



Silicone Airway Stents

### NOVATECH

## **Because Life is Precious.**

Founded in 1986, we have been producing silicone stents developed by Dr. Dumon for over 30 years. In order to improve patient care, we have added many developments over the years, such as STERITALC® and various instruments for bronchoscopy.



Office, production and warehouse in La Ciotat, south of France

### **Quality Made in Europe**

Our high demand on quality, function and cost-effectiveness along with the ability to react quickly to individual needs, has earned us the trust of physicians worldwide

### The full package. Expert advice on demand.

You wish to train new members or your team or refresh your team's knowledge of stent placement? Our qualified experts demonstrate stent placement at your location. We use anatomically correct models and give your staff a chance to handle stents and instruments in a relaxed atmosphere. Training is important — only a well-coordinated team will achieve perfect results. Each year, we organize rigid bronchoscopy workshops in France – a benefit for experienced physicians as well as beginners. A highly-esteemed faculty, small groups and extensive hands-on practice guarantee a high level of participant satisfaction.





Our extensive experience and our strict quality standards serve one goal:

### To provide products that give patients a better quality of life.



Since 2003 **Novatech SA** has been part of bess group in Berlin, Germany – a family-owned and managed medical device company with more than 30 years of expertise in medical device technology.





# **NOVATECH®** GSS™

### State-of-the-art silicone airway stents

combine X-ray visibility and transparency

### **NOVATECH silicone stents**

tried and tested for decades

Since 1989, Novatech has been offering the patented DUMON ® stents - a stent system that has proven itself as a reference product for improving patient comfort in airway stenosis.

DUMON® stents are made of specially treated transparent or radiopaque medical grade silicone (implantable for more than 29 days). They are considered to be the gold standard with which all other stents should be compared.¹

#### NOVATECH® GSS™

State-of-the-art

Available since 2011, NOVATECH® GSS™ stents represent a further development and optimisation of the renowned DUMON® stents. They are made of transparent silicone with studs filled with gold and barium sulphate.

They combine good x-ray visibility with an optimised endoscopic vision of the tissue.

1 Mehta AC, Dasgupta A. Clin Chest Med. 1999 Mar;20(1):139-51. doi: 10.1016/s0272-5231(05)70132-5.PMID: 10205723 Review.

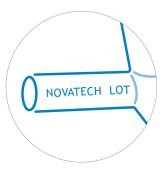




### Quality

GSS™ are manufactured from unrestrictedly implantable silicone and are very well tolerated by the airway mucosa. GSS™ is supplied sterile and ready-to-use.







### **Traceability**

"NOVATECH" and LOT number are printed on each GSS™. This means that a NOVATECH stent can be identified as an original at any time. (excluding radiopaque stents and stents with diameters < 10 mm.)

#### **Selection**

To give the clinician maximum room for manoeuvre when treating airway stenoses, we provide a wide range of stent types, diameters and lengths.







# Well conceptualized

down to the smallest detail



### X-ray visibility plus transparency

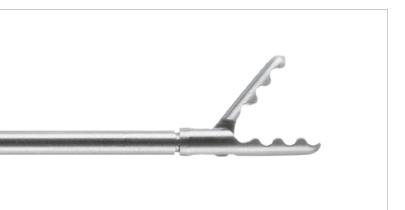
Studs on the outer surface of the stents are filled with gold and barium sulphate. This combines a good positional assessment of the stent during imaging with an optimised endoscopic view of the tissue.



### **Easy placement**

GSS™ can be easily loaded into the TONN™ NOVATECH®
Stent Applicator. In this way they are prepared for release at their target by the rigid bronchoscope.

Do you need any information about the instrumentation? Contact us! +33 442 98 15 60



#### Safe removal

GSS™ can be retrieved and removed using forceps during a rigid bronchoscopy.



In addition to the features described on this page, one of the greatest challenges in the development and manufacture of silicone stents is creating the right balance between flexibility and radial force. Our decades long experience and collaboration with the world's leading interventional pulmonologists has resulted in high-quality, reliable stents, entirely for the benefit of your patients.

### **Anti-migration studs**

The studs minimise the risk of migration by securing the stent between the cartilage rings of the tracheobronchial tree.



#### **Anti-adherent surface**

A special silicone-based surface treatment provides an anti-adherent surface that reduces any risk of obstruction.



### **Bevelled ends**

To facilitate the transport of secretions, the ends of the GSS™ are atraumatically bevelled.





## The correct solution. For every patient.





# **Tracheal Stent**

### **GSS™ TD Standard tracheal stent**

- Wall thickness: 1.5 mm
- Rows of studs:  $4 (\emptyset \ge 20 \text{ mm: } 3)$







### **GSS™ TF Thin tracheal stent**

With a 1 mm wall thickness for increased air flow.

- Wall thickness: 1 mm
- Rows of studs:  $4 (\emptyset \ge 20 \text{ mm}: 3)$





Comparison of wall thicknesses: left GSSTM TD (1.5 mm), right GSSTMTF (1 mm)

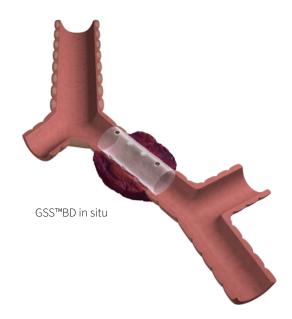


# **Bronchial Stent**

#### **GSS™ BD**

Smaller diameters for bronchial indications.

- Wall thickness: 1 mm
- Rows of studs: 4





# **Ultra-thin Stent**

#### **DUMON® BB**

DUMON® BB are completely radiopaque (white). Their wall thickness of just 0.5 mm makes them particularly suitable for small airways. Thin walls and only two rows of studs facilitate insertion through the vocal cords. Due to their small size, the studs of the DUMON® BB are not filled with gold and barium sulphate.

- Wall thickness: 0.5 mm
- Rows of studs: 2
- only radiopaque



### The correct solution. For every patient.





# **Hourglass Stent**

### **GSS™ ST Stent for benign, annular stenosis**

The hourglass-shaped ST stents were developed in collaboration with Prof. Vergnon (University Hospital Saint Etienne, France).

They are particularly suited to complex benign tracheal stenoses, such as post-intubation or post-tracheostomy stenoses. The diameters of the proximal and distal ends correspond to the diameter of the healthy trachea. The middle part is narrower to reduce the risk of injuring the stenotic section of the trachea, but wide enough to ensure a sufficient air flow.

• Wall thickness: 1.5 mm

• Rows of studs: 4

Vergnon JM, Costes F, Polio JC; Efficacy and Tolerance of a New Silicone Stent for the Treatment of Benign Tracheal Stenosis: preliminary results; Chest. 2000; 118(2): 422-426



#### **GSS™ DST**

GSS™ DST stents are a further design development of GSS™ ST stents with modified proportions: The centre section is narrower in relation to the wider distal and proximal ends. GSS™ DST stents are more rounded internally, while the ends are shorter compared to ST stents.

• Wall thickness: 1.5 mm

• Rows of studs: 4





## Diameters and lengths - straight stents

### $\mathbf{GSS^{\mathsf{TM}}}\,\mathbf{TD}\,/\,\mathbf{GSS^{\mathsf{TM}}}\,\mathbf{TF}/\mathbf{GSS^{\mathsf{TM}}}\,\mathbf{BD}/\mathbf{DUMON^{\circledcirc}}\,\mathbf{BB}$

Determine the desired stent length (stenosis length + 10 mm) and diameter and select from the available stents.

Length (mm) ►						
Outer Diameter (mm) ▼	20	30	40	50	60	
5	025301S20 <b>(BB)</b>	025301S30 <b>(BB)</b>	025301S40 <b>(BB)</b>	025301S50 <b>(BB)</b>		
6	026201S20 <b>(BB)</b>	026201S30 <b>(BB)</b>	026201S40 <b>(BB)</b>	026201S50 <b>(BB)</b>		
7	026501S20 <b>(BB)</b>	026501S30 <b>(BB)</b>	026501S40 <b>(BB)</b>	026501S50 <b>(BB)</b>		
8	026701S20 <b>(BB)</b>	026701S30 <b>(BB)</b>	026701S40 <b>(BB)</b>	026701S50 <b>(BB)</b>		
10	01 <b>BD</b> 1020	01 <b>BD</b> 1030	01 <b>BD</b> 1040	01 <b>BD</b> 1050	01 <b>BD</b> 1060	
11	01 <b>BD</b> 1120 01 <b>TD</b> 1120	01 <b>BD</b> 1130 01 <b>TD</b> 1130	01 <b>BD</b> 1140 01 <b>TD</b> 1140	01 <b>BD</b> 1150 01 <b>TD</b> 1150	01 <b>BD</b> 1160 01 <b>TD</b> 1160	
12	01 <b>BD</b> 1220 01 <b>TD</b> 1220	01 <b>BD</b> 1230 01 <b>TD</b> 1230 01 <b>TF</b> 1230	01 <b>BD</b> 1240 01 <b>TD</b> 1240 01 <b>TF</b> 1240	01 <b>BD</b> 1250 01 <b>TD</b> 1250 01 <b>TF</b> 1250	01 <b>BD</b> 1260 01 <b>TD</b> 1260 01 <b>TF</b> 1260	
13		01 <b>TD</b> 1330 01 <b>TF</b> 1330	01 <b>TD</b> 1340 01 <b>TF</b> 1340	01 <b>TD</b> 1350 01 <b>TF</b> 1350	01 <b>TD</b> 1360 01 <b>TF</b> 1360	
14		01 <b>TD</b> 1430 01 <b>TF</b> 1430	01 <b>TD</b> 1440 01 <b>TF</b> 1440	01 <b>TD</b> 1450 01 <b>TF</b> 1450	01 <b>TD</b> 1460 01 <b>TF</b> 1460	
15		01 <b>TD</b> 1530 01 <b>TF</b> 1530	01 <b>TD</b> 1540 01 <b>TF</b> 1540	01 <b>TD</b> 1550 01 <b>TF</b> 1550	01 <b>TD</b> 1560 01 <b>TF</b> 1560	
16		01 <b>TD</b> 1630	01 <b>TD</b> 1640 01 <b>TF</b> 1640	01 <b>TD</b> 1650 01 <b>TF</b> 1650	01 <b>TD</b> 1660 01 <b>TF</b> 1660	
18			01 <b>TD</b> 1840 01 <b>TF</b> 1840	01 <b>TD</b> 1850 01 <b>TF</b> 1850	01 <b>TF</b> 1860	
20			01 <b>TF</b> 2040	01 <b>TF</b> 2050	01 <b>TF</b> 2060	



# Custom-made stents are possible. Contact us!

70	80	90	100	110
01 <b>BD</b> 1070				
01 <b>BD</b> 1170 01 <b>TD</b> 1170	01 <b>TD</b> 1180			
01 <b>BD</b> 1270 01 <b>TD</b> 1270 01 <b>TF</b> 1270	01 <b>BD</b> 1280 01 <b>TD</b> 1280 01 <b>TF</b> 1280			
01 <b>TD</b> 1370 01 <b>TF</b> 1370	01 <b>TD</b> 1380			
01 <b>TD</b> 1470 01 <b>TF</b> 1470	01 <b>TD</b> 1480			
01 <b>TD</b> 1570 01 <b>TF</b> 1570	01 <b>TD</b> 1580 01 <b>TF</b> 1580	01 <b>TD</b> 1590 01 <b>TF</b> 1590	01 <b>TD</b> 15100 01 <b>TF</b> 15100	01 <b>TD</b> 15110 01 <b>TF</b> 15110
01 <b>TD</b> 1670 01 <b>TF</b> 1670	01 <b>TD</b> 1680 01 <b>TF</b> 1680	01 <b>TD</b> 1690 01 <b>TF</b> 1690	01 <b>TD</b> 16100 01 <b>TF</b> 16100	01 <b>TD</b> 16110
01 <b>TF</b> 1870	01 <b>TF</b> 1880	01 <b>TF</b> 1890	01 <b>TF</b> 18100	01 <b>TF</b> 18110
01 <b>TF</b> 2070	01 <b>TF</b> 2080	01 <b>TF</b> 2090	01 <b>TF</b> 20100	01 <b>TF</b> 20110



GSS™ TD



GSS™ TF

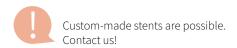


GSS™ BD

DUMON® BB

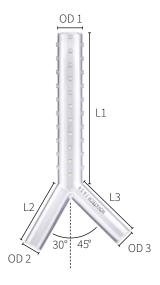


## Diameters and lengths - special shapes



### **GSS<sup>TM</sup> Y**

	Dimensions (mm)								
REF	OD			Length			Wall		
	1	2	3	L1	L2	L3	thickness		
01Y121010	12	10	10	70	50	50	1.0		
01Y141010		10	10	110	50	50	1.0		
01Y141010V1	14	10		40	30	30			
01Y151212			12	110	50	50			
01Y151212V1	15	12		40	30	30	1.0		
01Y151212V2				50	30	30			
01Y161313				110	50	50			
01Y161313V1	16	13	13	40	30	30	1.0		
01Y161313V2				50	30	30			
01Y181414	18	14	14	110	50	50	1.0		



### GSS™ OKI

	Dimensions (mm)							
REF	OD			Length			M/- II 41-1-1	
	1	2	3	L1	L2	L3	Wall thickness	
010KI130910	13	9	10	40	17	35	1.0	





### GSS™ ST

	Dimensions (mm)								
REF	OD			Length			Wall		
	1	2	3	L1	L2	L3	thickness		
01 <b>ST</b> 121012	12	10	12	15	20	15			
01 <b>ST</b> 141214	14	12	14	15	20	15			
01 <b>ST</b> 151315	15	13	15	15	20	15	1.5		
01 <b>ST</b> 161416	16	14	16	15	20	15			
01 <b>ST</b> 181618	18	16	18	15	20	15			



### GSS™ DST

	Dimensions (mm)									
REF	OD			Length			Wall			
	1	2	3	L1	L2	L3	thickness			
01DST141214	14	12	14	7.5	20	7.5				
01DST161416	16	14	16	7.5	20	7.5	1.5			
01DST181618	18	16	18	7.5	20	7.5				









### Request information about further pulmonology products:



STERITALC® for Talcum Pleurodesis



Instruments for Bronchoscopy



NOVATECH EWS™ Endobronchial Watanabe Spigots



Leufen **aer**stent® self-expanding Nitinol Stents

The products in this catalog are *←*-marked.



Novatech SA — La Ciotat, France



Please note that only the current instructions for use apply. Details in this catalog about the use of products serve as a guide only and reflect the information available at the time of print. If necessary, please request a current version!



The instructions for use for some of our products are available only in electronic form (in pdf format) on our website.

Please see the product label for the required access information.

Please note that product availability may vary by country. Please contact us for details.



## **NOVATECH®** $\mathbf{G}\mathbf{S}\mathbf{S}^{\mathsf{TM}}$

# Silicone Airway Stents







Tel. +33 (0) 442 98 15 60