

Title (en)  
METHOD FOR CONTINUOUSLY PRODUCING OPTICAL FIBRE GUIDES MOUNTED IN A THIN-WALLED, RADIALY CLOSED METAL TUBE

Title (de)  
VERFAHREN ZUR KONTINUIERLICHEN HERSTELLUNG VON IN EINEM DÜNNWANDIGEN, RADIAL GESCHLOSSENEN METALLROHR  
GELAGERTEN OPTISCHEN FASERLEITERN

Title (fr)  
PROCÉDÉ DE FABRICATION EN CONTINU DE GUIDES DE FIBRES OPTIQUES MONTÉS DANS UN TUBE MÉTALLIQUE À PAROI MINCE ET  
FERMÉ RADIALEMENT

Publication  
**EP 4058832 A1 20220921 (DE)**

Application  
**EP 19839405 A 20191115**

Priority  
IB 2019001284 W 20191115

Abstract (en)  
[origin: WO2021094804A1] In order to produce fibre guides mounted in a metal hollow profile, a flat metal strip is supplied to a forming device. The forming device is designed for continuously forming the supplied flat metal strip into a shape corresponding to the hollow profile. The hollow profile is continuously welded along a longitudinal seam by means of a laser. In a continuous process via a guiding or protecting tube, a filling gel having a viscosity that increases as the temperature decreases and one or more fibre guides are introduced into the welded hollow profile. In order to introduce the fibre guide/s with excess length into the hollow profile, the welded hollow profile is elastically stretched, cooled and then released again. The finished product is received in a receiving unit. The continuous closed-loop control of the excess length of the fibre guide is carried out, inter alia, via the continuous open-loop control of the gel temperature, the laser power and the force applied to the hollow profile for the elastic stretching.

IPC 8 full level  
**G02B 6/44** (2006.01)

CPC (source: CN EP US)  
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**B23K 26/083** (2013.01 - US); **B23K 26/206** (2013.01 - US); **B23K 26/21** (2015.10 - CN); **B23K 26/262** (2015.10 - US);  
**B23K 26/32** (2013.01 - US); **B23K 26/702** (2015.10 - CN); **B23K 31/003** (2013.01 - US); **G02B 6/10** (2013.01 - CN); **G02B 6/4484** (2013.01 - EP);  
**G02B 6/4488** (2013.01 - EP US); **B21C 37/0822** (2013.01 - US); **B23K 2101/06** (2018.08 - US); **B23K 2103/50** (2018.08 - US)

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DOCDB simple family (publication)  
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