

# FLOWLINX® FILLING NEEDLES

When a single drop of fluid can make the difference in someone's health, you need smart fluid handling solutions that get the job done safely. Manufacturers worldwide rely on connector products that improve yield, cut costs and reduce time to market.

## DESCRIPTION:

FlowLinX® filling needles are engineered with precision and purity ensuring operational safety and accurate dosing. Compatible with different brand filling machines, FlowLinX® filling needles are made from high grade materials and are validated to meet stringent regulatory requirements. Choose from standard designs or customize to your dosing equipment. Implement confidently and boost productivity without compromising on quality.

## REGULATORY OVERVIEW:

### Material of Construction

316L Stainless Steel and Polycarbonate

### Biocompatibility

USP <85>, Bacterial Endotoxin

USP <88>, Biological Reactivity Tests, Class VI, In Vivo

USP <87>, Biological Reactivity Tests, Class VI, In Vitro

### Physiochemical

USP <661>, Plastic Packaging Systems

### Particulate

USP <788>, Particulate Matter in Injections

### Legislation

REACH

RoHS

Conflict Mineral

### Shelf Life

5 Years, Non-Sterile/Non-Irradiated

### Other

Animal Product Free

Nitrosamine Free

Latex Free

Phthalate Free

BPA and Melamine Free



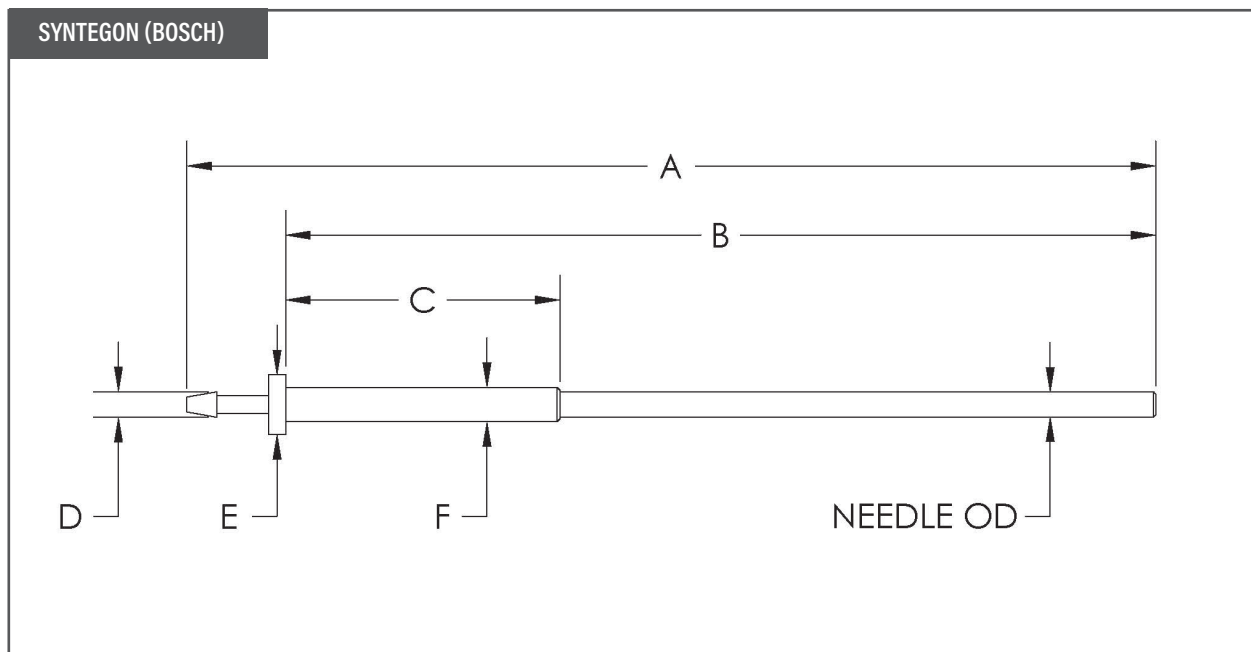
## SPECIFICATIONS:

- Manufactured in an ISO 8 Cleanroom
- ISO 9001:2015 Certified Facility
- Available Non-sterile or Sterile
- Packaged 10 per Box
- Sterilizable by Gamma Irradiation and Autoclave

## NEEDLE BRANDS:

- Bosch
- Groninger
- IMA
- OPTIMA Inova
- Cytiva

# FILLING NEEDLES



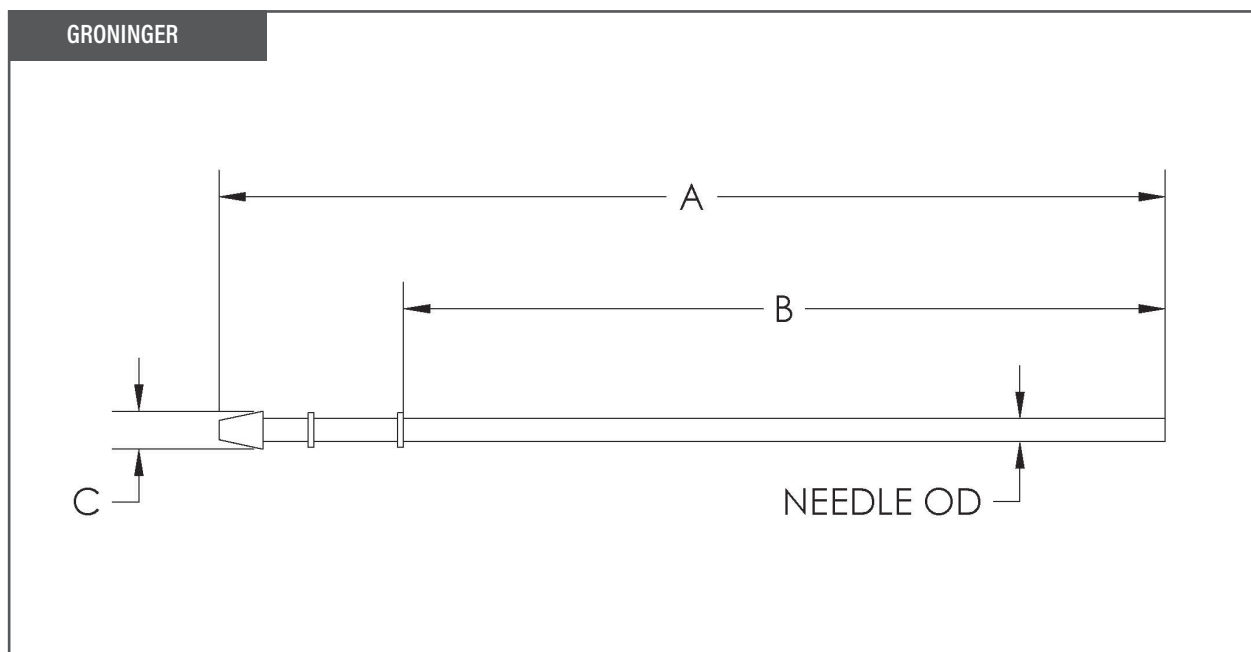
## SYNTEGON (BOSCH) NEEDLE DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B	C	D	E	F
						MM [IN.]		
F-FN-BSM-1.6-094	1.6 [0.063 ± 0.002]"	2.1 [0.083 ± 0.001]"				H.B. FOR 3/32 I.D.	9.52 [0.3750]"	
F-FN-BSM-2.1-125	2.1 [0.085 ± 0.002]"	2.8 [0.109 ± 0.001]"				H.B. FOR 1/8 I.D.	9.52 [0.3750]"	
F-FN-BSM-3.0-125	3.0 [0.118 ± 0.003]"	3.8 [0.148 ± 0.001]"	181.6 [7.150]"	161.3 [6.350]"	50.8 [2.00]"	H.B. FOR 1/8 I.D.	9.52 [0.3750]"	50.8 [2.00]"
F-FN-BSM-3.2-188	3.2 [0.128 ± 0.002]"	3.8 [0.148 ± 0.001]"				H.B. FOR 3/16 I.D.	9.52 [0.3750]"	
F-FN-BSM-4.0-188	4.0 [0.160 ± 0.002]"	4.6 [0.180 ± 0.001]"				H.B. FOR 3/16 I.D.	11.00 [0.4370]"	

**TOLERANCES UNLESS OTHERWISE STATED:**

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

# FILLING NEEDLES



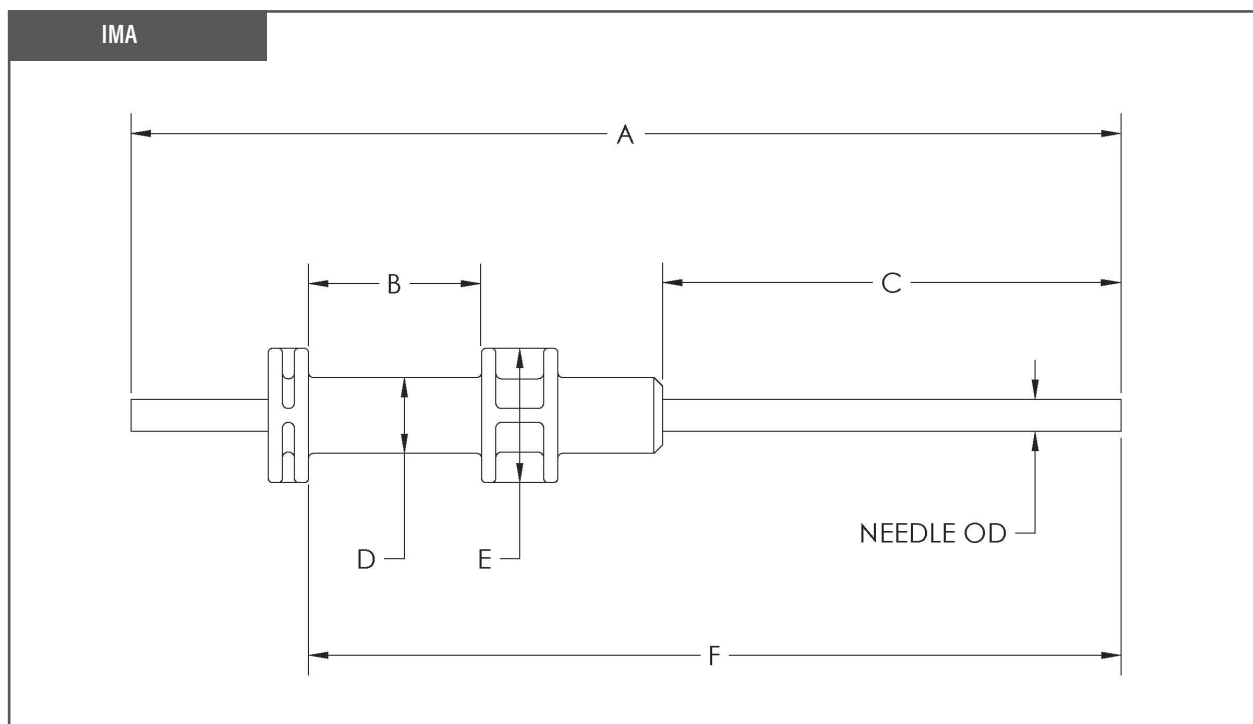
## GRONINGER NEEDLE DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B MM [IN.]	C
F-FN-GRO-1.6-063	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]	165.0 [6.496]	133.0 [5.200]	H.B. FOR 3/32 I.D.
F-FN-GRO-2.1-125	2.1 [0.085 ± 0.002]	2.8 [0.109 ± 0.001]			H.B. FOR 1/8 I.D.
F-FN-GRO-3.0-156	3.0 [0.118 ± 0.003]	3.7 [0.148 ± 0.001]			H.B. FOR 5/32 I.D.
F-FN-GRO-3.2-156	3.2 [0.128 ± 0.002]	3.8 [0.148 ± 0.001]			H.B. FOR 5/32 I.D.
F-FN-GRO-4.0-250	4.0 [0.160 ± 0.002]	4.6 [0.180 ± 0.001]			H.B. FOR 1/4 I.D.
F-FN-GRO-5.0-250	5.0 [0.197 +0.004, -0.002]	6.0 [0.237 +0.003, -0.001]			H.B. FOR 1/4 I.D.

**TOLERANCES UNLESS OTHERWISE STATED:**

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

# FILLING NEEDLES



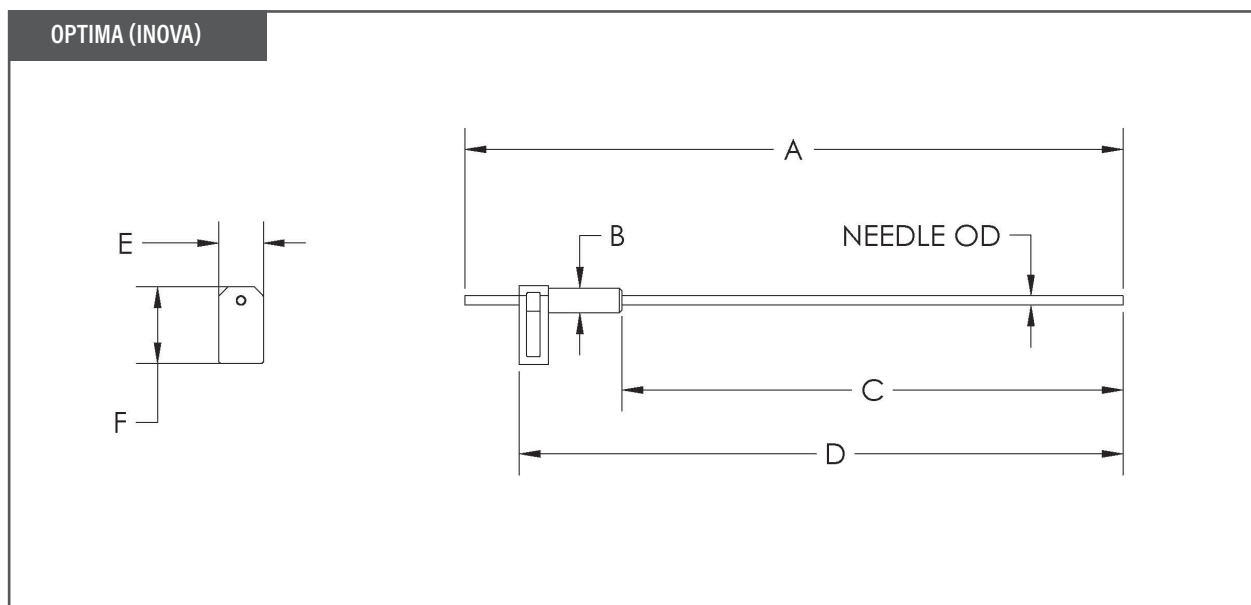
## IMA NEEDLE DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B	C	D	E	F
			MM [IN.]					
F-FN-IMA-0.8-1.1	0.8 [0.032 +0.0015, -0.005]	1.1 [0.042 ± 0.0005]	115.8 [4.56]	20.1 [0.793]	53.6 [2.11]	8.9 [0.351]	15.7 [0.62]	95.0 [3.74]
F-FN-IMA-1.6-2.1	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]						
F-FN-IMA-2.1-2.8	2.1 [0.085 ± 0.002]	2.8 [0.109 ± 0.001]						
F-FN-IMA-3.2-3.8	3.2 [0.128 ± 0.002]	3.8 [0.148 ± 0.001]						

**TOLERANCES UNLESS OTHERWISE STATED:**

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

# FILLING NEEDLES



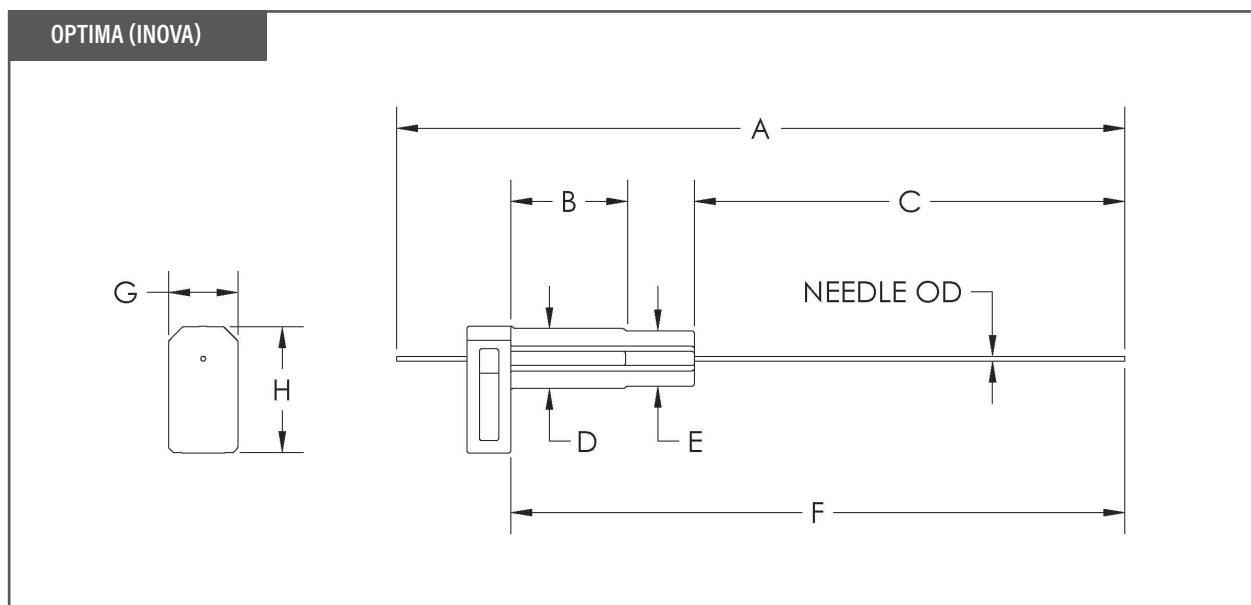
## OPTIMA (INOVA) NEEDLE (SMALL HUB) DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B	C D E F			
					MM [IN.]			
F-FN-OPS-0.8-1.1	0.8 [0.032 +0.0015, -0.005]	1.1 [0.042 ± 0.0005]						
F-FN-OPS-1.6-2.1	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]	139.2 [5.480]	8.0 [0.314]	879 [3.460]	121.4 [4.780]	15.0 [0.591]	25.2 [1.000]
F-FN-OPS-2.1-2.8	2.1 [0.085 ± 0.002]	2.8 [0.109 ± 0.001]						

### TOLERANCES UNLESS OTHERWISE STATED:

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

# FILLING NEEDLES



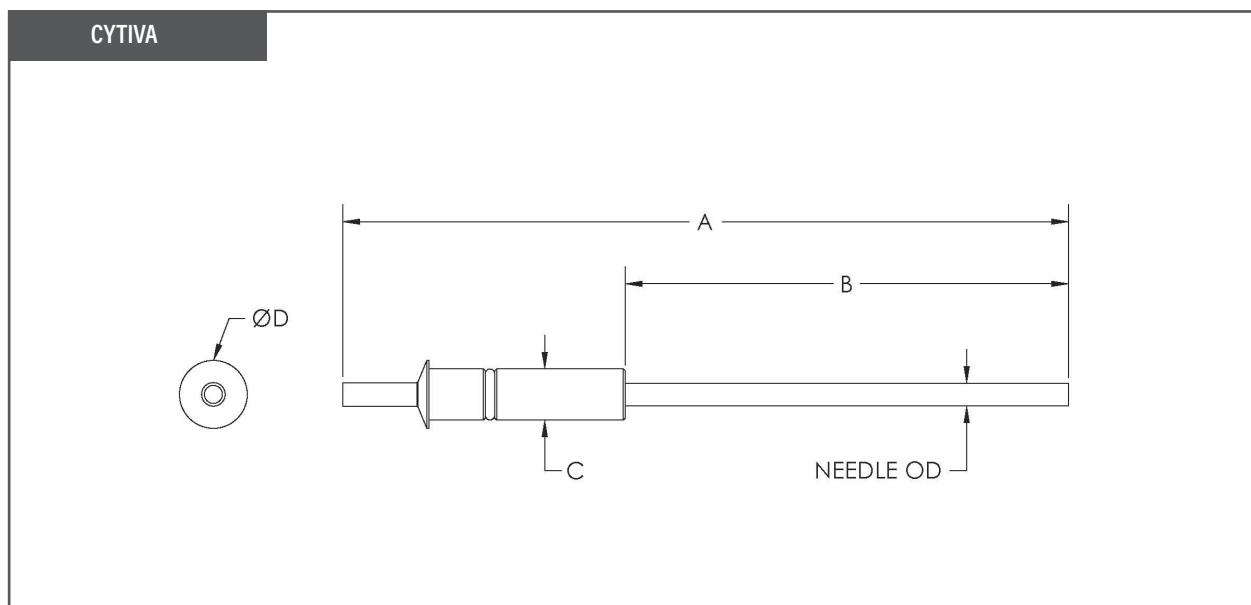
## OPTIMA (INOVA) NEEDLE (LARGE HUB) DIMENSIONS

PART NUMBER	NEEDLE ID	NEEDLE OD	A	B	C	D	E	F	G	H
	MM [IN.]	MM [IN.]								
F-FN-OPL-0.8-1.1	0.8 [0.032 +0.0015, -0.005]	1.1 [0.042 ± 0.0005]	157.7 [6.208]"	25.0 [0.984]"	90.2 [3.551]"	13.0 [0.511 -0.002]	12.0 [0.472]	130.0 [5.118]	15.0 [0.590]	27.5 [1.082]
F-FN-OPL-1.6-2.1	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]								
F-FN-OPL-3.2-3.8	3.2 [0.128 ± 0.002]	3.8 [0.148 ± 0.001]								
F-FN-OPL-4.0-4.6	4.0 [0.160 ± 0.002]	4.6 [0.180 ± 0.001]								
F-FN-OPL-5.0-6.0	5.0 [0.197 +0.004, -0.002]	6.0 [0.237 +0.003, -0.001]								

**TOLERANCES UNLESS OTHERWISE STATED:**

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"

# FILLING NEEDLES



## CYTIVA NEEDLE DIMENSIONS

PART NUMBER	NEEDLE ID MM [IN.]	NEEDLE OD MM [IN.]	A	B	C		D
					MM [IN.]		
F-FN-PAL-0.8-1.1	0.8 [0.032 +0.0015, -0.005]	1.1 [0.042 ± 0.0005]	120 [4.720]	75 [2.952]	8.6 [0.340]	12 [0.472]	
F-FN-PAL-1.2-1.5	1.2 [0.047 ± 0.001]	1.5 [0.058 ± 0.0005]					
F-FN-PAL-1.6-2.1	1.6 [0.063 ± 0.002]	2.1 [0.083 ± 0.001]					
F-FN-PAL-2.4-3.1	2.4 [0.094 ± 0.002]	3.1 [0.120 ± 0.001]			10.9 [0.430]	14 [0.55]	
F-FN-PAL-3.2-3.8	3.2 [0.128 ± 0.002]	3.8 [0.148 ± 0.001]					
F-FN-PAL-4.0-4.6	4.0 [0.160 ± 0.002]	4.6 [0.180 ± 0.001]					
F-FN-PAL-5.0-6.0	5.0 [0.197 +0.004, -0.002]	6.0 [0.237 +0.003, -0.001]					

TOLERANCES UNLESS OTHERWISE STATED:

- X.X ± 0.020"
- X.XX ± 0.010"
- X.XXX ± 0.005"