

A DEVICE FOR PROCESSING A FILAMENT, THE DEVICE COMPRISING A PROCESSING BEAM  
SOURCE AND A GUIDING MEANS

ABSTRACT

The invention relates to a device (100) for processing a filament (104) in a process stream (110), the device (100) comprising as components

- 5           a) at least one processing beam source (105, 201), designed and arranged for emitting at least one processing beam (107, 202) which is suitable for processing a segment (108) of the filament (104) by interaction of the at least one processing beam (107, 202) with the segment (108) of the filament (104), thereby obtaining a processed filament (109); and
- 10          b) a guiding means, comprising a filament feed which is
  - i) arranged upstream of the at least one processing beam source (105, 201), and
  - ii) designed to feed the filament (104) from a feed reel (101);

wherein the guiding means is designed and arranged to guide the filament (104) so that during the processing the segment (108) of the filament (104) inclines an angle with a vertical axis in  
15 the range from 0 to 45°. Further, the invention relates to a process (400) for preparing a processed filament (109), to a processed filament (109) obtainable by this process (400) and to a use of a laser for processing a segment of a filament (104) in a reel-to-reel process.

( Fig. 1 )