

# SPECIALTY FIBER DRAW

## TECHNICAL CHARACTERISTICS for SILICA FIBERS

Preform Diameter	15 mm to 50 mm, typically
Preform Feeding Length	100 cm to 200 cm, typically
Process Speed	1 to 500 m/min depending on tower configuration and coating conditions
Fiber Diameters	80 µm to 1000 µm glass diameter
Coatings	Acrylate, Silicon, Polyimide
Fiber types	Step Index MM, Graded Index MM, Single Mode, Microstructured PCF

## TECHNICAL CHARACTERISTICS for SOFT GLASS

Preform Diameters	10 mm to 50 mm, typically
Preform Feeding Length	100 cm to 200 cm, typically
Process Speed	1 to 300 m/min depending on tower configuration and coating conditions
Fiber Diameters	80 µm to 1000 µm glass diameter
Coatings	Acrylate, Silicone

## TECHNICAL CHARACTERISTICS for CANES and TUBES

Preform Diameters	15 mm to 50 mm, typically
Preform Length	100 cm to 200 cm, typically
Cane/Tube Diameters	80 µm to 15mm
Process Speed	0.01 to 30 m/min



SPF – Preform Feeding



Line control screen



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# OFC 20SF Fiber draw tower

For Specialty Fiber Drawing

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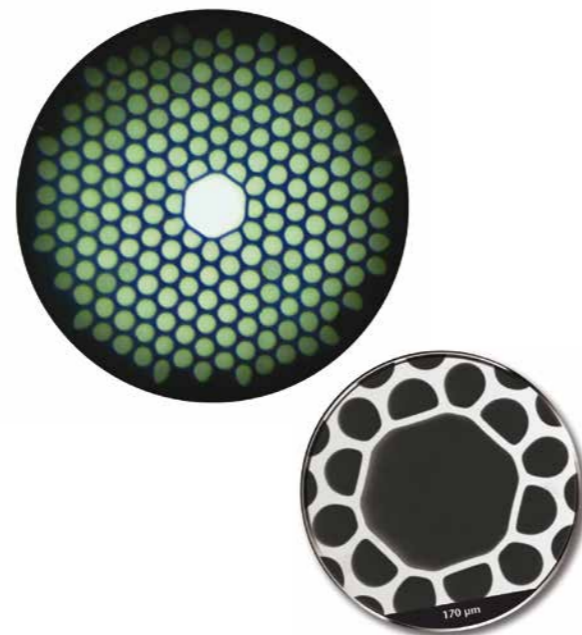
MADE IN EUROPE



## APPLICATIONS

The Nextrom fiber draw towers are suitable for a wide range of specialty fibers:

- Single-Mode
- Multi-Mode
- Amplifier Fiber
- Bragg Fiber
- Laser Fiber
- Holey Fiber
- Chalcogenide Fiber



Nextrom's continuous development of the specialty draw tower ensures that the Nextrom tower is always at the forefront of technology.

- Resistive Furnace design gives larger flexibility to customer requirements
- Advanced temperatures controller delivers very precise temperature stability
- Caterpillar capstan ensures concentric pulling of canes and fiber with low contact stress
- Take-up offering for specialty fiber towers accepts a wide range of reels with a smaller footprint. A selection of frame sizes allows winding of large diameter fibers
- Extremely stable furnace temperature Variation  $< \pm 0.5$  C at 2100 C
- Proven bare fiber diameter variation of up to  $\pm 0.1$  μm
- Line control system dedicated to the specialty draw tower gives user specified functionality and interfaces
- Automated Fiber Defect System
- Applicator Cooling System
- Small footprint saves valuable clean room space



The Nextrom OFC 20 SF fiber draw tower for specialty fibers is available with different furnaces and precise preform feeding solutions for soft glass, silica and plastic optical fibers for preforms with 15 – 50 mm diameter and 10 – 200 cm length.

Optical fiber coating can be done single or multiple layers for acrylate, silicon and polyimide. Both UV and heat curing systems are available.

In addition, Nextrom offers a variety of components to fulfil different customer requirements:

- Preform internal pressure / vacuum system
- Preform rotating equipment
- Gas purification (Ar/N<sub>2</sub>)
- A variety of start-up and master capstans
- Clean air system options
- Fiber defect marking
- Online extrusion

Several different diameter measurement gauges, non-contact tension measurement systems and coating concentricity monitor together with Nextrom's advanced process control and data logging system guarantee the quality of the produced fiber.

Both single and dual take-ups are available. With a dual take-up continuous production is ensured.

The Nextrom OFC 20 SF fiber draw tower can be delivered in either single or dual face versions. The dual face version saves expensive clean room area.



Cane/tube caterpillar & cane/tube cutting system

Nextrom offers solutions for cane and capillary tube pulling as well as solutions for micro structured (or holey) fiber drawing.