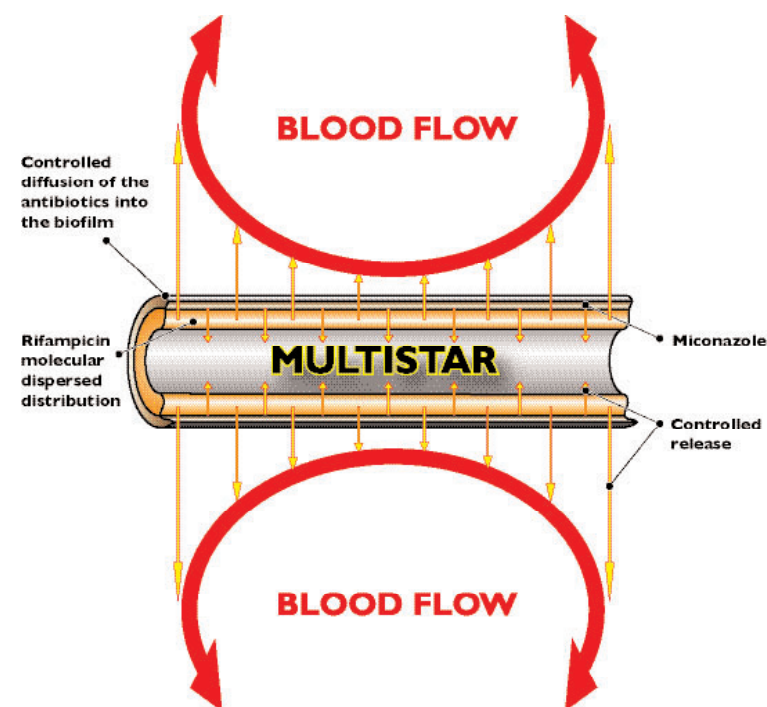- 3 injection caps
- 1 scalpel
- 1 5 ml syringe.

20G / 23G / 23G
4.5 Fr
1.5 mm

Triple lumen Multistar

Nitinol "J" guidewires have kink-resistant properties

Code	Catheter (PUR)								Nitinol "J" guidewire	
	Length cm	Priming volume ml			Flow rate ml/min					
	Length cm	Distal	Middle	Proximal	Distal	Middle	Proximal	Length cm	Ø mm	
6233.063	6	0.12	0.11	0.11	14.8	7.1	8.1	40	0.46	
6231.123	12.5	0.18	0.16	0.16	10	3	4	40	0.46	

BLOOD FLOW

Controlled diffusion of the antibiotics into the biofilm

Rifampicin molecular dispersed distribution

MULTISTAR

Miconazole

Controlled release

BLOOD FLOW

Multistar

PAEDIATRIC SILICONE CATHETERS FOR LONG-TERM USE

2180 Nutricath "S" - 35 cm
2181 Nutricath "S" - 60 cm
5/75

Silicone catheter for long-term venous access.
Radiopaque silicone catheter for peripheral or central venous access for parenteral nutrition, chemotherapy, etc..
- Supplied with plastic stylet to make the catheter more rigid
- Markings at 10, 15 and 20 cm from the distal tip
- Detachable compression hub to allow retrograde tunnelling of the catheter
- If the compression hub needs replacing, it can be ordered separately under code 2196.13
- Silicone has good haemocompatibility and superior flexibility: less risk of thrombophlebitis, irritation or intravenous damage.

Presented in a transparent rigid tubular pack containing:
- 1 XRO silicone catheter with stylet
- 1 introducer, short I.V. cannula type (Intraflon 2 - 14G)
- 1 detachable compression hub.

Nutricath "S"

Code		Catheter (Silicone)							Introducer	
L. 35 cm	L. 60 cm	Int. Ø - Ext. Ø mm	G	Fr	Priming volume ml		Flow rate ml/min		Length mm	Int. Ø - Ext. Ø mm
					2180	2181	2180	2181		
2180.13	2181.13	0.8 - 1.3	18	4	0.42	0.55	15	8	52	1.6 - 2.1

2171 Nutricath "S" with Desilet introducer - 35 cm
1/20

Silicone catheter for long-term venous access.
Catheter identical to the Nutricath code 2180, inserted using a Desilet type introducer.
This insertion technique for Nutricath means that venipuncture can be performed using a needle with a smaller external diameter (0.9 mm - 20G)

Tray presentation containing:
- 1 XRO silicone catheter with stylet
- 1 Desilet type introducer 4 Fr
- 1 detachable compression hub.
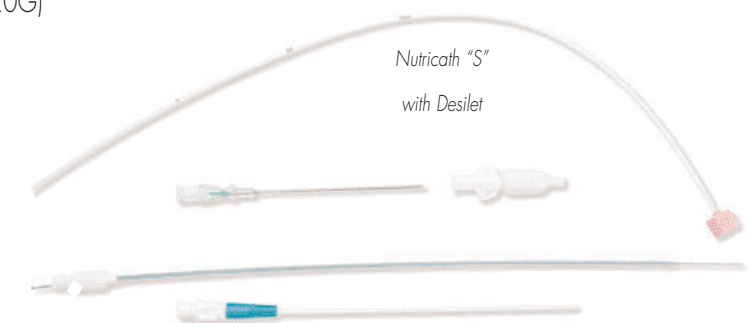
Nutricath "S" with Desilet

Code	Catheter (Silicone)				
	Int. Ø - Ext. Ø mm	G	Fr	Priming volume ml	Flow rate ml/min
2171.13	0.8 - 1.3	18	4	0.42	15

SILICONE CATHETERS WITH SUBCUTANEOUS CUFF

2191 Lifecath
1

Silicone catheter with subcutaneous cuff for long-term venous access.
Radiopaque silicone catheter, with subcutaneous cuff, for parenteral nutrition, administration of medication, antibiotics, chemotherapy.
- Inserted by venous cut-down (catheter only) or percutaneous puncture (kit with peel-apart Desilet)
- Subcutaneous cuff to fix the catheter securely to subcutaneous tissues
- Reinforced extra-vascular section with clamping site and clamp
- Fixed proximal hub therefore tunnelling is carried out before venipuncture
- Tunnelling needle supplied with all kits
- Silicone has good haemocompatibility and superior flexibility: less risk of thrombophlebitis, irritation and intravenous damage.

Tray presentation containing:
- 1 XRO silicone catheter (maximum pressure 3.5 bar)
- 1 tunnelling needle pre-connected to the catheter
- 1 Desilet with peel-apart sheath, code 1146.05 (only in tray code 2191.425)

Lifecath

Code		Int. Ø - Ext. Ø mm	Fr	Total length cm	Usable length cm	Priming volume* ml	Flow rate* ml/min	Repair kit code
Catheter alone	Catheter with Desilet							
2191.27	–	0.5 - 1.0	3	75	50	0.25	1.0	2194.27
2191.42	2191.425	0.7 - 1.4	4.2	75	50	0.35	5.0	2194.42

*Calculated for the complete catheter before the length is adjusted by the physician.

2194 Lifecath repair kit
1

For repairing the extra-cutaneous section of the catheter. Kit containing extra-vascular silicone tube with clamp, integral stainless steel bridging adaptor and a tube of glue.

Code 2194.27 for Lifecath code 2191.27
Code 2194.42 for Lifecath code 2191.42 and 2191.425

Repair kit

N.B. Paediatric implantable ports: See pages 74 to 76.

POLYURETHANE CATHETERS WITH SUBCUTANEOUS CUFF

1227.17 Leader-Cuff
1/20

Polyurethane catheter for long-term venous access.
I.V. catheter in fully radiopaque, **biostable polyurethane** for parenteral nutrition, drug administration, chemotherapy, etc. With subcutaneous cuff and Vyflow™ flow regulator.
Leader-Cuff is inserted by percutaneous puncture (peel-apart Desilet), but can also be inserted by venous cut-down.
- Graduations each centimetre from 5 to 24 cm
- Tunnelling needle (type 2183.15) supplied with the tray
- Subcutaneous cuff 25 cm from the distal tip
- Detachable compression hub: tunnelling can be carried out before or after the catheter is introduced into the vein
- Winged hub allowing the catheter to be flushed before insertion
- Polyurethane has excellent mechanical resistance, thermosensitivity and haemocompatibility
- **Vyflow™ flow regulator**

Tray presentation containing:
- 1 PUR catheter (XRO) with detachable winged hub
- 1 peelable sheath Desilet type 1146.06, with 18G puncture needle and graduated "J" guidewire, length 53 cm
- 1 tunnelling needle (type 2183.15)
- 1 Vyflow™ flow regulator (type 1297.17)
- 1 fixation wing
- 1 injection cap
- 1 10 ml syringe
- 1 scalpel.

Leader-Cuff

Code	Int. Ø - Ext. Ø mm	G	Fr	Total length cm	Priming volume* ml	Flow rate* ml/min
1227.17	1.2 - 1.8	16	5	60	0.95	37

* Calculated for the complete catheter before the length is adjusted by the physician.
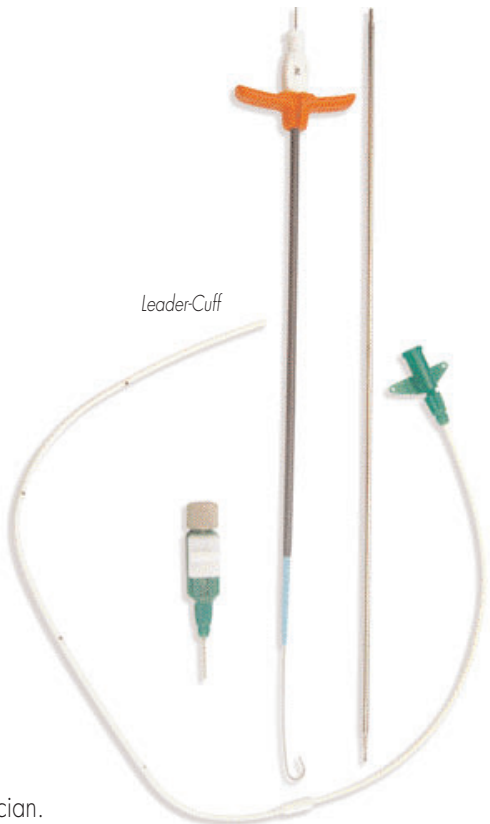
1297 Vyflow™ flow regulator
10/480

Detachable hub (open or closed position) for polyurethane catheters.
- Prevents blood reflux
- Considerably reduces the risk of air embolism when changing infusion lines
- After inserting the catheter, the proximal section can be cut to the desired length
- To reduce the risk of infection, the Vyflow hub can be replaced at regular intervals.

Code	Colour	For catheter Int. Ø mm
1297.13	🔴	0.8
1297.17	🟠	1.2
1297.20	🟢	1.4

Vyflow

Paediatric short I.V. cannulae

100 Bioflow
50/1100

I.V. cannula
- Transparent PTFE cannula with extra-thin wall for optimised flow
- Winged hub with ISO standard colour coding
- Lug for releasing the cannula
- Protective rim at the hub of the needle to prevent contact with the Luer-lock adaptor on the cannula and thus assist asepsis
- Transparent air-vent plug to give maximum visibility for flashback.

Code	Cannula (PTFE)					Corresponding Intralock stylet
	Int. Ø - Ext. Ø mm	G	Length mm	Colour	Flow rate ml/min	
100.06	0.4 - 0.7	24	19	🟡	15	101.06
100.08	0.5 - 0.8	22	25	🔵	25	101.08

Bioflow

106 Biovalve (PTFE)
5106 Biovalve (Polyurethane)
50/1100

I.V. cannula with lateral injection port.
- Transparent cannula with extra-thin wall for optimised flow
- Male Luer-lock obturator
- **Silicone** valve
- Lateral injection port with ISO standard colour coding.

Biovalve

Code		Cannula					Corresponding Intralock stylet
PTFE	PUR	Int. Ø - Ext. Ø mm	G	Length mm	Colour	Flow rate ml/min	
106.08	5106.08*	0.5 - 0.8	22	25	🔵	25	109.08

* Transparent cannula with XRO lines.

121 Intraflon 2
50/1000

I.V. cannula
- Transparent PTFE cannula with extra-thin wall for optimised flow
- Winged hub with ISO standard colour coding.

Intraflon 2

Code	Cannula (PTFE)					Corresponding Intralock stylet
	Int. Ø - Ext. Ø mm	G	Length mm	Colour	Flow rate ml/min	
121.06	0.4 - 0.7	24	18	🟡	18	113.06
121.08	0.5 - 0.8	22	28	🔵	24	113.08

101/113 Intralock
25/1000

Obturator for Bioflow and Intraflon: see corresponding code numbers.

Intralock

109 Intralock
50/1000

Obturator (PP) **for Biovalve**: see corresponding code number.
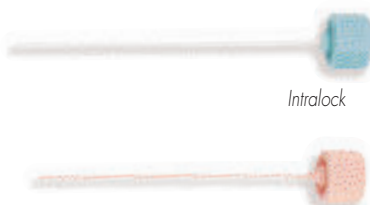
Paediatric scalp vein sets

240 Microflex
20/800

Scalp vein set with single winged needle and Luer-lock adaptor with colour coding.

Code 240

246 Microflex
20/800

Scalp vein set with double winged needle and Luer-lock adaptor.
- Rigid blister pack and dispenser box containing 20 units
- Silicone coated needle
- Flexible extension tube (all sizes) with low priming volume for scalp vein sets size 23G, 25G and 27G.

Microflex

Code		Needle				Flexible tubing (PVC)		Colour
		Ext. Ø mm	G	Length mm		Priming volume ml	Length cm	
				240	246			
240.04	246.042	0.4	27	17	20	0.2	30	⚪
240.05	246.052	0.5	25	17	20	0.2	30	🟠
240.06	246.062	0.6	23	17	20	0.2	30	🔵
240.07	246.072	0.7	22	22	20	0.6	30	⚫

246 Microsafe
10/240

Scalp vein set with safety device,
Scalp vein set with audible and visual safety device to protect health care workers from needlestick injury after withdrawal of the needle from the vein of the patient.

Code	Needle			Tubing (PVC)		Colour
	Ext. Ø mm	G	Length mm	Priming volume ml	Length cm	
246.041	0.4	27	20	0.2	30	⚪
246.051	0.5	25	20	0.2	30	🟠
246.061	0.6	23	20	0.2	30	🔵
246.071	0.7	22	20	0.6	30	⚫

Microsafe

VYGON

PAEDIATRIC SCALP VEIN SETS/ NEEDLE FOR VENOUS BLOOD SAMPLING

246 Scalp vein set for thalassaemia
100/600

Winged needle and flexible tubing with low priming volume and thick wall, particularly resistant to kinking. Silicone coated needle. Presented in a peel-pack.

Code	Needle			Tubing (PVC)	
	Ext. Ø mm	G	Length mm	Priming volume ml	Length cm
246.60	0.4	27	17	0.5	60
246.00	0.5	25	17	0.7	100

247 Venoflux
20/800

Winged needle for intermittent injections.
Fitted with a (removable) injection cap. Silicone coated needle.

Code	Needle			Tubing (PVC)		Colour
	Ext. Ø mm	G	Length mm	Priming volume ml	Length cm	
247.04	0.4	27	17	0.05	7	
247.05	0.5	25	17	0.05	7	
247.06	0.6	23	17	0.05	7	

Venoflux

214 Neo-Safe
50/600

Single winged needle for safe venous blood sampling in newborns and infants.
- Minimal dead space ensures unimpeded blood flow
- Safe to hold and use.

Code	Needle		
	Ext. Ø mm	G	Length mm
214.06	0.6	23	17
214.26	0.6	23	27
214.07	0.7	22	22
214.08	0.8	21	22

Neo-Safe

NEONATAL AND PAEDIATRIC EXTENSION TUBES AND FILTERS

READY-SETS

The Vygon Ready-Set range is a range of modular I.V. accessories specially designed for paediatrics and neonates. It allows the practitioner to select the most suitable I.V. administration system, removing the need for additional 3 way taps, ramps and extension lines, therefore reducing the risks associated with multiple connections.

836.201 Ready-Set « Feed »
10/120

Polyurethane extension tube with additional access port.
Lumen 1 (length 17 cm): incorporates a clamp, a 0.22 µm, 96 hour bacterial and endotoxin retentive filter and a non-return valve – Flow rate: 6 ml/min.
Note: the air-eliminating filter is not suitable for blood, blood products or lipids.
Needle-free access port (length 4 cm): with Bionector and clamp, located below the non-return valve.
Ready-Set "Feed" enables the user to infuse via the 96 hour filter and as necessary add supplementary infusions and bolus downstream, e.g. amino-acids and/or lipids or a background infusion and a micro-bolus of antibiotics. Priming volume: 0.85 ml – Flow rate: 170 ml/min.

Ready-Set "Feed"

836.202 Ready-Set « Complete »
10/120

Polyurethane extension tube with 2 access ports.
Incorporates 2 non-return valves, 2 clamps and a 0.22 µm, 96 hour bacterial and endotoxin retentive filter – Flow rate: 5 ml/min (x 2).
Note: the air-eliminating filter is not suitable for blood, blood products or lipids.
Ready Set "Complete" enables the user to run multiple infusions via the 96 hour filter without the need for additional 3 ways taps and connections.

Ready-Set "Complete"

836.205 Ready-Set « Unite »
10/120

Polyurethane extension tube with 2 access ports and additional access port.
Main tube (length 21 cm) with 2 access points incorporating non-return valves and clamps, a 0.22 µm, 96 hour bacterial and endotoxin retentive filter – Flow rate: 6 ml/min (x 2).
Note: the air-eliminating filter is not suitable for blood, blood products or lipids.
Needle-free access port (length 4 cm) with Bionector and clamp, located below a non-return valve.
Priming volume: 0.90 ml – Flow rate: 160 ml/min.
Ready-Set "Unite" offers the user the same benefits as Ready-Set "Feed" in terms of downstream access, but enables two infusions to run simultaneously through the filter without the need for additional 3 way taps and connections.

Ready-Set "Unite"

836.203 Ready Check 2
10/120

Polyurethane double lumen extension tube.
Two identical extension lines (length 8 cm, Ø 1.5 x 2.5 mm) with non-return valves and clamps.
Priming volume: 0.3 ml (x 2) – Flow rate: 160 ml/min (x 2).
Ready Check 2 has been designed to add versatility to the Ready-Set range. It can be used in conjunction with Ready-Set "Feed", "Complete" or "Unite", thus offering additional access.

Ready Check 2

836.204 Safe-T-Piece
10/120

Polyurethane Luer-locking « T » piece extension set.
Incorporates a 0.22 µm, 96 hour bacterial and endotoxin retentive filter, a slide clamp and a Bionector. Priming volume: 0.9 ml - Flow rate: 6 ml/min.
This product is mainly aimed at paediatric/neonatal units where connections are made directly to the cannula.

Safe-T-Piece

807.506   Lipid infusion line
10/120

Triple-layer (PVC/VYG2/PE) extension tube colour coded blue with a 1.2 μm,
24 hour air-eliminating filter, a non-return valve and a clamp.
For the administration of lipids via a syringe pump.
This product can be connected to the Bionector port of Ready-Set "Feed" and "Unite".
Length: 150 cm – Priming volume: 2.4 ml – Flow rate: 11 ml/min.

Lipid infusion line

807.504   Neonatal / paediatric lipid filter
10/240

1.2 μm, 24 hour, air-eliminating filter – Priming volume: 0.8 ml
Flow rate: 136 ml/min.

807.204   Paediatric endotoxin filter
10/240

Air-eliminating 0.22 μm, 96 hour endotoxin filter - Priming volume: 0.6 ml – Flow rate: 6 ml/min.

Paediatric filter

807.205   Extension tube with paediatric endotoxin filter
10/120

Air-eliminating 0.22 μm, 96 hour endotoxin filter.
Triple-layer extension tube (PVC/VYG2/PE) with clamp.
Length: 25 cm – Priming volume: 0.8 ml – Flow rate: 7 ml/min.

Code 807.205

5841.207   Double lumen Octopus with Autoflush and non-return valves

5841.307   Triple lumen Octopus with Autoflush and non-return valves
10/120

5841.207	Int. Ø - Ext. Ø mm	Length cm	Priming volume ml
Lumen 1 and 2	1.50 - 2.50	10	0.6

5841.307	Int. Ø - Ext. Ø mm	Length cm	Priming volume ml
Lumen 1, 2 and 3	1.50 - 2.50	10	0.6

Code 5841

5842.306   Triple lumen Octopus with Autoflush and 2 non-return valves
10/120

The lumen without non-return valve allows blood sampling.

Lumen	Int. Ø - Ext. Ø mm	Length cm	Priming volume ml
Lumen 1	1.50 - 2.50	10	0.4
Lumen 2 and 3	1.50 - 2.50	10	0.6

Code 5842

SPINAL NEEDLES

5181   "Whitacre" pencil point spinal needle
20/800

To minimise the possibility of trauma to the dura mater and CSF leakage.
- Transparent hub
- Stylet hub with lug indicating the position of the distal eye
- ISO standard colour coding.

Code 5181

Code*	Needle			
	Ext. Ø mm	G	Length mm	Colour coding
5181.45	0.5	25	38	🟠

* For other "Whitacre" spinal needles, please see page 118.

180/183/   Spinal needle with "Quincke" bevel
5180/5183
20/800

- Transparent hub
- Stylet hub with lug indicating bevel orientation
- ISO standard colour coding

Code 180

Code	Needle			
	Ext. Ø mm	G	Length mm	Colour coding
180.55	0.5	25	50	🟠
5180.35	0.5	25	30	🟠
183.47	0.7	22	38	⚫
5183.57	0.7	22	50	⚫
183.49	0.9	20	38	🟡
5183.59	0.9	20	50	🟡
5183.51	1.1	19	50	🟤
5183.52	1.2	18	50	🩷

* For other "Quincke" spinal needles, please see page 119
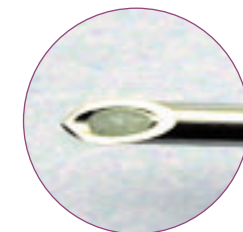
EPIDURAL ANAESTHESIA

188.47   Set for paediatric epidural anaesthesia
20/240

Presented in a soft blister pack containing:
- 1 polyurethane catheter with XRO line - Int. ø 0.3 mm - Ext. ø 0.7 mm (22G) - Length 40 cm
  Open tip - Half centimetre markings from the distal end
- 1 needle with directional Tuohy bevel 19G - Length 50 mm, with transparent plastic hub and removable wings
- 1 catheter-guide
- 1 flat 0.22 μm filter
- 1 10 ml plastic loss of resistance syringe.

NUTRISAFE 2 ENTERAL FEEDING RANGE

A new range incorporating ergonomics, ease of use and impregnable safety.

The Nutrisafe 2 connection is a complete system which is not a Luer. It does not change the technique of the users and therefore does not require any special training: "like a Luer, but not a Luer".
Connecting Nutrisafe 2 to a standard Luer fitting is not possible.
Nutrisafe 2 features specific and unique dimensions to achieve this result.
The Nutrisafe 2 system eliminates the risk of accidental connection of an IV system to the enteral system, or the enteral system to an IV system.
Nutrisafe 2 features a unique purple colour coding to enable instant identification, thus avoiding confusion with medical devices intended for other purposes.
Feeding tubes measuring 50 cm and 75 cm feature markings every centimetre from 5 to 35 cm; feeding tubes measuring 125 cm, markings every centimetre from 5 to 70 cm.

NUTRISAFE 2 FEEDING TUBES AND ACCESSORIES

361/362 50/600 25/600
363/364 25/600 50/600

PVC Nutrisafe 2 feeding tubes - PVC (DEHP free)
Short-term use.

Length	04 Fr ○	05 Fr ○	06 Fr ●	08 Fr ●	10 Fr ●	12 Fr ●
40 cm	364.042	364.052	364.062	364.082	-	-
50 cm	361.042	361.052	361.062	361.082	361.102	-
75 cm	363.042	363.052	363.062	363.082	363.102	363.122
125 cm	362.042	362.052	362.062	362.082	362.102	362.122

Code 363

1361 50/600
1362 25/600
1363 25/600
1364 50/600

Polyurethane Nutrisafe 2 feeding tubes
For use up to 3 weeks.

Length	04 Fr ○	05 Fr ○	06 Fr ●	08 Fr ●	10 Fr ●	12 Fr ●
40 cm	1364.042	1364.052	1364.062	1364.082	-	-
50 cm	1361.042	1361.052	1361.062	1361.082	1361.102	-
75 cm	1363.042	1363.052	1363.062	1363.082	1363.102	1363.122
125 cm	1362.042	1362.052	1362.062	1362.082	1362.102	1362.122

Code 1361

2332
2395 10/240

Silicone Nutrisafe 2 feeding tubes
For use of more than 3 weeks.

Length	04 Fr ○	06 Fr ●	08 Fr ●	10 Fr ●
125 cm	2332.042	2332.062	2332.082	2332.102
125 cm Weighted	–	2395.062	2395.082	–

Code 2395.062

829.01 100/4800

Cap for Nutrisafe 2 feeding tubes
Individually packaged.

Code 829.01

NUTRISAFE 2 SYRINGES AND ACCESSORIES

Syringes with purple-coloured plunger enabling instant identification. Individually packaged sterile.

Transparent syringes

Code	Volume ml	Graduations ml	Connection	Box/case
1015.012	1	0.01	centered	100/3200
1015.022	2.5	0.1	centered	100/3200
1015.052	5	0.2	centered	100/1600
1015.102	10	1	centered	100/1200
1015.202	20	1	centered	50/800
1015.212	20	1	offset	50/300
1015.602	60	1	offset	25/300

Nutrisafe 2 syringes

Amber-coloured syringes

Amber-coloured syringes for a better conservation and protection of light sensitive drugs. Non sterile syringes with cap.

Code	Volume ml	Graduations ml	Connection	Box/case
1022.012	1	0.01	centered	50/4800
1022.022	2.5	0.1	centered	50/2400
1022.052	5	0.2	centered	50/1200
1022.102	10	1	centered	50/600

Code 1022

Syringe kits

Nutrisafe 2 syringe kits for the daily preparation of the enteral nutrition for the neonate or infant. Each kit contains 8 caps and 1 sampling device.

Syringe kit

1015.828
20
8 x 20 ml syringes
with offset connection

1015.838
20
8 x 20 ml syringes
centered connection

1015.866
10
6 x 60 ml syringes

1015.868
10
8 x 60 ml syringes

Nutrisafe 2 enteral feeding range

Syringe accessories

818.22 Vented cap to enable gravity feeding
For 20 ml syringes.

818.62
50/400 For 60 ml syringes.

Cap for Nutrisafe 2 syringe

828.01
100/4800 828.01 Individually packaged.

828.08
800 828.08 Pack containing 8 caps.

Code 828.01

Vented caps

Nutrisafe 2 accessories

368.02
100/800 **Nutrisafe 2 adapter to feeding pumps**
To adapt feeding pumps tubing to Nutrisafe 2 tubes.

Code 368.02

5802.01
50/300 **Nutrisafe 2 3-way stopcock**

Code 5802.01

368.42
25/300 **Y connector**

Code 368.42

368.12
100/800 **Taper connector – male connection**
To adapt Nutrisafe 2 syringes to gastrostomy devices

Code 368.12

368.32
25/300 **Taper connector – female connection**
To connect Nutrisafe 2 feeding tube to a suction device

Code 368.32

Nutrisafe 2 enteral feeding range

Nutrisafe 2 extention tubes

368/369
25/300 **Nutrisafe 2 extension tube**
Purple - coloured DEHP-free PVC extension tube. Standard bore for woman milk, large bore for fortified milk

Length cm	Standard bore (1.5 x 2.5mm)	Large bore (3.0 x 4.2mm)	Box/case
30	368.032	-	25/300
100	368.102	-	25/300
150	368.152	369.152	25/300

Sampling devices

821 **Needleless vial access cap with Nutrisafe 2 connection**

Cap Ø	Male connection	Female connection	Box/case
14 mm	821.012 *	821.112 **	50/400
20 mm	821.022 *	821.122 **	25/200

* Vial access cap. Used with Nutrisafe 2 syringes for drug sampling
** Connected to gravity feeding bottles. Used with Nutrisafe 2 extension tubes.

Needless vial access caps
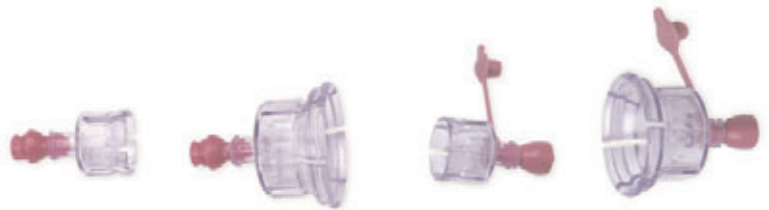
820 **Lockable cap, for drug vials, with Nutrisafe 2 connection**

Code	Ø mm	Box/case
820.20	20	20/1920
820.22	22	20/1920
820.28	28	20/480

817 **Sampling device with Nutrisafe 2 connection**

Length	Ø 1.5 x 2.5 mm	Ø 2.0 x 3.3 mm	Ø 3.0 x 4.2 mm	Box/case
5 cm	–	817.052	–	50/900
15 cm	817.154	817.152	817.153	50/900
20 cm	–	817.202	817.203	50/900
30 cm	–	–	817.302	50/600
50 cm	–	817.502	–	20/240

Code 817.153

817.002
25/1000 **Sampling needle -** To aspirate drugs from an ampule.

Code 817.002

FEEDING TUBES WITH FLEXIBLE FEMALE MOUNT AND CAP

Feeding tube in PVC (for short-term use) and polyurethane (for medium-term use) with flexible female mount and cap (except Fr 12). Closed tip. 2 lateral eyes. Transparent tube with XRO line.

Paediatric feeding tubes: colour coding

PVC 40/50 cm	PUR 40/50 cm	PVC 75 cm	PUR 75 cm	PVC 125 cm	Levin PVC 125 cm	Levin PUR 125 cm	PVC weighted tip 125 cm	Fr	Colour
310	1310	311	1311	312	–	–	393	04	○
310	1310	311	–	–	–	–	–	05	●
310	1310	311	1311	312	391	1391	393	06	●
310	–	–	–	312	–	–	–	07	●
310	1310	311	1311	312	391	1391	393	08	●
310	–	–	–	312	–	–	–	09	●
310	–	311	–	312	391	1391	393	10	●

310
50/600

Feeding tube

PVC feeding tube. Centimetre graduations from 5 to 35 cm.
Fr 04* - 05* - 06* - 07* - **Length 40 cm**
Fr 08* - 09* - 10 - 12 - **Length 50 cm**

* Also available in DEHP-free PVC

311

Feeding tube - 75 cm

PVC feeding tube. Centimetre graduations from 5 to 35 cm.
Fr 04* - 05* - 06*- Quantity box/case: **50/1200**
Fr 08* - 10 - Quantity box/case: **50/900**

* Also available in DEHP-free PVC

Code 311

312

Feeding tube - 125 cm

PVC feeding tube. Centimetre graduations from 5 to 70 cm.
Fr 04* - 06* - 07 - 08* - 09 - 10 - Quantity box/case: **25/600**
Fr 12 - Quantity box/case: **25/300**
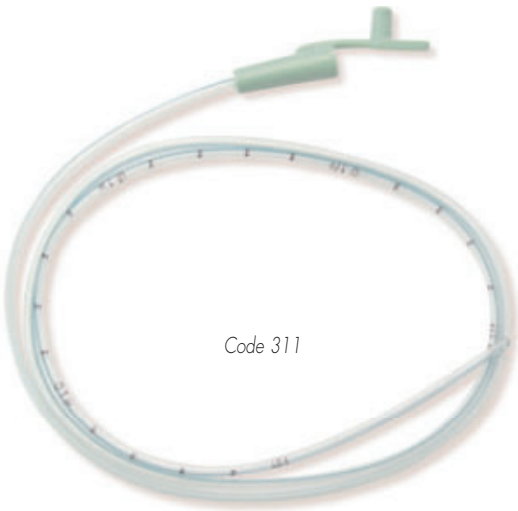
* Also available in DEHP-free PVC

1310
25/300

Feeding tube

Polyurethane feeding tube. Centimetre graduations from 5 to 35 cm.
Fr 04 - 05 - 06 - **Length 40 cm**
Fr 08 - **Length 50 cm**

1311
25/300

Feeding tube - 75 cm

Polyurethane feeding tube. Centimetre graduations from 5 to 35 cm.
Fr 04 - 05 - 06 - 08

DUODENAL FEEDING TUBES WITH WEIGHTED TIP

393
25/600

Gastro-duodenal tube - 125 cm

Transparent PVC tube with XRO line, with **weighted metal tip**, female flexible mount with cap, 3 lateral eyes.
Markings at 45, 55, 65 and 75 cm.
Fr 04 - 06 - 08 - 10.

Code 393

1396
25/150

Polyurethane gastro-duodenal feeding tube - 125 cm

Feeding tube with **tungsten weighted tip**, transparent with XRO line, flexible mount without cap, 4 lateral eyes. Markings every centimetre from 20 to 70 cm.
Fr 09.

2395
25/300

Silicone gastro-duodenal feeding tube - 125 cm

Feeding tube with **weighted metal tip**, female flexible mount with cap, 3 lateral eyes.
Numerical markings every 5 cm from 20 to 50 cm.
Silicone is for both medium and **long-term use**.
Fr 05 - 06: entirely XRO tube
Fr 09: transparent and XRO tube.

Code 1396.09

2396
25/300

Silicone gastro-duodenal feeding tube

Feeding tube with **tungsten weighted tip**, transparent and XRO tube with female flexible mount and cap, 4 lateral eyes. Numerical markings every 5 cm from 25 to 75 cm.
Silicone is for both medium and **long-term use**.
Fr 06: **Length 90 cm**
Fr 09: **Length 125 cm**

Code 2396

LEVIN TYPE TUBES

391

Gastro-duodenal feeding tube - 125 cm

Transparent PVC tube with XRO line, female flexible mount with cap.
Centimetre graduations from 5 to 75. Closed tip.
Fr 06 - 08: 10 lateral eyes - Quantity box/case: **50/450**
Fr 10: 4 lateral eyes - Quantity box/case: **50/300**

1381
50/300

Polyurethane tube with double funnelled connector - 125 cm

Transparent tube with XRO line, female flexible mount, 4 lateral eyes.
Markings at every centimetre from 5 to 70 cm. Fr 08 - 10.

Code 1381

1391
50/300

Polyurethane gastro-duodenal feeding tube - 125 cm

Transparent tube with XRO line, female flexible mount with cap, 4 lateral eyes.
Markings every centimetre from 5 to 70 cm. Closed tip.
Fr 06 - 08 - 10.

2391
10/240

Silicone gastro-duodenal feeding tube - 125 cm

4 lateral eyes. Numerical markings every 5 cm from 20 to 50 cm. Female flexible mount with cap.
Fr 06 - 08: entirely XRO tube
Fr 09 - 10: transparent and XRO tube.

VYGON

Dual-flow gastric tubes

340   Gastric tube
10/180

Dual-flow gastric tube (short-term).
Transparent PVC tube with XRO line and closed tip. Markings at 25, 35 and 45 cm (Fr 06 and 08), 45, 55 and 65 cm (Fr 10) from the distal tip. Conical adaptor on the main channel for connecting to suction.
These tubes are used to prevent the accumulation of gastric secretions and air, thus allowing decompression of the stomach by continuous aspiration without trauma to the gastric mucosa.
Fr 06 - 08: 6 lateral eyes - **Length 60 cm**
Fr 10: 10 lateral eyes - **Length 90 cm**

Code 340.08

1340   Polyurethane gastric tube
10/180

Dual-flow gastric tube (medium-term)
Same features as code 340, but polyurethane tube.
Fr 06 - 08: 6 lateral eyes - **Length 60 cm**
Fr 10: 10 lateral eyes - **Length 90 cm**

Enteral feeding accessories

314.61   Graduated feeding funnel - 60 ml
25/150

Non-Luer male connector. Can be adapted to fit all enteral feeding tubes with flexible female mounts.

Code 314.61

396.01   Anti-I.V. safety adaptor
20/1920

Code 396.01

800.00   Adaptor for connecting large syringes to tubes with small connectors
50/2400

Code 800.00

2390.101   Stylet for gastro-duodenal tubes
10/240

For use only with feeding tubes size 8, 9 or 10 Fr **with closed tip.**
The stylet must be moistened to activate its hydrogel coating.

Code 2390.101

Vesical catheter

420   Straight vesical catheter - 40 cm
50/600

Transparent PVC Nelaton type catheter.
Fr 04 - 06 - 08 - 10.

Code 420

Urine bags

460.20   Babypack - 200 ml
50/1200

Infant urine collector (PE).
Hypoallergenic adhesive.

461.25   Babypack - 250 ml
50/600

Infant urine collector (PE) with drain.
Hypoallergenic adhesive.

RESPIRATORY TRACT

General characteristics of Vygon plain endotracheal tubes:
- DEHP-free PVC tube with XRO line
- Oral/nasal intubation
- 37° bevel
- 15 mm adaptor
- Half-centimetre markings on tubes sizes 2.0 to 3.5 mm.
  Markings every centimetre from 9 to 21 cm for tubes size 4.0 and 4.5, from 13 to 21 cm for tube size 5.0
  and from 15 to 25 cm for tubes size 5.5 to 6.5.

516   Plain endotracheal tube (transparent)

Standard E.T. tube designed for ease of introduction in routine anaesthesia or emergency intubation.

520   Plain endotracheal tube (soft/green)

This soft tube is designed to minimise tracheal damage during long-term intubation.

Code		Int. Ø mm	Ext. Ø mm	Tube length mm	Box/ case
Standard tube	Soft tube				
516.20	520.20	2.0	3.4	165	25/300
516.25	520.25	2.5	4.1	165	25/300
516.30	520.30	3.0	4.6	165	25/300
516.35	520.35	3.5	5.2	165	25/300
516.40	520.40	4.0	5.7	230	20/160
516.45	520.45	4.5	6.2	230	20/160
516.50	520.50	5.0	7.0	230	20/160
516.55	520.55	5.5	8.0	270	20/160
516.60	520.60	6.0	8.5	270	20/160
516.65	520.65	6.5	9.0	270	20/160

E.T. TUBE WITH SECONDARY LUMEN

Secondary lumen for tracheal irrigation (e.g. delivery of **surfactant** and/or other medication) or airway pressure monitoring.
General characteristics identical to tubes 516 and 520.

5516   Plain endotracheal tube (transparent)

Tube designed for ease of introduction in routine anaesthesia or emergency intubation.

5520   Plain endotracheal tube (soft/green)

This soft tube is designed to minimise tracheal damage during long-term intubation.

Code		Tube			Secondary lumen		Box/ case
Standard tube	Soft tube	Int. Ø mm	Ext. Ø mm	Length cm	Lumen Ø mm	Flow rate * ml/min	
5516.20	5520.20	2.0	3.4	165	0.40	2.15	20/360
5516.25	5520.25	2.5	4.1	165	0.55	3.35	20/360
5516.30	5520.30	3.0	4.6	165	0.65	5.00	20/360
5516.35	5520.35	3.5	5.2	165	0.80	15.0	20/360
5516.40	5520.40	4.0	5.7	230	0.95	35.0	20/180
5516.45	5520.45	4.5	6.2	230	1.15	80.0	20/180

* Under 1m H_2O, i.e. 0.1 bar.

Code 5520.30

OXYGEN THERAPY / NASAL VENTILATION

OXYGEN THERAPY

2593   Silicone nasal oxygen cannulae
25/300

Adjustable nasal tips. Open, straight and rounded distal end.

Code	Int. Ø - Ext. Ø mm	Length cm
2593.08	1.5 - 2.7	30
2593.10	2.0 - 3.4	30
2593.12	2.5 - 4.0	30

Code 2593

NEONATAL NASAL VENTILATION

2595   Single tube
50/300

Silicone nasal tube for neonatal ventilation.
Length of tube: 9 cm.

Code 2595

2596   Double tube
50/300

Silicone nasal tube for neonatal ventilation.
Length of tube: 6 cm.

The single tube and the double tube have open and rounded distal tips and centimetre markings over a distance of 5 cm.
The proximal tip has an ISO standard 15 mm adaptor.
Specially designed to reduce the stress related to tracheal ventilation and to improve the comfort of premature babies and neonates.

Main indications:
- Certain moderate respiratory distress syndromes in neonates, mild hyaline membrane disease, temporary respiratory difficulties
- Recurrent apneas in premature babies
- Reduction of intubation time (replacement of the endotracheal tube).

Code		Int. Ø - Ext. Ø mm
Simple tube	Double tube	
2595.15	2596.15	1.5 - 2.7
2595.20	2596.20	2.0 - 3.4
2595.25	2596.25	2.5 - 4.0
2595.30	2596.30	3.0 - 5.0

Code 2596

Laryngoscope with disposable blades

691 Safescope laryngoscope blade - Miller and Mac Intosh type
20/180

Disposable, sterile laryngoscope blade, with fibre optic light source.
Supplied in a protective cover.

Code (sterile)	Type
691.20	Miller n°00
691.10	Miller n°0
691.11	Miller n°1
691.01	Mc Intosh n°1
691.02	Mc Intosh n°2

Miller blades

N.B.: for use only with Safescope laryngoscope handles.

Mac Intosh blades

692.03 Safescope laryngoscope handle
1/4

Thin handle for paediatric use.
Reusable laryngoscope handle with Xenon bulb.
Batteries not supplied: type LR 6 (x 2)
The handle is completely waterproof. It may be cleaned using hospital disinfectants or immersed in a disinfectant bath. It can also be autoclaved after removal of the bulb and the batteries.
N.B.: Safescope laryngoscope handles should only be used with Vygon disposable blades.

Code 692.03

692.81 Spare bulb for Safescope laryngoscope
1/25

Xenon bulb ensuring bright light. Supplied with a special tool for insertion / removal.

Accessories for E.T. intubation

580.00 Extension tube for nasal ventilation or endotracheal intubation
50/300

This extension tube is used between the "Y" connector of the ventilator and the endotracheal tube or the nasal ventilation tube. It enables the handling of the child under mechanical ventilation (weighing, washing…) with less risk of accidental extubation.
Triple-layer extension tube (PVC/VYG2/PE) - Length: 32 cm.

Code 580.00

501.04 Hygroflux neonat
40/960

Heat and moisture exchanger for neonates and babies.
Foam impregnated with Calcium Chloride (hygroscopic agent) and Chlorhexidine (to prevent bacterial proliferation). This product is not sterile because sterilization would denature the Chlorhexidine.
15 mm ISO male connector for Y piece, 15 mm ISO female connector for ET tube.

Weight g	Length mm	Dead space ml	Recommended tidal volume range*	Humidification efficiency	Resistance
2	32	2 (ventilated) 3 (spontaneous)	5-50 ml (ventilated) 10–100 ml (spontaneous)	Vt = 25 ml: 31.0 mg/l Vt = 50 ml: 29.5 mg/l	15 l/min: 1.1 cm H₂O

* For higher tidal volumes, use Hygroflux code 501.02 (see page155)

Code 501.04

5511 Guedel airway

Oropharyngeal airway (EVA).
Rounded atraumatic distal end. Reinforced proximal section.

Code	Traditional size	Size according to ISO 5364	Length cm	Colour	Box/case
5511.30	000	3.5	36	🟠	20/960
5511.20	00	5	51	🔵	20/960
5511.10	0	6	61	⚫	20/480

* According to ISO 5364, the size of a Guedel airway is identified by its nominal length: see "L.", expressed in millimetres.

Code 5511.10
Code 5511.20
Code 5511.30
(L)

Face masks

5557 Face mask
5

Disposable mask, inflatable cushion, vanilla scented.
Colour code on ring for fixation harness (except sizes 1 and 2). Not sterile.

Code	Size	Corresponds to body size	Colour code	Connections mm
5557.15	1	Neonatology	–	15
5557.25	2	Child	–	15
5557.35	3	Adolescent	🟣	22

Code 5557.35

SUCTION CATHETERS (PVC)

SUCTION CATHETERS/ MUCUS EXTRACTORS

Colour code for suction catheters with large connector references 70530, 70533, 70545 and 70565 according to ISO 8836.

Fr	04* Fr	05 Fr	06 Fr	7 Fr	8 Fr	10 Fr
Colour	○	●	●	●	●	●

* This size is not mentioned in ISO 8836.

530/70530   Suction catheter
50/600

Flexible transparent tube De Lee type catheter. Open, straight and rounded distal tip. Proximal end with small connector (code 530). The mark at 16 cm from the distal tip, for sizes Fr 04 to 08, shows when the suction catheter has reached the bevelled tip of endotracheal tube codes 516, 520, 5516 and 5520.20/25/30/35.
Code 70530: same tube as code 530, but proximal end with **large connector** and colour code.
Fr 04 - 05 - 06 - 07 - 08: **Length 27 cm**
Fr 10: **Length 47 cm**

Code 530.06

Code 70530.06

533/70533   De Lee suction catheter
50/600

Transparent tube. Open, straight and rounded distal tip. Proximal end with **small connector** (code 533).
The mark at 16 cm from the distal tip, for sizes Fr 04 to 08, shows when the suction catheter has reached the bevelled tip of endotracheal tube codes 516, 520, 5516 and 5520.20/25/30/35.
Code 70533: same tube as code 533, but proximal end with **large connector** and colour code.
Fr 04 - 05 - 06: **Length 27 cm**
Fr 07 - 08 - 10: **Length 33 cm**

Code 70533

Code 533

535   Control suction catheter - 29 cm
50/450

Transparent tube and connector for fingertip control of suction.
Open, straight and rounded distal tip.
2 lateral eyes. Centimetre markings from 5 to 20 cm.
Fr 04 - 05 - 06 - 07 - 08 - 10.

Code 535

545/70545   Tracheal suction catheter
50/600

Transparent tube. Open, straight and rounded distal tip. 1 lateral eye.
Code 70545: same tube as code 545, but proximal end with **large connector** and colour code.
Fr 06 – 07 – 08: **Length 38 cm** with small connector for code 545
Fr 10: **Length 47 cm** with large connector without colour code for code 545

Code 545

Code 70545

565/70565   Suction catheter - 57 cm
50/600

Transparent PVC tube. Open, straight and rounded distal tip.
Code 70565: same tube as code 565, but proximal end with **large connector** and colour code.
Fr 04* – 05 – 06 – 07 – 08 – 10 with small connector for code 565
Fr 10 with large connector without colour code for code 565.
* Code 70565.04 is not available

Code 70565

Code 565
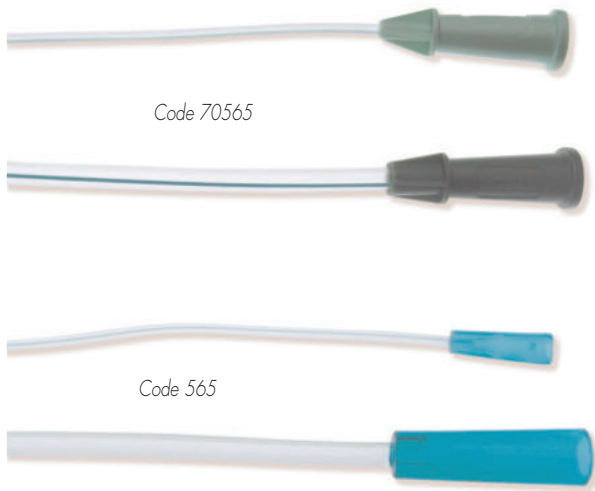
534.10   Mucus extractor - 25 ml
534.101
25/150

A 10 Fr suction catheter is connected to the container. This device comes with an additional 6 Fr catheter to replace the 10 Fr catheter if suction is to be carried out on low-weight infants. Each pack also contains a separate lid for safe sealing and transport of the aspirate.
Connection to suction source: **small connector.**
Code 534.101 is the same as code 534.10, but the connector to the suction source is a **large connector.**

Code 534.10
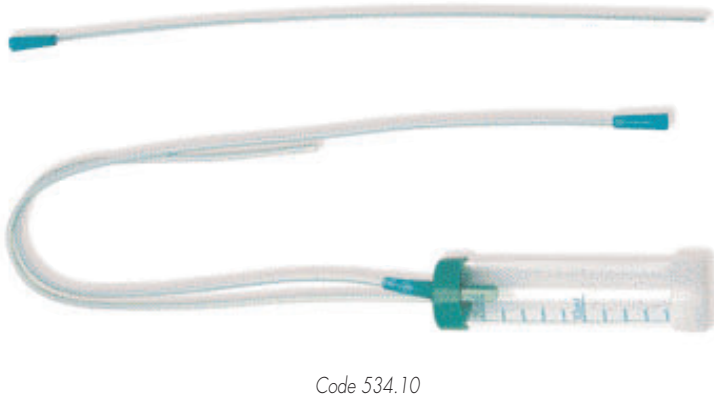
SURGICAL DRAINAGE / THORACIC DRAINS

624 Micro Red-O-Pack
10

Code 624.26: 20 ml container, 6 Fr drain and Alene needle
Code 624.58: 50 ml container, 8 Fr drain and Alene needle.

621 Mini Red-O-Pack
10/60

Container (PE-PVC) for the drainage of small volumes after surgery (120 ml)
Code 621.06: equipped with a 6 Fr Redon type suction drain and an Alene needle
Code 621.08: equipped with a 8 Fr Redon type suction drain and an Alene needle.

Micro Red-O-Pack

Mini Red-O-Pack

625 Thoracic trocar and drain - 8 cm
15/660

Trocar drain for pleural drainage in neonates.
Transparent PVC drain with XRO line. 1 lateral eye.
Markings every cm. Proximal female Luer-lock connector.
Fr 08 - 10.

Code 625.08

626 Thoracic trocar and drain - 25 cm
20/180

Transparent PVC drain with XRO line. 2 lateral eyes. Markings every 2 cm from 2 to 14 cm.
Handle ensures good grip and controlled insertion.
Fr 12 - 16.

Code 626

635 Joly pleural drain - 15 cm
10/180

Thoracic trocar and drain (PVC - XRO).
2 lateral eyes. Fixation collar. Markings at 5 and 10 cm from the distal tip.
Fr 12 - 14 - 18.

636 Thoracic trocar and drain - 28 cm
10/90

Transparent PVC drain with XRO line. 2 lateral eyes.
Fixation collar. Markings at 5, 10 and 15 cm from the distal tip.
Fr 14 - 18.

Code 636

681 Easydrain
10/150

Catheter for pleural drainage which is placed through an introducer needle using a handling sleeve.
Needle and sleeve are removed and the catheter is connected to a stopcock.
A conical adaptor is provided for connecting stopcock to suction or valve.
- 1 introducer needle with integral handling sleeve
- 1 drain (PE - XRO)
- 1 three-way stopcock and drain connector with silicone sleeve
- 1 conical adaptor
Colour coded by size on handling sleeve and drain connector.

Easydrain

Code	Drain				Needle			Colour code
	Ext. Ø mm	Fr	Length cm	Perforations	Ext. Ø mm	G	Length mm	
681.06	2	6	30	over 3 cm	2.42	13	57	●
681.082	2.7	8	40	over 4 cm	3.32	10	77	●

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VYGON

THORACIC DRAINAGE

639 Tray for thoracic drainage
1/8

Code 639.08 with trocar drain code 625.08.
Code 639.14 with trocar drain code 636.14.

Contents:
- 1 XRO trocar drain
- 1 60 x 50 cm fenestrated drape
- 2 rectangular cups for detergent and disinfecting agents
- 4 pads
- 8 10 x 10 cm gauze dressings
- 2 dressing forceps
- 2 10 ml syringes
- 1 38 x 1.2 mm (18G) needle for drug aspiration
- 1 15 x 0.5 mm (25G) needle for skinwheal
- 1 38 x 0.8 mm (21G) needle for local anaesthesia
- 1 38 x 0.9 mm (20G) for exploratory puncture
- 2 suture needles
- 1 scalpel
- 1 dual suction valve
- 1 plastic bag with connector
  for collecting the drained liquid
- 1 coil of adhesive bandage, 75 mm wide
- 1 pair of gloves.

Code 639

800.01 Adaptor
50/2400

Allows either the double valve (code 668.00) or single valve (code 669.10) to be connected to the drain for pleural drainage in neonates (code 625).

Code 800.01

VYGON

47

Vascular
Access

VYGON

VASCULAR ACCESS

115   Arterial Leader-Cath
20/180

Seldinger technique catheter for arterial puncture.

Transparent arterial catheter (radial, brachial, femoral, etc.) with radiopaque lines, introduced using the Seldinger technique. This technique makes arterial puncture easier particularly in hypotensive patients with a weak peripheral pulse and when the arteries are atherosclerosed or narrow.
Catheter with winged hub for skin fixation and anti-kink collar.

Presented in a rigid blister pack containing:
- 1 transparent and XRO catheter (PE)
- 1 introducer needle
- 1 straight guidewire.

Arterial Leader-Cath

Code	Catheter (PE)				Straight guidewire		Needle		
	Int. Ø - Ext. Ø mm	G	Fr	Length cm	Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm
115.092	0.6 - 0.9	20	3	2	0.53	20	0.6 - 0.9	20	38
115.094	0.6 - 0.9	20	3	4	0.53	20	0.6 - 0.9	20	38
115.096	0.6 - 0.9	20	3	6	0.53	20	0.6 - 0.9	20	38
115.090	0.6 - 0.9	20	3	8	0.53	20	0.6 - 0.9	20	38
115.118	0.8 - 1.2	18	4	8	0.71	30	0.8 - 1.1	19	54
115.11	0.8 - 1.2	18	4	10	0.71	30	0.8 - 1.1	19	54
115.12*	0.8 - 1.2	18	4	18	0.71	46	0.8 - 1.1	19	54
115.15*	1.0 - 1.5	17	4.5	18	0.9	46	1.1 - 1.4	17	70
115.17*	1.2 - 1.7	16	5	18	1.1	46	1.4 - 1.7	16	70

*Packaging: tray presentation containing an introducer needle, a catheter, a straight guidewire, an extension tube with 3-way stopcock and a syringe. **Box/case: 5/45**

Leader-cath codes 115.12/15/17 can also be used for venous access (jugular, subclavian).

5115   Polyurethane arterial Leader-Cath
20/180

Seldinger catheter for arterial puncture.
Similar product to arterial Leader-Cath described above, but with polyurethane catheter.

Presented in a rigid blister pack containing:
- 1 transparent and XRO catheter (PUR) with guidewire introducer for codes 5115.094/096/098
- 1 introducer needle
- 1 straight guidewire.

Code	Catheter (PUR)				Straight guidewire		Needle		
	Int. Ø - Ext. Ø mm	G	Fr	Length cm	Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm
5115.094	0.6 - 1.0	20	3	4	0.46	20	0.6 - 0.9	20	38
5115.096	0.6 - 1.0	20	3	6	0.46	20	0.6 - 0.9	20	38
5115.098	0.6 - 1.0	20	3	8	0.46	20	0.6 - 0.9	20	38
5115.116	0.8 - 1.3	18	4	6	0.64	30	0.8 - 1.1	19	54
5115.118	0.8 - 1.3	18	4	8	0.64	30	0.8 - 1.1	19	54
5115.112	0.8 - 1.3	18	4	12	0.64	30	0.8 - 1.1	19	54

VYGON

5118   Arterial Leader-Cath (PTFE)
20/180

Seldinger technique catheter for arterial puncture.

Transparent arterial catheter (radial, brachial, femoral, etc.) with radiopaque lines, introduced using the Seldinger technique. This technique makes arterial puncture easier particularly in hypotensive patients with a weak peripheral pulse and when the arteries are atherosclerosed or narrow.

Presented in a rigid blister pack containing:
- 1 transparent and XRO catheter PTFE (polytetrafluoroethylene)
- 1 introducer needle
- 1 straight guidewire.

Code 5118

Code	Catheter (PTFE)				Straight guidewire		Needle	
	Ext. Ø mm	G	Fr	Length cm	Ext. Ø mm	Length cm	Ext. Ø mm	Length mm
5118.702	0.7	22	2	2	0.46	20	0.8	20
5118.703	0.7	22	2	3	0.46	20	0.8	20
5118.904	1.0	20	3	4	0.46	20	0.9	38
5118.906	1.0	20	3	6	0.46	20	0.9	38
5118.908	1.0	20	3	8	0.46	30	0.9	38
5118.912	1.0	20	3	12	0.46	30	0.9	38
5118.915	1.0	20	3	15	0.46	30	0.9	38
5118.930*	1.0	20	3	30	0.46	46	0.9	38
5118.206	1.3	18	4	6	0.64	30	1.1	52
5118.208	1.3	18	4	8	0.64	30	1.1	52
5118.212	1.3	18	4	12	0.64	30	1.1	52
5118.215	1.3	18	4	15	0.64	30	1.1	52
5118.220*	1.3	18	4	20	0.64	40	1.1	52
5118.230*	1.3	18	4	30	0.64	46	1.1	68
5118.612*	1.7	16	5	11	0.9	46	1.26	68
5118.620*	1.7	16	5	20	0.9	46	1.26	68
5118.630*	1.7	16	5	30	0.9	46	1.26	68
5118.030*	2.0	14	6	30	1.1	46	1.6	68

*Packaging: peel-pack

VASCULAR ACCESS

VYGON

5124/124 Leader-Cath - 18 cm
5/45

Fully radiopaque venous catheter with winged hub for skin fixation and anti-kink collar.

Tray presentation containing:
- 1 polyethylene catheter
- 1 puncture needle
- 1 "J" guidewire (straight for code 124.20)
- 1 5 ml syringe
- 1 25 cm extension tube (type 141) with 3-way stopcock
- 1 drape towel (only available with code 5124).

Code	Catheter (PE)				Guidewire			Needle		
	Int. Ø - Ext. Ø mm	G	Fr	Flow rate ml/min	Type	Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm
5124.12	0.8 - 1.3	18	4	30	J	0.7	46	0.8 - 1.10	19	54
5124.15	0.9 - 1.5	17	4.5	35	J	0.7	46	0.8 - 1.10	19	70
5124.17	1.2 - 1.7	16	5	82	J	0.97	46	1.14 - 1.40	17	70
5124.20	1.4 - 2.0	14	6	120	J	1.1	46	1.30 - 1.60	16	70
124.20	1.4 - 2.0	14	6	120	Straight	1.1	46	1.30 - 1.60	16	70

Leader-Cath

LEADER-CATH 2 : SINGLE-LUMEN PUR CATHETERS

1215   Leader-Cath 2 (Straight guidewire) - 15 cm

1219   Leader-Cath 2 (Straight guidewire) - 20 cm

1225   Leader-Cath 2 (Straight guidewire) - 25 cm
5/45

Polyurethane venous catheter.
Fully radiopaque venous catheter for jugular or subclavian access. Centimetre graduations from 5 cm from the distal tip.
Winged hub for skin fixation.
Supple distal tip (except code 1215.13)

Tray presentation containing:
- 1 PUR catheter XRO
- 1 puncture needle
- 1 5 ml syringe
- 1 straight guidewire length 46 cm
- 1 dilator (except code 1215.13)
- 1 extension tube (length 25 cm) with 3-way stopcock (code 141.00)

Code			Catheter (PUR)						Straight guidewire	Needle		
L. 15 cm	L. 20 cm	L. 25 cm	Int. Ø - Ext. Ø mm	G	Fr	Flow rate ml/min			Ext. Ø mm	Int. Ø - Ext. Ø mm	G	Length mm
						1215	1219	1225				
1215.13	–	–	0.8 - 1.2	18	4	32	–	–	0.7	0.8 - 1.10	19	54
1215.15	**1219.15**	–	1.0 - 1.5	17	4.5	58	50	–	0.7	0.8 - 1.10	19	70
1215.17*	**1219.17**	**1225.17**	1.2 - 1.7	16	5	108	100	82	0.97	1.14 - 1.40	17	70
1215.20*	**1219.20**	**1225.20**	1.4 - 2.0	14	6	170	140	125	1.1	1.30 - 1.60	16	70

*Guidewire length 40 cm for code 1215.17 and 1215.20

Leader-Cath 2

VENOUS CATHETERS FOR SELDINGER TECHNIQUE

LEADER-CATH 2 WITH "J" GUIDEWIRE

1266 **Leader-Cath 2** WITH "J" GUIDEWIRE - 15 cm

1268 **Leader-Cath 2** WITH "J" GUIDEWIRE - 20 cm
5/45

Polyurethane venous catheter.
Fully radiopaque venous catheter for jugular or subclavian access.
Centimetre markings from 5 to 15 cm (code 1266) or from 5 to 20 cm (code 1268).
Winged hub for skin fixation.
Supple distal tip (except code 1266.12)

Tray presentation with label for traceability containing:
- 1 PUR catheter XRO
- 1 puncture needle
- 1 10 ml syringe
- 1 "J" guidewire with wishbone-type guidewire advancer
- 1 extension tube (length 25 cm) with 3-way stopcock (code 141.00)
- 1 dilator (except code 1266.12).

Code		Catheter (PUR)			Flow rate ml/min		"J" Guidewire		Needle		
L. 15 cm	L. 20 cm	Int. Ø - Ext. Ø mm	G	Fr	1266	1268	Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm
1266.12*	–	0.8 - 1.2	18	4	32	–	0.7	46	0.8 - 1.10	19	70
1266.15*	1268.15	1.0 - 1.5	17	4.5	56	50	0.7	46	0.8 - 1.10	19	70
1266.17*	1268.17	1.2 - 1.7	16	5	95	90	0.97	46	1.14 - 1.40	17	70
1266.20*	1268.20	1.4 - 2.0	14	6	145	135	1.1	46	1.30 - 1.60	16	70

* Guidewire length 40 cm

Leader-Cath 2

VENOUS CATHETERS FOR SELDINGER TECHNIQUE

SINGLE-LUMEN PUR CATHETER WITH INTEGRAL EXTENSION TUBE

1245 **Leader-Cath 2 E.L.** - 15 cm

1248 **Leader-Cath 2 E.L.** - 20 cm
5/45

Polyurethane catheter with integral extension tube introduced by the Seldinger technique.
Fully radiopaque venous catheter (PUR) for jugular or subclavian access. Centimetre markings from 5 to 15 cm (code 1245) or from 5 to 20 cm (code 1248). Intermediate winged hub for skin fixation and integral extension tube in flexible PUR (length 10 cm) with clamp. Supple distal tip.

Tray presentation with label for traceability containing:
- 1 PUR catheter XRO
- 1 puncture needle
- 1 5 ml syringe
- 1 "J" guidewire with wishbone-type guidewire advancer
- 1 dilator.

Leader-Cath 2 E.L.

Code	Catheter (PUR)						"J" Guidewire		Needle		
	Int. Ø - Ext. Ø mm	G	Fr	Length cm	Flow rate ml/min	Priming volume (ml)	Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm
1245.15	1.0 - 1.5	17	4.5	15	45	0.48	0.7	53	0.80 - 1.10	19	70
1245.17	1.2 - 1.7	16	5	15	74	0.57	0.97	53	1.14 - 1.40	17	70
1245.20	1.4 - 2.0	14	6	15	110	0.71	1.1	53	1.30 - 1.60	16	70
1248.15	1.0 - 1.5	17	4.5	20	39	0.51	0.7	53	0.80 - 1.10	19	70
1248.17	1.2 - 1.7	16	5	20	68	0.61	0.97	53	1.14 - 1.40	17	70
1248.20	1.4 - 2.0	14	6	20	100	0.81	1.1	53	1.30 - 1.60	16	70

1245 **Leader-Cath +** - 15 cm

1248 **Leader-Cath +** - 20 cm
5/45

with BLS (Bloodless System)

Safety device to avoid blood loss

• Prevents risk of contamination (safe for user) and risk of air embolism (safe for patient)
• No change in placement technique.
Product identical to catheters described above, but introducer needle has a valve to provide maximum protection against blood loss during venipuncture. Ergonomic guidewire advancer detects any resistance to guidewire advancement.
Supplied with a needle adaptor for use with a primed extension and a pressure transducer to confirm venous placement.
Tray presentation with label for traceability.

Code	Catheter (PUR)					"J" Guidewire		Needle		
	Length cm	Int. Ø - Ext. Ø mm	G	Fr	Flow rate ml/min	Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm
1245.171	15	1.2 - 1.7	16	5	74	0.97	53	1.14 - 1.40	17	70
1245.201	15	1.4 - 2.0	14	6	110	1.1	53	1.30 - 1.60	16	70
1248.171	20	1.2 - 1.7	16	5	68	0.97	53	1.14 - 1.40	17	70
1248.201	20	1.4 - 2.0	14	6	100	1.1	53	1.30 - 1.60	16	70

Vascular Access

1235/1240 Leader-Flex Tunnel - single-lumen for tunnelling
5/15

Fully radiopaque venous catheter for jugular, subclavian or femoral access. Centimetre graduations from 10 to 40 cm from the distal tip. A tunnelling needle (length 12 cm) is bonded onto the proximal tip of the catheter. This set allows the tunnelling of a catheter introduced using the Seldinger technique.
Supplied with a Vyflow flow regulator hub (code 1297).

Presented in a peel-pack containing:
- 1 catheter with integral tunnelling needle
- 1 puncture needle
- 1 "J" guidewire (code 1240) / straight guidewire (code 1235)
- 1 detachable compression hub
- 1 hub with Vyflow flow regulator
- 2 clamps
- 1 secondary fixation wing
- 1 scalpel.

Leader-Flex Tunnel

Code	Catheter (PUR)				Guidewire		Needle			Hub colour
	Int. Ø - Ext. Ø mm	G	Length cm	Flow rate ml/min	Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	G	Length mm	
1235.17	1.2 - 1.7	16	60	35	0.97	100	1.14 - 1.40	17	70	🟠
1235.20	1.4 - 2.0	14	60	50	1.1	100	1.30 - 1.60	16	70	🟢
1240.17	1.2 - 1.7	16	40	48	0.97	70	1.14 - 1.40	17	70	🟠
1240.20	1.4 - 2.0	14	40	60	1.1	70	1.30 - 1.60	16	70	🟢

6252 Leader-Flex Tunnel - double-lumen for tunnelling
10/30

Fully radiopaque venous catheter for jugular, subclavian or femoral access.
A tunnelling needle (length 12 cm) is bonded onto the proximal tip of the catheter.
This set allows the tunnelling of a catheter introduced using the Seldinger technique.

Peel-pack with label for traceability containing:
- 1 catheter with integral tunnelling needle
- 1 puncture needle - Ø 1.06 x 1.26 mm - Length 70 mm
- 1 graduated "J" guidewire
- 1 dilator
- 2 detachable compression hubs
- 1 10 ml syringe
- 1 secondary fixation wing
- 1 scalpel
- 2 injection caps.

Double-lumen Leader-Flex Tunnel

Code	Catheter (PUR)			Lumen						"J" Guidewire	
	Length cm	Fr	Ext. Ø mm	Distal			Proximal			Ø mm	Length cm
				G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)		
6252.243	30	7	2.4	16	36	0.54	16	36	0.54	0.9	100
6252.244	40	7	2.4	16	31	0.65	16	31	0.65	0.9	120
6252.246	60	7	2.4	16	23	0.72	16	23	0.72	0.9	120

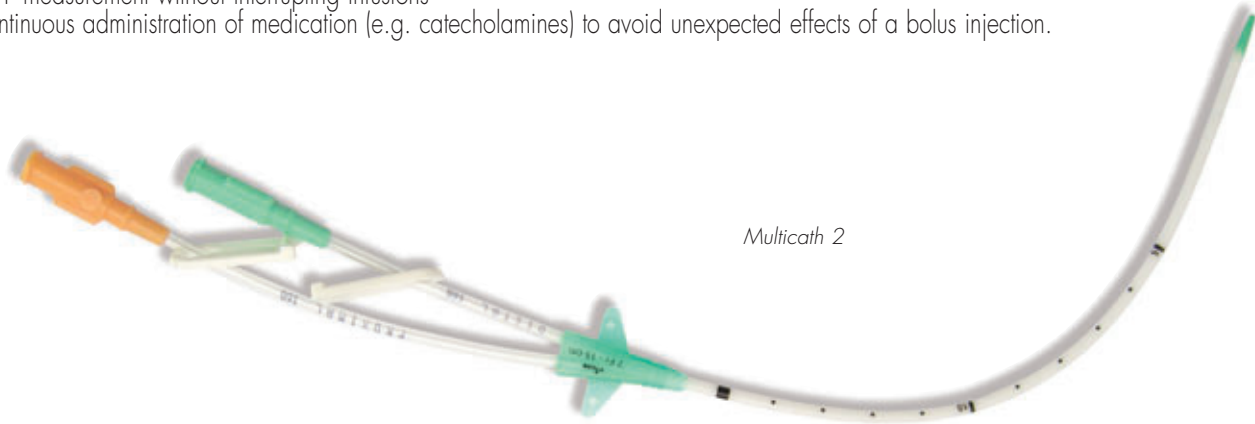## MULTICATH

Intravenous catheters in thermosensitive polyurethane with 2, 3, 4 or 5 separate lumen, introduced into a large vein (jugular or subclavian) which allow:
- repeated blood sampling
- simultaneous administration of several solutions or drugs (even when these are not compatible)
- CVP measurement without interrupting infusions
- continuous administration of medication (e.g. catecholamines) to avoid unexpected effects of a bolus injection.

Multicath 2

6202/6203 Double-lumen Multicath
6206
5/45

Polyurethane double-lumen intravenous catheter with flexible distal tip.
Fully radiopaque, graduations each centimetre from 5 cm from the distal tip, coloured hubs, with 2 lumens of equal diameter, available in 3 sizes (6F, 7F and 8F) and 3 lengths (15, 20 and 30 cm).
Ergonomic guide advancer detects any resistance when advancing the guidewire.
The user has the choice of 2 types of introducer: 1 introducer needle (length 70 mm - Ø 1.06 x 1.26 mm - 18G) or 1 PTFE short I.V. cannula (length 64 mm - Ø 1.27 mm - 18G).

Tray presentation with label for traceability containing:
- 1 double lumen catheter (PUR - XRO) with extension tubes with clamps
- 1 puncture needle (length 70 mm - Ø 1.26 mm - 18G)
- 1 short I.V. cannula (18G - length 64 mm)
- 1 5 ml syringe
- 1 graduated "J" guidewire with wishbone-type guidewire advancer
- 1 dilator
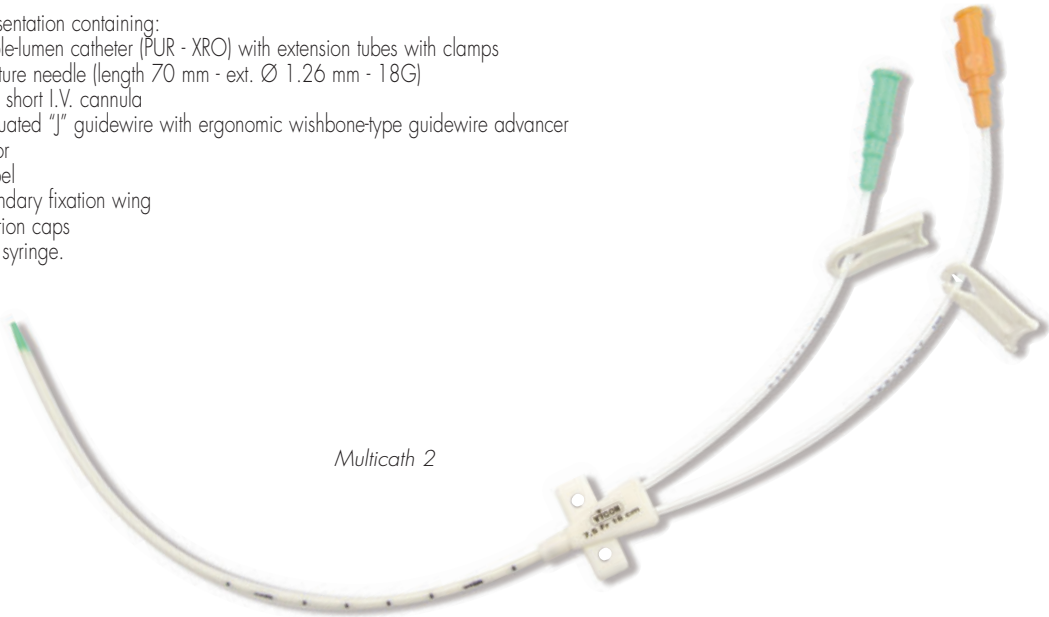- 1 scalpel
- 1 secondary fixation wing
- 2 injection caps.

Code	Catheter (PUR)			Lumen						"J" Guidewire		Needle	
	Length cm	Fr	Ext. Ø mm	Distal			Proximal			Length cm	Ø mm	G	Ext. Ø mm
				G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)				
6202.20	15	6	2.0	18	35	0.38	18	35	0.38	53	0.7	19	1.10
6203.20	20	6	2.0	18	32	0.40	18	32	0.40	53	0.7	19	1.10
6202.24	15	7	2.4	16	74	0.57	16	74	0.57	53	0.9	18	1.26
6203.24	20	7	2.4	16	70	0.60	16	70	0.60	53	0.9	18	1.26
6206.24	30	7	2.4	16	55	0.65	16	50	0.65	80	0.9	18	1.26
6202.27	15	8	2.7	14	109	0.60	14	109	0.60	53	0.9	18	1.26
6203.27	20	8	2.7	14	91	0.65	14	97	0.65	53	0.9	18	1.26
6206.27	30	8	2.7	14	60	0.70	14	60	0.70	80	0.9	18	1.26

157　Double-lumen Multicath
10

Polyurethane double-lumen intravenous catheter.
Fully radiopaque, centimetre graduations from 9 cm from the distal tip. Coloured hubs, 2 lumen of different diameters 16G/18G and flexible distal tip. Ergonomic guide advancer allowing detection of any resistance when advancing the guidewire. The user has the choice of 2 types of introducer: 1 introducer needle (length 70 mm - Ø 1.06 x 1.26 mm - 18G) or 1 PTFE short I.V. cannula (length 64 mm - Ø 1.27 mm - 18G).

Tray presentation containing:
- 1 double-lumen catheter (PUR - XRO) with extension tubes with clamps
- 1 puncture needle (length 70 mm - ext. Ø 1.26 mm - 18G)
- 1 18G short I.V. cannula
- 1 graduated "J" guidewire with ergonomic wishbone-type guidewire advancer
- 1 dilator
- 1 scalpel
- 1 secondary fixation wing
- 2 injection caps
- 1 5 ml syringe.

Multicath 2

Code	Catheter (PUR)			Lumen						"J" Guidewire	
	Length cm	Fr	Ext. Ø mm	Distal			Proximal			Length cm	Ø mm
				G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)		
157.167	16	7.5	2.5	16	56	0.39	18	50	0.33	60	0.88
157.207	20	7.5	2.5	16	47	0.42	18	42	0.45	60	0.88
157.307	30	7.5	2.5	16	42	0.57	18	38	0.45	70	0.88

6202.241　Double-lumen Multicath +
6203.241
5/45

with B.L.S. (Bloodless System)

Safety device to avoid blood loss

• Prevents risk of contamination (safe for user) and risk of air embolism (safe for patient).
• No change in placement technique for the operator.
Products identical to Multicath code 6202.24 and 6203.24 described above, but introducer needle has a valve to provide maximum protection against blood loss during venipuncture, and the syringe features a modified nozzle to open valve in needle.
Ergonomic guidewire advancer detects any resistance to guidewire advancement.
Supplied with a needle adaptor for use with a primed extension and a pressure transducer to confirm venous placement.

6207/6208　Triple lumen Multicath
6209
5/45

Polyurethane intravenous triple lumen catheter with flexible distal tip.
Fully radiopaque, graduations each centimetre from 5 cm from the distal tip, coloured hubs, distal lumen with a large diameter (14G) for optimum flow.
Ergonomic guide advancer allowing detection of any resistance when advancing the guidewire.
The user has the choice of 2 types of introducer: 1 introducer needle (length 70 mm - Ø 1.06 x 1.26 mm - 18G) or 1 PTFE short I.V. cannula (length 64 mm - Ø 1.27 mm - 18G).

Tray presentation with label for traceability containing:
- 1 triple lumen catheter (PUR - XRO) with extension tubes with clamps
- 1 18G introducer needle (Ø 1.06 x 1.26 mm), length 70 mm
- 1 5 ml syringe
- 1 graduated "J" guidewire with ergonomic wishbone-type guidewire advancer
- 1 18G short I.V. cannula (length 64 mm)
- 1 dilator
- 1 secondary fixation wing
- 1 scalpel
- 3 injection caps.

Multicath 3

Code	Catheter (PUR)			Lumen									"J" Guidewire	
	Length cm	Fr	Ext. Ø mm	Distal			Middle			Proximal			Length cm	Ø mm
				G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)		
6208.25	15	7.5	2.5	14	68	0.50	18	45	0.35	18	45	0.35	46	0.9
6209.25	20	7.5	2.5	14	65	0.60	18	40	0.40	18	40	0.40	53	0.9
6207.25	30	7.5	2.5	14	50	0.70	18	35	0.40	18	35	0.40	80	0.9

6209.251　Triple lumen Multicath +
5/45

with B.L.S. (Bloodless System)

Safety device to avoid blood loss

• Prevents risk of contamination (safe for the user) and risk of air embolism (safe for the patient)
• No change in placement technique for operator.
Similar product to Multicath code 6209.25 described above, except the introducer needle has a valve to provide maximum protection against blood loss during venipuncture, and the syringe features a modified nozzle to open valve in needle.
Ergonomic guide advancer allowing detection of any resistance when advancing the guidewire.
Supplied with a needle adaptor for use with a primed extension and a pressure transducer to confirm venous placement.
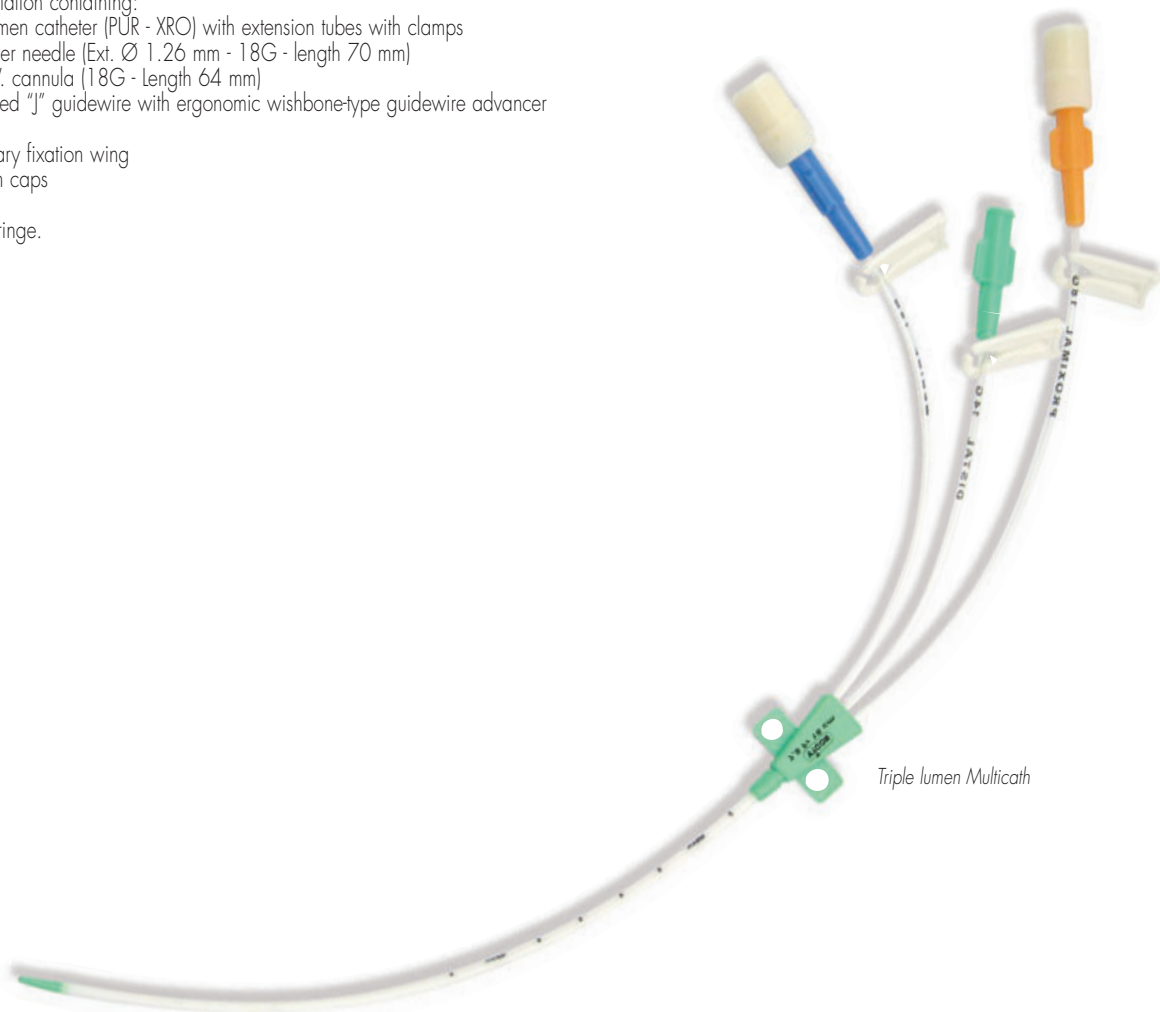
155 Triple lumen Multicath
10

Triple lumen intravenous polyurethane catheter with flexible distal tip.
Fully radiopaque, graduations each centimetre from 9 cm from the distal tip, coloured hubs.
Ergonomic guide advancer allowing detection of any resistance when advancing the guidewire.
The user has the choice of 2 types of introducer: 1 introducer needle (length 70 mm - Ø 1.06 x 1.26 mm - 18G)
or 1 PTFE short I.V. cannula (length 64 mm - Ø 1.27 mm - 18G).

Tray presentation containing:
- 1 triple lumen catheter (PUR - XRO) with extension tubes with clamps
- 1 introducer needle (Ext. Ø 1.26 mm - 18G - length 70 mm)
- 1 short I.V. cannula (18G - Length 64 mm)
- 1 graduated "J" guidewire with ergonomic wishbone-type guidewire advancer
- 1 dilator
- 1 secondary fixation wing
- 3 injection caps
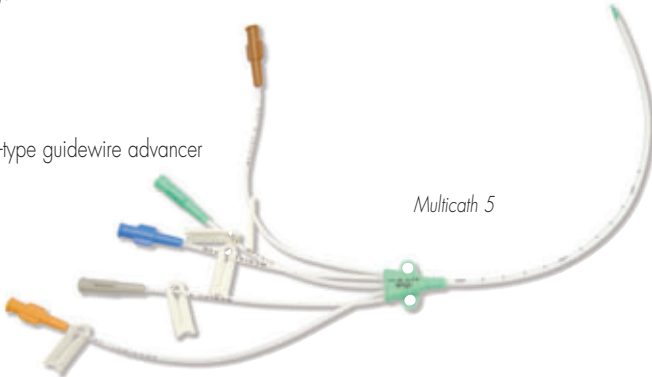- 1 scalpel
- 1 5 ml syringe.

Triple lumen Multicath

Code	Catheter (PUR)			Lumen									"J" Guidewire		Needle	
	Length cm	Fr	Ext. Ø mm	Distal			Middle			Proximal			Length cm	Ø mm	G	Length mm
				G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)				
155.167	16	7.5	2.7	14	63	0.38	18	34	0.33	18	36	0.38	60	0.88	18	70
155.207	20	7.5	2.7	14	60	0.45	18	30	0.34	18	30	0.38	60	0.88	18	70
155.307	30	7.5	2.7	14	50	0.50	18	18	0.39	18	20	0.42	60	0.88	18	70

158 Quad lumen Multicath
10

4-lumen intravenous polyurethane catheter with flexible distal tip.
Fully radiopaque, graduations every centimetre from 9 cm from the distal tip. Coloured hubs.
The user has the choice of 2 types of introducer: 1 introducer needle (length 70 mm - Ø 1.06 x 1.26 mm - 18G)
or 1 PTFE short I.V. cannula (length 64 mm - Ø 1.27 mm - 18G).

Tray presentation containing:
- 1 4-lumen catheter (PUR - XRO) with extension tubes with clamps
- 1 introducer needle (ext. Ø 1.26 mm, Length 70 mm - 18G)
- 1 short I.V. cannula (Length 64 mm - 18G)
- 1 graduated "J" guidewire with ergonomic wishbone-type guide-advancer
- 1 dilator
- 1 secondary fixation wing
- 4 injection caps
- 1 scalpel
- 1 5 ml syringe.

Multicath 4

Code	Catheter (PUR)			Lumen												"J" Guidewire	
	Length cm	Fr	Ext. Ø mm	Distal			Middle 1			Middle 2			Proximal			Length cm	Ø mm
				G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)		
158.167	16	8.5	2.85	16	61	0.38	14	100	0.50	18	17	0.30	18	22	0.33	68	0.88
158.207	20	8.5	2.85	16	56	0.38	14	100	0.54	18	15	0.32	18	14	0.34	68	0.88

159 Quin lumen Multicath
10

5-lumen intravenous polyurethane catheter with flexible distal tip.
Fully radiopaque, graduations every centimetre from 9 cm from the distal tip. Coloured hubs.
The user has the choice of 2 types of introducer: 1 introducer needle (length 70 mm - Ø 1.06 x 1.26 mm - 18G)
or 1 PTFE short I.V. cannula (length 64 mm - Ø 1.27 mm - 18G).

Tray presentation containing:
- 1 5 lumen catheter (PUR - XRO) with extension tubes with clamps
- 1 introducer needle (ext. Ø 1.26 mm - 18G - Length 70 mm)
- 1 short I.V. cannula (18G - Length 64 mm)
- 1 graduated "J" guidewire (Ø 0.9 mm – L. 58 cm) with ergonomic wishbone-type guidewire advancer
- 1 dilator
- 1 secondary fixation wing
- 5 injection caps
- 1 scalpel
- 1 5 ml syringe.

Multicath 5

Code	Catheter (PUR)			Lumen														
	Length cm	Fr	Ext. Ø mm	Distal			Middle 1			Middle 2			Middle 3			Proximal		
				G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)	G	Flow rate (ml/min)	Priming volume (ml)
159.167	16	9.5	3.15	16	57	0.43	14	84	0.57	18	16	0.36	18	16	0.36	18	18	0.40
159.207	20	9.5	3.15	16	55	0.44	14	80	0.59	18	15	0.38	18	12	0.36	18	17	0.41

VYGON

Antimicrobial catheters: *expert* Technology

- The active ingredient used in the technology is the silver ion-based antimicrobial agent AgION™, which is not just a surface coating but is incorporated into the material from which the tube is made.

- Combining efficiency and safety, silver has the ideal properties for antimicrobial venous catheters:
  - Silver is the most effective antimicrobial metal ion and has a remarkably low human toxicity. Silver ions have an exceptional broad antimicrobial spectrum against bacteria and fungi including antibiotic-resistant strains.
  - Silver is oligodynamic, i.e. it is active at a very low concentration. This makes it very safe to use at effective doses as it has no toxic effects in humans.
  - Technology is based on an antimicrobial substance which is both mineral and bio-inert. It is neither an antibiotic nor an organic antiseptic. The concentrations of silver released by the catheter are much lower than concentrations which are toxic to the body.

- Long-term efficacy:
  - Catheters release silver ions from their internal and external surfaces, and from the lateral eyes and the opening at the distal tip, so the catheter offers both extraluminal and intraluminal protective action.
  - Silver ions are released very gradually over an extended period of time, ensuring long-term efficacy.

The *expert* range consists of 2-, 3-, 4- and 5-lumen catheters.

All catheters are supplied in a protective black sheath, as the catheter is photoreactive.

8155/8157 Multicath Expert
8158/8159
5/45

Tray presentation with label for traceability containing:
- 1 x 2-, 3-, 4- or 5- lumen XRO catheter with extension tubes fitted with a clamp
- 1 puncture needle, length 70 mm, 18G
- 1 short I.V. catheter, length 64 mm, 18G
- 1 graduated "J" guidewire with wishbone-type guidewire advancer
- 1 dilator
- 1 x 5 ml syringe
- 1 scalpel
- 1 secondary fixation wing
- 2, 3, 4 or 5 stoppers with membrane (depending on model).

Code	Length cm	Fr	Ext. Ø mm	Number of lumen	Dist.	Med. 1	Med. 2	Med. 3	Prox.	Dist.	Med. 1	Med. 2	Med. 3	Prox.
8159.167	16	9.5	3.15	5	16	14	18	18	18	57 0.43	84 0.57	16 0.36	16 0.36	18 0.40
8159.207	20	9.5	3.15	5	16	14	18	18	18	55 0.44	80 0.59	15 0.38	12 0.36	17 0.41
8158.167	16	8.5	2.85	4	16	14	18	-	18	61 0.38	100 0.50	17 0.30	-	22 0.33
8158.207	20	8.5	2.85	4	16	14	18	-	18	56 0.41	100 0.33	15 0.59	-	14 0.38
8155.167	16	7.5	2.7	3	14	18	-	-	18	63 0.38	34 0.33	-	-	36 0.38
8155.207	20	7.5	2.7	3	14	18	-	-	18	60 0.45	30 0.34	-	-	30 0.38
8157.167	16	7.5	2.5	2	16	-	-	-	18	56 0.39	-	-	-	50 0.33
8157.207	20	7.5	2.5	2	16	-	-	-	18	47 0.42	-	-	-	42 0.45

Triple-lumen Multicath Expert

THE PRINCIPLE OF THE MULTISTAR ANTIBIOTIC INCORPORATION PROCESS

The active ingredients used in the Multistar are Rifampicin and Miconazole.

Rifampicin is a competitive inhibitor of bacterial RNA polymerase with potent activity against Gram-positive microorganisms and a high physico-chemical compatibility with polyurethanes.
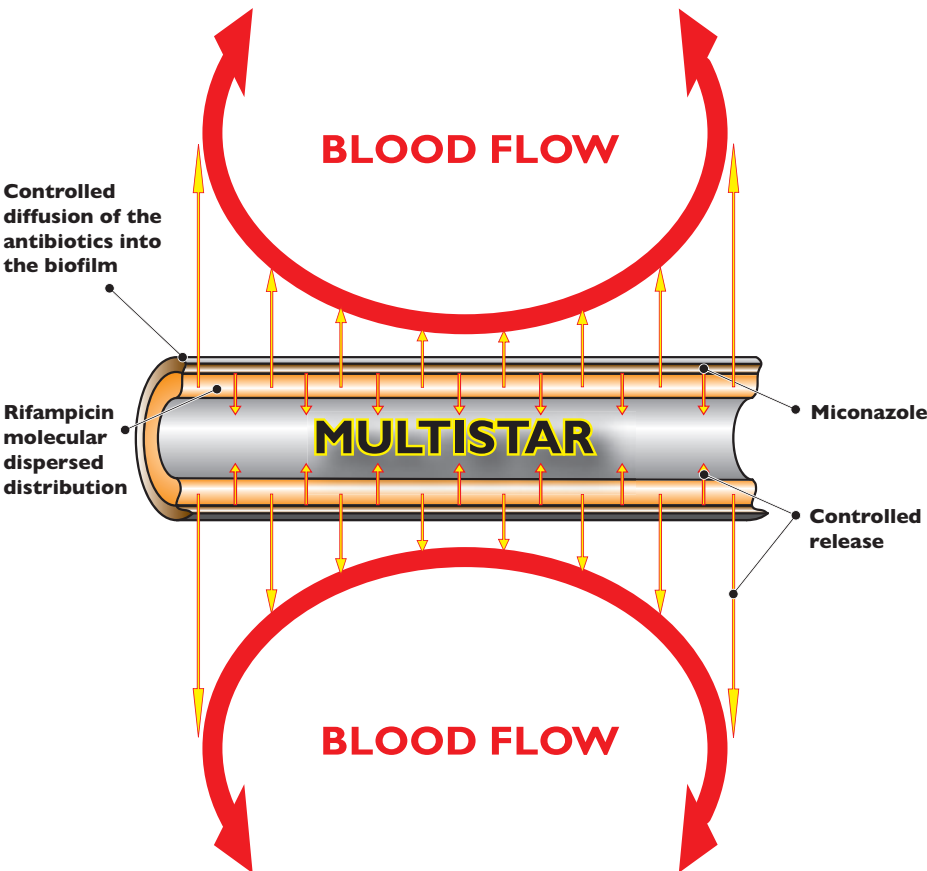
Miconazole is a synthetic antifungal with a wide spectrum of antimicrobial activity and a low toxicity and has been used for years in the topical and systemic treatment of mycotic infections.

The Rifampicin and the Miconazole are molecularly integrated into the polyurethane catheter material by using a patented multistep diffusion-controlled incorporation process. The active ingredients are entirely "dissolved" in the polymer like in an alloy.

The catheter when having contact to blood, body fluids or infusion solutions releases Rifampicin and Miconazole to the catheter's inner and outer surfaces at a slow and steady rate.

Suppression of microbial growth in the catheter's biofilm reduces the incidence of catheter associated infections.

Due to the enormous reservoir in the catheter's entire wall the release mechanism provides release of Rifampicin and Miconazole for the life of the product.

BLOOD FLOW

Controlled diffusion of the antibiotics into the biofilm

Rifampicin molecular dispersed distribution

MULTISTAR

Miconazole

Controlled release

BLOOD FLOW

6155/6158   Multistar
6159
5/45

Antibiotic impregnated multi-lumen catheter.
Multistar is available in 3, 4 and 5 lumen.

Benefits:
- Biocompatible and safe
- Clinically proven to reduce CRI and colonisation
- Effective broad spectrum of activity against bacteria and fungi
- Long lasting: will protect for the life of the catheter
- Nitinol "J" guidewire for smooth catheter placement
- CE registered. CE 0481.

Tray presentation with label for traceability containing:
- 1 3-, 4- or 5- lumen XRO catheter with extension tubes fitted with a clamp
- 1 puncture needle length 70 mm, 18G
- 1 short I.V. cannula length 64 mm, 18 G
- 1 graduated "J" guidewire and guidewire advancer, Ø 0.88 mm – Length 70 cm
- 1 dilator
- 1 syringe 5 ml
- 1 scalpel
- 1 secondary fixation wing
- 3, 4 or 5 injection caps (depending on model).

Code	Catheter (PUR)				Lumen (gauge)					Flow rate (ml/min) Priming volume (ml)				
	Length cm	Fr	Ext. Ø mm	Number of lumen	Dist.	Med. 1	Med. 2	Med. 3	Prox.	Dist.	Med. 1	Med. 2	Med. 3	Prox.
6159.167	16	9.5	3.15	5	16	14	18	18	18	57 *0.43*	84 *0.57*	16 *0.36*	16 *0.36*	18 *0.40*
6159.207	20	9.5	3.15	5	16	14	18	18	18	55 *0.44*	80 *0.59*	15 *0.38*	12 *0.36*	17 *0.41*
6158.167	16	8.5	2.85	4	16	14	18	-	18	61 *0.38*	100 *0.50*	17 *0.30*	-	22 *0.33*
6158.207	20	8.5	2.85	4	16	14	18	-	18	56 *0.41*	100 *0.33*	15 *0.59*	-	14 *0.38*
6155.167	16	7.5	2.7	3	14	18	-	-	18	63 *0.38*	34 *0.33*	-	-	36 *0.38*
6155.207	20	7.5	2.7	3	14	18	-	-	18	60 *0.45*	30 *0.34*	-	-	30 *0.38*

Triple-lumen Multistar
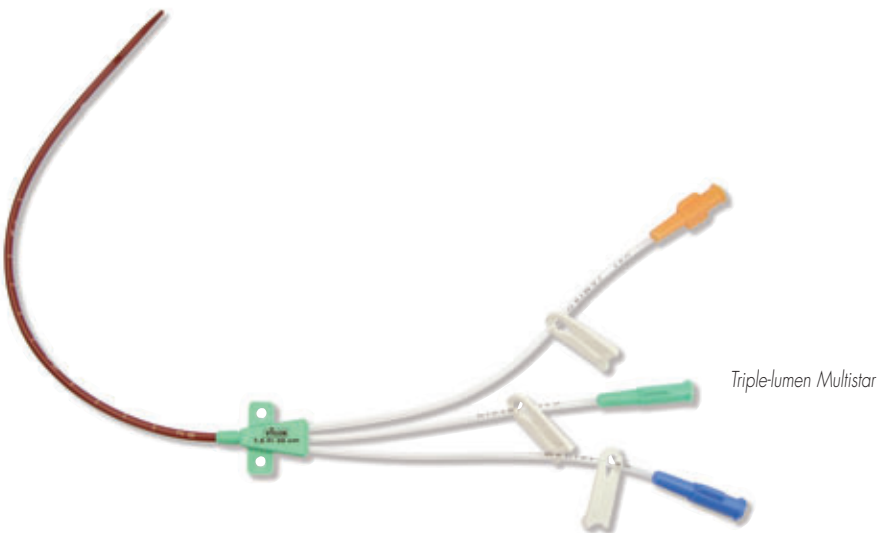
Peripheral venous access

PICC: "Peripherally inserted central catheters".
PICC catheters are inserted into a peripheral vein near the ante-cubital fossa, and the distal tip of the catheter is introduced up to the superior vena cava.
They can be used for periods from a few weeks (2 or 3) to several months.
They are suitable for both hospitalised patients and home treatment.
Indications:
- Administration of hyperosmolar solutions, antibiotics, chemotherapy and other drugs which are irritant to the peripheral vessels
- Temporary catheterisation while awaiting insertion of a long-term catheter with sub-cutaneous cuff or one with an implantable port
- Patients with injuries or burns to the chest and neck, patients who are to undergo radiotherapy on this area or patients who are suffering from respiratory problems.

Advantages of PICC:
- Avoids repeated and painful venipunctures with I.V. cannulae and the trauma associated with these punctures, as well as damage and loss of peripheral veins.
- Peripheral insertion of a central venous catheter reduces potential risks in comparison to jugular or subclavian insertion (pneumothorax, haemothorax, arterial puncture, pinch-off syndrome in a clavicular approach, air embolism, etc.)
- The catheter can be inserted outside the operating theater (at bedside or at home).

1294   Lifecath PICC - 60 cm

1294.245   Lifecath PICC double-lumen - 60 cm

8294.14   Lifecath PICC Expert - 60 cm
1/10

Single and double lumen polyurethane central venous catheter for peripheral access.
. Double-lumen catheter: code 1294.245; other catheters are single lumen.
. Fully radiopaque I.V. catheter in **biostable polyurethane** for medium and long-term venous access.
. **Flexible** catheter **with stylet**
. Integral fixation wing and extension tube
. Markings every 5 cm
. Introducer: peel-apart short I.V. cannula
. Supplied with one measuring tape.

Code 8294.14 Lifecath PICC Expert:

Lifecath PICC

Code	Catheter (PUR)					Introducer
	Ext. Ø mm	Fr	Length cm	Flow rate ml/min	Priming volume ml	
1294.13	1.0	3	60	1.3	0.25	Peel-apart cannula 17G
1294.14	1.3	4	60	9.4	0.40	Peel-apart cannula 15G
8294.14	1.3	4	60	9.4	0.55	Peel-apart cannula 15G
1294.15	1.7	5	60	20.0	0.70	Peel-apart cannula 14G
1294.245	1.5	4.5	60	4.3/4.3	0.32/0.32	Peel-apart cannula 14G

1227   Leader-Cuff
1

Polyurethane catheter for long-term venous access.
I.V. catheter in fully radiopaque, biostable polyurethane for parenteral nutrition, administration of medication, chemotherapy, etc.
With subcutaneous cuff and Vyflow™ flow regulator.
Leader-Cuff is inserted by percutaneous puncture (peel-apart Desilet), but can also be inserted by venous cut-down.
- Graduations each centimetre from 5 to 24 cm
- Tunnelling needle (type 2183.15) supplied with the tray
- Subcutaneous cuff at 25 cm from the distal tip
- Detachable compression hub: tunnelling can be carried out before or after the catheter is introduced into the vein
- New biostable polyurethane for long-term implantation
- Polyurethane has excellent mechanical resistance, thermosensitivity and haemocompatibility
- Winged hub allowing the catheter to be flushed before insertion
- **Vyflow™ flow regulator** (on/off).

Tray presentation with label for traceability containing:
- 1 PUR catheter (XRO) with detachable winged hub
- 1 Desilet with peel-apart sheath type 1146 with 18G introducer needle and "J" guidewire, length 53 cm
- 1 tunnelling needle (type 2183.15)
- 1 Vyflow flow regulator (type 1297)
- 1 fixation wing
- 1 injection cap
- 1 10 ml syringe
- 1 scalpel.

Leader-Cuff

Code	Int. Ø - Ext. Ø mm	G	Fr	Total length cm	Flow rate ml/min	Priming volume ml*
1227.17	1.2 - 1.8	16	5	60	37	0.95
1227.20	1.4 - 2.0	14	6	60	65	1.10

* Calculated for the complete catheter before the length is adjusted by the physician.

1297   Flow regulator Vyflow™
10/480

Detachable hub (open or closed position) for polyurethane catheters.
- Prevents blood reflux
- Considerably reduces the risk of air embolism when changing infusion lines
- To reduce the risk of infection, the Vyflow™ hub can be replaced at regular intervals.

Code	Colour	For catheter of Int. Ø mm
1297.13	🔴	0.8
1297.17	🟠	1.2
1297.20	🟢	1.4

Vyflow

2180 Nutricath "S" - 35 cm
2181 Nutricath "S" - 60 cm
5/75

Silicone catheter for long-term venous access.

Radiopaque silicone catheter for peripheral or central venous access for parenteral nutrition, chemotherapy, etc..
- Supplied with plastic stylet to make the catheter more rigid
- Markings at 10, 15 and 20 cm from the distal tip
- Detachable compression hub (code 2196) to allow regular replacement (e.g. weekly) or changing as required (in case of suspected infection and/or obstruction of the hub)
- Silicone has good haemocompatibility and superior flexibility: less risk of thrombophlebitis, irritation or intravenous damage.

Presented in a transparent rigid tubular pack containing:
- 1 XRO silicone catheter with stylet
- 1 introducer, short I.V. cannula type
  (except Nutricath with ext. Ø 3.2 mm: without introducer)
- 1 detachable compression hub.

Code		Catheter (silicone)							Introducer		
L. 35 cm	L. 60 cm	Int. Ø - Ext. Ø mm	G	Fr	Flow rate ml/min		Priming volume ml		Length mm	Int. Ø - Ext. Ø mm	G
					2180	2181	2180	2181			
2180.13	2181.13	0.8 - 1.3	18	4	15	8	0.42	0.50	55	1.6 - 2.1	14
2180.17	2181.17	1.0 - 1.7	16	5	54	21	0.65	0.75	80	1.9 - 2.4	13
2180.20	2181.20	1.2 - 2.0	14	6	65	40	0.75	0.82	80	2.2 - 2.7	12
2180.30	2181.30	2.0 - 3.2	11	9.5	270	195	1.90	2.30	No introducer		

Nutricath "S"

2171 Nutricath "S" with Desilet introducer - 35 cm
1/20

Silicone catheter for long-term venous access.

Catheter identical to the Nutricath code 2180, inserted using a Desilet type introducer.
Venipuncture can therefore be performed using a needle with a smaller external diameter (20G for code 2171.13, 18G for other codes).

Tray presentation (double packaging) containing:
- 1 XRO silicone catheter with stylet
- 1 Desilet type introducer
- 1 detachable compression hub.

Nutricath "S" with Desilet

Code	Catheter (silicone)				
	Int. Ø - Ext. Ø mm	G	Fr	Flow rate ml/min	Priming volume ml
2171.13	0.8 - 1.3	18	4	15	0.42
2171.17	1.0 - 1.7	16	5	54	0.65
2171.20	1.2 - 2.0	14	6	65	0.75

2182 Nutricath "Tunnel" - 60 cm
**1/20**

Silicone catheter for long-term venous access.

Set for inserting and tunnelling Nutricath "S" type 2181.20. The catheter is inserted using a Desilet introducer: venipuncture is carried out with a small diameter needle (ext. Ø 1.26 mm - 18G) instead of a 12G short I.V. cannula.
Delivered with a tunnelling needle length 26 cm.

Tray presentation (double packaging) containing:
- 1 XRO silicone catheter (type 2181.20)
- 1 Desilet introducer with "J" guidewire
- 1 detachable compression hub (type 2196.20)
- 1 tunnelling needle (type 2183.20).

Code	Catheter (silicone)					
	Int. Ø - Ext. Ø mm	G	Fr	Length cm	Flow rate ml/min	Priming volume ml
2182.20	1.2 - 2.0	14	6	60	40	0.82
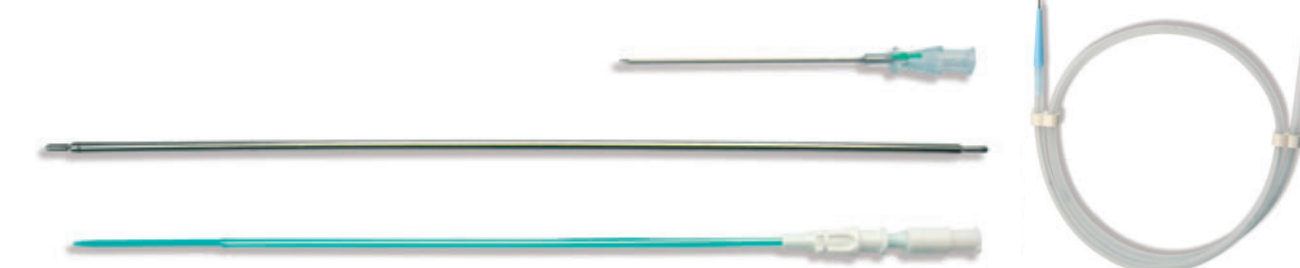
ACCESSORIES FOR SILICONE CATHETERS

2183 Tunnellisation device for silicone catheters - 26 cm
10/150

Code 2183.15: for catheters with internal Ø 0.5 to 1.2 mm
Code 2183.20: for catheters with internal Ø 1.3 to 2.0 mm

Code 2183.20

2196 Detachable compression hub for silicone catheters
30/1440

Allows optimally safe fixation while respecting the internal diameter of the catheter.

Code	Colour	For Nutricath (2180/2181) Tube Ø mm
2196.13	🟡	0.8 - 1.3
2196.17	🔵	1.0 - 1.7
2196.20	⚪	1.2 - 2.0
2196.30	🔴	2.0 - 3.2

Code 2196

2191/2193 Lifecath
1

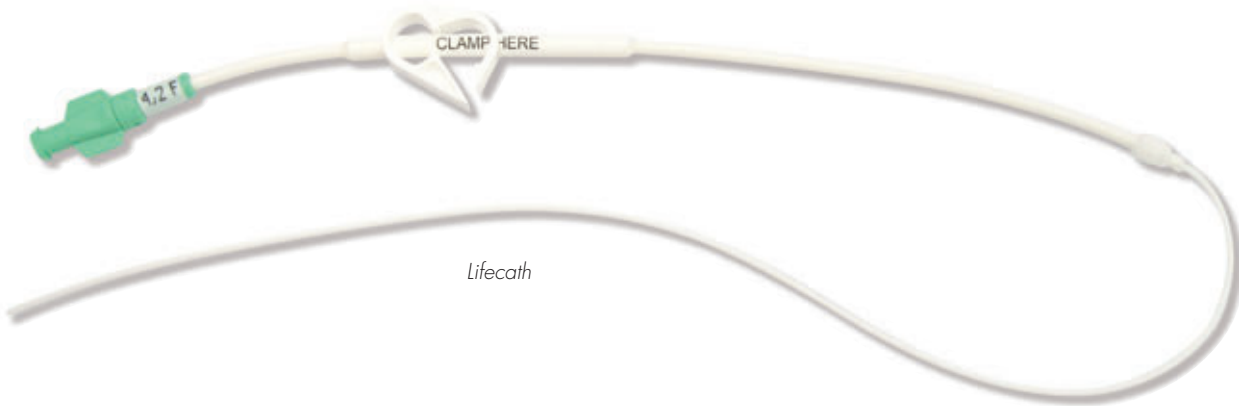**Silicone catheter with subcutaneous cuff for long-term venous access.**
Radiopaque silicone catheter for long-term venous access (parenteral nutrition, administration of medication, antibiotics, chemotherapy, etc.).
. Inserted by venous cut-down (catheter only) or percutaneous puncture (kit with peel-apart Desilet)
. Subcutaneous cuff to fix the catheter securely to subcutaneous tissues
. Reinforced extra-vascular section with clamping site and clamp
. Fixed proximal hub therefore tunnelling is carried out before venipuncture
. Tunnelling needle supplied with all kits
. Silicone has good haemocompatibility and superior flexibility:
  less risk of thrombophlebitis, irritation and intravenous damage.

Tray presentation (double packaging) containing:
- 1 XRO silicone catheter (maximum pressure 3.5 bar)
- 1 tunnelling needle
- 1 peel-apart sheath Desilet type 1146 (only supplied with tray containing the catheter and the introducer).

Code		Catheter (silicone)						Repair Kit
Catheter only	Catheter with introducer	Int. Ø - Ext. Ø mm	Fr	Total length cm	Usable length cm	Priming volume ml*	Flow rate ml/min*	
2191.27	-	0.5 - 1.0	3.0	75	50	0.25	1.0	2194.27
2191.42	2191.425	0.7 - 1.4	4.2	75	50	0.35	5.0	2194.42
2191.50	2191.506	0.95 - 1.7	5.0	75	50	0.70	15.0	2194.50
2191.66	2191.667	1.1 - 2.2	6.6	90	55	1.10	18.0	2194.66
2193.96**	2193.960**	1.6 - 3.2	9.6	90	55	1.65	60.0	2195.96

* Calculated for the complete catheter before the length is adjusted by the physician.
** Supplied with a scalpel and 2 tunnelling rods (plastic and metallic).

Lifecath

2293   Double-lumen Lifecath
1

Silicone double-lumen catheter with subcutaneous cuff for long-term venous access.
Radiopaque silicone catheter for long-term venous access (parenteral nutrition, administration of medication, antibiotics, chemotherapy, etc), inserted by venous cut-down (catheter only) or percutaneous puncture (kit with peel-apart Desilet).

Catheter only
Tray presentation (double packaging) containing:
- 1 double-lumen XRO silicone catheter
- 2 tunnelling rods (plastic and metallic).

Catheter and introducer
Tray presentation (double packaging) containing:
- 1 double-lumen XRO silicone catheter
- 2 tunnelling rods (plastic and metallic)
- 1 scalpel
- 1 Desilet with peel-apart sheath type 1146.

Double-lumen Lifecath

Code		Silicone catheter						Repair Kit	
Catheter only	Catheter with introducer	Ext. Ø mm	Int. Ø mm Lumen 1	Int. Ø mm Lumen 2	Fr	Total length cm	Usable length cm	For extension tube*	Complete kit**
2293.070	2293.70	2.4	0.6	1.0	7	90	55	2195.06/10	2295.07
2293.095	2293.95	3.0	1.3	1.3	9	90	55	2195.13	2295.95
2293.110	2293.11	3.7	1.0	1.6	11	90	55	2195.10/16	2295.11
2293.140	2293.14	4.7	1.6	1.6	14	90	55	2195.16	2295.14

* For repairing one extension tube, proximal to the fixation hub.
** For repairing the external part of the catheter (distal to the fixation hub); this model includes two extension tubes.

2194/95   Repair kit for Lifecath
8194/95   and double-lumen Lifecath
2295/8295
1

For repairing the extra-cutaneous section of the catheter. Kit containing extra-vascular silicone tube with clamp, integral stainless steel bridging adaptor and a tube of glue.
See corresponding items.

Code 2194.66

Code 2295.95

VYGON

8191/8193 Single and double-lumen Lifecath Expert
8293

1

Antimicrobial silicone catheter with silver ions for long-term venous access.
Radiopaque single and double-lumen silicone catheter with subcutaneous cuff for long-term access (parenteral nutrition, administration of medication, antibiotics, chemotherapy…) inserted by venous cut-down (catheter only) or percutaneous puncture (kit with peel-apart Desilet).
The active ingredient used in the Expert technology is the silver ion-based antimicrobial agent AgION ™ which is not just a surface coating but is incorporated into the silicone tubing of the catheter.
Lifecath Expert gradually releases silver ions from its internal and external surface, so the catheter offers both extraluminal and intraluminal protective action over an extended period of time.

Catheter only (single and double-lumen)
Tray presentation (double packaging) containing:
- 1 single or double-lumen XRO silicone catheter
- 1 tunnelling needle (code 8191.66/667), 2 tunnelling rods plastic and metallic for the other models.

Catheter and introducer
Tray presentation (double packaging) containing:
- 1 single or double-lumen XRO silicone catheter
- 1 tunnelling needle (Lifecath Expert 6.6 Fr), 2 tunnelling rods plastic and metallic for the other models
- 1 peel-apart sheath Desilet type 1146
- 1 scalpel.

Code		Silicone catheter						Repair Kit	
Catheter only	Catheter with introducer	Int. Ø - Ext. Ø mm	Fr	Flow rate ml/min	Priming volume ml	Total length cm	Usable length cm	For extension tube*	Complete kit**
8191.66	8191.667	1.1-2.2	6.6	18	1.1	90	55	8194.66	-
8193.96	8193.960	1.6-3.2	9.6	60	1.65	90	55	8195.96	-
8293.095 (double-lumen)	8293.95 (double-lumen)	1.3-1.3/3.0	9.5	40/40	1.3/1.3	92	57	8195.13	8295.95

N.B. : The priming volume and the flow rate are calculated for the complete catheter before the length is adjusted by the physician.
* For repairing one extension tube, proximal to the fixation hub.
** For repairing the external part of the catheter (distal to the fixation hub); this model includes two extension tubes.
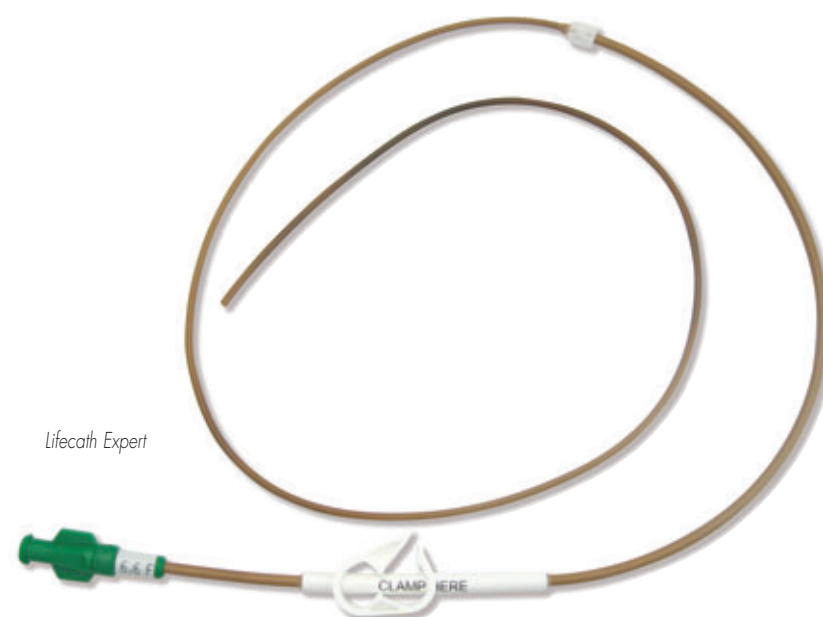
Lifecath Expert

2296   Double-lumen Lifecath for apheresis

1

Double-lumen silicone catheter for long-term venous access: apheresis.
Fully radiopaque catheter with subcutaneous cuff placed at 19 cm (codes 2296.111/190/951) or 26 cm from the distal tip (code 2296.112/260/952). Inserted by percutaneous puncture with a peel-apart Desilet.
The proximal extension tubes have clamps (blue for venous, red for arterial). The venous distal opening is separated from the arterial opening by a distance of 2 cm.

Tray presentation (double packaging) containing:
- 1 double-lumen XRO silicone catheter
- 1 Desilet with peel-apart sheath type 1146
- 1 dilator
- 1 tunnelling needle
- 1 10 ml syringe
- 1 scalpel.

Code		Silicone catheter							
	Length cm	Ext. Ø mm		Lumen 1	Lumen 2	Flow rate (ml/min)		Priming volume (ml)	
		mm	Fr	Ø mm	Ø mm	Lum 1	Lum 2	Lum 1	Lum 2
2296.951	27	3.0	9	0.7	0.7	75	81	0.72	0.69
2296.952	34	3.0	9	0.8	0.8	56	59	0.81	0.83
2296.111	27	3.75	11	0.8	1.0	64	164	0.75	1.04
2296.112	34	3.75	11	0.8	1.2	49	163	0.78	1.21
2296.190	27	4.5	14	1.0	1.0	165	165	1.00	1.00
2296.260	34	4.5	14	1.2	1.2	155	155	1.20	1.20

Repair kits: ask your Vygon representative.

Code 2296.190

SITIMPLANT / MINI-SITIMPLANT

Low-profile titanium implantable port with large septum to facilitate the localization by palpation and the puncture of the septum.
- I.V. catheter in fully radiopaque silicone, 60 cm long and anti-kinking sleeve. Markings every centimetre along the length of the catheter
- Integral or detachable catheter according to physician's preference
- Compatible with magnetic resonance imaging.

Three types of kit are available:
- A **simple kit** without introducer for venous cut-down
- A **kit with introducer** for percutaneous insertion (with peel-away Desilet introducer)
- A **complete kit** for percutaneous insertion with peel-away Desilet, drapes and gowns.

The simple kit includes:
- 1 implantable titanium port
- 1 radiopaque silicone catheter
- 1 catheter guide
- 1 adapter to prime detachable catheters
- 1 straight needle with Huber bevel REF 1057.27.

The kit with introducer includes:
- 1 implantable titanium port
- 1 radiopaque silicone catheter
- 1 catheter guide
- 1 adapter to prime detachable catheters
- 1 straight needle with Huber bevel REF 1057.27
- 1 Hubsite needle (22G x 20 mm) with Huber bevel and PUR extension tube for infusion
- 1 peel-away Desilet + 1 syringe (10 ml) or 1 short I.V. cannula
- 1 tunnellisation needle REF 2183.

The complete kit includes:
- 1 implantable titanium port
- 1 radiopaque silicone catheter
- 1 catheter guide
- 1 adapter to prime detachable catheters
- 1 straight needle with Huber bevel REF 1057.27
- 1 Hubsite needle (22G x 20 mm) with Huber bevel and PUR extension tube for infusion
- 1 peel-away Desilet + 1 syringe (10 ml) or 1 short I.V. cannula
- 1 tunnellisation needle REF 2183
- 2 hypodermic needles 18 and 21G
- 2 surgical gowns L and XL
- 1 table cover 140 x 160 cm
- 1 large fenestrated drape 180 x 300 cm (adhesive aperture 15 x 15 cm).

Sitimplant

Mini-Sitimplant

Micro-Sitimplant

SITIMPLANT

2216   Sitimplant

Port characteristics:

Height mm	Weight G	Base Ø mm	Number of fixation holes	Priming volume ml	Septum Ø mm	Puncture area cm²
11	10.5	28	5	0.47	13	1.3

| Code | Port type | Silicone catheter 60 cm long | | | | | Kit | | |
		Ø 1.6 x 3.2 mm 9.6 Fr	Ø 1.1 x 2.2 mm 6.6 Fr	Ø 1.2 x 2.0 mm With stylet 6.0 Fr	Detachable	Integral	Simple kit	Kit with introducer	Complete kit
2216.019		x				x	x		
2216.119		x				x		Desilet	
2216.029		x			x		x		
2216.129		x			x			Desilet	
2216.216			x	x				Short I.V. cannula	
2216.016			x			x	x		
2216.116			x			x		Desilet	
08 2216.116			x			x			x
2216.026			x		x		x		
2216.126			x		x			Desilet	

2215   Mini-Sitimplant

Port characteristics:

Height mm	Weight G	Base Ø mm	Number of fixation holes	Priming volume ml	Septum Ø mm	Puncture area cm²
10	8	24	5	0.27	10	0.78

| Code | Port type | Silicone catheter 60 cm long | | | | | | Kit | | |
		Ø 1.6 x 3.2 mm 9.6 Fr	Ø 1.1 x 2.2 mm 6.6 Fr	Ø 1.2 x 2.0 mm With stylet 6.0 Fr	Ø 0.8 x 1.3 mm 3.9 Fr	Detachable	Integral	Simple kit	Kit with introducer	Complete kit
2215.019		x					x	x		
2215.119		x					x		Desilet	
2215.129		x				x			Desilet	
2215.216			x	x					Short I.V. cannula	
2215.016			x				x	x		
2215.116			x				x		Desilet	
08 2215.116			x				x			x
2215.026			x			x		x		
2215.126			x			x			Desilet	
2215.014				x		x		x		
2215.024				x			x	x		

Vascular Access

Vascular Access

Micro-Sitimplant

Very low-profile titanium implantable port specially designed for smaller patients.
- I.V. catheter in fully radiopaque silicone, 80 cm long and anti-kinking sleeve. Markings every centimetre along the length of the catheter
- Integral or detachable catheter according to physician's preference
- Compatible with magnetic resonance imaging.

Two kits are available:
- A **simple kit** without introducer for venous cut-down
- A **kit with introducer** for percutaneous insertion with peel-away Desilet.

The simple kit includes:
- 1 implantable titanium port
- 1 radiopaque silicone catheter
- 1 catheter guide
- 1 adapter to prime detachable catheters
- 1 straight needle with Huber bevel REF 1057.27
- 1 Hubsite needle (22G x 20 mm) with Huber bevel and PUR extension tube for infusion.

The kit with introducer includes:
- 1 implantable titanium port
- 1 radiopaque silicone catheter
- 1 catheter guide
- 1 adapter to prime detachable catheters
- 1 straight needle with Huber bevel REF 1057.27
- 1 Hubsite needle (22G x 20 mm) with Huber bevel and PUR extension tube for infusion
- 1 peel-away Desilet + 1 syringe (10 ml)
- 1 tunnellisation needle REF 2183.15.

Brochure

2211   Micro-Sitimplant
1

Port characteristics:

Height mm	Weight g	Base Ø mm	Number of fixation holes	Priming volume ml	Septum Ø mm	Puncture area cm²
8	3.5	19	6	0.17	8	0.53

Code	Port type	Silicone catheter 80 cm long					Kit	
		Ø 1.1 x 2.2 mm 6.6 Fr	Ø 1.0 x 1.7 mm 5.1 Fr	Ø 0.8 x 1.3 mm 3.9 Fr	Detachable	Integral	Simple kit	Kit with Desilet
2211.61		x			x		x	
2211.67		x			x			x
2211.68		x				x		x
2211.71				x	x		x	
2211.77				x	x			x
2211.78				x		x		x
2211.91			x		x		x	

2201.51 Mini-Sitimplant for pain relief
1

Implantable port with epidural polyurethane catheter for pain relief.

Tray presentation containing:
- 1 implantable port
- 1 Inject-Site
- 1 Tuohy needle 17G - L. 90 mm
- 1 epidural catheter (PUR - XRO) 19G
- 1 detachable hub
- 1 flat anti-bacterial filter
- 1 catheter-guide.
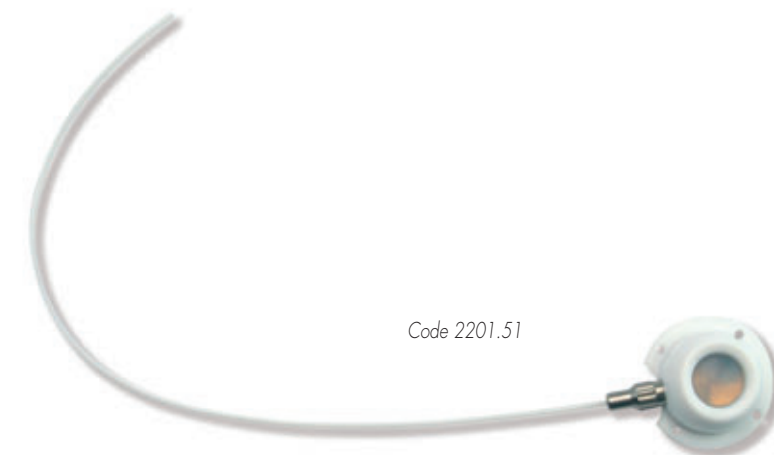
Code 2201.51

7303.17 Tunnelling needle for epidural catheter
5/75

Length 35 cm - Diameter 1.7 x 2.2 mm.

Code 7303.17

VYGON

1239   Hubsite
1251   Hubsite with lateral port and Autoflush
10/180

Infusion device with Huber bevel for implantable ports.
Huber bevel needle curved to 90° with wings and flexible polyurethane extension tube (length 30 cm) with clamp.
Presented in a rigid blister pack.

Autoflush on the lateral port of Hubsite (code 1251) and Perfusafe (code 1250) is a closed needleless device allowing blood sampling, intermittent injections or continuous infusions of fluids or drugs.
Autoflush includes a disinfectable piston (disinfection must be carried out before and after each use) which closes automatically when the infusion line or the syringe is disconnected.
Autoflush provides a 0.03 ml positive displacement of I.V. solution when the syringe is disconnected from the lateral port of the Hubsite thus eliminating any retrograde flow of blood into the catheter lumen, preventing catheter occlusion.

Hubsite	Hubsite with lateral port	Length mm	Ext. Ø mm	G	Colour of hub
1239.715	1251.715	15	0.7	22	●
1239.720	1251.720	20	0.7	22	●
1239.725	1251.725	25	0.7	22	●
1239.730	1251.730	30	0.7	22	●
1239.915	1251.915	15	0.9	20	●
1239.920	1251.920	20	0.9	20	●
1239.925	1251.925	25	0.9	20	●
1239.930	1251.930	30	0.9	20	●
1239.115	1251.115	15	1.0	19	●
1239.120	1251.120	20	1.0	19	●
1239.125	1251.125	25	1.0	19	●
1239.130	1251.130	30	1.0	19	●

AUTOFLUSH - IFU:

Connection   *Injection*   *Disconnection*
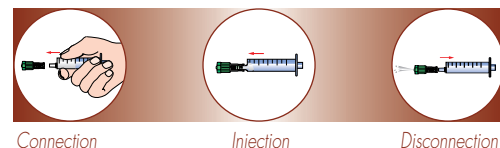
Code 1251

701.01   Digiprotect®
40/240

Needle-stick protector for use when withdrawing needles from implantable port.
Digiprotect holds in place the implantable port when withdrawing the needle and keeps the non-dominant hand away from the needle. The protective shield also prevents re-sticking the patient as a result of a "rebound effect".

Digiprotect

1249   Perfusafe
1250   Perfusafe with lateral port and Autoflush
10/180

Safety infusion device with Huber bevel for implantable ports.
Perfusafe prevents needle-stick injuries by rebound effect when withdrawing a Huber needle from an implantable port.
The needle is automatically directed into a safety block offering total protection for health care workers.
Flexible polyurethane extension tube (length 30 cm) with clamp.
Perfusafe is supplied with a removal protection pad which is available separately sterile under code 5801.01.

Perfusafe	Perfusafe with lateral injection port	Length mm	Ext. Ø mm	G	Colour of hub
1249.715	1250.715	15	0.7	22	●
1249.720	1250.720	20	0.7	22	●
1249.725	1250.725	25	0.7	22	●
1249.730	1250.730	30	0.7	22	●
1249.915	1250.915	15	0.9	20	●
1249.920	1250.920	20	0.9	20	●
1249.925	1250.925	25	0.9	20	●
1249.930	1250.930	30	0.9	20	●
1249.115	1250.115	15	1.0	19	●
1249.120	1250.120	20	1.0	19	●
1249.125	1250.125	25	1.0	19	●
1249.130	1250.130	30	1.0	19	●

▶ Prevents any risk of needle-stick injury

▶ Autoflush preserves the catheter from risk of occlusion

▶ Allows visual control of the puncture site

AUTOFLUSH - IFU:

Connection   *Injection*   *Disconnection*
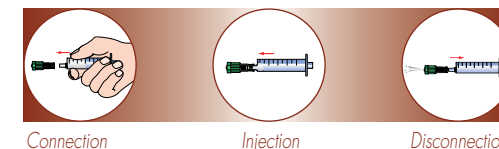
Code 1249   *Code 1250*

5801.01 Protection pad for Perfusafe
25/1200

Vascular Access

1129 Desilet - 13 cm
1137 Desilet - 15 cm
10/150

Introducer (PE) for silicone or cardiovascular catheters.
Device placed in the vascular system by the Seldinger technique for introducing cardiovascular or silicone catheters.

Presented in a rigid tubular pack containing:
- 1 introducer needle Ø 1.06 x 1.26 mm
- 1 straight guidewire Ø 0.97 mm, 39 cm long
- 1 dilator + sheath assembly.

Desilet

Code		Colour of dilator	For Catheter		Needle	Sheath length cm	
Code 1129	Code 1137		Fr	Ø mm	Length mm	1129	1137
1129.04*	-	🟣	04	1.3	38	5	-
1129.05	1137.05	⚪	05	1.7	70	13	15
1129.06	1137.06	🟢	06	2.0	70	13	15
1129.07	1137.07	🩷	07	2.3	70	13	15
1129.08	1137.08	🔵	08	2.7	70	13	15
1129.09	1137.09	🟡	09	3.0	70	13	15
1129.10	-	⚪	10	3.3	70	13	15

* Guidewire Length 30 cm, Ø 0.5 mm - Needle Ø 0.66 x 0.9 mm

1149 Desivalve
10/40

Catheter introducer with haemostatic valve.
PE-XRO catheter introducer with haemostatic valve for introducing cardiovascular catheters such as Swan-Ganz or temporary pacing catheters.
- XRO polyethylene sheath provided with colour coded stress-relief collar and fixation wing
- Side arm for injecting medication or venous pressure monitoring
- Non-touch catheter sleeve (Asept-Cath) incorporates a bayonet lock mechanism for secure and rapid attachment to the body of the Desivalve
. Distal compression hub minimises the risk of catheter migration
. Proximal compression hub acts as a barrier to bacterial contamination.

Desivalve

Tray presentation containing:
- 1 dilator and sheath
- 1 non-touch handling sleeve (Asept-Cath)
- 1 introducer needle
- 1 "J" guidewire.
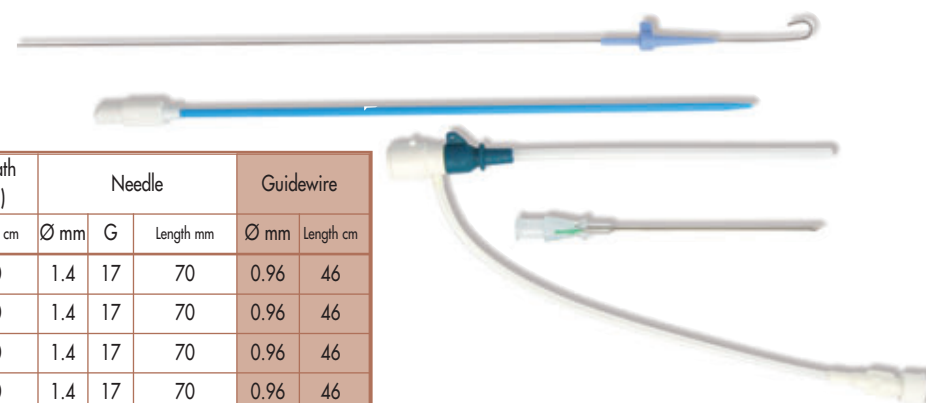
Code	For catheter*			Sheath (PE)	Needle			Guidewire	
	Colour of dilator	Fr	Ø mm	Length cm	Ø mm	G	Length mm	Ø mm	Length cm
1149.05	⚪	05	1.7	10	1.4	17	70	0.96	46
1149.06	🟢	06	2.0	10	1.4	17	70	0.96	46
1149.07	🩷	07	2.3	10	1.4	17	70	0.96	46
1149.08	🔵	08	2.7	10	1.4	17	70	0.96	46
1149.09	🟡	09	3.0	10	1.4	17	70	0.96	46

* For catheters with balloon, use a Desivalve the next Fr size larger than the catheter being placed.

1146 Peel-apart Desilet
5/45

Catheter introducer with peel-away sheath.
Tray presentation containing:
- 1 introducer needle Ø 1.06 x 1.26 mm - Length 70 mm
- 1 "J" guidewire - Length 53 cm, Ø 0.97 mm
- 1 dilator
- 1 Desilet with peel-apart sheath
- 1 10 ml syringe.

Code	For catheter **		Sheath	
	Fr	Ø mm	Length cm	Int. Ø - Ext. Ø mm
1146.04*	04	1.3	7	1.4 - 1.95
1146.05	05	1.7	14	1.8 - 2.3
1146.06	06	2.0	14	2.1 - 2.6
1146.07	07	2.3	14	2.4 - 3.1
1146.08	08	2.7	14	2.8 - 3.4
1146.09	09	3.0	14	3.1 - 3.7
1146.10	10	3.3	14	3.4 - 4.1
1146.12	12	4.0	14	4.1 - 4.7
1146.14	14	4.6	14	4.8 - 5.4

* Needle Ø 0.6 x 0.9 mm length 38 mm - Guidewire Ø 0.5 mm length 300 mm, FEP sheath and additional dilator. Peel-pack presentation.
** For catheters with balloon, use a Desilet the next Fr size larger than the catheter being placed.

Peel-apart Desilet

ACCESSORIES FOR DESILET

1135.08 Haemostatic valve with side outlet
10/400

Allows heparinisation and change of intra-cardiac* catheters without Desilet withdrawal and without loss of blood.

Code 1135

* Intracardiac catheters 8 Fr without balloon or 7 Fr with balloon.

VYGON

VYGON

106   Biovalve (PTFE)
50/1100

5106   Biovalve (PUR)
50/1100

I.V. cannula with injection valve.
. Transparent extra-thin walled cannula for optimised flow rate
. Male Luer-lock stopper
. **Silicone** valve
. Lateral injection port with ISO standard colour coding.

Code		Catheter					Corresponding Intralock obturator
PTFE	PUR*	Int. Ø - Ext. Ø mm	G	Length mm	Colour	Flow rate ml/min	
106.08	5106.08	0.5 - 0.8	22	25	●	25	109.08
106.10	5106.10	0.7 - 1.0	20	32	●	55	109.10
106.12	5106.12	0.9 - 1.2	18	40	●	90	109.12
106.14	5106.14	1.1 - 1.4	17	42	○	135	109.14
106.17	5106.17	1.3 - 1.7	16	42	●	170	109.17
106.21	5106.21	1.6 - 2.1	14	42	●	265	109.21

* Transparent cannula with XRO lines
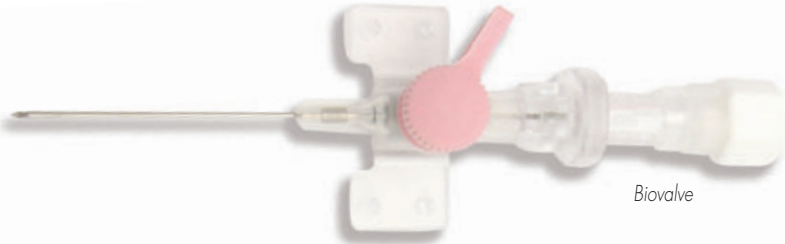
Biovalve

109   Intralock
50/1000

Obturator for Biovalve.
Code 109.08 - 109.10 - 109.12 - 109.14 - 109.17 - 109.21

Intralock

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121   Intraflon 2 - Short
50/1000

I.V. cannula.
. Transparent PTFE cannula with extra-thin wall for optimised flow rate
. Winged hub with ISO standard colour coding
. Available in 12G and 13G for inserting tubes (e.g. cardiovascular) or catheters
  with ext. Ø 1.7 mm (Fr 5) : code 121.24/122.24 and ext. Ø 2.0 mm (Fr 6) code 121.27/122.27.

Code	Catheter (PTFE)					Corresponding Intralock obturator
	Int. Ø - Ext. Ø mm	G	Length mm	Colour	Flow rate ml/min	
121.06	0.4 - 0.7	24	18	●	18	113.06
121.08	0.5 - 0.8	22	28	●	24	113.08
121.10	0.7 - 1.0	20	30	●	52	113.10
121.13	0.9 - 1.3	18	38	●	100	113.13
121.16	1.2 - 1.6	16	52	●	174	113.16
121.21	1.6 - 2.1	14	52	●	260	113.21
121.24	1.9 - 2.4	13	52	●	374	-
121.27	2.2 - 2.7	12	52	●	450	-

122   Intraflon 2 - Long
50/1000

I.V. cannula.

Code	Catheter (PTFE)					Corresponding Intralock obturator
	Int. Ø - Ext. Ø mm	G	Length mm	Colour	Flow rate ml/min	
122.10	0.7 - 1.0	20	36	●	50	114.10
122.13	0.9 - 1.3	18	47	●	95	114.13
122.16	1.2 - 1.6	16	60	●	170	114.16
122.21	1.6 - 2.1	14	80	●	250	114.21
122.24	1.9 - 2.4	13	80	●	340	-
122.27	2.2 - 2.7	12	80	●	430	-

Intraflon

113/114 Intralock
25/1000

Obturator for Intraflon 2 peripheral cannula
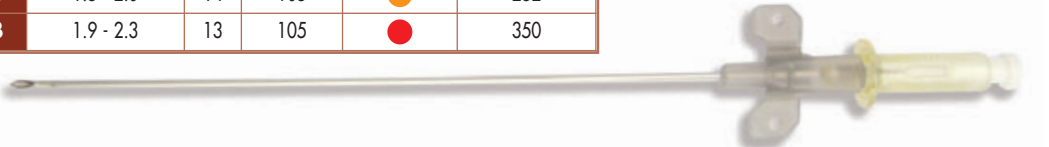(codes 121-122) : see corresponding code numbers.

Intralock

112   Intranule - 105 mm
50/900

Radiosterilised I.V. polypropylene cannula.

Code	Catheter (PP)				
	Int. Ø - Ext. Ø mm	G	Length mm	Colour	Flow rate ml/min
112.12	0.7 - 1.2	18	105	●	44
112.16	1.2 - 1.6	16	105	●	120
112.20	1.5 - 2.0	14	105	●	232
112.23	1.9 - 2.3	13	105	●	350

Intranule

VYGON

Scalp vein sets

Microflex / Venoflux

. Rigid blister pack and dispenser box containing 20 units (except Microflex codes 246.60/00 and Venoflux 247.16/21: in peel packs)
. Siliconized needle
. Flexible extension tube (all sizes) with low priming volume for scalp vein sets size 23G, 25G and 27G.

240 Microflex
Scalp vein set with single wing needle and Luer-lock adaptor.

246 Microflex
Scalp vein set with double winged needle and Luer-lock adaptor.

246 Microsafe
10/240*

Scalp vein set with safety device.
Scalp vein set with audible and visual safety device to protect health care workers from needle stick injury after withdrawal of the needle from the vein of the patient.

code 240.05

| Code			Siliconized Needle				Tubing		Colour	Box / case
			Ext. Ø mm	G	Length mm		Priming volume ml	Length cm		
Microflex		Microsafe			240	246				
240.04	246.042	246.041*	0.40	27	17	20	0.2	30	⚪	20/800
240.05	246.052	246.051*	0.50	25	17	20	0.2	30	🟠	20/800
240.06	246.062	246.061*	0.60	23	17	20	0.2	30	🔵	20/800
240.07	246.072	246.071*	0.70	22	22	20	0.6	30	⚫	20/800
-	246.082	246.081*	0.80	21	-	20	0.6	30	🟢	20/800
-	246.092	246.091*	0.90	20	-	20	0.6	30	🟡	20/800
-	246.112	246.111*	1.10	19	-	20	0.6	30	🟤	20/800
-	246.122	246.121*	1.20	18	-	20	0.6	30	🟣	20/800
-	246.60	-	0.40	27	-	17	0.5	60	-	100/600
-	246.00	-	0.50	25	-	17	0.7	100	-	100/600

Microsafe

247 Venoflux
Winged needle for intermittent injections.
With removable injection cap.

Code	Siliconized Needle			Tubing (PVC)		Colour	Box / case
	Ext. Ø mm	G	Length mm	Priming volume ml	Length cm		
247.04	0.40	27	17	0.05	7	⚪	20/800
247.05	0.50	25	17	0.05	7	🟠	20/800
247.06	0.60	23	17	0.05	7	🔵	20/800
247.07	0.70	22	22	0.20	7	⚫	20/800
247.08	0.80	21	22	0.20	7	🟢	20/800
247.09	0.90	20	27	0.20	7	🟡	20/800
247.10	1.00	19	27	0.20	7	🟤	20/800
247.12	1.20	18	32	0.20	7	🟣	20/800
247.16	1.60	16	32	0.40	7	⚪	50/900
247.21	2.10	14	32	0.40	7	🔴	50/900
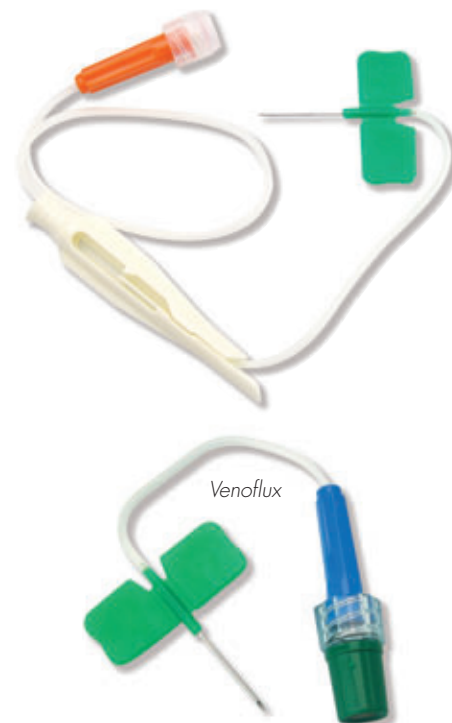
Venoflux

Polyurethane catheters with external needle

130 Centracath - 30 cm
25/225

135 Centracath - 60 cm
25/100

137 Centracath - 75 cm
25/100

Long I.V. catheter with external needle and fixed proximal hub.
Venous catheter in fully radiopaque polyurethane, protected by a non-touch handling sleeve, for jugular, subclavian, femoral or peripheral vascular access.
Markings every centimetre from 10 to 20 cm (code 130), from 10 to 30 cm (code 135 and 137) from the distal tip.
Non-removable introducer needle with clip-on protector.

Presented in a peel-pack containing:
- 1 PUR catheter (XRO)
- 1 introducer needle
- 1 needle protector

Code			Catheter (PUR)					Needle			Colour code
			Int. Ø - Ext. Ø mm	G	Flow rate ml/min			Ext. Ø mm	G	Length cm	
L. 30 cm	L. 60 cm	L. 75 cm			130	135	137				
130.07	-	-	0.3 - 0.7	22	0.3	-	-	1.1	19	57	🔵
130.10	135.10	-	0.5 - 1.0	19	2.5	1.33	-	1.4	17	57	⚪
130.12	135.12	-	0.8 - 1.2	18	15.6	9.1	-	1.6	16	57	🔴
130.15	135.15	137.15	1.0 - 1.5	17	35.7	19.6	18.2	1.9	15	70	🟡
130.17	135.17	137.17	1.2 - 1.7	16	74.5	40.8	38.4	2.1	14	70	🟠
130.20	135.20	137.20	1.5 - 2.0	14	112.6	65.1	51.0	2.4	13	70	🟢

OTHER SPECIALIZED CATHETERS

219 Puncture Needle
50/1200

Luer-lock needle for arterial or venous puncture using the Seldinger technique.

Code	Int. Ø - Ext. Ø mm	G	Length mm
219.09	0.6 - 0.9	20	35
219.13	1.06 - 1.26	18	70
219.14	1.1 - 1.4	17	70
219.17	1.4 - 1.7	15	70
219.24	2.1 - 2.4	13	70

CUT-DOWN CATHETERS

160 Steriflex - 50 cm
167 Steriflex - 30 cm
20/180

Cut-down catheter.
Venous catheter in fully radiopaque polyurethane.

Steriflex

Code		Catheter (PUR)	
L. 50 cm	L. 30 cm	Int. Ø - Ext. Ø mm	G
160.07	167.07	0.3 - 0.7	22
160.10	167.10	0.5 - 1.0	19
160.12	167.12	0.8 - 1.2	18
160.15	167.15	1.0 - 1.5	17
160.17	167.17	1.2 - 1.7	16
160.20	167.20	1.5 - 2.0	14
160.30*	167.30*	2.0 - 3.3	11

*Catheter (PVC)

GYNECOLOGY-OBSTETRICS

751 Intra-uterine catheter
25/150

Intra-uterine catheter
For monitoring uterine dynamics by measuring intra-uterine pressure. Polyethylene catheter. 4 lateral eyes.

Presented in a peel-pack containing:
- 1 intra-uterine catheter with introducer
- 1 connected 3-way stopcock (code 875)
- 1 20 ml syringe.

Code	Int. Ø - Ext. Ø mm	Length cm
751.28	1.8 - 2.8	260

VYGON

RADIOLOGY/ CVP MEASUREMENT

RADIOLOGY

260 Set for lymphangiography
50/900

| Code	Needle			Tubing (PVC)	
	Ext. Ø mm	G	Length mm	Priming volume ml	Length cm
260.03	0.3	29	17	0.5	75
260.04	0.4	27	17	0.5	75
260.05	0.5	25	17	0.5	75

CVP MEASUREMENT

298 Tray for central venous pressure measurement
1/72

Manometer and extension tube for C.V.P. measurement during infusion.
Contents:
- 1 manometer tube (CP) graduated in centimetres with a sliding indicator
- 1 three-way stopcock
- 1 extension tube (PVC) with side outlet. Length: 1 m

297 Manometer tube for venous pressure measurement (CP)

Supplied with a three-way stopcock.
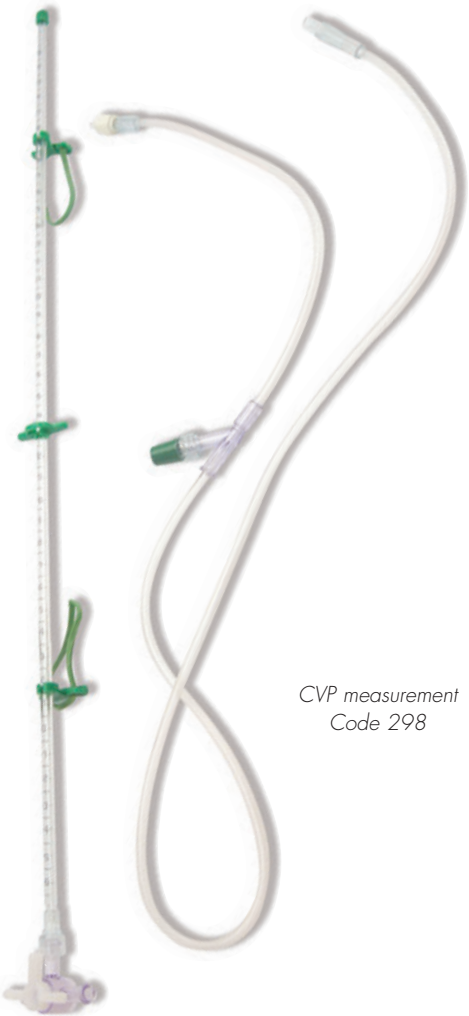
CVP measurement Code 298

VYGON
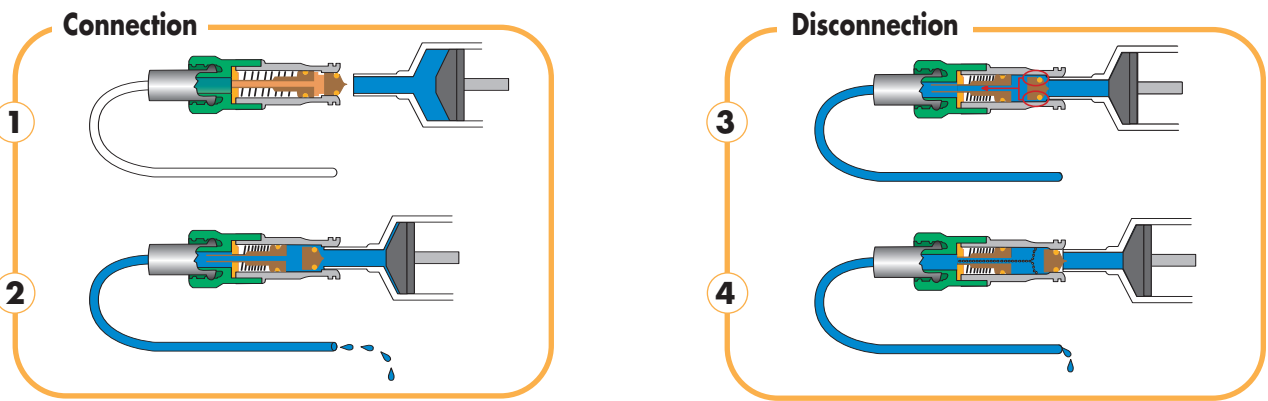
I.V. EQUIPMENT

AND ACCESSORIES

VYGON

I.V. EQUIPMENT
AND ACCESSORIES

AUTOFLUSH

5897.01 Autoflush
25/2400

New

Multi-purpose, closed, needle-free connector for blood sampling, intermittent injections or continuous infusion of fluids or drugs.

Why risk central venous catheter occlusion ?

Connection

1

2

Disconnection

3

4

INDICATION:
Peripheral and central venous catheterization

Brochure

BENEFITS:

Safety:
. Closed system ensures the safety of patients and eliminates the use of obturators
. Needle-free access ensures the safety of healthcare staff
. Latex free avoids risk of allergy
. Allows the administration of lipids and chemotherapy drugs

Efficiency:
. Positive bolus of 0.03 ml maintains catheter patency
. Flow rate of 200 ml/min, no flow rate restriction
. Low dead space: 0.1 ml priming volume
. No magnetic metallic components: MRI compatible

Saving:
. 360 connections or 7 days use.

Autoflush

DIRECTIONS FOR USE :

1. Use aseptic technique to remove Autoflush from sterile package.

2. Attach syringe and prime Autoflush.

3. Attach Autoflush to I.V. catheter or extension line, push and turn clockwise until Autoflush is tight.

4. To access Autoflush, swab female Luer with your choice of disinfectant and wait to dry (30 seconds).

5. Attach a fully primed syringe or extension line onto Autoflush and turn clockwise until tight.

6. When using a device with a Luer slip (e.g. syringe), present the syringe at an angle of 30° facing the Autoflush surface ridge, then in one movement elevate the syringe into horizontal position, push syringe onto Autoflush and rotate slightly clockwise.

7. To disconnect from Autoflush hold the Autoflush and turn the syringe or extension line anti-clockwise until loose.

8. Flush and disinfect Autoflush after each use.

AUTOFLUSH AND ACCESSORIES: EXTENSION TUBES

5223.01 Catheter extension tube - 10 cm
50/300

New

Catheter extension tube (PUR) **with Autoflush and clamp.**
Diameter 1.5 x 2.5 mm – Priming volume: 0.5 ml – Flow rate 160 ml/min.

Code 5223.01

5841.208 Octopus
10/240

Double lumen Octopus with Autoflush.
Flexible and transparent polyurethane catheter extension tube, 2 equal lumen.

Lumen	Int. Ø – Ext. Ø mm	Length cm	Priming volume ml	Flow rate ml/min
Lumen 1 and 2	1.50 - 2.50	10	0.5	160

Code 5842.26

5841.308 Octopus
10/240

Triple lumen Octopus with Autoflush.
Flexible and transparent polyurethane catheter extension tube.

Lumen	Int. Ø – Ext. Ø mm	Length cm	Priming volume ml	Flow rate ml/min
Lumen 1, 2 and 3	1.50 - 2.50	10	0.5	160

Code 5842.34
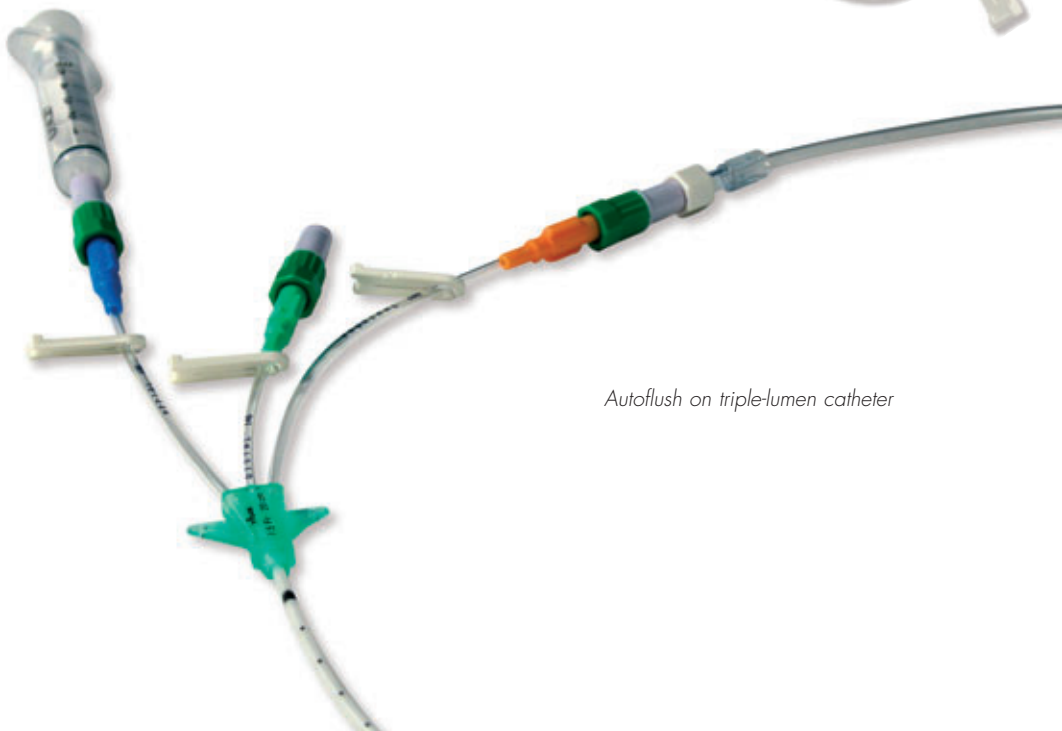
Autoflush on triple-lumen catheter

I.V. EQUIPMENT AND ACCESSORIES

I.V. EQUIPMENT AND ACCESSORIES

Bionector

Bionector 2 and Bionector "S" are multi-purpose, closed, needle-free, small size I.V. connection accessories for blood sampling, intermittent injections or continuous infusions of fluids or drugs. Bionector has a very easily disinfectable membrane (disinfection must be carried out before and after use) which closes automatically when the infusion line or the syringe is disconnected.
Bionector 2 and Bionector "S" are resistant to lipid emulsions, most cytotoxic drugs and antiseptics.
This simple to use device protects both medical teams (prevents needle-stick injury, no blood reflux) and patients (closed system: reduces risk of air embolism and blood loss).
Bionector 2 is for use with devices (syringes, extension tubes, etc.) with a male Luer fitting whose internal diameter is > or = 1.7 mm (most devices). Bionector "S" is for use with devices with a male Luer fitting whose internal diameter is > or = 1.4 mm.

896.01   Bionector 2
896.21   Bionector "S"
50/2400

With rigid protective non-touch applicator to ensure aseptic connection.
Distal end: male Luer-lock, proximal end: female Luer-lock.

Bionector "S"

896.02   Bionector 2
896.22   Bionector "S"
25/1200

Same product as code 896.01/21 (shown above) but double packaged in a rigid protective non-touch applicator to ensure aseptic connection and an outer blister pack.

Bionector 2

896.03   Bionector 2
896.23   Bionector "S"
50/2400

Packaging: soft blister, without rigid protective non-touch applicator.

Female Luer-lock
Stainless-steel tubing
Membrane
Male Luer-lock
Spring
Bionector

896.11   Arterial Bionector 2
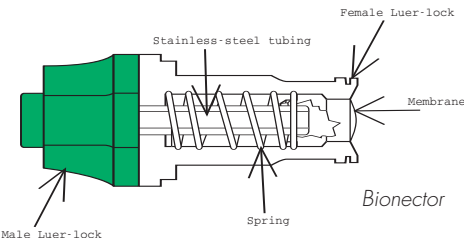### 896.31   Arterial Bionector "S"
50/2400

When positioned on the lateral port of a 3-way stopcock, Bionector allows easy and safe arterial samplings for blood gas measurements. Packaging: soft blister code 896.11, rigid protective non-touch applicator code 896.31.

Arterial Bionector

Model	Priming Volume (ml)	Flow rate ml/min	Number of connections	Back-pressure resistance mmHg
Bionector 2 / Arterial Bionector 2	0.02	160	100	760 (1 bar)
Bionector "S" Arterial Bionector "S"	0.02	100	100	760 (1 bar)

Bionector 2 and accessories: extension tubes

5141   Catheter extension tube

Triple layer extension tube (PVC/VYG2/PE) with lipid resistant three-way stopcock and Bionector 2 on the lateral port of the stopcock (5141.01/00/10) or with two Bionector 2 on each female port of the stopcock (5141.011/001).

Code 5141

Code	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm	Box / Case
5141.01	2.5 - 4.0	1.00	13.5	50/200
5141.00	2.5 - 4.0	1.50	25	50/200
5141.10	2.5 - 4.0	5.20	100	25/150
5141.011	2.5 - 4.0	1.00	13.5	50/200
5141.001	2.5 - 4.0	1.50	25	50/200

5222   Catheter extension tube
50/300

Extension tube with Bionector 2 and clamp.
Male Luer-lock/female Luer-lock fittings.

Code	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm	Tube material
5222.008	1.5 - 2.5	0.3	8	Three-layer PE/VYG2/PVC
5222.01	1.5 - 2.5	0.5	13.5	PVC
5222.014 *	1.5 - 2.5	0.3	10	PUR

* Radiosterilized

Code 5222.014

841.264 Octopus
10/240

Double lumen Octopus with 2 Bionector and clamps.
Polyurethane catheter extension tube, 2 equal lumen. Radiosterilized.

Lumen	Int. Ø - Ext. Ø mm	Length cm	Priming volume ml	Flow rate ml/min
Lumen 1 and 2	1.5 - 2.5	10	0.2	170

Code 841.264

841.364 Octopus
10/240

Triple lumen Octopus with 3 Bionector and clamps.
Polyurethane catheter extension tube, 3 equal lumen. Radiosterilized.

Lumen	Int. Ø - Ext. Ø mm	Length cm	Priming volume ml	Flow rate ml/min
Lumen 1, 2 and 3	1.5 - 2.5	10	0.2	170
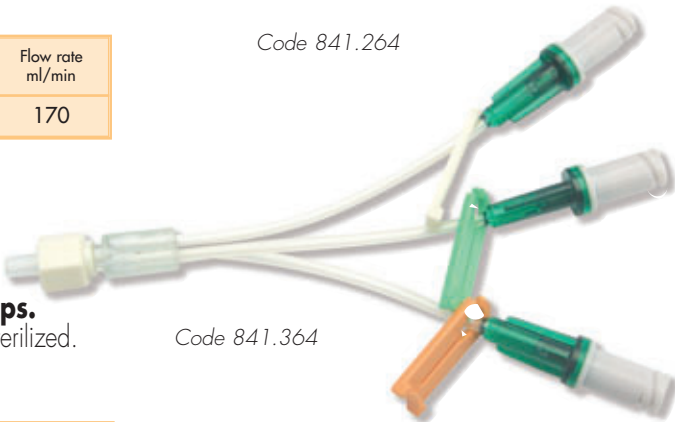
Code 841.364

RAMPS OF STOPCOCKS WITH BIONECTOR

5828   Biovystar

Female/female ramps of three 3-way stopcocks with Bionector

Code	Stopcocks	Extension tube	Ramp holder	Bionector	Box/case
5828.023	2	50 cm	yes	3	25/100
5828.223	2	150 cm	yes	3	25/100
5828.033	3	50 cm	yes	4	15/60
5828.233	3	150 cm	yes	4	15/60
5828.043	4	50 cm	yes	5	15/60
5828.243	4	150 cm	yes	5	15/60
5828.053	5	50 cm	yes	6	15/60
5828.253	5	150 cm	yes	6	15/60
5828.063	6	50 cm	yes	7	15/60
5828.263	6	150 cm	yes	7	15/60
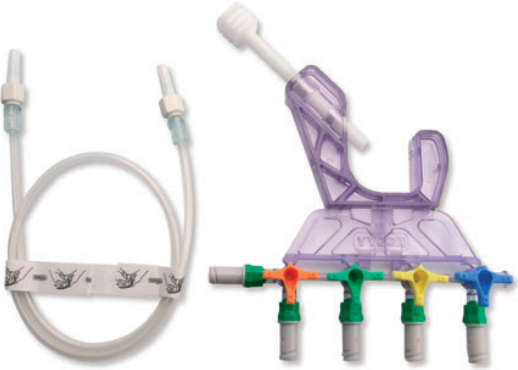
Biovystar
Code 5828

BIONECTOR AND NEEDLE-FREE ACCESSORIES

821   Needle-free vial access cap (without Bionector)
50/600

Needle-free drug aspiration; for single use vial access.

Code	Cap diameter
821.01	14 mm
821.02	20 mm

Code 821.01

821   Needle-free vial access cap with Bionector
50/600

Needle-free drug aspiration; for multiple vial access.

Code	Cap diameter
821.21	14 mm
821.22	20 mm

Code 821.21

856.01   Bionector and spike
25/600

For aspirating or adding fluids to bags or bottles of intravenous solutions.
Can also be used for paediatric bags.

Code 856.01

856.11   Bionector and spike with non return valve
25/600

This spike is designed for **aspiration only** of fluid from I.V. bags or bottles.
It avoids the contamination of the I.V. fluid by chemotherapeutic drugs.

Code 856.11

RAMPS OF STOPCOCKS (3-WAY)
VYSTAR

New generation of ramps of three-way stopcocks.
Characteristics:
. Clear body
. Compact and ergonomic
. Very low priming volume
. Clear and innovative colour coding
. Lipid-resistant
. Resistant to antiseptics
. Triple-layer extension tube (PE/VYG2/PVC) combining
  transparency, high mechanical performance and chemical inertia.
  Length: 50 cm, 100 cm or 150 cm.

Complete range from two to six three-way stopcocks.

5827   Vystar male / female
25/150

Male/female ramps of 3-way stopcocks.

|	
5827.92	Ramp of 2 stopcocks
5827.922	Ramp of 2 stopcocks and 3 Bionector
5827.93	Ramp of 3 stopcocks
5827.932	Ramp of 3 stopcocks and 4 Bionector
5827.94	Ramp of 4 stopcocks
5827.942	Ramp of 4 stopcocks and 5 Bionector
5827.95	Ramp of 5 stopcocks
5827.96	Ramp of 6 stopcocks

Code 5827

5828   Vystar female / female

Female/female ramps of two 3-way stopcocks.

Code	Stopcocks	Extension tube	Ramp holder	Bionector	Box/case
5828.92	2	–	–	–	25/150
5828.02	2	50 cm	–	–	25/150
5828.021	2	50 cm	yes	–	25/100
5828.023	2	50 cm	yes	3	25/100
5828.12	2	100 cm	–	–	25/100
5828.22	2	150 cm	–	–	25/100
5828.221	2	150 cm	yes	–	25/100
5828.223	2	150 cm	yes	3	25/100
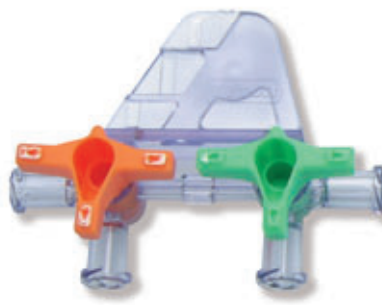
5828   Vystar female / female

Female/female ramps of three 3-way stopcocks.

Code	Stopcocks	Extension tube	Ramp holder	Bionector	Box/case
5828.93	3	–	–	–	25/150
5828.03	3	50 cm	–	–	25/150
5828.031	3	50 cm	yes	–	25/100
5828.033	3	50 cm	yes	4	15/60
5828.13	3	100 cm	–	–	25/100
5828.23	3	150 cm	–	–	25/100
5828.231	3	150 cm	yes	–	25/100
5828.233	3	150 cm	yes	4	15/60

5828   Vystar female / female

Female/female ramps of four 3-way stopcocks.

Code	Stopcocks	Extension tube	Ramp holder	Bionector	Box/case
5828.94	4	–	–	–	25/150
5828.04	4	50 cm	–	–	25/150
5828.041	4	50 cm	yes	–	15/60
5828.043	4	50 cm	yes	5	15/60
5828.14	4	100 cm	–	–	25/100
5828.24	4	150 cm	–	–	25/100
5828.241	4	150 cm	yes	–	15/60
5828.243	4	150 cm	yes	5	15/60

5828   Vystar female / female

Female/female ramps of five 3-way stopcocks.

Code	Stopcocks	Extension tube	Ramp holder	Bionector	Box/case
5828.95	5	–	–	–	25/150
5828.05	5	50 cm	–	–	25/150
5828.051	5	50 cm	yes	–	15/60
5828.053	5	50 cm	yes	6	15/60
5828.15	5	100 cm	–	–	25/100
5828.25	5	150 cm	–	–	25/100
5828.251	5	150 cm	yes	–	15/60
5828.253	5	150 cm	yes	6	15/60

5828   Vystar female / female

Female/female ramps of six 3-way stopcocks.

Code	Stopcocks	Extension tube	Ramp holder	Bionector	Box/case
5828.96	6	–	–	–	25/150
5828.061	6	50 cm	yes	–	15/60
5828.063	6	50 cm	yes	7	15/60
5828.26	6	150 cm	–	–	25/100
5828.261	6	150 cm	yes	–	15/60
5828.263	6	150 cm	yes	7	15/60

RAMPS OF STOPCOCKS (1-WAY)

873   Ramps of stopcocks (PC-PE)

Lipid-compatible ramps of one-way stopcocks with triple-layer extension tube. Ramp fitting: female Luer-lock/female Luer-lock.

Code	Number of lateral ports	Extension tube Length cm	Box/case
873.02	2	50	25/150
873.12	2	100	25/150
873.03	3*	50	25/150
873.13	3*	100	25/150
873.04	4	50	25/150
873.14	4	100	25/150
873.24	4	200	15/90
873.94	4	–	25/150
873.15	5*	100	25/100
873.25	5*	200	25/100

*Including the side arm of a 3-way stopcock located at the exit of the ramp.
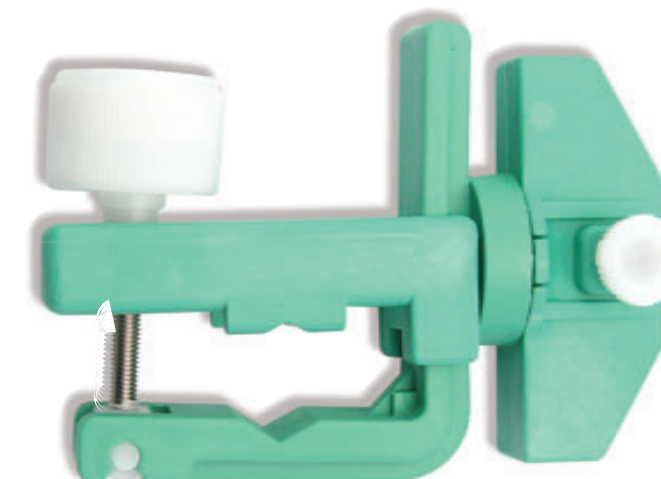
Code 873

870.01   Holder for ramps of stopcocks
3/144

Can be adjusted to fit any support.
Not sterile.

Code 870.01

**VYGON**

876.20 Vyclic-colour
70876.20 Vyclic
50/600

Lockable three-way stopcock (PC-PE).
- User feels digitally the position chosen
- Safety Luer-lock prevents accidental disconnections
- Lipid-resistant
Code 876.20: with clips (red and blue)
Code 70876.20: without colour coded clips

New

Vyclic-colour
The 3 way stopcock for safe connections

Click for security
User feels digitally the position chosen

Safety Luer-lock
prevents accidental disconnections

Identification caps
for venous use (blue)
for arterial use (red)
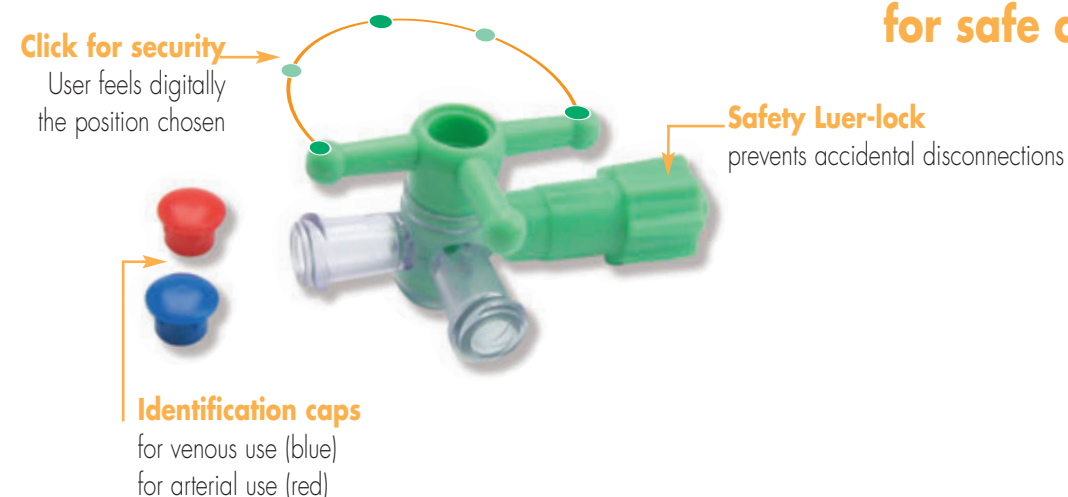
875.00 Three-way Luer stopcock (PC-PE)
50/600

Lipid-resistant. Two female Luer-lock ports – 1 male Luer port.
With colour coded identification caps for arterial (red) or venous (blue) use.

Code 875.00

872.10 Lockable one-way stopcock (PC-PE)
50/900

Bore: 2.1 mm

Code 872.10

871.10 One-way stopcock (PC-PE)
50/900

Bore: 2.1 mm

879.00 Stopcock for exchange transfusion (PC-PE)
50/900

Code 879

841.361 Octopus for TIVA
10/240

Octopus for TIVA is a triple lumen catheter extension tube specifically designed for total intravenous anaesthesia by target controlled infusion.

Octopus for TIVA meets the three requirements of this technique:
- 3 separate lumens
- as short as possible (10 cm long) with low priming volume (0.4 ml)
- equipped with non-return valves.

Colour coded clamps prevent any risk of confusion.
Octopus for TIVA can be used in the operating theatre and in the recovery room.

Clamp	Operating theatre	Recovery room
● (green)	Pain/Analgesia	Pain/Analgesia/PCA
● (orange)	Hypnotic	Free/Antibiotics or other drug therapies required by the patient
○	Curare / Maintenance line for fluids and other drug requirements	Free/Maintenance line for fluid requirements

Characteristics of the Octopus for TIVA:
Lumen 1, 2 and 3: int. – ext. Ø 1.5 x 2.5 mm – Length 10 cm
Priming volume 0.4 ml (per lumen) – Flow rate 170 ml / min (x 2)

New

Brochure

TIVA:
The benefits of Octopus 841.361

ACCURATE
Three lumen 10 cm extension tubes with an internal diameter offering excellent accuracy for administration.

CHEMICALLY INERT
The Octopus tubing is made of polyurethane: a chemically inert material to prevent altering the efficacy of injected medications.

PRACTICAL
Obturator caps are used to close and protect the female Luer-lock ports when not in use.

PREVENTS DRUG INTERACTIONS
Medications do not mix until they arrive in the cannula, thereby preventing drug interactions.

SECURITY
Proximal non-return valves prevent back-tracking and accidental bolus delivery.

PREVENTS CONFUSION
A different colour code is used for each lumen.

VYGON

TRIPLE-LAYER EXTENSION TUBES

New generation of extension tubes with excellent transparency and resistance (PVC) and good flexibility (PVC/VYG2). The inner layer (PE) of the tube also gives this material excellent chemical inertia (infused products are not adsorbed onto the tube wall).

140 Extension tube with side port

Internal diameter 2.5 mm.
With injection cap for needle injections.

Code	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm	Box /case
140.00	2.5 - 4.0	1.70	25	50/300
140.80	2.5 - 4.0	4.40	80	25/150

Code 140

141/70141 Extension tube with 3-way stopcock

Internal diameter 2.5 mm. Lipid-resistant stopcock.
Code 141: injection cap on stopcock side port.
Code 70141: male Luer-lock cap (without membrane) on stopcock side port.
Tested at 10 kg / cm^2 - 145 psi (without injection cap).

Code 141	Code 70141	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm	Box /case
141.01	70141.01	2.5 - 4.0	0.90	13.5	50/300
141.00	70141.00	2.5 - 4.0	1.40	25	50/300
–	70141.05	2.5 - 4.0	2.70	50	50/300
141.80	70141.80	2.5 - 4.0	4.20	80	25/150
–	70141.10	2.5 - 4.0	5.20	100	50/200

Code 141

220 Multi-purpose extension tube

Internal diameter 2.5 mm.
Female Luer-lock / Male Luer-lock. Tested at 10 kg/cm^2 – 145 psi

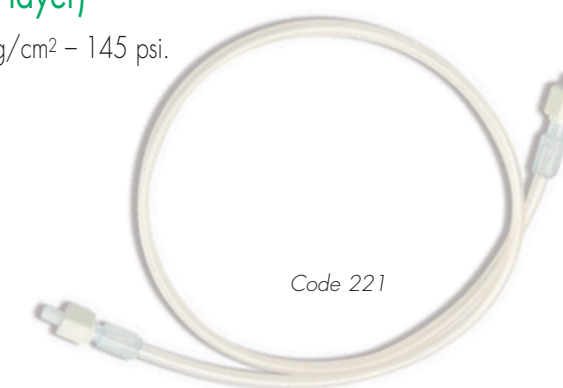| Code	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm	Box /case
220.010	2.5 - 4.0	0.90	13.5	25/300
220.020	2.5 - 4.0	1.50	25	25/300
220.050	2.5 - 4.0	2.70	50	25/300
220.070	2.5 - 4.0	3.70	70	25/150
220.100	2.5 - 4.0	5.20	100	25/150
220.150	2.5 - 4.0	7.60	150	25/150
220.200	2.5 - 4.0	10.00	200	25/150

Code 220

221 Male / male extension tube (triple layer)

Internal diameter 2.5 mm. Male Luer-lock/Male Luer-lock. Tested at 10 kg/cm^2 – 145 psi.

| Code	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm	Box /case
221.050	2.5 - 4.0	2.70	50	25/300
221.100	2.5 - 4.0	5.10	100	25/300
221.15	2.5 - 4.0	7.60	150	25/300
221.20	2.5 - 4.0	10.00	200	25/150

Code 221

222 Lectroflex (triple layer)

Internal diameter 1.5 mm. Female Luer-lock/Male Luer-lock. Tested at 10 kg/cm^2 – 145 psi.

Code	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm	Box /case
222.020	1.5 - 2.5	0.70	25	25/300
222.050	1.5 - 2.5	1.10	50	25/300
222.100	1.5 - 2.5	2.00	100	25/150
222.150	1.5 - 2.5	2.90	150	25/150
222.200	1.5 - 2.5	3.80	200	25/150
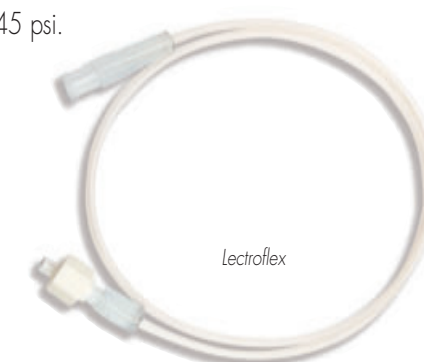
Lectroflex

POLYETHYLENE EXTENSION TUBES

"High pressure" extension tubes tested at 40 bar (580 psi). Recommended for measuring arterial pressure and for venous routes whenever the extension tube conveys a solution which gives rise to interactions with PVC.
. Lectro-Cath: with colour coded clips for venous lines (blue), arterial lines (red), in **double pack**
. PE extension: without colour coded clip, in single pack.

1155 Lectro-Cath

71100 PE extension tube
50/300

Internal diameter 1.0 mm. Female Luer-lock/Male Luer-lock.

Lectro-Cath	PE extension tube	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm
1155.01*	71100.01	1.0 - 2.0	0.40	11
1155.03	71100.03	1.0 - 2.0	0.60	30
1155.05	71100.05	1.0 - 2.0	0.70	50
1155.10	71100.10	1.0 - 2.0	1.20	100
1155.15	71100.15	1.0 - 2.0	1.60	150
1155.20	71100.20	1.0 - 2.0	2.00	200

* Code 1155.01: Length 15 cm.

Lectro-Cath

VYGON

VYGON

1159 Lectro-Cath

71101 PE extension tube
50/300

Internal diameter 1.5 mm. Female Luer-lock/Male Luer-lock.

Code		Int. Ø - Ext. Ø mm	Priming volume ml	Length cm
Lectro-Cath	PE extension tube			
1159.01	–	1.5 - 2.5	0.50	11
1159.03	–	1.5 - 2.5	0.80	30
1159.05	71101.05	1.5 - 2.5	1.10	50
1159.10	71101.10	1.5 - 2.5	2.00	100
1159.15	71101.15	1.5 - 2.5	2.80	150
1159.20	71101.20	1.5 - 2.5	3.60	200

Lectro-Cath

1188 Lectroguard
50/300

Anti-UV extension tube. New extension tube protecting against UVA/UVB/UVC rays when infusing light-sensitive drugs. The tube is translucent to allow detection of air bubbles. Tested at 40 bar (580 psi).

Code	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm
1188.15	1.0 - 2.0	1.60	150
1188.20	1.0 - 2.0	2.00	200

Lectroguard

COILED POLYETHYLENE EXTENSION TUBES

Polyethylene I.V. extension tubes. Particularly recommended for use when transporting patients receiving infusions, for children (for all types of I.V. catheterisation) and adults under I.V. therapy at home. Lectro-Spiral's coiled presentation offers the patient much more freedom of movement than a straight extension tube.

1155/1159 Lectro-Spiral
15/135

Spiral extension tube. Male Luer-lock/Female Luer-lock.

Code		Int. Ø - Ext. Ø mm		Priming volume ml		Length cm
1155	1159	code 1155	code 1159	code 1155	code 1159	
1155.60	1159.60	1 - 2	1.5 - 2.5	1.2	2.0	100
1155.65	1159.65	1 - 2	1.5 - 2.5	1.6	2.8	150
1155.70	1159.70	1 - 2	1.5 - 2.5	2.0	3.6	200
1155.80	1159.80	1 - 2	1.5 - 2.5	2.9	5.2	300
1155.90	1159.90	1 - 2	1.5 - 2.5	3.8	6.9	400

Lectro-Spiral

PCA EXTENSION TUBES

Definition:
Non-return valve: the valve prevents backtracking, but the pressure needed to open the device is relatively low. Most non-return valves open under the pressure of a solution infused by gravity.
Anti-siphon valve: anti-siphon valves also prevent backtracking, but they have a high opening pressure (approximately 100/150 mmHg). Anti-siphon valves are used with syringe pumps. The valve prevents downloading of the infused product if the syringe is poorly positioned on the syringe pump or if the syringe is defective, particularly if the pump is located high above the patient.

815.12 PCA extension tube
10/240

Double lumen extension tube (triple-layer) **with air eliminating filter and anti-siphon valve.**
Lumen 1 with 0.22 µm filter and anti-siphon valve. Lumen 2 with non-return valve.

Lumen	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm	Flow rate ml/min
1	1.0 - 2.15	1.30	90	4
2	1.8 - 2.6	0.40	5	140

Code 815.12

080.815.12B PCA extension tube
10/240

Double lumen extension tube (triple-layer) **with air eliminating filter and anti-siphon valve.**
Lumen 1 with 0.22 µm filter and anti-siphon valve. Lumen 2 with non-return valve.

Lumen	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm	Flow rate ml/min
1	1.0 - 2.15	1.60	125	2.7
2	1.8 - 2.6	0.40	5	140

815.13 PCA extension tube
10/240

Triple lumen extension tube with air eliminating filter and anti-siphon valve.
This extension tube is designed for pain treatment of patients suffering from sickle cell disease.
The 3rd lumen of the extension tube is connected to a syringe driver which will continuously infuse morphine according to the rate prescribed by the physician.
Lumen 1 (PVC) with 0.22 µm filter and anti-siphon valve
Lumen 2 and 3 (PUR) with non-return valve.

Lumen	Int. Ø - Ext. Ø mm	Priming volume ml	Length cm
1	1.50 - 2.50	2.8	90
2	0.55 - 1.05	0.3	5
3	0.55 - 1.05	0.3	5

831.01 Extension tube with anti-siphon valve and filter

832.01 Extension tube with anti-siphon valve

Triple layer **extension tube for use with syringe pumps, PCA**
Supplied with clamp
Code 831.01: with 0.22 μm air eliminating filter, code 832.01 without filter.

Code	Int. Ø - Ext. Ø mm	Length cm	Priming volume ml	Box /case
831.01	1.0 - 2.5	150	1.90	20/240
832.01	1.0 - 2.5	150	1.40	50/300

Code 831.01

833/834 Coiled extension tube with anti-siphon valve
15/135

Code 833: internal diameter 1.5 mm – Female Luer-lock / Male Luer-lock. Triple layer (PVC/VYG2/PE).

Code 834: internal diameter 1.0 mm – Female Luer-lock / Male Luer-lock. Triple layer (PVC/VYG2/PE).

Code		Int. Ø - Ext. Ø mm		Priming volume ml		Length cm
833	834	833	834	833	834	
833.60	834.60	1.5 - 2.5	1.0 - 2.5	2.00	1.00	100
833.65	834.65	1.5 - 2.5	1.0 - 2.5	2.90	1.40	150
833.70	834.70	1.5 - 2.5	1.0 - 2.5	3.80	1.80	200
833.80	834.80	1.5 - 2.5	1.0 - 2.5	5.60	2.60	300
833.90	834.90	1.5 - 2.5	1.0 - 2.5	7.30	3.40	400

Code 834

Venous filters

807.01/02 Extension tube with 96 hour I.V. filter
10/120

Extension tube (PVC) with clamp and 0.22 μm air eliminating filter for filtering bacteria, endotoxins and particulate matter (latex, glass, etc.).
Code 807.01: with injection site. Total length 35 cm. Priming volume: 4.1 ml
Code 807.02: without injection site. Total length 30 cm. Priming volume: 3.3 ml.

Code 807.02

Valves

851 Non-return valve
30/1440

Code 851.00: with rotating valve
Code 851.01: with fixed valve.

Code 851

284.00 Cardiff valve
25/600

To overcome the problem of backtracking when two solutions of different densities are used. The higher density solution should always be attached to the lateral port.
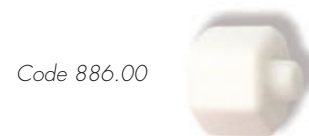
Cardiff valve

891.00
100/4800
Male Luer-lock stopper with injectable membrane

Code 891.00

880.50
100/4800
Male Luer stopper with injectable membrane

Code 880.50

886.00
100/4800
Male Luer-lock obturator

Code 886.00

9888
9889
100/1000
Dual end male Luer-lock/ female Luer-lock stopper

Code 9888.00: red stopper
Code 9888.002: white stopper
Code 9889.000: blue stopper.

Code 9888.00

888.06
100/4800
Female Luer-lock stopper

Code 888.06

874.10
100/4800
Double cone connector male Luer to male Luer

Code 874.10

892.00
30/2880
Female Luer-lock to female Luer-lock connector

Code 892.00

893.00
30/2880
Male Luer-lock to male Luer-lock connector

Code 893.00

850.00
30/2880
2-way valve

With Luer-lock connector.

Code 850.00

885.00
25/1200
Connector with side outlet

Code 885.00

Two female Luer-lock ends. One male Luer end.

889.00
25/1200
Luer-lock connector with side outlet

Code 889.00

Two female Luer-lock ends. One male Luer-lock end.

800.00
50/2400
Adaptor for connecting large syringe to small tubes

Code 800.00

801.00
30/2880
Connector to fit a luer syringe to a tube

Code 801.00

DRESSING FILMS

38
Dermafilm

Transparent polyurethane dressing film for protecting catheter introduction sites. Dermafilm has a detachable strip and is self-adhesive, permeable to water vapour and oxygen, hypoallergenic, stretchable and sterile.

Code	Size cm	Adhesive cm	Box /case
38.08.06	8 X 6	6 X 6	50/1050
38.15.10	14 X 10	10 X 10	50/1050
38.15.20	14 X 20	10 X 20	50/500
38.20.15	20 X 15	15 X 15	50/1050
38.30.15	33 X 15	25 X 15	20/420
38.09.81*	9.5 X 6	7.5 X 6	50/1050

*U-shaped Dermafilm

U-shaped Dermafilm

Dermafilm

I.V. EQUIPMENT AND ACCESSORIES

Silicone spray

985.03 Silisonde 2
6

Silicone lubricating spray. New formulation without CFC. Non-flammable.
300 ml bottle. Net weight 347 g.

Surgical brushes

901.00 Impregnated surgical brush
25/200

With sponge impregnated with 12 % Povidone-iodine in a 15 ml solution of Teepol, P.E.G. and water.
Supplied with nail cleaner.

902.00 Impregnated surgical brush
25/200

With sponge impregnated with 20 % Chlorhexidine in a 15 ml solution of isopropyl alcohol and water.
Supplied with nail cleaner.

903 / 70903 Dry surgical brush
25/200

Code 903.00: with sponge and nail cleaner.
Code 70903.00: with sponge without nail cleaner.
Sterilised by ethylene oxide.

Code 903.00

VYGON

HAEMODIALYSIS

HAEMODIALYSIS

VYGON

EMERGENCY HAEMODIALYSIS

1130   Desilet - Sheath length 18 cm

1133   Desilet - Sheath length 13 cm
10/150

Set for emergency catheterisation of large vessels (haemodialysis, transfusion).
The distal tip of the sheath has two lateral eyes, high flow rates,
the hub of the sheath has a silicone clamping site.
Maximum working pressure: 2 bar.
Presented in a transparent rigid tubular pack containing:
- 1 introducer needle
- 1 straight guidewire, length 53 cm
- 1 dilator and sheath (XRO - PE)

Code 1133.08

Code		Colour	Sheath (PE) Ø mm	Flow rate ml/min	
Sheath 18 cm	Sheath 13 cm			Code 1130	Code 1133
1130.07	**1133.07**	●	2.50 - 3.10	422	440
1130.08	**1133.08**	●	2.80 - 3.45	475	490
1130.10	**1133.10**	○	3.50 - 4.10	505	520

SHORT/MEDIUM-TERM HAEMODIALYSIS (ACUTE RENAL FAILURE)

254/256   Hemoclav
257
1/20

Polyurethane catheter for haemodialysis.
Fully radiopaque catheter. Distal tip with multiple holes. Proximal end has a silicone clamping site.
Detachable fixation wings.

Tray presentation containing:
- 1 XRO polyurethane catheter
- 1 introducer needle Ø 1.06 x 1.26 mm - Length 70 mm
- 1 straight guidewire
- 1 clamp
- 1 10 ml syringe
- 1 injection cap
- 2 15 x 10 cm adhesive dressings (Dermafilm code 38.15.10)
- 1 dilator

Hemoclav

Code	Recommended access	Catheter (PUR)				Straight guidewire
		Length cm	Int. Ø - Ext. Ø mm	Priming volume ml	Flow rate (ml/min)	Length cm
256.04	Paediatric*	10	1.0 - 1.5	1.20	69	30
256.09	Jugular	13.5	1.9 - 2.7	1.35	320	46
254.09	Subclavian	20	1.9 - 2.7	1.50	300	70
257.09	Femoral	30	1.9 - 2.7	1.85	240	90

* Paediatric model: needle 0.86 x 1.1 mm - Length 54 mm.

255   Y connector for Hemoclav
25/300

Silicone "Y" connector.
With clamp on each of the 2 branches.
Code 255.00

Y connector

SHORT /MEDIUM-TERM HAEMODIALYSIS

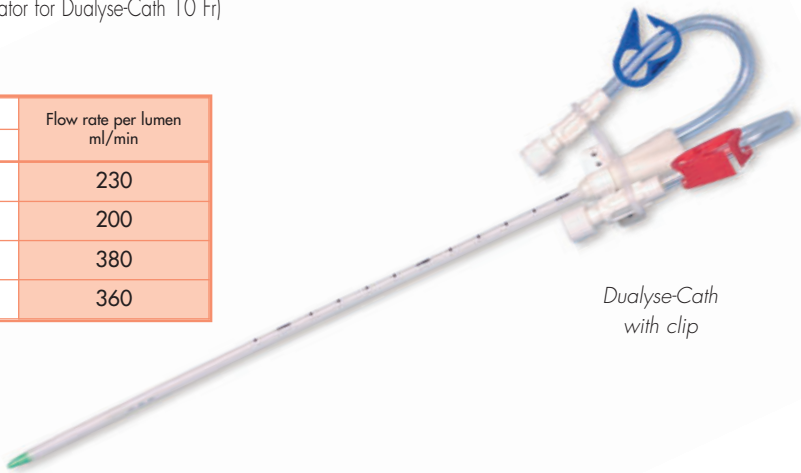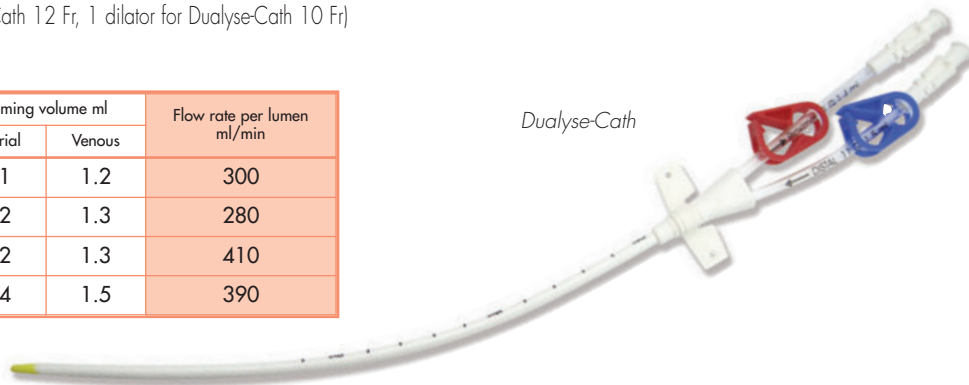**1132   Dualyse-Cath with clip**
1/10

Double-lumen polyurethane catheter for haemodialysis and veno-venous haemofiltration.
Fully radiopaque catheter introduced by the Seldinger technique. Centimetre graduations from 9 cm from distal tip. Flexible fixation wings and polyurethane extension tubes with clamp. Flexible distal tip.
The clip allows the pigtails to be held in a curved position.

Tray presentation containing:
- 1 double-lumen catheter (PUR - XRO)
- 1 introducer needle Ø 1.1 x 1.4 mm - Length 70 mm
- 1 graduated "J" guidewire and guidewire advancer – Length 60 cm
- 2 injection caps
- 2 dilators (8 Fr and 12 Fr for Dualyse-Cath 12 Fr, 1 dilator for Dualyse-Cath 10 Fr)
- 1 scalpel.

Code	Fr	Length cm	Priming volume ml		Flow rate per lumen ml/min
			Arterial	Venous	
1132.81	10	15	1.5	1.5	230
1132.82	10	20	1.6	1.6	200
1132.91	12	15	1.7	1.7	380
1132.92	12	20	1.9	1.9	360

Dualyse-Cath with clip

1132   Dualyse-Cath
1/10

Double-lumen polyurethane catheter for haemodialysis and veno-venous haemofiltration.
Fully radiopaque catheter introduced by the Seldinger technique. Centimetre graduations from 9 cm from distal tip. Flexible fixation wings and polyurethane extension tubes with clamp. Flexible distal tip.

Tray presentation containing:
- 1 double-lumen catheter (PUR - XRO)
- 1 introducer needle Ø 1.1 x 1.4 mm - Length 70 mm
- 1 graduated "J" guidewire and guidewire advancer – Length 60 cm
- 2 injection caps
- 2 dilators (8 Fr and 12 Fr for Dualyse-Cath 12 Fr, 1 dilator for Dualyse-Cath 10 Fr)
- 1 scalpel.

Code	Fr	Length cm	Priming volume ml		Flow rate per lumen ml/min
			Arterial	Venous	
1132.01	10	15	1.1	1.2	300
1132.02	10	20	1.2	1.3	280
1132.11	12	15	1.2	1.3	410
1132.12	12	20	1.4	1.5	390

Dualyse-Cath

SHORT/MEDIUM-TERM HAEMODIALYSIS

1139   Trilyse-Cath with clip
1/10

Triple lumen polyurethane catheter for haemodialysis and high volume infusions.
Fully radiopaque catheter introduced by the Seldinger technique. Flexible fixation wings and polyurethane extension tubes with clamp. Centimetre graduations from 9 cm from the distal tip. The (green) hub of the distal lumen allows administration of drugs during haemodialysis. Flexible distal tip.
The clip allows the pigtails to be held in a curved position.

Tray presentation containing:
- 1 triple lumen catheter (XRO - PUR)
- 1 introducer needle Ø 1.1 x 1.4 mm - Length 70 mm
- 1 graduated "J" guidewire and guidewire advancer – Length 70 cm
- 2 injection caps
- 2 dilators
- 1 scalpel.

| Code | Catheter (PUR) | | Lumen | | | | | | | | |
| | | | Distal | | | Venous (middle) | | | Arterial (proximal) | | |
	Fr	Length cm	G	Flow rate ml/min	Priming vol. ml	G	Flow rate ml/min	Priming vol. ml	G	Flow rate ml/min	Priming vol. ml
1139.51	12	15	16	57	0.5	12	270	1.6	11	460	1.7
1139.52	12	20	16	49	0.6	12	230	1.8	11	425	1.9

1139   Trilyse-Cath
1/10

Triple lumen polyurethane catheter for haemodialysis and high volume infusions.
Fully radiopaque catheter introduced by the Seldinger technique. Flexible fixation wings and polyurethane extension tubes with clamp. Centimetre graduations from 9 cm from the distal tip. The (green) hub of the distal lumen allows administration of drugs during haemodialysis. Flexible distal tip.

Presented in a peel-pack containing:
- 1 triple lumen catheter (XRO - PUR)
- 1 introducer needle Ø 1.1 x 1.4 mm - Length 70 mm
- 1 graduated "J" guidewire and guidewire advancer – Length 70 cm
- 2 injection caps
- 2 dilators
- 1 scalpel
- 1 50 x 50 cm drape towel / sterile working field.

Trilyse-Cath

| Code | Catheter (PUR) | | Lumen | | | | | | | | |
| | | | Distal | | | Venous (middle) | | | Arterial (proximal) | | |
	Fr	Length cm	G	Flow rate ml/min	Priming vol. ml	G	Flow rate ml/min	Priming vol. ml	G	Flow rate ml/min	Priming vol. ml
1139.215	12	15	16	55	0.4	12	250	1.1	11	320	1.3
1139.220	12	20	16	50	0.6	12	250	1.3	11	290	1.5

8132   Dualyse Expert
1/10

Antimicrobial double-lumen polyurethane catheter for haemodialysis.
Fully radiopaque catheter introduced by the Seldinger technique. Flexible fixation wings and polyurethane extension tubes with clamp. Centimetre graduations from 9 cm from distal tip.
The active ingredient used in the Expert technology is the silver ion-based antimicrobial agent AglON ™ which is incorporated into the polyurethane tubing of the catheter.

Tray presentation containing:
- 1 double-lumen catheter (PUR – XRO)
- 1 introducer needle Ø 1.1 x 1.4 mm - Length 70 mm
- 1 graduated "J" guidewire and guidewire advancer - Length 60 cm
- 2 injection caps
- 2 dilators (8 Fr and 12 Fr for Dualyse Expert 12 Fr, 1 dilator for Dualyse Expert 10 Fr)
- 1 scalpel.

Dualyse Expert

| Code | Fr | Length cm | Priming volume ml | | Flow rate per lumen ml/min |
			Arterial	Venous	
8132.01	10	15	1.1	1.2	300
8132.02	10	20	1.2	1.3	280
8132.11	12	15	1.2	1.3	410
8132.12	12	20	1.4	1.5	390
8132.13	12	24	1.8	1.8	370

8139   Trilyse Expert
1/10

Antimicrobial triple lumen polyurethane catheter for haemodialysis.
Fully radiopaque catheter introduced by the Seldinger technique. Flexible fixation wings and polyurethane extension tubes with clamp. Centimetre graduations from 9 cm from distal tip.
The (green) hub of the distal lumen allows administration of drugs during haemodialysis.
The active ingredient used in the Expert technology is the silver ion-based antimicrobial agent AglON™ which is incorporated into the polyurethane tubing of the catheter.

Tray presentation containing:
- 1 triple lumen catheter (PUR – XRO)
- 1 introducer needle Ø 1.1 x 1.4 mm - Length 70 mm
- 1 graduated "J" guidewire and guidewire advancer - Length 60 cm
- 2 injection caps
- 2 dilators (8 Fr and 12 Fr)
- 1 scalpel.

Trilyse Expert

| Code | Catheter (PUR) | | Lumen | | | | | | | | |
| | | | Distal | | | Venous (middle) | | | Arterial (proximal) | | |
	Fr	Length cm	G	Flow rate ml/min	Priming volume ml	G	Flow rate ml/min	Priming volume ml	G	Flow rate ml/min	Priming volume ml
8139.215	12	15	16	55	0.4	12	250	1.1	11	320	1.3
8139.220	12	20	16	50	0.6	12	250	1.3	11	290	1.5

Long-term haemodialysis

1276   Lifecath Twin
1

Biostable polyurethane haemodialysis catheter for internal jugular vein catheterization.
Lifecath Twin is composed of **2 separate catheters** made of biostable polyurethane, totally radiopaque, with distance markings from 4 to 21 cm. Both catheters have a Dacron cuff which becomes encapsulated by the subcutaneous tissue thus ensuring a very efficient fixation of the catheter. The distal end of the catheter features 6 lateral eyes for improved catheter performance.
The catheters are inserted through 2 peel-away Desilet introducers.
The Lifecath Lock proximal end allows:
- the retrograde tunnellisation of the catheter
- the adjustment of the length by the physician.
If the proximal end of the catheter is damaged, it can be replaced with a Lifecath Lock repair kit (code 1277.01/02).

Product benefits:
• Lifecath Lock offers a secure and unique fixation of the removable proximal end
• The 10 Fr catheters offer a flow rate superior to 400 ml/min
• Subcutaneous cuffs prevent accidental removal of the catheter
• 2 separate catheters reduce the risk of catheter occlusion
• Priming volume printed on the extra-cutaneous section of the catheter
• The 6 Fr peel-away Desilet offers the physician the possibility to insert Lifecath Twin with only one puncture.

Tray presentation containing:
- 2 biostable PUR catheters - 10 Fr - Length 52 cm
- 2 puncture needles Ø 1.06 x 1.26 mm - 18G - Length 70 mm
- 2 peel-away Desilet introducers 11 Fr
- 1 peel-away Desilet introducer 6 Fr
- 2 tunnellisation needles
- 2 tunnel rod extensions, red and blue
- 2 catheter protection sleeves, red and blue
- 2 Nitinol "J" guidewires with guide advancer
- 2 injection caps
- 1 scalpel
- 2 clamps
- 2 Lifecath Lock.

Lifecath Twin

Code	Fr	Length cm	Tip / cuff length arterial catheter (cm)	Tip / cuff length venous catheter (cm)	Flow rate * ml/min	Flow rate ** ml/min
1276.200	10	52	18	21	252	473
1276.201	10	52	22	25	252	473
1276.202	10	52	27	30	252	473

* Flow Rate Gravity (calculated for the complete catheter before the length is adjusted by the physician)
** Flow Rate Pressure at 0.41 Bar (calculated for the complete catheter before the length is adjusted by the physician).

1277.01   Lifecath Lock repair kit (red)
1277.02   Lifecath Lock repair kit (blue)
5

To replace the proximal end of a Lifecath Twin damaged catheter.

Lifecath Lock

296   Set for peritoneal dialysis
10/150

Presented in a peel-pack containing:
- 1 trocar consisting of:
   . 1 stainless steel stylet
   . 1 multi-hole catheter (PP) with rounded tip
- 1 connecting tube with roller clamp and injection port for additional medication.

296.04   Paediatric version – L. 20 cm. 12 Fr – 4 cm of catheter tip has 32 lateral eyes

**296.10**   Adult version – L. 30 cm. 12 Fr – 8 cm of catheter tip has 64 lateral eyes.

Set for peritoneal dialysis

295.00   Therapeutic peritoneal dialysis tray
1/8

Tray presentation containing:
- 1 trocar consisting of:
- 1 stainless steel stylet
- 1 multi-hole catheter (PP) with rounded tip - length 30 cm - 12 Fr (code 296.10)
- 1 connecting tube with roller clamp and injection port for additional medication
- 1 "Y" set for administering dialysis solutions
- 1 5 ml syringe
- 1 30 x 0.7 mm (22G) hypodermic needle
- 1 fenestrated drape
- 1 scalpel
- 1 forceps
- 1 retaining plaque for catheter
- 5 50 x 50 mm gauze dressings
- 4 100 x 100 mm gauze dressings.
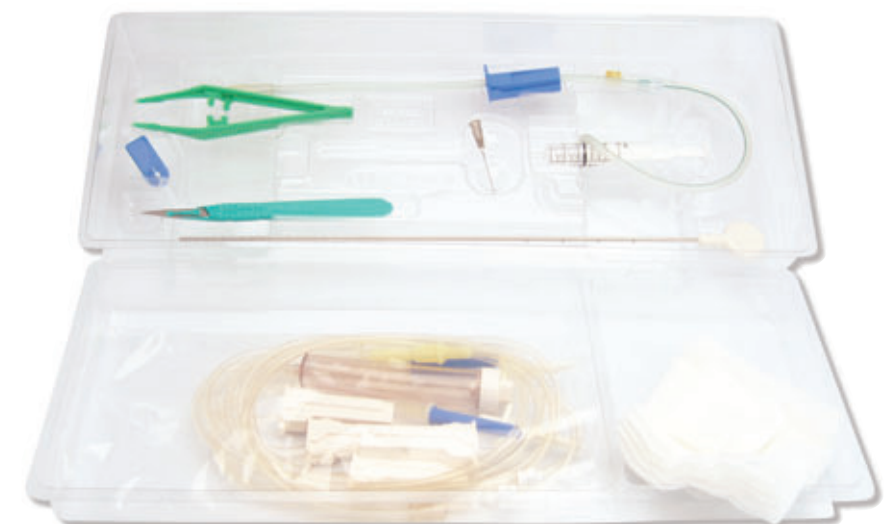
Tray for peritoneal dialysis

Haemodialysis

Haemodialysis

VYGON

VYGON

VYGON
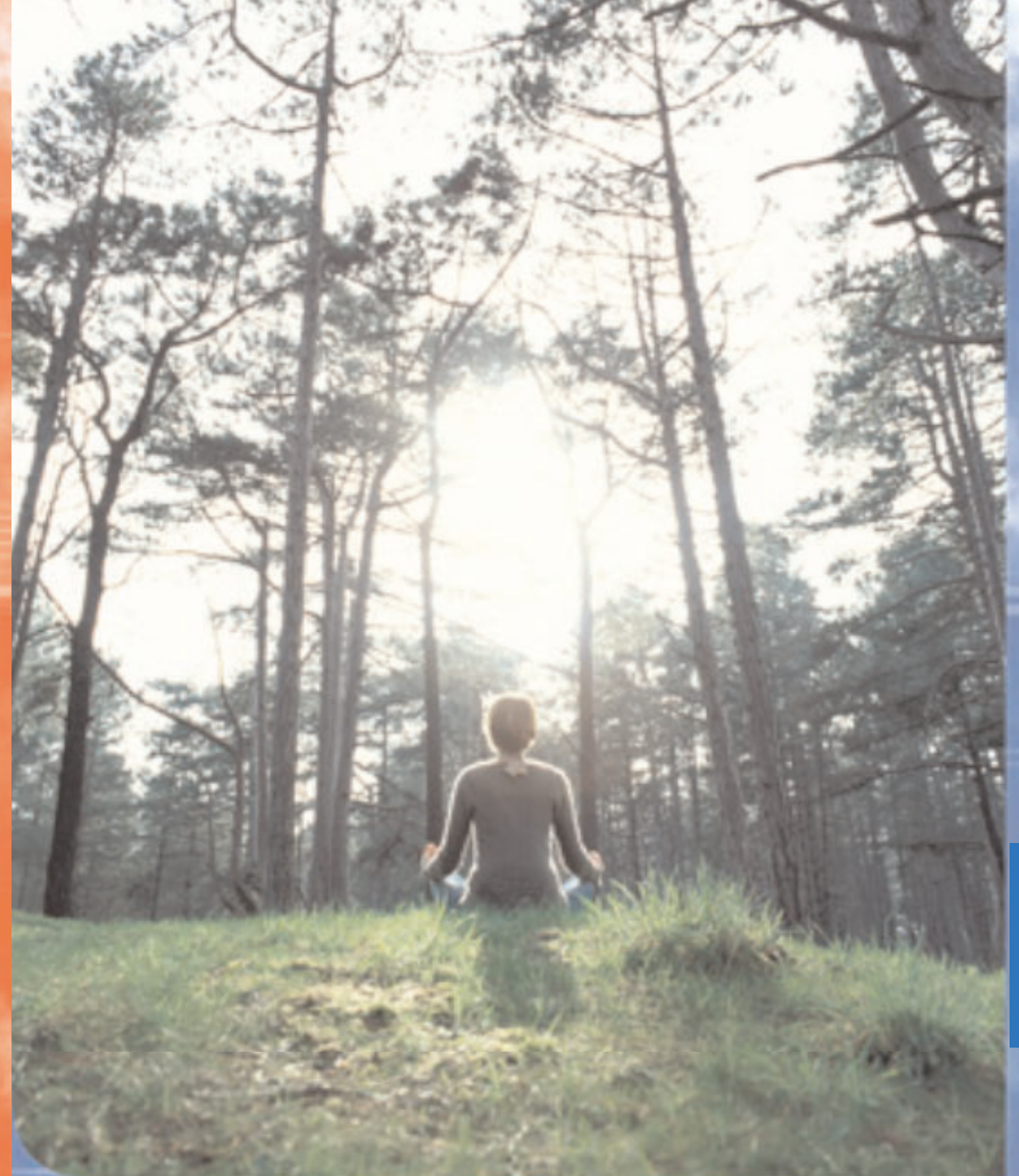
REGIONAL
ANAESTHESIA

REGIONAL
ANAESTHESIA

NEEDLES FOR SPINAL ANAESTHESIA / LUMBAR PUNCTURE

Hub
- transparent to visualise CSF reflux
- ergonomic design to ensure easy handling and manipulation.

Stylet
- with lug to indicate the position of the distal eye (Whitacre needle) or bevel orientation (Quincke needle)
- specially designed to allow rapid reflux of CSF
- ISO standard colour coding
- can be easily repositioned in the needle, if dural puncture fails.

Needle
- thin walled to obtain rapid CSF reflux.

Extensive range
▶ Large range of needle lengths and diameters for spinal anaesthesia and lumbar puncture
▶ Short needles for paediatrics
▶ Extra-long needles for obese patients and combined epidural-spinal anaesthesia (from 120 to 185 mm)
▶ Two bevels: Whitacre or Quincke type.

181/5181 "Whitacre" pencil point spinal needle
- The "pencil point" bevel minimises damage to the dura mater and CSF leakage
- Eye close to the distal tip to minimise the risk of extra-dural injection of the anaesthetic
- Smoothed lateral eye.

Code	Needle				Introducer		Distal specifications		Box /case
	G	Length mm	Ext. Ø mm	colour coding	Length mm	Ext. Ø mm	<- X -> mm	<- Y -> mm	
181.03	29	90	0.35	🔴	38	0.7	0.60	0.60	20/800
5181.23	29	120	0.35	🔴	No introducer		0.60	0.60	20/480
181.04	27	90	0.42	⚪	38	0.7	0.70	0.70	20/800
5181.24	27	120	0.42	⚪	No introducer		0.70	0.70	20/480
181.34	27	135	0.42	⚪	38	0.7	0.70	0.70	20/180
181.44	27	145	0.42	⚪	38	0.7	0.70	0.70	20/180
181.94	26	90	0.47	🟤	38	0.9	0.70	0.70	20/800
5181.94	26	90	0.47	🟤	No introducer		0.70	0.70	20/800
5181.45	25	38	0.53	🟠	No introducer		0.90	0.90	20/800
181.75	25	75	0.53	🟠	38	0.9	0.90	0.90	20/800
181.05	25	90	0.53	🟠	38	0.9	0.90	0.90	20/800
5181.05	25	90	0.53	🟠	No introducer		0.90	0.90	20/800
181.25	25	120	0.53	🟠	38	0.9	0.90	0.90	20/480
181.45	25	145	0.53	🟠	38	0.9	0.90	0.90	20/180
5181.185	25	185	0.53	🟠	No introducer		0.90	0.90	10/180
181.95	24	90	0.55	🟣	38	0.9	0.90	0.90	20/800
181.07	22	90	0.72	⚫	No introducer		1.20	1.20	20/800
5181.27	22	120	0.72	⚫	No introducer		1.20	1.20	20/480

Pencil point berel
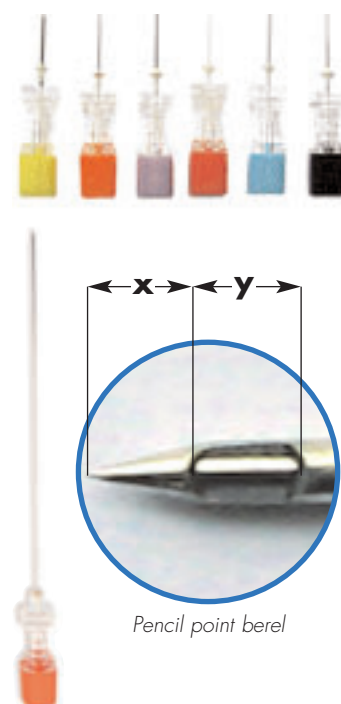
Code 181

179 Introducer for spinal needles
20/1920

Code	Diameter		Length mm
	mm	G	
179.49	1.2	18	38
179.45	0.9	20	38

### 180/5180 Spinal needle with "Quincke" bevel
20/800

In addition to the benefits described on page 118, needles with Quincke bevel have a stylet which has been specially designed to reduce tissue trauma and consequently post-dural puncture headaches.

Code	Needle				Introducer	
	G	Length mm	Ext. Ø mm	Colour coding	Length mm	Ext. Ø mm
180.93	29	90	0.35	🔴	38	0.7
180.04	27	90	0.42	⚪	38	0.7
5180.04	27	90	0.42	⚪	No introducer	
180.74	26	75	0.47	🟤	38	0.9
180.94	26	90	0.47	🟤	38	0.9
5180.94	26	90	0.47	🟤	No introducer	
5180.35	25	30	0.53	🟠	No introducer	
180.55	25	50	0.53	🟠	No introducer	
180.75	25	75	0.53	🟠	38	0.9
5180.75	25	75	0.53	🟠	No introducer	
180.05	25	90	0.53	🟠	38	0.9
5180.05	25	90	0.53	🟠	No introducer	
5180.76	23	75	0.60	🔵	No introducer	
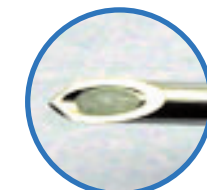
Quincke type bevel

Code 180

183 Quincke needle for lumbar puncture
5180/5183
20/800

Code	Needle			
	G	Length mm	Ext. Ø mm	Colour coding
183.47	22	38	0.7	⚫
5183.57	22	50	0.7	⚫
5183.77	22	75	0.7	⚫
183.97	22	90	0.7	⚫
5180.27*	22	120	0.7	⚫
5180.07*	22	150	0.7	⚫
183.49	20	38	0.9	🟡
5183.59	20	50	0.9	🟡
5180.79	20	75	0.9	🟡
183.99	20	90	0.9	🟡
5183.51	19	50	1.1	🟤
5183.71	19	75	1.1	🟤
183.91	19	90	1.1	🟤
5183.52	18	50	1.2	🩷
5183.72	18	75	1.2	🩷
183.92	18	90	1.2	🩷

Quincke type bevel

Code 183

* N.B. Codes 5180.07 and 27, quantity box/case : 20/480

188.07 Needle and catheter for intra-thecal anaesthesia
20/240

Code 188.07

The intra-thecal catheter allows:
- Injections of small doses of local anaesthetic, thereby limiting haemodynamic variations
- Re-injection of anaesthetic to increase the duration of the block
- Post-operative analgesia.

Presented in a soft blister pack containing:
- 1 polyurethane catheter with XRO line, (Ø 0.3 x 0.7 mm – 22G – Length 90 cm) with catheter guide, open tip, centimetre graduations from 5 to 20 cm
- 1 19G Tuohy needle with transparent hub and detachable wings – Length 90 mm.

VYGON

VYGON

REGIONAL ANAESTHESIA

REGIONAL ANAESTHESIA

EPIDURAL NEEDLES

184   Tuohy needle for epidural anaesthesia

Stylet
- with lug to indicate bevel orientation
- stainless steel

Needle
- the heel of the bevel is smoothed to reduce the risk of cutting the epidural catheter
- needle/stylet fit together perfectly to give a completely smooth bevel surface and minimize coring of the skin and subcutaneous tissues
- centimetre graduations
- extra-long needles available for obese patients

Hub
- transparent to visualise any fluid reflux
- with removable wings for easier insertion

| Code | Needle | | | | Box /case |
	G	Length mm	Int. Ø - Ext. Ø mm	Colour coding	
184.19	19	90	0.8 - 1.08	⬤	20/800
184.88	18	80	1.07 - 1.30	⬤	20/800
184.18	18	90	1.12 - 1.32	⬤	20/800
184.28	18	120	1.12 - 1.32	⬤	20/180
184.58	18	150	1.12 - 1.32	⬤	20/180
184.17	17	90	1.2 - 1.5	◯	20/800
184.27	17	120	1.2 - 1.5	◯	20/480
184.87	17	80	1.2 - 1.5	◯	20/800
184.86	16	80	1.35 - 1.65	⬤	20/800
184.16	16	90	1.35 - 1.65	⬤	20/800

Code 184
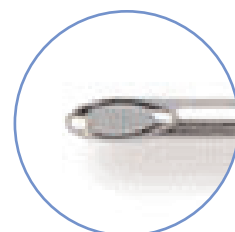
PERIBAX : PEBAX EPIDURAL CATHETERS

- Material is an excellent compromise between **flexibility and rigidity**, allowing easy insertion of catheter while limiting risk of trauma
- Excellent **rupture resistance** due to high stretch potential, making it very safe to use
- Transparent with radiopaque line
- Supplied with a catheter-guide which connects onto the needle hub and facilitates insertion of the catheter into the needle and epidural space
- With removable "Easy-lock" type adaptor
- Markings:
  . centimetre graduations from 5 to 20 cm from the distal tip
  . black mark on the distal end to ensure that the entire catheter has been withdrawn
- Smoothed distal end.

5186   PERIBAX : epidural catheter (for 18G introducer)
20/240

Code	Int. Ø - Ext. Ø mm	G	Length cm	Tip
5186.082	0.45 - 0.85	20	90	Open
5186.382	0.45 - 0.85	20	90	Closed with 3 lateral eyes

5186   PERIBAX : epidural catheter (for 16 or 17G introducer)
20/240

Code	Int. Ø - Ext. Ø mm	G	Length cm	Tip
5186.602	0.5 - 1.0	19	90	Open
5186.802	0.5 - 1.0	19	90	Closed with 3 lateral eyes
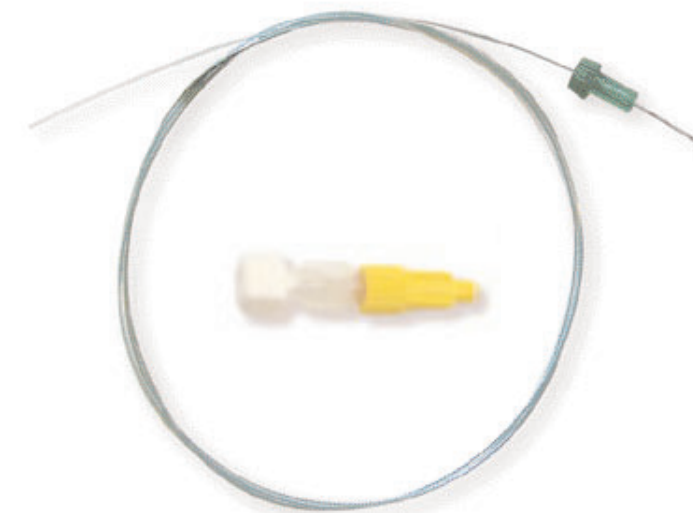
WITH 18G TUOHY NEEDLE

5191   Epidural set with PERIBAX catheter
20/120

Set containing:
- 1 XRO epidural catheter with Easy-lock connector and catheter-guide (code 5191.337 with **flexible distal tip*** and 3 lateral eyes)
- 1 18G Tuohy needle with transparent plastic hub
- 1 0.22µm flat filter
- 1 10 ml syringe for loss of resistance technique.

Code	Tuohy needle		Catheter			
	G	Length mm	Int. Ø - Ext. Ø	G	Length cm	Tip
5191.087	18	80	0.45 - 0.85	20	90	Open
5191.387	18	80	0.45 - 0.85	20	90	Closed with 3 lateral eyes
5191.337	18	80	0.45 - 0.85	20	90	Closed with 3 lateral eyes*
5191.088	18	90	0.45 - 0.85	20	90	Open
5191.388	18	90	0.45 - 0.85	20	90	Closed with 3 lateral eyes

* Flexible distal tip

5291.337   Epidural set with PERIBAX catheter and Epimatic syringe
10/120

Set containing:
- 1 XRO epidural catheter (Int. Ø 0.45 mm – Ext. Ø 0.85 mm – 20G – Length 90 cm) with Easy-lock connector and catheter-guide. **Flexible distal tip** and 3 lateral eyes
- 1 18G Tuohy needle with transparent plastic hub, length 80 mm
- 1 0.22µm flat filter
- 1 Epimatic syringe (see p. 127).

WITH 16G TUOHY NEEDLE

5191   Epidural set with PERIBAX catheter
20/120

Set containing:
- 1 XRO epidural catheter with Easy-lock connector and catheter-guide
- 1 16G Tuohy needle with transparent plastic hub
- 1 0.22 µm flat filter
- 1 10 ml syringe for loss of resistance technique.

Code	Catheter				Tuohy Needle	
	Int. Ø - Ext. Ø mm	G	Length cm	Tip	G	Length mm
5191.601	0.5 - 1.0	19	90	Open	16	80
5191.801	0.5 - 1.0	19	90	Closed with 3 lateral eyes	16	80

VYCON

PERIPUR : POLYURETHANE EPIDURAL CATHETERS

- **Flexible** catheters without stylet
- Transparent with radiopaque line
- With a catheter-guide which connects onto the needle hub and facilitates insertions of the catheter into the needle and epidural space
- With detachable "Easy-lock" type adaptor
- Markings:
  . Centimetre graduations from 5 to 15 cm and mark at 20 cm from the distal tip
  . Black mark on the distal tip allowing the user to check that the entire catheter has been withdrawn
- Rounded distal tip
- Resistant to kinking and stretching.

EPIDURAL RANGE WITH PERIPUR CATHETER

186.10   PERIPUR : epidural catheter
20/240

Catheter (PUR – XRO) with **open tip**.

Int. Ø - Ext. Ø mm	G	Length cm	Recommended introducer needle
0.5 - 1.0	19	90	17G

### 188.10   Set (PERIPUR catheter + needle)
20/240

Basic kit containing one catheter code 186.10, described above and one 17G Tuohy needle with metal hub.

189.60   Mini-kit (PERIPUR catheter + needle + filter)
20/240

Mini-kit containing one catheter code 186.10, one 17G Tuohy needle with plastic hub (code 184.17) and one flat 0.22 µm filter (code 808.22).

191.10   Kit (PERIPUR catheter + needle + filter + needle)
20/120

Kit includes one 10 ml syringe for loss of resistance technique (code 1018.10) in addition to items in mini-kit code 189.60

Kit for paediatric epidural anaesthesia code 188.47:
see page 31

VYCON

186.30   PERIPUR: epidural catheter
20/240

Catheter (PUR – XRO) with **closed tip, 3 lateral eyes.**

Int. Ø - Ext. Ø mm	G	Length cm	Recommended introducer
0.5 - 1.0	19	90	17G

188.30   Set (PERIPUR catheter + needle)
20/240

Basic kit containing one catheter code 186.30, described above, and one 17G Tuohy needle with metal hub.

189.30   Mini-kit (PERIPUR catheter + needle + filter)
20/240

Mini-kit containing one catheter code 186.30, one 17G Tuohy needle with plastic hub and one flat 0.22 μm filter (code 808.22).

191.30   Kit (PERIPUR catheter + needle + filter + syringe)
20/120

Kit includes one 10 ml syringe for loss of resistance technique (code 1018.10) in addition to items in mini-kit code 189.30.
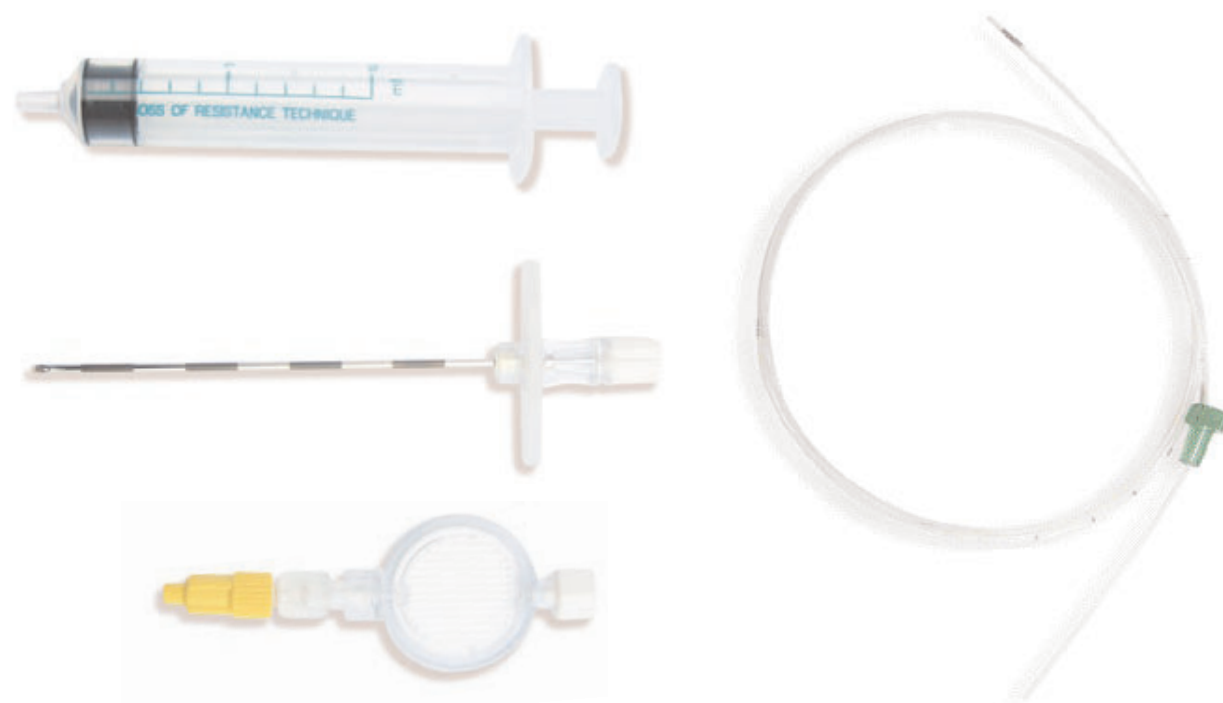
PERISTYL': FLEXIBLE EPIDURAL CATHETER WITH STYLET

- **Flexible** transparent polyethylene epidural catheter **with stylet**. The flexibility of the catheter reduces the risk of dural or vascular puncture
- The stylet allows easy insertion of the catheter. The stylet stops 17 mm from the distal tip of the catheter (no risk of entering the epidural space)
- With Easy-lock connector
- Smooth distal tip
- Transparent catheter with radiopaque line.

EPIDURAL RANGE WITH PERISTYL' CATHETER

185   PERISTYL' : epidural catheter
20/240

Flexible transparent polyethylene epidural catheter with stylet. Tip either open (code 185.10) or closed with 3 lateral eyes (code 185.30). Centimetre graduations from 5 to 20 cm (code 185.30).

Code	Int. Ø - Ext. Ø mm	G	Length cm	Tip	Recommended introducer
185.10	0.5 - 1.0	19	90	Open	17G
185.30	0.5 - 1.0	19	90	Closed with 3 lateral eyes	17G

187.10   Set (PERISTYL' catheter + needle)
20/240

Basic kit containing one catheter code 185.10, described above and one 17G Tuohy needle with metal hub.

189.50   Mini-kit (PERISTYL' catheter + needle + filter)
20/240

Mini-kit containing one catheter code 185.10, one 17G Tuohy needle with plastic hub (code 184.17) and one flat 0.22 μm filter (code 808.22).

191.50   Kit (PERISTYL' catheter + needle + filter + syringe)
20/120

Kit includes one 10 ml syringe for loss of resistance technique (code 1018.10) in addition to items in mini-kit code 189.50.

191.70   Kit (PERISTYL' catheter + needle + filter + syringe)
20/120

Kit includes the same components as code 191.50 described above, but with PERISTYL' catheter code 185.30: **closed tip with 3 lateral eyes**.

Code 191.50

193.00   Balloon for identification of the epidural space
25/300

(Macintosh method).

Code 193

808.22   Flat filter for epidural anaesthesia
25/600

Code 808.22

809.22   Filter
50/1000

0.22 µm (anti-bacterial) filters for retaining microbial particles and contaminants contained in solutions. Luer-lock fittings.
Code 809.22 is radiosterilized.

Code	Total filter surface area cm²	Flow rate ml/min	Priming volume ml	Pressure resistance
808.22	5.0	28	1.2	6 bar (600 kPa)
809.22*	2.8	5	0.1	5 bar (500 kPa)

*Flow rate under pressure 3.6 bar = 145 ml/min

Code 809.22

7303.17   Tunnelling needle for epidural catheter
5/75

Length 35 cm – Diameter 1.7 x 2.2 mm.

41.08.07/   Drapes for epidural anaesthesia
39.80.14

Code	Size cm	Adhesive opening cm	Adhesive edge cm	Quality	Box/case
41.08.07	70 x 80	7 x 12	5 x 70	Impermeable material with absorbent surface	50
39.80.14	80 x 140	5.5 x 7.5	-	Transparent polyethylene	10/80

1018   Plastic syringe for loss of resistance technique
20/240

7 ml (code 1018.07) or 10 ml (code 1018.10) polypropylene syringe with Luer slip fitting.
Code 1018.103: 10 ml polypropylene syringe with Luer-lock fitting.
This item does not contain latex.

Code	Volume ml	Tip
1018.07	7	Luer
1018.10	10	Luer
1018.103	10	Luer-lock

Code 1018.10

1018.102   Epimatic: Plastic syringe for loss of resistance technique
20/240

Epimatic is a syringe allowing automatic location of the epidural space thanks to the continuous positive pressure applied on the plunger by an elastic strip.
Product benefits:
- Inserting the needle with 2 hands ensures its smooth progression
- Visual confirmation of access of Tuohy needle to the epidural space
- Syringe can be used either with liquid* or air*
* If the syringe is filled with gas, clip the device with the letter "G" or the symbol "-" toward the top of the syringe (toward the anaesthetist).
If the syringe is filled with liquid, clip the device with the letter "L" or the symbol "+" toward the anaesthetist.

Epimatic syringe
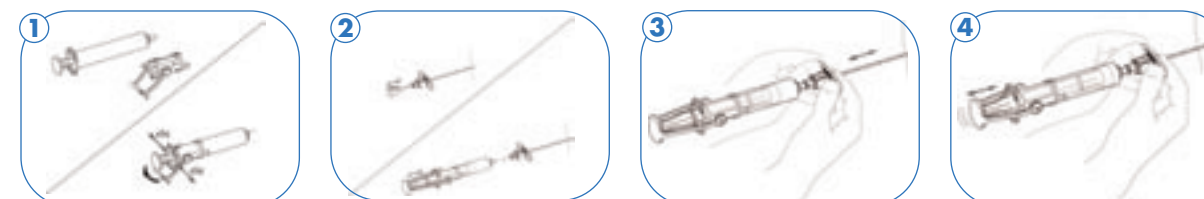
1 Choice of the syringe filling (gas/ liquid). Insert and clip the device. Place the elastic strip on the plunger.
2 Remove the stylet from the Tuohy needle which is already placed in the patient's back. Fill the syringe with air or liquid by pulling together strip/plunger.
3 Hold the plunger and connect the syringe to the needle.
4 Move slowly until the epidural space is reached and the plunger drops or the air/ liquid is easily injected.

1019.10 Glass syringe for loss of resistance technique

With Luer-lock fitting. Volume 10 ml.

Summary table

Code	Recommended introducer	Epidural catheter			
	G	G	Int. Ø – Ext. Ø	Material	Tip
185.10	17	19	0.5 - 1.0	PE (with stylet)	open
185.30	17	19	0.5 - 1.0	PE (with stylet)	closed*
186.10	17	19	0.5 - 1.0	PUR	open
186.30	17	19	0.5 - 1.0	PUR	closed*
5186.082	18	20	0.45 - 0.85	PEBAX	open
5186.382	18	20	0.45 - 0.85	PEBAX	closed*
5186.602	16 or 17	19	0.5 - 1.0	PEBAX	open
5186.802	16 or 17	19	0.5 - 1.0	PEBAX	closed*

*with 3 lateral eyes.

Code	Epidural catheter				Accessories				
	G	Int. Ø – Ext. Ø mm	Material	Tip	Epidural needle			Filter	Syringe
					G	L. mm	Hub		
187.10	19	0.5 - 1.0	PE (with stylet)	open	17	90	metal	-	-
189.50	19	0.5 - 1.0	PE (with stylet)	open	17	90	plastic	X	-
191.50	19	0.5 - 1.0	PE (with stylet)	open	17	90	plastic	X	X
188.10	19	0.5 - 1.0	PUR	open	17	90	metal	-	-
189.60	19	0.5 - 1.0	PUR	open	17	90	plastic	X	-
191.10	19	0.5 - 1.0	PUR	open	17	90	plastic	X	X
188.30	19	0.5 - 1.0	PUR	closed*	17	90	metal	-	-
189.30	19	0.5 - 1.0	PUR	closed*	17	90	plastic	X	-
191.30	19	0.5 - 1.0	PUR	closed*	18	90	plastic	X	X
5191.087	20	0.45 - 0.85	PEBAX	open	18	80	plastic	X	X
5191.088	20	0.45 - 0.85	PEBAX	open	18	90	plastic	X	X
5191.337**	20	0.45 - 0.85	PEBAX	closed*	18	80	plastic	X	X
5291.337**	20	0.45 - 0.85	PEBAX	closed*	18	80	plastic	X	Epimatic
5191.387	20	0.45 - 0.85	PEBAX	closed*	18	80	plastic	X	X
5191.388	20	0.45 - 0.85	PEBAX	closed*	18	90	plastic	X	X
5191.601	19	0.5 - 1.0	PEBAX	open	16	80	plastic	X	X
5191.801	19	0.5 - 1.0	PEBAX	closed*	16	80	plastic	X	X

* with 3 lateral eyes.
** with flexible distal tip.

COMBINED SPINAL – EPIDURAL SETS

192 Mini-set for combined spinal - epidural anaesthesia
20/480

Presented in a supple blister pack containing:
Code 192.201
- 1 spinal needle, Whitacre type 118 mm, 27G
- 1 Tuohy needle with back-eye 18G, 80 mm.

Code 192.202
- 1 spinal needle, Whitacre type 118 mm, 25G
- 1 Tuohy needle with back-eye 18G, 80 mm.

N.B. The spinal needle protrudes through the distal end of the Tuohy needle by 15 mm.

Code 192.202

6186 Set for combined spinal-epidural anaesthesia
5/40

Presented in a rigid blister pack containing:
Code 6186.042
- 1 Tuohy needle with back-eye 18G - L. 80 mm
- 1 pencil-point spinal needle 27G - L. 118 mm
- 1 10 ml syringe for loss of resistance technique
- 1 Peribax epidural catheter (Ø 0.45 x 0.85 mm - 20G) with closed tip, 3 lateral eyes and flexible distal end
- 1 flat filter 0.22 µm.

Code 6186.052
- 1 Tuohy needle with back-eye 18G - L. 80 mm
- 1 pencil-point spinal needle 25G - L. 118 mm
- 1 10 ml syringe for loss of resistance technique
- 1 Peribax epidural catheter (Ø 0.45 x 0.85 mm - 20G) with closed tip, 3 lateral eyes and flexible distal end
- 1 flat filter 0.22 µm.

N.B. The spinal needle protrudes through the distal end of the Tuohy needle by 15 mm.

199.20 Basic Set
25

This procedure pack contains essential items needed for a number of common procedures including lumbar puncture, spinal anaesthesia, epidural anaesthesia, liver biopsy, etc.

Pack contains:
- 1 tray
- 1 each syringe Luer slip 2.5, 5 and 10 ml
- 1 aperture drape (opening 7 x 12 cm) with adhesive edge 70 x 80 cm
- 1 gallipot
- 1 prep forceps
- 4 ball swabs (small)
- 2 ball swabs (large)
- 1 filter needle 5 µm
- 3 hypodermic needles 25G, 21G and 18G
- 1 outer wrap 75 x 70 cm
- 1 absorbent towel 33 x 38 cm.

Code 199.20

Vygon also offers a custom made service ensuring the pack reaches your specific requirements.

Gallipots
White 62 x 72 – 60 ml
Crystal 62 x 72 – 60 ml
Transparent graduated 120 ml

Syringes
2.5 ml Luer slip
3 ml Luer-lock
5 ml Luer slip or Luer-lock
7 ml plastic low resistance syringe
10 ml Luer slip or Luer-lock plastic low resistance syringe
10 ml Luer slip or Luer-lock
10 ml Luer-lock glass syringe
20 ml Luer slip or Luer-lock

Hypodermic needles
18 G, 40 mm ●
19 G, 50 mm ●
20 G, 38 mm ●
21 G, 40 mm ●
22 G, 25 mm ●
23 G, 30 mm ●
25 G, 16 mm ●
27 G, 12 mm ●

Accessories
Filter needle
Flat filter
Scalpel (long handle)
Scalpel (short handle)
Sponge – stick (small)
Prep forceps (Kocher type)
Dressing forceps

Gauze dressings/ Ball swabs
Gauze 5 x 8, 8 ply
Gauze 7.5 x 7.5, 8 ply
Gauze 7.5 x 7.5, 12 ply
Gauze 10 x 10, 8 ply
Gauze 10 x 10, 12 ply
Non-woven gauze 7.5 x 7.5, 4 ply
Non-woven gauze 10 x 10, 4 ply
Ball swabs Ø 3 cm
Ball swabs Ø 2.5 cm radiopaque
Ball swabs Ø 3 cm radiopaque

Drapes
Lateral drape 75 x 45 cm, adhesive 5 x 45 cm
Lateral drape 70 x 80 cm, adhesive 5 x 70 cm
Lateral drape 80 x 90 cm, adhesive 5 x 90 cm
Fenestrated drape (PE – transparent) 60 x 60 cm, with centered opening Ø 8 cm and adhesive edge 5 x 60 cm
Fenestrated drape (PE – transparent) 90 x 90 cm, with centered opening Ø 8 cm and adhesive edge 5 x 90 cm
Fenestrated drape 80 x 70 cm, off-center adhesive opening 7 x 12 cm and adhesive edge 5 x 70 cm
Fenestrated drape (PE – transparent) 80 x 100 cm off-center adhesive opening 7 x 12 cm and adhesive edge 5 x 80 cm
Fenestrated drape (PE – transparent) 80 x 140 cm off-center adhesive opening 5.5 x 7.5 cm
Absorbent towel 33 x 38 cm, 60g/m² white
Transparent dressing, Dermafilm 15 x 10 cm

With your Vygon sales representative's help, you can prepare the ideal kit, get a sample and a price estimate.

5194 Locoplex
20/180

Electro-neuro-stimulation needle for plexus and peripheral nerve blocks.

- Insulated needle with a conducting tip
- **Centimetre graduations** to visualise the length of needle introduced
- Transparent needle hub
- Removable extension tube, length 50 cm. Priming volume: 1 ml
- 60 cm electrical connection cable
- Available in 2 versions: 17° bevel or 30° bevel.
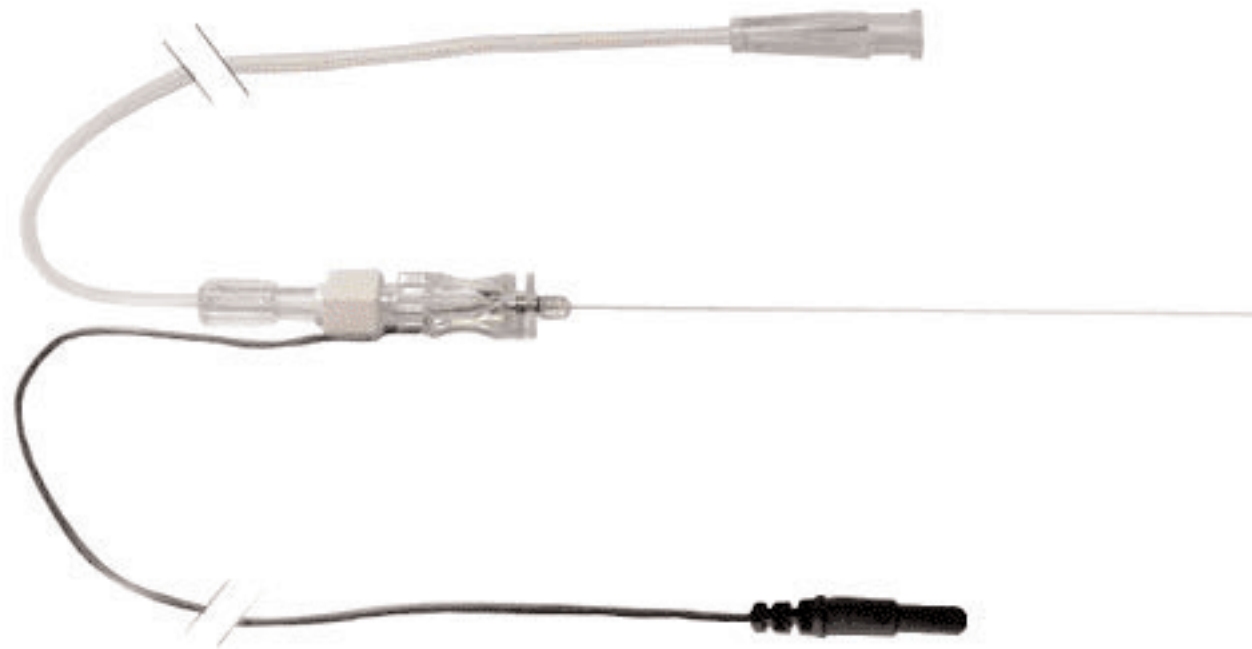
Code		Needle		
Bevel 17°	Bevel 30°	Length mm	Ø mm	G
5194.25	5194.253	25	0.65	23
5194.35	5194.353	35	0.65	23
5194.50	5194.503	50	0.80	21
5194.85	5194.853	85	0.80	21
5194.10	5194.103	100	0.80	21
5194.12	5194.123	120	0.90	20
5194.15	5194.153	150	0.90	20
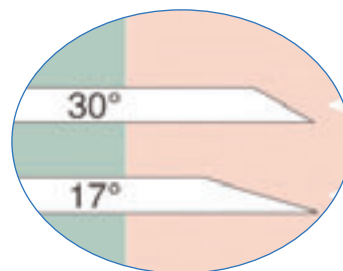
5195 Techniplex
10/40

Perineural catheter for continuous plexus and peripheral nerve blocks.
The Techniplex catheter is introduced through a Locoplex needle with 17° bevel, 30° bevel or Tuohy bevel.
Product benefits:
- The rigidity of the needle provides excellent support for the insertion of the catheter: Techniplex is particularly indicated for blocks involving deeply located nerves
- Centimetre graduations on needle allows quick visualisation of the length of needle introduced
- The wishbone catheter-feeder provides excellent perception of the progression of the catheter through the needle
- All accessories necessary for the insertion of the Techniplex are provided in the set.
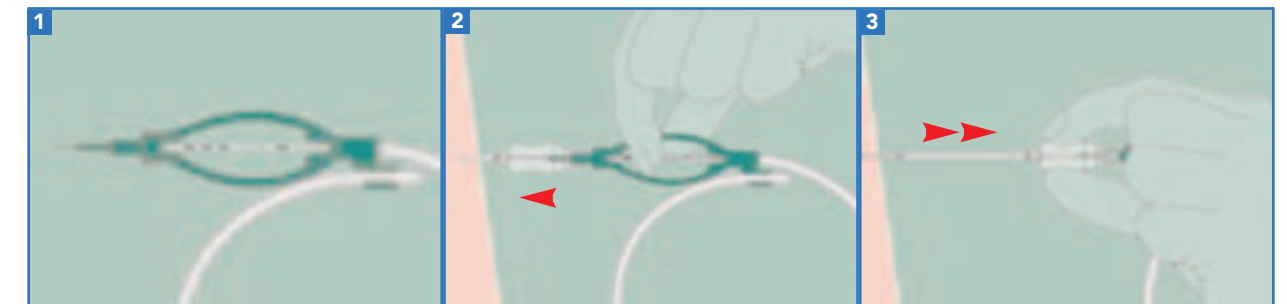
New Techniplex models with stylet to facilitate the insertion of the catheter.

Rigid blister pack presentation containing:
- 1 18G Locoplex needle with centimetre graduations
- 1 perineural Pebax catheter (Ø 0.45 x 0.85 mm – 50 cm long) with centimetre distance markings and open distal tip
- 1 0.22 μm antibacterial filter
- 1 additional extension tube, 50 cm long, Ø 1.5 x 2.5 mm, priming volume 1.10 ml
- 1 10 ml syringe for the aspiration test
- 1 10 x 15 cm Dermafilm transparent adhesive dressing.

Code				Introducer needle		Catheter	
Bevel 17°	Bevel 30°	30° bevel and stylet	Tuohy bevel and stylet	Length mm	G	Int. Ø – Ext. Ø mm	Length cm
5195.35	5195.353	-	-	35	18	0.45 - 0.85	50
5195.50	5195.503	5195.5031*	5195.506*	50	18	0.45 - 0.85	50
5195.10	5195.103	5195.1031*	5195.106*	100	18	0.45 - 0.85	50
5195.12	5195.123	-	-	120	18	0.45 - 0.85	50
-	-	5195.1531*	5195.156*	150	18	0.45 - 0.85	50

*Box/case : 5/45

5197 Multiplex
5/45

Stimulating catheter for continuous plexus and peripheral nerve blocks.

Product benefits:
- Split cannula introducer allows the insertion of a catheter with a fixed hub
- Fixation wings and integral small extension tube
- Metallic stylet
  . Confers rigidity to the catheter facilitating its introduction
  . Allows stimulation during catheter insertion
- All accessories necessary for the placement of the Multiplex are provided in the kit.

Rigid blister pack presentation containing:
- 1 18G split cannula with 30° needle bevel
- 1 catheter with centimetre graduations over 4 cm, once the catheter has been passed through the distal end of the split cannula introducer
- 1 metallic stylet allowing stimulation
- 1 0.22 μm antibacterial filter
- 1 additional electric cable (60 cm long – code 087503.21A) to work under aseptic conditions
- 1 10 ml syringe for aspiration test
- 1 10 x 15 cm Dermafilm adhesive transparent dressing.

| Code | Split plastic cannula | | Needle bevel | Catheter Length mm |
	Length mm	G		
5197.353	35	18	30°	92
5197.503	50	18	30°	107
5197.853	85	18	30°	142
5197.123	120	18	30°	177

7501.31 Plexygon
1

Electro-neuro-stimulator for plexus and peripheral nerve blocks.
Designed for optimum performance in terms of efficiency, safety and ease of use.
Allows quick and easy identification of nerves:
- Large LCD screen
- Adjustable impulse generator:
  . 0 to 4 mA for an impulse of 300 μs
  . 0 to 5 mA for an impulse of 100 μs
  . 0 to 6 mA for an impulse of 50 μs
- Adjustable impulse frequency (1, 2 or 4 Hz) and duration (300 μs, 100 μs or 50μs)
- Choice of display units: mA or nC
- "Safety" button immediately cuts off the electric current
- Precision: the double decimal digit display is automatically activated below 0.5 mA, by increments of 0.02 mA
- Plexygon can be used under sterile conditions with a protective hood, supplied separately as a single unit (code 39.00.15)
- Dimensions: Length 200 mm / Width: max. 93 mm – min. 57 mm Height: max. 40 mm – min. 23 mm / Weight: 205 g
- Battery life: over 24 hours continuous operation (battery 9 V – 500 mAh)
- Supplied in a small case for storage and transport
- Conforms to IEC standards 601-1 and 601-2-10.

087503.02A Plexygon replacement cable (red and black)
1

39.00.15 Plexygon transparent protective hood
1

Dimension 12 x 40 cm.

ACCESSORIES

5803.01 Crystalfix
20/480

Fixation device for perineural/epidural catheter.
Ensures excellent fixation of the perineural/epidural catheter preventing the risk of secondary displacement, as secondary migration can result in the anaesthesia or analgesia having no efficacy and generate more or less significant complications (paraesthesia, intravascular injections…)

CRYSTALFIX

Simple
Easy to place
A smart shape, can be easily manipulated by left-handed as well as right-handed users
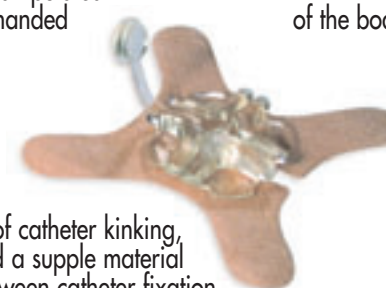
Soft
Flexible and comfortable, it adapts to all areas of the body

Safe
Rounded angles reduce the risk of catheter kinking, transparency at insertion site and a supple material present an ideal compromise between catheter fixation and comfort to the patient.

VYGON

7301.12 *Freedom 5*
7301.10
7301.05
1/20

Single-use mechanical device for patient-controlled analgesia

Freedom 5 has been specially designed for pain management in the Accident and Emergency department or in the recovery room for the treatment of post-operative pain. This product is also indicated for pain treatment of patients suffering from sickle cell disease.

It can be easily set-up by healthcare personnel and is extremely simple for the patient to use: if he feels pain, all he has to do is press the lever. Freedom 5 allows the patient to self-administer a pre-set quantity of intravenous morphine solution equivalent to:
- **0.5 ml** for model **7301.05**. The lock-out for bolus reconstitution is **5 minutes.**
- **1ml** for models **7301.12** and **7301.10**. The lock-out for bolus reconstitution is **7 minutes.**

NB As the bolus reservoir is under negative pressure, downloading is not possible. The pressure that the patient must apply to activate the lever means that an unconscious patient cannot use the PCA device involuntarily. Freedom 5 can be refilled twice using the refilling sets.

The Freedom 5 kit contains:
- 1 PCA reservoir carrier with inspection window
- 1 60 ml calibrated reservoir
- 1 capping device with lever
- 1 attachment cord
- 1 polyethylene storage bag
- 1 female/female Luer-lock adaptor (code 892) for filling the reservoir with a syringe
- 1 female Luer-lock obturator (code 888) for temporary capping of a filled reservoir
- 1 label for the PCA reservoir carrier
- 1 single-lumen extension tube (length 125 cm) with antibacterial and air-eliminating filter and anti-siphon valve: model 7301.10

or
- 1 "Y" extension tube (length 90 cm) with antibacterial and air-eliminating filter and anti-siphon valve (lumen 1) /non-return valve (lumen 2): model 7301.12

or
- 1 single single-lumen extension tube (length 125 cm) with antibacterial and air-eliminating filter and Bionector: model 7301.05

7302.60 Complete refill set
1/18
7302.62
10/60

Presented in a peel-pack containing:
- 1 PCA lockable capping device with lever and cord
- 1 60 ml calibrated reservoir
- 1 female/female Luer-lock adaptor (code 892)
- 1 female Luer-lock obturator (code 888)
Code 7302.60 for PCA 7301.10 or 7301.12
Code 7302.62 for PCA 7301.05.

7302.01 Simplified refill set
7302.02
10/90

Presented in a peel-pack containing:
- 1 PCA lockable capping device with lever
- 1 cord
- 1 female/female Luer-lock adaptor (code 892)
Code 7302.01 for PCA 7301.10 or 7301.12
Code 7302.02 for PCA 7301.05

For PCA extension tubes, see page 103.

VYGON

DIGESTIVE TRACT

DIGESTIVE TRACT

For paediatric enteral feeding tubes in PVC, polyurethane and silicone, Nutrisafe and feeding systems, please see pages 32 to 38.

391 Levin gastro-duodenal feeding tube - 125 cm

Transparent PVC tube with XRO line, female flexible mount with cap: Fr 06 – 08 and 10.
Large flexible connector without cap: Fr 12 to 21.
Centimetre graduations from 5 to 75 cm. Closed tip.

50/450	Fr 06 – 08: 10 lateral eyes
50/300	Fr 10 – 12 – 14: 4 lateral eyes
50/200	Fr 16 – 18 – 21: 4 lateral eyes.

1391 Polyurethane gastro-duodenal tube - 125 cm

Transparent PUR tube with XRO line. For medium-term use. 4 lateral eyes.
Centimetre graduations from 5 to 70 cm. Closed tip
Female flexible mount with cap: Fr 06 – 08 – 10 and 12
Flexible funnel without cap: Fr 14 to 21.

50/300	Fr 06 – 08 – 10 – 12
50/200	Fr 14 – 16 – 18
50/150	Fr 21.

2391 Silicone gastro-duodenal tube - 125 cm

Enteral feeding tube for long-term use.
Closed tip, 4 lateral eyes.
Markings every 5 cm from 20 to 50 cm (Fr 06 – 08 – 09)
Markings every 5 cm from 45 to 75 cm (Fr 12 to 21)

10/240	Fr 06 – 08: female flexible mount with cap – Fully XRO tube
10/240	Fr 09: female flexible mount with cap – Transparent and XRO tube
10/240	Fr 12 – 14 – 16: flexible funnel without cap – Transparent and XRO tube
10/120	Fr 18 – 21: flexible funnel without cap – Transparent and XRO tube.

Code 2391

1381 Polyurethane duodenal feeding tube with double funnelled connector - 125 cm

Transparent PUR tube with XRO line. Closed tip. 4 lateral eyes.
Lateral port with cap. Centimetre graduations from 5 to 70 cm.
The lateral port of the proximal connector allows medication to be administered without interrupting the flow of enteral nutrition solutions.

50/300	Fr 08 - 10 - 12
50/150	Fr 14 - 16 - 18 - 21.

Code 1381

392 Gastro-duodenal tube - 125 cm

Weighted duodenal tube, Ryle type. Transparent PVC tube with XRO line and weighted metal tip. 4 lateral eyes. Markings at 45, 55, 65 and 75 cm.

50/300	Fr 10: female flexible mount with cap
50/300	Fr 12: flexible funnel without cap
50/200	Fr 14 – 16 – 18 – 20: flexible funnel without cap.

Code 392

1396 Polyurethane gastro-duodenal tube - 125 cm

25/150

Transparent PUR tube with XRO line and **tungsten weighted tip.**
4 lateral eyes. Centimetre graduations from 20 to 70 cm.
Fr 09 - 14 - 18.

Code1396

2394 Silicone gastro-duodenal tube - 125 cm

Transparent tube with XRO line and **weighted metal tip**.
4 lateral eyes. Markings every 5 cm from 45 to 75 cm.

10/240	Fr 10: female flexible mount with cap
10/240	Fr 12 – 14 – 16: flexible funnel without cap
10/120	Fr 18 – 21: flexible funnel without cap.

Code 2394

2396 Silicone gastro-duodenal tube

Transparent and XRO tube with **tungsten weighted tip**.
4 lateral eyes. Markings every 5 cm from 25 to 75 cm.

25/300	Fr 06: **Length 90 cm** – Female flexible mount with cap
25/300	Fr 09: **Length 125 cm** – Female flexible mount with cap
25/300	Fr 14: **Length 125 cm** – Flexible funnel without cap
25/150	Fr 18: **Length 125 cm** – Flexible funnel without cap.

Code 2396

Gastric tubes

390 Tubaflex - 100 cm

Transparent PVC tube with XRO line, 4 lateral eyes and open tip.
Centimetre graduations from 5 to 75 cm.

50/300	Fr 10: Female flexible mount with cap
50/300	Fr 12 – 14 – 16: Flexible funnel without cap
50/200	Fr 18 – 21: Flexible funnel without cap.

Code 390

2316 Tubaflex silicone gastric tube - 125 cm

Transparent and XRO tube. Open tip and one lateral eye.
Markings every 5 cm from 45 to 75 cm.

10/240	Fr 10: Female flexible mount with cap
10/240	Fr 12 – 14 – 16: Flexible funnel without cap
10/120	Fr 18 – 21: Flexible funnel without cap.

Code 2316

350 Stomach washout tube, Faucher type - 150 cm

PVC tube with 4 lateral eyes and open tip.
Centimetre graduations from 15 to 75 cm.

15	Fr 27 – 30 – 33 – 36 .

Dual-flow gastric tubes

340   **Gastric tube**

1340   **Polyurethane gastric tube**
10/180

Transparent PVC (code 340) or PUR (code 1340) tube with XRO line and closed tip.
Markings at 25, 35 and 45 cm (6 and 8 Fr), 45, 55 and 65 cm (10 Fr) or 45, 55, 65 and 75 cm (12 to 36 Fr) from the distal tip. Conical adaptor on the main channel for connecting to suction.
This tube is used to prevent the accumulation of gastric secretions and air, thus allowing decompression of the stomach by continuous aspiration without trauma to the gastric mucosa.
Fr 06 – 08: 6 lateral eyes – **Length 60 cm**
Fr 10: 10 lateral eyes – **Length 90 cm**
Fr 12 – 14 – 16 – 18 – 21* – 30* – 36*: 10 lateral eyes – **Length 120 cm**
N.B. Fr 30 and Fr 36 are only available for reference 340.
* Code 1340.21: box: 10 units – case: 120 units.
   Code 340.30/36: box: 15 units.

Dual-flow gastric tube

852.01   **Non-return valve**
30/1440

Connects to the lateral port of dual-flow gastric tubes codes 340 and 1340.

Code 852.01

Jejunostomy

2300.00   **Jejunostomy tray**
1/20

Specially designed for intra-mural jejunostomy using a needle.

Tray presentation containing:
- 1 fully XRO silicone catheter, length 60 cm - Ø 2.0 x 3.2 mm
- 1 Desilet introducer
- 1 Alene needle Fr 10
- 1 detachable compression hub (code 2196.30)
- 1 17G needle – Length 98 mm
- 2 male/male Luer-lock connectors (code 893.00).
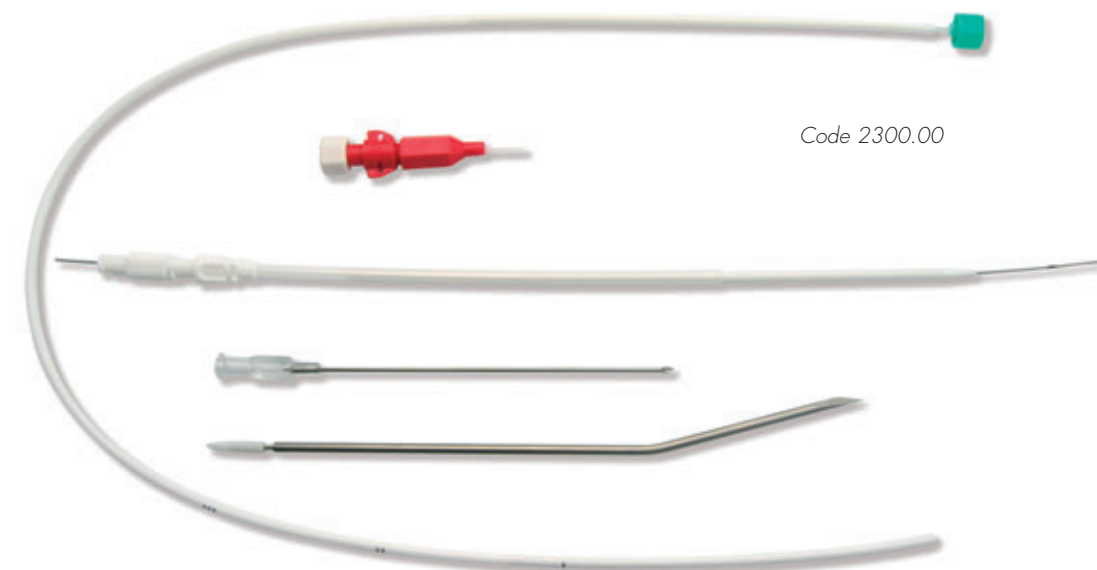
Code 2300.00

Enteral feeding accessories

396.01   **Anti-I.V. safety adaptor**
20/1920

Code 396.01

2390   **Stylet for introducing soft, closed tip silicone tubes**
10/240

For use only with tubes with closed tip.
The stylet must be moistened to activate its hydrogel coating.
Code 2390.101: for 8 to 10 Fr tubes
Code 2390.201: for 12 to 21 Fr tubes.

Code 2390.101

RESPIRATORY TRACT/
WOUND DRAINAGE

CONTINUOUS POSITIVE AIRWAY PRESSURE: VYGON/BOUSSIGNAC CPAP

Brochure

Device for respiratory assistance for patients breathing spontaneously. Compatible with all face masks, endotracheal tubes and tracheostomy tubes. This is an open system. Pressure is generated by the injection of gases passing through micro-capillaries (located all around the CPAP device) increasing in speed and generating turbulence therefore creating a "virtual valve". The CPAP device has two ports: a green one with integral oxygen connecting tube and a translucent colourless port for:
- controlling pressure (use manometer code 527.01)
- monitoring CO_2
- adding oxygen.

▶ **Physiological effects of this product are as follows:**

On ventilation:
- Improved gas exchange (elevation of FRC, improvement of Va/Q match) with redistribution of the alveolar liquid to the interstitial space in the case of pulmonary oedema.
- Decreased pulmonary resistance
- Decreased work of breathing.

Haemodynamic effects:
- Increase of both cardiac and systolic index:
   • Decrease of left ventricular preload (CPAP reduces venous blood return)
   • Decrease of both: left ventricular post load and transmural pressure.

▶ **Main indication: Acute pulmonary oedema (APO)**

Always associate C.P.A.P. and medical treatment (nitrates, diuretics…).
Benefits of a C.P.A.P. treatment:
- Prompt clinical and gasometric improvement
- Decreased number of endotracheal intubations.

A C.P.A.P. treatment is recommended in case of medium and severe APO (signs of ventilatory distress and/ or respiratory frequency > 25 respiratory cycles and/ or SpO_2 in patient bearing an O_2 high concentration mask < 95%).
The treatment must start immediately when the diagnosis is made, before inserting an I.V. catheter, starting at a pressure level of 7.5 cm H_2O and increasing up to 10 cm H_2O if no or insufficient patient improvement.

Indications:
- Acute pulmonary oedema (APO)
- In hypoxemia, CPAP improves PaO_2 without the need for endotracheal intubation
- Prevention of post-operative atelectasis
- Weaning from artificial ventilation
- Chronic obstructive pulmonary disease (use air to generate the pressure).

Advantages:
- Very simple to use
- Very low dead space and small size
- Bronchoscopy can be performed in patients with severe hypoxemia
- Open system, making it possible to communicate with the patient, which helps to reduce stress
- Reduces work of breathing due to the virtual valve which has no inertia.

VYGON

VYGON/BOUSSIGNAC CPAP RANGE

Brochure

5570.13 Vygon / Boussignac CPAP
5/120
CPAP device and manometer connector.
Oxygen connecting tube: Length 200 cm.

5561 CPAP kit (with mask)
1/24
Contents:
- 1 CPAP device and manometer connector
- 1 face mask (4 sizes)
- code 5561.303 (adolescent)
- code 5561.403 (adult – small)
- code 5561.503 (adult – medium)
- code 5561.603 (adult – large)

5562 CPAP kit (with mask and fixation harness)
1/24
Contents:
- 1 CPAP device and manometer connector
- 1 silicone fixation harness
- 1 face mask (4 sizes)
- code 5562.303 (adolescent)
- code 5562.403 (adult – small)
- code 5562.503 (adult – medium)
- code 5562.603 (adult – large)

5562.802 Emergency CPAP kit
1
Kit designed for use in emergency situations (pre-hospital care).

Kit containing:
- 2 CPAP devices code 5570.13
- 1 adult mask (small) code 5557.45
- 1 adult mask (medium) code 5557.55
- 1 adult mask (large) code 5557.65
- 1 silicone harness code 5559.01
- 1 CPAP manometer code 527.01
- 1 manometer attachment cord
- 1 oxygen flowmeter code 5563.02 (complies with AFNOR standard)*
- 1 x 20 ml syringe to inflate cushion
- 1 nebulizer
- 1 FiO_2 device (code 5566.01)
Other standards (DIN, BSI, Nordic, etc.) contact your Vygon representative.

VYGON

CPAP BOUSSIGNAC AND NEBULISATION

Device for respiratory assistance for patients breathing spontaneously allowing nebulisation of broncho-dilators together with a positive pressure.

▶ **The use of nebulized sympathomimetics** is recommended during acute asthma exacerbations. Indeed this route is more effective and entails fewer side effects than when given intravenously.

▶ **The additive effect of CPAP** allows:
- More distal delivery of the medication
- Reduction of pulmonary resistance
- Decreased work of breathing
- Reduction or even elimination of the Auto-PEEP
- Increased deposition of the nebulized medication by 30%
- Improved administration of broncho-dilators
- Prompt clinical and gasometric improvement.

▶ **Main indication for CPAP and nebulisation: acute asthma**
Make sure to always combine CPAP and conventional medication (beta 2 mimetics and anticholinergic + systemic therapy with corticoids).

CPAP and nebulisation is recommended in case of acute asthma exacerbations (expiratory peakflow < 50%). This technique must be used immediately when the diagnosis is made and the treatment with nebulisation is decided.
Pressure to be applied in the case of acute asthma is 2 to 4 cm H_2O.
The flowrate to be applied on the nebulizer is 6 liters/min.

Renew nebulisation based on clinical improvement of expiratory peakflow and the SpO_2: nebulisation can be renewed every 20 minutes based on the clinical state of the patient.

5577.013 CPAP kit and nebulizer (without mask)
1/24

Contents:
- 1 CPAP device and manometer connector
- 1 nebulizer.

5571 CPAP kit and nebulizer (with mask)
1/24

Contents:
- 1 CPAP device and manometer connector
- 1 nebulizer
- 1 face mask (4 sizes)
code 5571.303 (adolescent)
code 5571.403 (adult – small)
code 5571.503 (adult – medium)
code 5571.603 (adult – large).

5572 CPAP kit and nebulizer
1/24

(with mask and fixation harness)

Contents:
- 1 CPAP device and manometer connector
- 1 nebulizer
- 1 silicone fixation harness
- 1 face mask (4 sizes)
code 5572.303 (adolescent)
code 5572.403 (adult – small)
code 5572.503 (adult – medium)
code 5572.603 (adult – large).

CPAP BOUSSIGNAC ACCESSORIES

527.01 CPAP manometer
1

Connects to colourless translucent port on CPAP device.
Indicates each centimetre of H_2O from 0 to 25 cm.
Encased in a protective polyurethane housing.
Spare connecting tube available under code 5558.053

5558.053 Manometer connecting tube
10/240

Spare CPAP manometer (code 527.01) connecting tube.

Code 527.01

5563.01 Air flowmeter

5563.02 Oxygen flowmeter
1

Measures flow rate up to 30 liters/min while standard flowmeters only measure flow rates up to 15 liters/min. Complies with AFNOR standard. Other standards (DIN, BSI, Nordic, etc.) contact your Vygon representative.

Code 5563.01

5566.01 FiO$_2$ regulator device for Boussignac CPAP
5

Device which fits in between the facial mask and the Boussignac CPAP.
Through a leak generated by the device, the FiO_2 can be modified.
The FiO_2 regulator device comes with an angle to avoid the patient receiving a direct flow of oxygen in the eyes.
This product allows to change the FiO_2 in emergency conditions when air is not available (pre-hospital care).
Indeed, this product is perfectly adapted to COPD patients requiring ventilation assistance.
Possible values are 30%, 50% and 100%.

Code 5566.01

555.01   15F/22F connector
20/240

Allows CPAP device to be connected to E.T. tube (or tracheostomy cannula) of an intubated patient to assist in re-establishing respiratory function.

Code 555.01

884.06   Y connector
50/200

Allows the connection of the Boussignac CPAP to a source of air and a source of oxygen to modify the FiO$_2$.

FACE MASKS

5557   Face mask
5

Disposable mask, inflatable cushion, vanilla scented.
Colour code on ring for fixation harness (except sizes 1 and 2). Not sterile.

Code 5557.15   Code 5557.25   Code 5557.35   Code 5557.45   Code 5557.55   Code 5557.65

Code	Size	Corresponds to body size	Colour code	Connections mm
5557.15	1	Neonatology	-	15
5557.25	2	Child	-	15
5557.35	3	Adolescent	●	22
5557.45	4	Adult - small	●	22
5557.55	5	Adult - medium	●	22
5557.65	6	Adult - large	●	22

5559.01 Silicone fixation harness for face mask
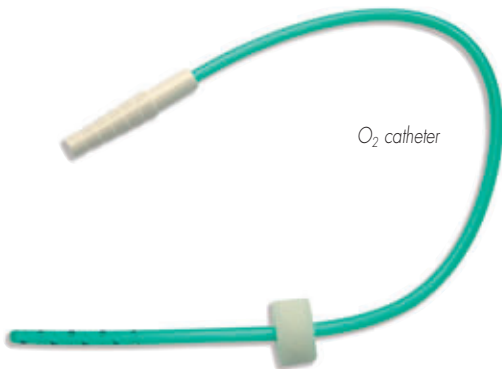**5/120**

Silicone head strap. Not sterile.

OXYGEN THERAPY DEVICES

For paediatric silicone nasal oxygen cannulae, see page 41

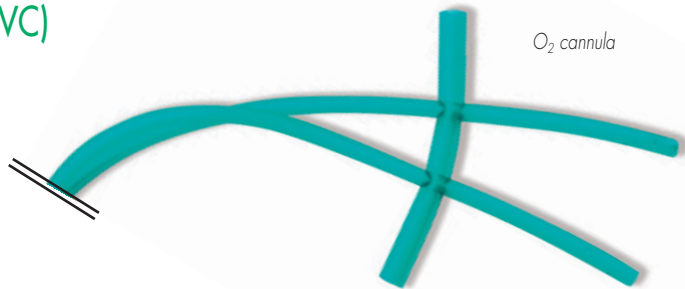### 595   Nasal oxygen catheter (PVC)
50/450

Fr 08 – 10 – 12 – 14 – 16 – 18: Length 40 cm.

O$_2$ catheter

596.14   Nasal oxygen cannula (PVC)
25/150

Adjustable nasal cannulae.
Fr 14: Length 100 cm.

O$_2$ cannula

597   Oxygen connecting tube (PVC)
20/120

Fr 21: Length 180 cm.

O$_2$ connecting tube

598.00   Oxygen mask (PVC)
20/120

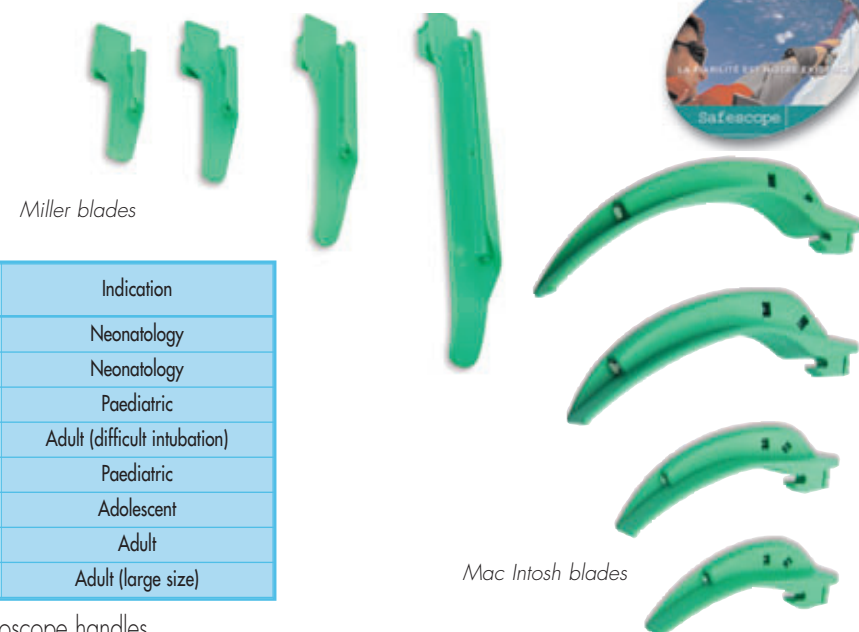Fitted with a connecting tube (PVC): Length 150 cm.

O$_2$ mask

LARYNGOSCOPE WITH DISPOSABLE BLADES

691 Safescope laryngoscope blade: Miller and Mac Intosh type

20/180

Disposable, sterile laryngoscope blade, with fibre optic light source. **Supplied in a protective cover.**

Miller blades

Code	Type	Indication
691.20	Miller n°00	Neonatology
691.10	Miller n°0	Neonatology
691.11	Miller n°1	Paediatric
691.12	Miller n°2	Adult (difficult intubation)
691.01	Mac intosh n°1	Paediatric
691.02	Mac Intosh n°2	Adolescent
691.03	Mac Intosh n°3	Adult
691.04	Mac Intosh n°4	Adult (large size)

N.B. For use only with Safescope laryngoscope handles.

Mac Intosh blades

692 Safescope laryngoscope handle

1/4

Reusable laryngoscope handle with Xenon bulb.
The handle is completely waterproof.
It may be cleaned using hospital disinfectants or immersed in a disinfectant bath.
Before sterilizing the handle in an autoclave, remove the batteries and the bulb.
N.B. Safescope laryngoscope handles should only be used with Vygon disposable blades.

Code 692.03

Code	Type	Batteries (not supplied)
692.01	Standard handle	LR 14 (x2)
692.02	Short handle	LR 6 (x2)
692.03	Thin handle	LR 6 (x2)

Code 692.02

Code 692.01

692.81 Spare bulb for Safescope laryngoscope

1/25

Xenon bulb ensuring bright light.
Supplied with a special tool for insertion / removal.

Code 692.81

E.T. TUBES WITH LOW PRESSURE CUFF

General features of Vygon cuffed E.T. tubes:
- Transparent PVC tube with XRO line
- Oral /nasal intubation
- 37° bevel
- 15 mm adaptor
- Low pressure cuff

514/514 K Endotracheal tube
Code 514: soft tube, code 514 K: more rigid tube.

509 K Endotracheal tube with Murphy eye

518 Endotracheal tube
For long-term anaesthesia, resuscitation, intensive care.
Tubes 509 K and 514 (K) are recommended for **oral** intubation.
Tube 518, **soft tube**, is recommended for **nasal** intubation.

Code			Int. Ø mm	Ext. Ø mm	Length mm	Box/case
509.50 K	514.50 (K)	518.50 A*	5.0	7.0	250	20/160
509.55 K	514.55 (K)	518.55 A*	5.5	8.0	250	20/160
509.60 K	514.60 (K)	518.60 A	6.0	8.5	300	20/160
509.65 K	514.65 (K)	518.65 A	6.5	9.0	300	20/160
509.70 K	514.70 (K)	518.70 A	7.0	10.0	325	20/140
509.75 K	514.75 (K)	518.75 A	7.5	10.5	325	20/140
509.80 K	514.80 (K)	518.80 A	8.0	11.0	325	20/140
509.85 K	514.85 (K)	518.85 A	8.5	11.7	325	20/140
509.90 K	514.90 (K)	518.90 A	9.0	12.5	325	20/140
509.95 K	514.95 (K)	518.95 A	9.5	13.0	325	20/140
509.10 K	514.10 K	-	10.0	13.5	325	20/140

*Length 300 mm

Code 514.75

TRACHEOSTOMY

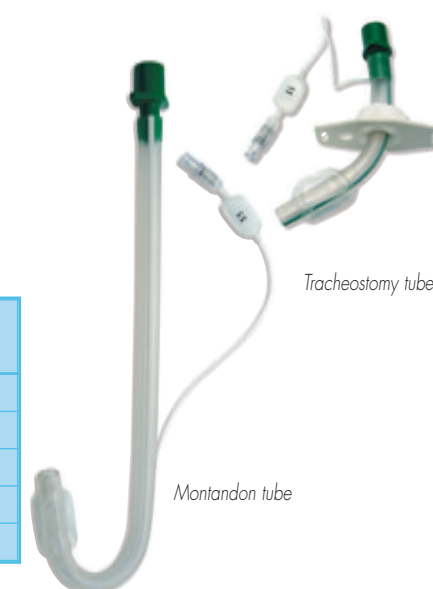### 523 Tracheostomy tube
1/90

PVC tube with low-pressure cuff. Adjustable fixation collar.

524 Montandon tube
20/120

PVC tube with low-pressure cuff.

Code		Int. Ø - Ext. Ø mm	Fr	523 Length mm
523.26	524.26	6 - 8.5	26	110
523.30	524.30	7 - 10	30	115
523.33	524.33	8 - 11	33	125
523.36	524.36	9 - 12	36	135
523.39	524.39	10 - 13	39	145

Tracheostomy tube

Montandon tube

BOUSSIGNAC CPR SYSTEM

• New concept of E.T. tube with capillaries moulded into the tubing wall. When gas is injected through these capillaries, turbulence is created in the distal end of the tube, creating a "virtual valve". Continuous insufflation of 15 liters/min of oxygen into the microcapillaries generates intra pulmonary pressure of 10 cm H_2O.

• **A single person** resuscitating can perform continuous external cardiac massage, as it is not necessary to interrupt cardiac massage for ventilation. The cardiac massage, as well as the continuous insufflation of oxygen improves overall haemodynamics and therefore preserves the vital organs as much as possible.

• The proximal end of the tube is open to the air. This helps prevent barotrauma caused by the lack of synchronisation between the resuscitator performing cardiac massage and the resuscitator ventilating the patient.

• The continuous flow of oxygen allows satisfactory CO_2 elimination due to constant dead space washout. Furthermore, because the oxygen exits close to the carina, the quality of the alveolar air is improved.

Cardiac massage, carried out without any interruption and associated with continuous insufflation of oxygen, ensures a performing ventilation.
This technique allows a **better oxygenation**, a **better haemodynamic** and a **decrease of complications** related to cardiac massage.

Characteristics of the tube for cardio-respiratory arrest:
- Transparent PVC tube with radiopaque line
- 5 micro-capillaries for intra-tracheal administration of oxygen
- 1 capillary for inflating the low pressure cuff
- 2 capillaries for capnometry and/or pressure monitoring and/or injecting medication (Adrenalin).

6508   Boussignac CPR system
5

Flexible blister pack containing:
- 1 tube for cardiac massage
with connecting tube to oxygen supply

Code 6508

Code	Int. Ø - Ext. Ø mm	Length mm	Capillaries for oxygen administration	
			Ø mm	Number
6508.70	7.0 - 10.0	325	0.65	5
6508.75	7.5 - 10.5	325	0.75	5
6508.80	8.0 - 11.0	325	0.85	5

ARTIFICIAL NOSES*

Hygroflux devices are artificial noses with a foam impregnated with Calcium Chloride (hygroscopic agent) and Chlorhexidine to prevent bacterial proliferation. This product is not sterile because sterilization would denature the Chlorhexidine. Hygroflux complies with ISO 9360 requirements. Hygroflux must be replaced at least every 24 hours and/or according to the needs to avoid an increase in resistance due to accumulation of possible secretions.

501.01   Hygroflux 1
25/600

Adult resuscitation, long-lasting anaesthesia, intensive care. Connections: 15 mm male – 15 mm female / 22 mm male.
Recommended tidal volumes: 150 – 1500 ml.

Hygroflux 1

501.02   Hygroflux 2
30/720

Adult/child anaesthesia – Accident and Emergency, EMS – Face mask ventilation.
Connections:15 mm male for Y connector / 15 mm female for E.T. tube - 22 mm for face mask.
Recommended tidal volumes: 80 – 600 ml.

501.04   Hygroflux neonate
40/960

See page 43

Code 501.04

Hygroflux 2

501.10/20   Hygroflux tracheo
30/720

For patients bearing a tracheostomy tube but breathing spontaneously.
Specially designed for ambulatory patients. 5 mm connector for oxygen supply.
15 mm female connector. **Code 501.20:** similar to code 501.10 but the product features a valve allowing the passage of a suction tube.

Code	Weight g	Length mm	Dead space ml	Resistance
501.01	10	83	35	30 liters/ min: 0.7 cm H_2O
501.02	8	69	20	30 liters/ min: 0.7 cm H_2O
501.04	2	32	2*	15 liters/ min: 1.1 cm H_2O
501.10	5	29	12	30 liters/ min: 0.15 cm H_2O
501.20	5	29	12	30 liters/ min: 0.15 cm H_2O

*3 ml for spontaneous breathing

Hygroflux tracheo

805   Flexible connector

40/960 **Code 805.01:** 15 mm male / 15 mm female connections
25/600 **Code 805.02:** Code 805.02: 15 mm female / 22 mm female connections. Used with codes 551.31 and 553.31. Not sterile.

Code 805.01

* Only available in some countries. Contact your Vygon representative.

HUMIDIFYING FILTERS

ARTIFICIAL NOSES WITH ANTI-BACTERIAL AND ANTI-VIRAL FILTER*

Filtraflux is placed between the endotracheal tube of the patient and the Y connector of the ventilator. MBS casing with connector for capnometry. Foam impregnated with Calcium Chloride (Hygroscopic agent) and Chlorhexidine preventing bacterial proliferation.
Polypropylene filter. Mechanical and electrostatic filtration. This product is not sterile because sterilization would denature the Chlorhexidine. Filtraflux must be replaced at least every 24 hours. Filtraflux complies with ISO 9360 requirements.

551.01   Filtraflux (large model)
15/360

Distal and proximal connections: 15/22 mm male/female
Recommended tidal volumes: 200 – 1500 ml.

551.31   Filtraflux (large model)
20/240

With integral flexible connecting tube.
Length of the flexible connecting tube 150 mm. 15/22 mm male female / 15 mm female.
Recommended tidal volumes: 200 – 1500 ml.

Code 551.31

551.02   Filtraflux (small model)
30/720

Connections: 15 mm male and 15/22 mm female / male
Recommended tidal volumes: 70 – 600 ml.

Code	Weight g	Length mm	Dead space ml	Resistance
551.01	33	113	55	30 liters/min: 0.8 cm H$_2$O
551.31	42	245	80	30 liters/min: 1 cm H$_2$O
551.02	17	90	22	15 liters/min: 1 cm H$_2$O

Code 551.02

* Only available in some countries. Contact your Vygon representative.

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RESPIRATORY FILTERS

ANTI-BACTERIAL AND ANTI-VIRAL FILTERS*

MBS casing with connector for capnometry. This device can be placed near the patient between the endotracheal tube and the Y connector to protect the respiratory circuit of a contaminated patient.
However it can only be used in that position for a short time, because this device does not allow humidification nor heating of ventilation gases. More frequently, the respiratory filter is placed next to the ventilator at the distal end of the expiratory tubing, but other positions are possible. The filter must be changed at least every 24 hours.
Complies with ISO 9360 requirements. Not sterile.

Code 553.01

553.01   Respiratory filter (large model)
15/360

Connections: 15/22 mm male/female. and 15/22 mm female/male.

553.31   Respiratory filter (large model) with flexible tubing
20/240

Length of the integral flexible connecting tube: 150 mm.
Connections: 15/22 mm male/female and 15 mm female.

Code 553.31

553.02   Respiratory filter (small model)
30/720

Connections: 15 mm male and 15/22 mm female/male.

Code 553.02

553.03   Hydrophobic filter
10/240

HEPA type anti-bacterial and anti-viral filter.
HEPA: High Efficiency Particulate Air Filtration. The hydrophobic membrane is not impregnated by fluids which ensure a continuous filtrating functionality. Mechanical type filtration.
Efficiency of the bacterial/viral filtration: 99.9999 / 99.99993 % for 3µm particles and 99.9995 % for 0.3 µm particles.
Connections: 15 mm male and 15/22 mm female/male.
Recommended tidal volumes: 250 – 1500 ml.

Code	Weight g	Length mm	Dead space ml	Resistance
553.01	34	113	55	30 liters/min: 0.7 cm H$_2$O
553.31	42	245	80	30 liters/min: 0.9 cm H$_2$O
553.02	17	90	22	15 liters/min: 1 cm H$_2$O
553.03	43	113	83	30 liters/min: 1.3 cm H$_2$O

Code 553.03

* Only available in some countries. Contact your Vygon representative.

157

INTUBATION ACCESSORIES

5576   Bougie Boussignac
10/90

Disposable device used in case of difficult intubation (Cormack superior to 2)
- Standard procedure recommendation for difficult intubation is to use as first intent long
  and flexible guides.
- This technique is very effective. According to several studies,
  the bougies treat more than 96 % of difficult intubations.
- The bougie Boussignac is the first intent device in the case of difficult intubation.
Length 60 cm – Markings every 10 cm – Angle 40°
Code 5576.01: For E.T. tubes sizes 6 to 10 mm
Code 5576.02: For paediatric E.T. tubes sizes 4 to 5.5 mm
Benefits: A double duct allows oxygenation (up to 15 liters/min)
              with no risk of barotrauma thanks to decompression openings.

Bougie Boussignac

5511   Guedel airway (EVA)
Rounded atraumatic distal end. With bite-block to prevent occlusion.

Code	Traditional Size	Size according to (ISO 5364)	Length mm	Colour	Box/case
Paediatrics					
5511.30	000	3.5	36	● (orange)	20/960
5511.20	00	5	51	● (blue)	20/960
5511.10	0	6	61	● (black)	20/480
Adults					
5511.01	1	8	77	● (red)	20/240
5511.02	2	9	94	● (green)	20/240
5511.03	3	10	100	○ (white)	20/240
5511.04	4	11	112	● (yellow)	20/240

In accordance with ISO 5364, the size of an oro-pharyngeal airway is
identified by its nominal length : see « L » expressed in millimetres.

(L)

Code 5511.01

### 526.00   Right angled swivel connector
20/240

Swivel connector for E.T. tubes to ISO standard 15M/15F connections

Code 526.00   *Code 526.01*

526.01   Right angled double swivel connector
20/240

For bronchoscopies carried out by means of an endotracheal tube. ISO standard 15M/15F connections.

528   Adjustable fixation collar and fixation tape for E.T. tube
20/240

Code	For tube int. Ø mm
528.60	5.5 & 6
528.70	6.5 & 7
528.80	7.5 & 8
528.90	8.5 & 9
528.100	10

Code 528
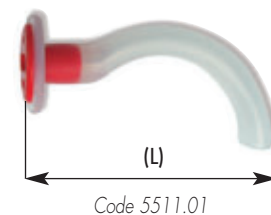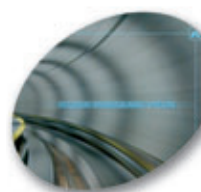
For a detailed description of paediatric tracheal and bronchial suction tubes, see pages 44

Colour code for tracheal suction tubes with large connector codes 70530, 70531, 70533, 70545
and 70565 according to ISO 8836.

Fr size	04*	05	06	07	08	10	12	14	16	18	21*
Colour	○	●	●	●	●	●	○	●	●	●	●

* This size is not mentioned in ISO 8836.

530/70530   Suction tube (PVC)
50/600

Soft tube. Open, straight and rounded tip.
Code 530: Tubes 4 to 10 Fr with small connector – 12 to 18 Fr with large connector.
Code 70530: large connector with colour code for all sizes.
Fr 04 – 05 – 06 – 07 – 08: **Length 27 cm**
Fr 10 – 12 – 14 – 16 – 18: **Length 47 cm**

Code 530.06

Code 70530.06

531/70531   Suction tube (PVC)
50/600

Soft tube. Open, straight and rounded tip.
Code 531: large connector without colour code
Code 70531: large connector with colour code for all sizes.
Fr 10 – 12 – 14 – 16 – 18: **Length 57 cm**

Code 531

Code 70531

533/70533   De Lee suction tube (PVC)
50/600

Open, straight and rounded tip.
Code 533: Tubes 4 to 10 Fr with small connector – 12 to 21 Fr with large connector.
Code 70533: large connector with colour code for all sizes.
Fr 04 – 05 – 06: **Length 27 cm**
Fr 07 – 08 – 10 – 12 – 14 – 16 – 18 – 21: **Length 33 cm**

Code 533.06

Code 70533.06

545/70545 Tracheal suction tube (PVC)
50/600

Open, straight and rounded tip. One lateral eye.
Fr 06 – 07 – 08: **Length 38 cm** – Code 545 with small connector.
Fr 10 – 12 – 14 – 16 – 18 – 21*: **Length 47 cm** – Code 545 with large connector without colour code.
Code 70545: large connector with colour code for all sizes.
* Code 545.21 or 70545.20

Code 545

565/70565 Suction tube (PVC) - 57 cm
50/600

Open, straight and rounded tip.
Fr 04* - 05 – 06 – 07 – 08: code 565 with small connector.
Fr 10 – 12 – 14 – 16 – 18 – 20**: code 565 with large connector without colour code.
Code 70565: large connector with colour code for all sizes.
* only available with code 565
** only available with code 70565

Code 565

535 Control suction tube (PVC)
50/450

Open tip. Proximal connector with lateral eye for finger tip control (with integral closing cap).
Fr 04 – 05 – 06 – 07 – 08 – 10: with 2 lateral eyes
Centimetre graduations from 5 to 20 cm. **Length 29 cm**
Fr 12 – 14 – 16 – 18: no lateral eyes
Centimetre graduations from 5 to 20 cm. **Length 42 cm**

802 Connector for finger-tip suction control
20/480

Code 802.01: Fr 04 – 06 – 08 – 10 suction tubes with small connector
Code 802.00: Fr 12 – 14 – 16 – 18 suction tubes

Code 535

Code 802

For a detailed description of paediatric mucus extractors, please see page 45

534 Mucus extractor
Each pack contains a separate lid for safe sealing and transport of the aspirate.

Code	Suction catheter Fr	Capacity ml	Box/Case
534.10/101*	10 Fr attached + 6 Fr additional	25	25/150
534.16	16	25	20/120
534.20	10	70	15/120

* Code 534.101 : Connecting tube to vacuum source, with large connector

Code 534.10

536 Mucus extractor with adaptor for bronchoscopy
Each pack contains a separate lid for safe sealing and transport of the aspirate. Supplied with an adaptor code 816 (see below) and a connecting tube for the vacuum source.

Code	Int. Ø - Ext. Ø mm	Connecting tube length (cm)	Capacity	Box/Case
536.10	2.0 - 3.3	57	25	20/160
536.16	3.5 - 5.0	20	25	15/120
536.20	3.5 - 5.0	20	70	15/120

816.00 Adaptor for mucus extractor connection
30/2880 to a bronchoscope (male Luer / female Luer)

Code 816

Code 536

PROTECTED DISTAL BRONCHIAL SAMPLING

538 Aspisafe 2
20/300

Double catheter for blind bronchoalveolar lavage for diagnosis of ventilator-associated pneumonia. The distal end of the external (radiopaque) catheter is closed by a polyethylene glycol plug.
At the proximal end, there is a **spacer** between the external and internal catheters to avoid premature expulsion of the polyethylene glycol plug.
Code 538.34: Aspisafe 2 for bronchoscope

Code	Internal catheter (PEBAX – NOT XRO)		External catheter (PE – XRO)	
	Int. Ø - Ext. Ø mm	Length cm	Int. Ø - Ext. Ø mm	Length cm
538.25	1.0 - 1.7	65	2.0 - 2.7	60
538.34	0.9 - 1.3	95	1.4 - 1.9	90

Aspisafe 2
Code 538.34

Trocar drains for pleural drainage in neonates code 625, Joly pleural drain code 635: please see page 46

626 Thoracic trocar and drain
20/180

Transparent PVC drain with XRO line – 2 lateral eyes.
Handle ensures good grip and controlled insertion.
Markings every 2 cm from 2 to 14 cm (12 and 16 Fr), markings every 2 cm from 2 to 24 cm (20 to 32 Fr).
Fr 12 – 16: **Length 25 cm**
Fr 20 – 24 – 28 – 32: **Length 40 cm**

Code 626

636 Thoracic trocar and drain
10/90

Transparent PVC drain with XRO line – 2 lateral eyes and fixation collar.
Markings at 5, 10 and 15 cm from the tip.
Fr 14 – 18 – 20 – 24 – 28 – 30: **Length 28 cm**

Code 636

653 Thoracic drain
10/150

Transparent PVC drain with XRO line – 6 lateral eyes.
Non-traumatic proximal tip allowing connection after shortening. Markings every 2 cm from 2 to 24 cm after the eyes.
Fr 16 – 20 – 24 – 28 – 32: **Length 50 cm**

Code 653

2633 Silicone thoracic drain
20/180

Straight, rounded tip. Transparent and radiopaque tube.
Fr 18 – 21 – 24 – 27 – 30 – 33 – 36: **Length 50 cm**

Code 2633

681 Easydrain
10/90

Catheter for pleural drainage which is placed through an introducer needle using a handling sleeve.
Needle and sleeve are removed and the catheter is connected to a stopcock.
A conical adaptor is provided for connecting stopcock to suction or valve.
- 1 introducer needle with integral handling sleeve
- 1 drain (PE - XRO)
- 1 three-way stopcock and drain connector with silicone sleeve
- 1 conical adaptor
Colour coded by size on handling sleeve and drain connector.

Easydrain

Code	Colour code	Drain				Needle		
		Ext .Ø mm	Fr	Length cm	Perforations	Ext .Ø mm	G	Length mm
681.06	🟢	2.0	6	30	over 3 cm	2.42	13	57
681.082	🟡	2.7	8	40	over 4 cm	3.32	10	77
681.08	🔴	2.7	8	50	over 10 cm	3.32	10	77
681.10	🔵	3.3	10	50	over 10 cm	4.00	8	77

800.01 Heimlich valve adaptor
50/2400

Allows either the double valve (code 668) or single valve (code 669) to be connected to the drain for pleural drainage in neonates (code 625).

Code 800.01

669.10 Single valve for thoracic drainage, Heimlich type
25/150

668.00 Double valve for thoracic drainage
20/120

Valve body in flexible and transparent polyurethane with natural rubber sleeve in"duck's bill" shape acting as a non-return valve.
This device is connected directly onto the patient's pleural or thoracic drain (adult, paediatric), or indirectly, using connector code 800.01 and an extension tube for neonates and infants.
This product allows thoracic drainage to continue without risk to the patient even when transported, as the non-return valve means that the drain does not have to be clamped.
Code 668.00: this two chamber device differs from the single valve code 669.10 in that it is possible **to apply suction** by manual compression of the compartment marked with an arrow (vacuum approximately 150 mbar).

Code 669

Code 668

639 Complete tray for thoracic drainage
1/8

Code 639.08 Paediatric – Trocar drain code 625.08.
Code 639.14 Paediatric – Trocar drain code 636.14
Code 639.18 – Trocar drain code 636.18
Code 639.20 – Trocar drain code 636.20
Code 639.24 – Trocar drain code 636.24
Code 639.28 – Trocar drain code 636.28

Contents:
- 1 XRO trocar drain
- 1 60 x 50 cm fenestrated drape
- 2 rectangular cups for detergent and disinfecting agents
- 4 pads
- 8 10 x 10 cm gauze dressings
- 2 dressing forceps
- 2 10 ml syringes
- 1 38 x 1.2 mm (18G) needle for drug aspiration
- 1 15 x 0.5 mm (25G) needle for skinwheal
- 1 38 x 0.8 mm (21G) needle for local anaesthesia
- 1 90 x 1.2 mm (18G) needle for exploratory puncture*
- 2 suture needles
- 1 scalpel
- 1 dual suction valve
- 1 plastic bag with connector for collecting the drained liquid
- 1 coil of adhesive bandage, 75 mm wide
- 1 pair of gloves.
* 38 mm x 0.9 mm (20G) for codes 639.08 and 639.14.

Code 639

VYGON

5574 **Cannula for surgical suction, Yankauer type**
25/150

Cannula with suction thumb control. Double wrapped.
Fr 12 – 18 – 21: Length 25 cm.

5575 **Cannula for surgical suction, Yankauer type**
25/150

Double wrapped.
Fr 12 – 18 – 21: Length 25 cm.

650 **Continuous suction drain, Redon technique**
25/225

Transparent PVC drain with XRO line **perforated length 7 cm**.
Marking at 12 cm from the distal tip.
Fr 06 – 08 – 10 – 12 – 14 – 16 – 18: Length 50 cm

651 **Continuous suction drain, Redon technique**
25/225

Transparent PVC drain with XRO line **perforated length 14 cm**.
Marking at 19 cm from the distal tip.
Fr 08 – 10 – 12 – 14 – 16 – 18: Length 50 cm

658 **Alene needle**

Code	For introducing drains code	Length mm	Box/case
658.06	650.06	120	20/240
658.08	650/651.08	140	20/240
658.10	650/651.10	175	20/360
658.12	650/651.12	175	20/360
658.14	650/651.14	190	25/200
658.16	650/651.16	210	25/200
658.18	650/651.18	210	25/200

659 **Connecting tube for Redon bottle**
20/120

Length 125 cm. PVC tube.
Code 659.10 for 2 Redon drains 10 or 12 Fr
Code 659.14 for 1 Redon drain 14 Fr
Code 659.16 for 1 Redon drain 16 Fr
Code 659.18 for 1 Redon drain 18 Fr.

620 **Red-O-Pack**

Suction unit for surgical drainage under vacuum (PE – PVC)
Code 620.05: Single graduated container for aspiration of 450 ml fluid. To be used with code 660 connecting tube.
Quantity box/case: 10
Code 620.10. Quantity box/case: 1/8. Complete unit consisting of:
1 Red-O-Pack (code 620.05)
1 connecting tube (code 660.12)
2 suction drains (code 650.10)
1 Alene needle (code 658.10)
This unit can also be supplied with drains in size: 12 – 14 – 16 – 18 Fr.
Code 620.12: 2 Redon drains code 650.12. Quantity box/case: 1/8
Code 620.14: 1 Redon drain code 650.14. Quantity box/case: 1/8
Code 620.16: 1 Redon drain code 650.16. Quantity box/case: 1/8
Code 620.18: 1 Redon drain code 650.18. Quantity box/case: 1/8

621 **Mini Red-O-Pack**
1/48

Suction unit for surgical drainage under vacuum
For the drainage of small volumes after surgery (120 ml).
Code 621.06: equipped with a 6 Fr Redon suction drain and Alene needle
Code 621.08: equipped with a 8 Fr Redon suction drain and Alene needle

Mini Red-O-Pack

624 **Micro Red-O-Pack**

Suction unit for surgical drainage under vacuum
For the drainage of small volumes after surgery.
Code 624.26: 20 ml container 6 Fr drain and Alene needle. Quantity box/case: 20/160
Code 624.58: 50 ml container 8 Fr drain and Alene needle. Quantity box/case: 10/80

Micro Red-O-Pack

660 **Connecting tube for Red-O-Pack container**
15/90

Length 125 cm. For use with container 620.05. PVC tube.
Code 660.12 for two 10 or 12 Fr Redon drains
Code 660.14 for one 14 Fr Redon drain
Code 660.16 for one 16 Fr Redon drain
Code 660.18 for one 18 Fr Redon drain.

RESPIRATORY TRACT

164

VYGON

VYGON

165

RESPIRATORY TRACT

623   Vydrain 200 Luer-lock
40/960

Pre-vacuumed bottle for post-operative drainage.
Capacity: 200 ml – Initial vacuum: 900 mbar – Shock-resistant. Luer-lock connection and vacuum indicator.
Code 623.230: Plain bottle, without connecting tube.
Code 623.231: Drainage bottle and connecting tube (length 125 cm) with universal connector.

Code 623.230

623   Vydrain 400 Luer-lock
30/720

Pre-vacuumed bottle for post-operative drainage.
Capacity: 400 ml – Initial vacuum: 900 mbar – Shock-resistant. Luer-lock connection and vacuum indicator.
Code 623.430: Plain bottle, without connecting tube.
Code 623.431: Drainage bottle and connecting tube (length 125 cm) with universal connector.

623   Vydrain 600 Luer-lock
25/600

Code 623.630

Pre-vacuumed bottle for post-operative drainage.
Capacity: 600 ml – Initial vacuum: 900 mbar – Shock-resistant. Luer-lock connection and vacuum indicator.
Code 623.630: Plain bottle, without connecting tube.
Code 623.631: Drainage bottle and connecting tube (length 125 cm) with universal connector.

664.52   Connecting tube for Luer-lock Vydrain bottles
75

PVC connecting tube, length 125 cm.
With universal connector and Luer-lock connection.
Available with "Y" connector for use with 2 Redon drains under code 664.53. Quantity box: 25

Code 624.52

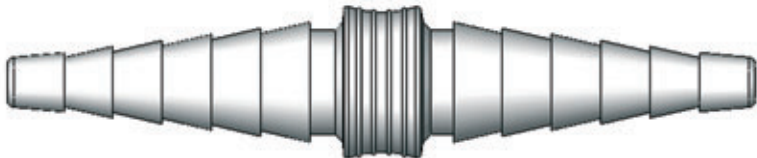Vydrain is only available in some countries. Contact your Vygon representative.

881.00   Universal straight double taper connector*
30/540

Code	Ext. Ø mm
881.00	6.5 - 15.0 / 6.5 - 15.0

* Material: ABS

Code 881.00

881   Straight double taper connector and adaptor (PA)
30/1440

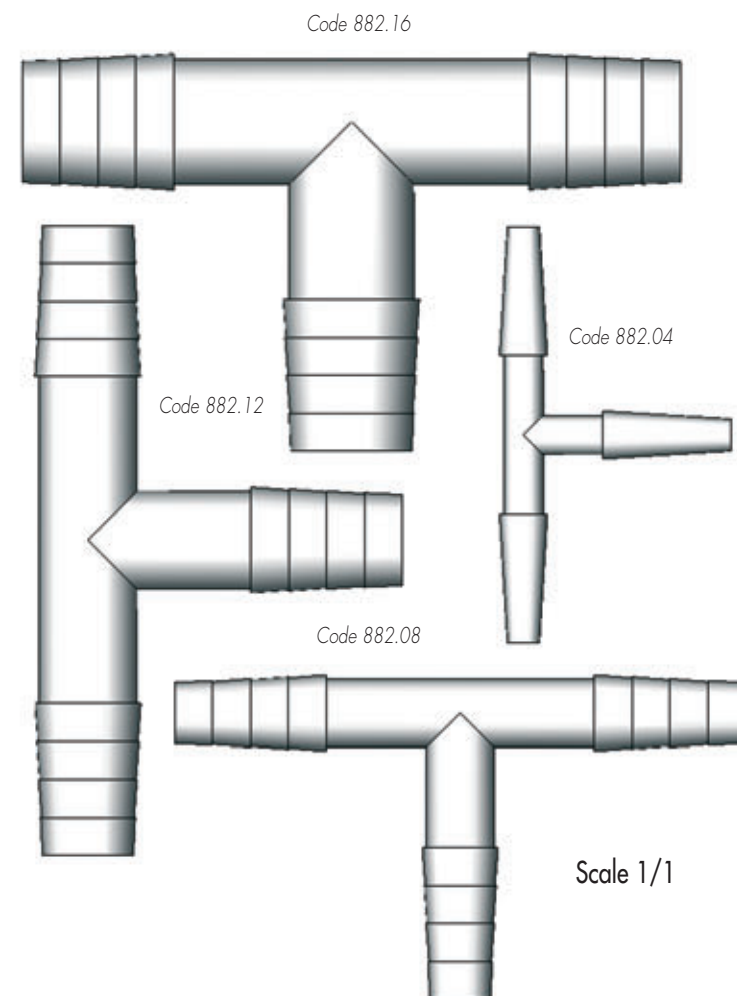| Code	Ext. Ø mm	Code	Ext. Ø mm	Code	Ext. Ø mm
881.33*	3.0 - 5.0 / 3.0 - 5.0	881.13	13.0 - 15.0 / 13.0 - 15.0	881.71	7.0 - 10.0 / 10.0 - 13.0
881.44*	4.0 - 6.0 / 4.0 - 6.0	881.37*	3.0 - 5.0 / 7.0 - 10.0	881.30	13.0 - 15.0 / 10.0 - 13.0
881.66*	6.0 - 8.0 / 6.0 - 8.0	881.31	3.0 - 5.0 / 10.0 - 13.0	881.57	13.0 - 15.0 / 7.0 - 10.0
881.77*	7.0 - 10.0 / 7.0 - 10.0	881.47*	4.0 - 7.0 / 7.0 - 10.0	881.35	13.0 - 15.0 / 5.0 - 7.0
881.11	10.0 - 13.0 / 10.0 - 13.0	881.51	5.0 - 7.0 / 10.0 - 13.0	881.53	13.0 - 15.0 / 3.0 - 7.0

* Quantity box/case : 30/2880

Code 881.31 *Code 881.37*
Code 881.47 *Code 881.66*
Code 881.51 *Code 881.44*
Code 881.71 *Code 881.33*
Code 881.30
Code 881.57
Code 881.35
Code 881.53
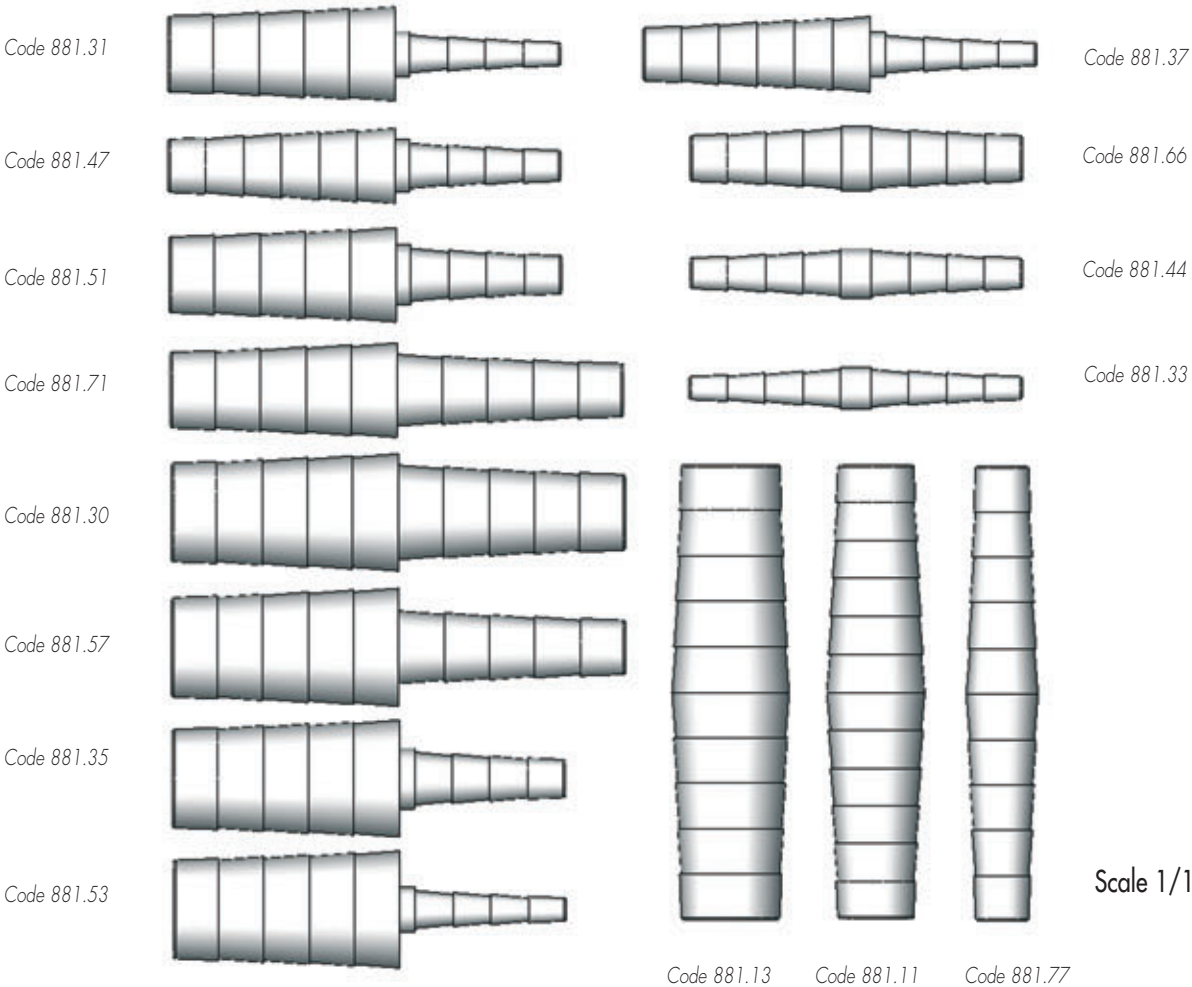
Scale 1/1

Code 881.13 *Code 881.11* *Code 881.77*

882   "T" connector (PA)

Code	Ext. Ø mm	Box/case
882.04	4 - 6	30/1440
882.08	8 - 10	30/720
882.12	12 - 14	30/720
882.16	16 - 18	30/360

Code 882.16

Code 882.12

Code 882.04

Code 882.08

Scale 1/1

884   "Y" connector (PA)

Code	Ext. Ø mm	Box/case
884.04	4 - 6	30/1440
884.08	8 - 10	30/720
884.12	12 - 14	30/720
884.16	16 - 18	30/360
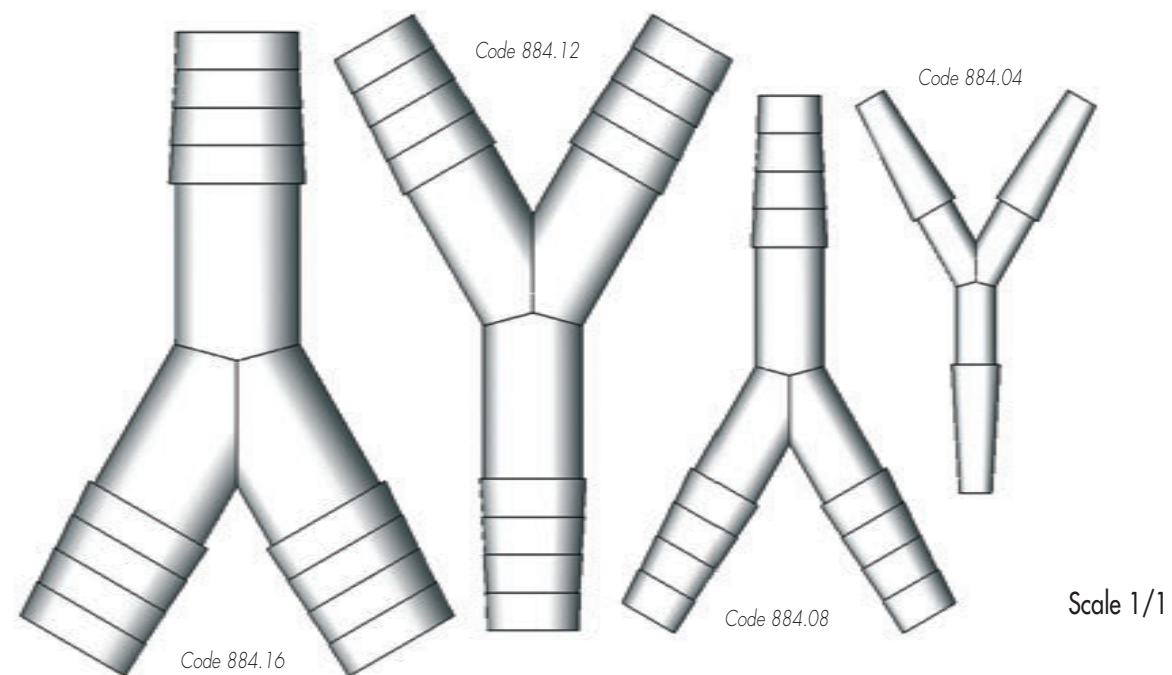
Code 884.12

Code 884.04

Code 884.16

Code 884.08

Scale 1/1

URINARY TRACT

Vesical catheters

420 **Straight vesical catheter** - 40 cm
50/600

Nelaton type vesical catheter (PVC)
Fr 04 - 06 - 08 - 10 - 12 - 14 - 16 - 18 - 21 - 24.

Code 420

2430 **Foley catheter** - 40 cm
30/180

Silicone coated. With 5/15 ml balloon (latex core).
Fr 12 - 14 - 16 - 18 - 20 - 22 - 24.

Code 2430

Rectal catheter

410 **Rectal catheter** - 40 cm

Transparent PVC catheter.
40/480 Fr 18 - 21 - 24
40/360 Fr 27 - 30 - 33 - 36.

Code 410

Hourly diuresis unit

Code 469.00

469.00 **Hourly diuresis unit** (CP) - 220 ml
10

Supplied with drainage bag (code 469.20).
Allows extremely precise reading of initial urine output.
Sites for continuous samplings at the connection to the urethral catheter
and at the bottom of the collection chamber.

469.20 **Urine bag for hourly diuresis unit**
20/240

Non-drainable bag (PVC) – 2000 ml.
Supplied sterile inside the bag only.

Accessories

Code 451.00

451.00 **Bulb syringe for irrigation and aspiration** - 100 ml
30/120

Rigid blister pack.

478 **Plastic spigot / Cap for large syringes**
30/1440

Code 478

VYGON

Latex allergies
Latex (NRL*) and Dry Rubber (DNR**)

* NRL: Natural Rubber Latex   ** DNR: Dry Natural Rubber

1 – DEFINITION AND COMPOSITION OF THE LATEX

Latex (NRL) is a milky liquid secreted by different plants and particularly by the Hevea Brasiliensis.
Fresh Hevea latex is made of approximately 35 % of particles of rubber (cis 1-4 polyisoprene), of 15 % of non rubbery particles (proteins, lipids, non-organic salts) in suspension within an aqueous liquid called serum.

After collection, the fresh latex is centrifuged to reach a concentration of 60 % of dry rubber. Various additives are then incorporated to permit manufacturing and conservation of latex (vulcanisation and stabilising agents, antioxidants, pigments). This concentrated liquid presentation including additives allows the manufacturing of various products such as surgical gloves, by dipping process.

These products can then be dried and vulcanised at a maximum temperature of 125° C to preserve the properties of the finished products.

The amount of residual extractable proteins of latex products made using this technique can vary according to the treatment that the latex goes through. This amount of residual extractable proteins is reduced by washing, chemical treatment or intensive vulcanisation. Thus a thorough washing can reduce by 80 to 90 % the amount of extractable proteins and allow the production of hypoallergenic gloves.

2 – LATEX ALLERGIES

There are 2 types of allergic reactions to latex:

- "Type I" allergy
It is due to the hydrosoluble proteins contained in the latex. This reaction of **immediate oversensitivity** occurs between 10 minutes to one hour after a cutaneous, mucosal or intravenous contact or by inhalation of starch powder which is the vehicle of allergens. Proteins can also leach into drug solutions in contact with latex and cause allergic reactions. The allergic reaction will appear in the form of erythema, oedemas and in the most serious cases in the form of an anaphylactic shock. These reactions of type I are the most serious but also the less frequent.

- "Type IV" allergy
This **delayed oversensitivity** is due to latex additives (particularly the vulcanisation accelerating agents and antioxidants).
Eczema appears between 24 and 48 hours after exposure around the contact area and disappears a few days after the eviction of the allergen.

3 – DRY RUBBER

In the case of dry rubber, the process used for latex transformation is quite different from the one explained above (dipping method). The latex is first transformed into dry rubber generally by acid coagulation. Then a thorough washing with water will take place followed by drying at 100/130°C. Some additives are incorporated and dry rubber is moulded under compression and vulcanised at a temperature of 160°C. **The thermosensitive allergenic proteins will thereby be eliminated.**

The rate of extractable proteins is then extremely low (30 times less than latex causing allergic reactions and, sometimes, this rate is so low that it cannot be detected).

4 - INVESTIGATION ABOUT DRY RUBBERS

Dr Turjanmaa (University Hospital of Tampere – Finland) who is a well-known specialist on this matter presented the results of his study on latex allergy at an international congress (Maison de la Chimie – Paris – January 11th, 1995).

14 samples of dry rubber and 5 derived products have been tested on 39 patients selected for their extreme sensitivity to latex to evaluate their allergenicity by:
- chemical quantitative analysis of extractable proteins and
- performing the allergologic prick test (cutaneous test for detection of dependent IgE allergies).

The results of these studies show that:

1) If a high amount of extractable proteins is contained in latex surgical gloves, this will provoke an important allergic reaction on patients oversensitive to latex. The opposite is also true.

2) Dry rubbers and dry rubber products not only have extremely low extractable protein contents, but also very low or negligible allergenicity.

The author concludes that therefore **these products (made with dry rubber) are generally not affected by protein allergy problems encountered with some latex products.**

CONCLUSION

1) The latex allergies are a real problem for the medical staff and the patients.
This is particularly the case with surgical gloves which are used more and more due to the risks of HIV contamination and prevention of nosocomial infections.

2) The occurrence of allergic reactions is influenced by the manufacturing process and the composition of the materials. It is consequently not correct to use the generic word "latex" for products which are very different as to their allergic properties and understand the risks related to both production processes.

3) Dry rubbers and dry rubber products not only have extremely low extractable protein contents, but also very low or negligible allergenicity. These products are generally not affected by protein allergy problem encountered with some latex products.

Finally note that the FDA requirements, in terms of labelling of medical devices containing components made of natural rubber (applicable since September 30th, 1998) have taken into account this risk difference – Products containing Natural Rubber Latex (NRL) must have the following warning: *"Caution: this product contains Natural Rubber Latex which may cause allergic reactions"*; for products containing Dry Rubber the label only states: *"This product contains Dry Natural Rubber"*.

Products containing Dry Rubber (DNR) or Latex (NRL)

Only standard codes are listed, special productions are not. For further information, contact Vygon at questions@vygon.com.

DNR	127	-	DNR	841.264/364	
DNR	185*	--	DNR	851	-
DNR	186*	--	DNR	856	-
DNR	187*	-	DNR	879	-
DNR	188*	-	DNR	880	-
DNR	189*	-	DNR	885	-
DNR	191*	-	DNR	889	-
-	193	Latex	DNR	896	-
-	275	Latex	DNR	1135	-
DNR	284	-	DNR	1284*	-
DNR	295	-	DNR	2201.51*	-
DNR	296	-	DNR	2211	-
DNR	340.30/36	-	-	2430	Latex
DNR	350	-	DNR	5119	-
DNR	410.27/30/33/36	-	DNR	5141	-
DNR	469.00/30/50	-	DNR	5186*	-
DNR	620	-	DNR	5191*	-
-	639	Latex	DNR	5196*	-
DNR	660	-	DNR	5222	-
DNR	668	-	DNR	5827**	-
DNR	669	-	DNR	5828**	-
DNR	807.01	-	DNR	7301.05	-
DNR	821.21/22	-	-	-	-

* The internal compression sleeve of the Easy-lock connector is made of Dry Rubber. It never comes in contact with the patient, the anaesthesist nor with infused solutions.

** Dry Rubber of the membrane of Bionector. Vystar ramps without Bionector contains neither Latex nor Dry Rubber.

Code	Product name	Component concerned	Dry Rubber (DNR) or Latex
127	Monoflux	Proximal cap	DNR
185/186/187/188/189/191	Epidural catheters and sets	Easy-lock compression sleeve*	DNR
193.00	Mac-Intosh balloon	Balloon	Latex
275	Exchange transfusion tray	1 – Gloves 2 – Injection site on 4-way stopcock	Latex DNR
284	Cardiff valve	Valve	DNR
295	Peritoneal dialysis tray	Injection site (extension tube of 296)	DNR
296	Set for peritoneal dialysis	Injection site	DNR
340.30/36	Gastric tube	Proximal connector	DNR
350	Faucher tube	Proximal connector	DNR
410.27/30/33/36	Rectal catheter	Proximal connector	DNR
469	Hourly diuresis unit	Sampling site	DNR
620	Red-O-Pack	Green component on the distal end of the connecting tube (code 660)	DNR
639	Tray for thoracic drainage	1 – Valve (code 668) 2 – Gloves	DNR Latex
660	Connecting tube for Red-O-Pack container	Green component on the distal end of the connecting tube	DNR
668/669	Valves for thoracic drainage	- Distal and proximal connectors (external) - Valves (internal)	DNR
807.01	Extension tube with 96 hour I.V. filter	Injection site	DNR
821.21/22	Needleless vial access cap	Bionector membrane (code 896)	DNR
841.264/364	Octopus (with Bionector)	Bionector membrane (code 896)	DNR
851	Non-return valve	Valve	DNR
856	Bionector and spike	Bionector membrane (code 896)	DNR
879	4-way stopcock	Injection site membrane	DNR
880	Stopper with injectable membrane	Stopper membrane	DNR
885/889	Connector with side outlet	Stopper membrane (code 880)	DNR
896	Bionector	Membrane	DNR
1135	Haemostatic valve	Valve	DNR
1284	PUR epicutaneo-cave catheter	Compression sleeve of the Easy-lock connector*	DNR
2201.51	Sitimplant for pain relief	Compression sleeve of the Easy-lock connector*	DNR
2211	Micro-Sitimplant	Bionector membrane (code 896)	DNR
2430	Foley catheter	- Catheter: latex coated with silicone - Cuff: Latex (not coated)	Latex Latex
5119	Arterial Leader Cath	Bionector membrane (code 896)	DNR
5141/5222	Catheter extension tubes	Bionector membrane (code 896)	DNR
5186/5191	Epidural catheters and sets	Compression sleeve of the Easy-lock connector*	DNR
5195/5196	Techniplex / Infuplex	Compression sleeve of the Easy-lock connector*	DNR
5827/5828**	Biovystar	Bionector membrane (code 896)	DNR
7301.05	PCA	Bionector membrane (code 896)	DNR

* The internal compression sleeve of the Easy-lock connector is made of Dry Rubber. It never comes in contact with the patient, the anaesthesist nor with infused solutions.
** Vystar ramps without Bionector contain neither Latex nor Dry Rubber

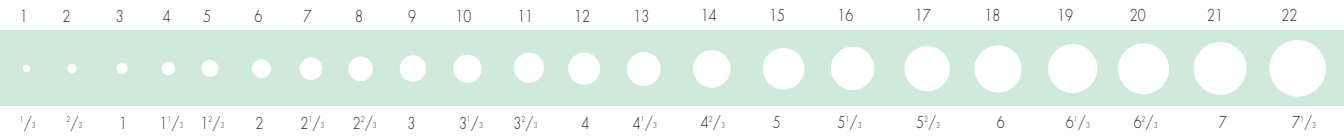| Code	Dénomination	Validité
193	Mac-Intosh Balloon	2 years
340.30/36	Gastric tube	3 years
351.27/30/33/36	Faucher tube	3 years
410.27/30/33/36	Rectal tube	3 years
623	Vydrain	3 years
807.01/02	Extension tube with 96 hour I.V. filter	3 years
808.22	Flat filter	3 years
809.22	Filter	3 years
815.02	Extension tube for PCA	3 years
821.21/22	Needleless vial access cap	3 years
822	Extension tube with "T" piece and Bionector	3 years
836.201	Ready-set Feed	3 years
836.204	Safe-T-Piece	3 years
836.205	Ready-set	3 years
841.264/364	Octopus with Bionector	3 years
856	Perforator with Bionector	3 years
876.002/003	3-way stopcock with Bionector	3 years
879	Stopcock for exchange-transfusion	3 years
880	Stopper with injectable membrane	3 years
885/889	"Y" connector with stopper with injectable membrane	3 years
896	Bionector	3 years
901/902	Impregnated surgical brush	3 years
931	Lapbag	3 years
941	Anti-mist solution (Dr Clear)	3 years
1135	Haemostatic valve	2 years
1188	Lectroguard	2 years
1294	Lifecath PICC	3 years
2211.61/67/68/71/77/91	Micro-Sitimplant kit	3 years
2430	Silicone coated Foley catheter	3 years
5119	Arterial Leader-Cath (PTFE)	3 years
5141	Extension tube with 3-way stopcock and Bionector	3 years
5222	Lectroflex with Bionector	3 years
5827/5828	Vystar (with Bionector)	3 years
6155/6158/6159	Multistar	3 years
7301.05/50	PCA	3 years
8155/8157/8158/8159	Multicath Expert 2, 3, 4, 5 lumen	3 years
8294	Lifecath PICC Expert	3 years
OVB 43 41 15	Indermil	18 months

Table of corresponding gauge size /mm

Needles		
Sizes Ext. Ø (mm)	Standardized colours	Gauge
0.3	-	29
0.4	●	27
0.5	●	25
0.6	●	23
0.7	●	22
0.8	●	21
0.9	●	20
1.0	●	19
1.25	●	18
1.5	●	17
1.6	○	16
1.8	●	15
2.0	●	14
2.4	-	13

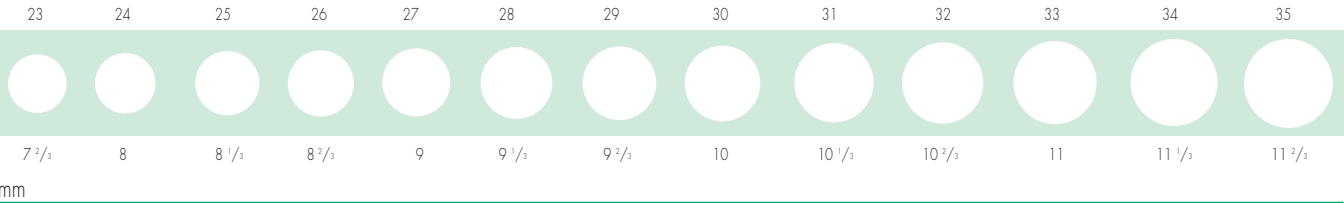| Short I.V. cannula		
Ext. Ø (mm) between:	Standardized colours	Gauge
0.550 - 0.649	●	26
0.650 - 0.749	●	24
0.750 - 0.949	●	22
0.950 - 1.149	●	20
1.150 - 1.349	●	18
1.350 - 1.549	○	17
1.550 - 1.849	●	16
1.850 - 2.249	●	14
2.250 - 2.549	●	13
2.550 - 2.849	●	12

Catheters

Tubes and catheters are often referred to by their French gauge size. This may be written as "Fr" or "Charriere" and it always refers to the outer diameter of the tube or catheter. To convert from Fr to millimetres simply divide the Fr size by three.
For example: a 36 Fr tube has an outer diameter of 12 mm.
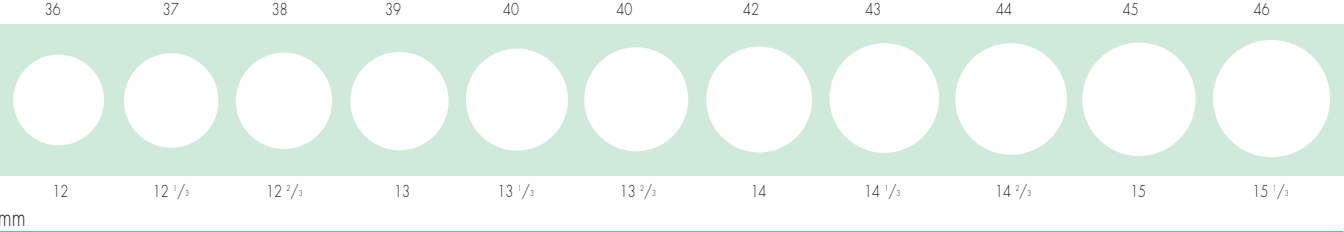
FRENCH GAUGE (Fr) or CHARRIERE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

$^1/_3$ $^2/_3$ 1 $1^1/_3$ $1^2/_3$ 2 $2^1/_3$ $2^2/_3$ 3 $3^1/_3$ $3^2/_3$ 4 $4^1/_3$ $4^2/_3$ 5 $5^1/_3$ $5^2/_3$ 6 $6^1/_3$ $6^2/_3$ 7 $7^1/_3$

O.D. IN MILLIMETRES

Fr

23 24 25 26 27 28 29 30 31 32 33 34 35

$7^2/_3$ 8 $8^1/_3$ $8^2/_3$ 9 $9^1/_3$ $9^2/_3$ 10 $10^1/_3$ $10^2/_3$ 11 $11^1/_3$ $11^2/_3$ mm

Fr

36 37 38 39 40 40 42 43 44 45 46

12 $12^1/_3$ $12^2/_3$ 13 $13^1/_3$ $13^2/_3$ 14 $14^1/_3$ $14^2/_3$ 15 $15^1/_3$ mm

N.B. : The products indicated XRO are radiopaque and tested according to a Vygon protocol available upon request.

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A

ASPISAFE
AUTOFLUSH

B

BABYPACK
BIOFLOW
BIONECTEUR
BIONECTOR
BIO-VALVE
BIOVYSTAR
BO$_2$UGIE

C

CENTRACATH
CRYSTALFIX

D

DERMAFILM
DESILET
DESIVALVE
DUALYSE-CATH

E

EASYDRAIN
EASY-LOCK

H

HEMOCATH
HEMOCLAV
HYGROFLUX

I

INJECT-SIT
INTRAFLON
INTRALOCK
INTRANULE

L

LEADER-CATH
LEADER-FLEX
LECTRO-CATH
LECTROCATH
LECTROFLEX
LECTRO-SPIRAL
LIFECATH
LOCOPLEX

M

MICROFLEX
MICROSAFE
MONOFLUX
MULTICATH
MULTIPLEX
MULTISTAR

N

NEO-CATH
NEOCATH
NEO-SAFE
NUTRICATH
NUTRICATH "S"
NUTRICATH "TUNNEL"
NUTRISAFE

P

PERFUSAFE
PLEXYGON
PREMICATH
PRODIAL

R

RED-O-PACK

S

SAFESCOPE

SILISONDE
SITIMPLANT

T

TECHNIPLEX
TRILYSE-CATH

V

VYCLIC
VYGON
VYSET
VYSTAR

NOTES

DC GENE 07 053 E

VYGON