



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 17 78 94 61

Classification of the application (IPC):  
**B21B 1/088**

Technical fields searched (IPC):  
B21B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	JP S6182903 A (SUMITOMO METAL IND) 26 April 1986 (1986-04-26) * abstract; figure 2 *	1-10
Y	JP H11347601 A (NIPPON KOKAN KK) 21 December 1999 (1999-12-21) * abstract; figures 9,11 *	1-10
Y	JP S6192701 A (NIPPON KOKAN KK) 10 May 1986 (1986-05-10) * abstract; figure 1 *	1-10
X	JP 2002045902 A (SUMITOMO METAL IND) 12 February 2002 (2002-02-12) * abstract; table 1 *	11

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 12 September 2019	Examiner Frisch, Ulrich
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### CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

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## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 12-09-2019  
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP S6182903 A	26-04-1986	JP H0155042 B2 JP S6182903 A	22-11-1989 26-04-1986
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