

Title (en)  
INTRA-AORTIC BALLOON CATHETERS

Title (de)  
INTRA-AORTISCHER BALLONKATHETER

Title (fr)  
CATHETERS A BALLONNETS INTRA-AORTIQUES

Publication  
**EP 0748240 A1 19961218 (EN)**

Application  
**EP 95914123 A 19950320**

Priority  
• US 9503464 W 19950320  
• US 21061194 A 19940318

Abstract (en)  
[origin: WO9525560A1] An intra-aortic balloon pump catheter includes an inner lumen (14) formed by a thin walled super-elastic metal alloy tube, namely of nitinol, with an inside diameter sufficient for a guide wire (28) and a small outside diameter which allows reduction of the outer lumen and related components by at least one size French while providing gas shuttle capacity between the lumens for conventional intra-aortic balloon pump operation. The outer lumen (12) is a tube formed of co-extruded plastics to enhance the size reduction and capacity goals, with an inner nylon portion (12b) for strength and relatively thin polyurethane outer portion (12a) for bio-compatibility, flexibility and compatibility for bonding to a thin polyurethane balloon (18). The proximal end sleeve of the balloon is stretched and then stress relieved by heating with an internal heater on a mounting mandrel (70) to effect a desired small diameter sizing. A radiopaque metal marker ring (94) of nitinol also is provided to improve imaging capabilities while being compatible with the lumen materials.

IPC 1-7  
**A61M 29/00**; **A61N 1/362**; **B29C 39/02**

IPC 8 full level  
**A61M 25/00** (2006.01); **A61M 60/13** (2021.01); **A61M 60/139** (2021.01); **A61M 60/295** (2021.01); **A61M 60/497** (2021.01);  
**A61M 60/843** (2021.01); **B29C 41/14** (2006.01); **B29C 55/22** (2006.01); **A61F 2/958** (2013.01); **A61M 1/10** (2006.01); **A61M 25/10** (2006.01)

CPC (source: EP US)  
**A61M 25/0009** (2013.01 - EP); **A61M 25/1029** (2013.01 - EP US); **A61M 60/13** (2021.01 - EP US); **A61M 60/139** (2021.01 - EP US);  
**A61M 60/295** (2021.01 - EP US); **A61M 60/497** (2021.01 - EP US); **A61M 60/843** (2021.01 - EP US); **B29C 41/14** (2013.01 - EP);  
**B29C 55/22** (2013.01 - EP); **A61M 25/10** (2013.01 - EP); **A61M 60/274** (2021.01 - EP); **A61M 2205/32** (2013.01 - EP);  
**B29L 2031/7542** (2013.01 - EP)

Designated contracting state (EPC)  
DE ES FR GB IT

DOCDB simple family (publication)  
**WO 9525560 A1 19950928**; CA 2185920 A1 19950928; EP 0748240 A1 19961218; EP 0748240 A4 19980429

DOCDB simple family (application)  
**US 9503464 W 19950320**; CA 2185920 A 19950320; EP 95914123 A 19950320