

Title (en)  
Apparatus and process for the supply of helium to a plurality of production lines

Title (de)  
Vorrichtung und Verfahren zur Versorgung von Helium zu mehreren Produktionslinien

Title (fr)  
Installation et procédé de fourniture d'hélium à plusieurs lignes de production

Publication  
**EP 0976969 A1 20000202 (FR)**

Application  
**EP 99401928 A 19990728**

Priority  
FR 9809694 A 19980729

Abstract (en)  
The installation comprises a helium source (2) with an internal volume of at least 7000 liters; a network (4) of secondary pipes (4a, 4b, 4c) each feeding at least one production line (5a, 5b, 5c) using gaseous helium; a main pipe (3, 3a, 3b) connected upstream to the helium source and downstream to the network. Each production line is fed with helium from the helium source. The installation comprises a helium source (2) with an internal volume of at least 7000 liters; a network (4) of secondary pipes (4a, 4b, 4c) each feeding at least one production line (5a, 5b, 5c) using gaseous helium; a main pipe (3, 3a, 3b) connected upstream to the helium source and downstream to the network. Each production line is fed with helium from the helium source. Preferred Features: The helium source has an internal volume of at least 8000 liters, and preferably more than 20000 liters or, especially, more than 40000 liters. The source is movable or fixed. The main pipe is also connected to at least one of the following: A heat exchanger (7), a balance capacity (8), means of purifying the helium (9) and a compressor (10). The installation also includes means of controlling the flow and/or the pressure in the main pipe and/or each secondary pipe in the network. The production lines are: Bottle filling lines; balloon envelopes; airbag fillers; helium dosing lines for metalwork; electronic production lines making wafers or printed circuits, or optic fiber production lines. The production lines are independently connected to the main line via the network. The helium extracted from the source is liquid or supercritical. An Independent claim is included for a process for supplying helium using the above device by feeding a main pipe with helium from a source, and channeling the helium to a network of secondary pipes each feeding at least one production line using helium gas. The helium is extracted from the source in liquid or supercritical form and is vaporized to obtain helium gas. The pressure and/or flow of helium in the main pipe is adjusted as a function of the sum of the pressures and/or flows in the secondary pipes.

Abstract (fr)  
Installation (1) de fourniture d'hélium à des lignes (5a, 5b, 5c) de production comprenant une source (2) d'hélium d'au moins 7000 litres ; un réseau (4) de canalisations secondaires (4a, 4b, 4c) alimentant des lignes de production utilisant de l'hélium gazeux ; et une canalisation principale (3, 3a, 3b) d'acheminement d'hélium relié, en amont, à la source (2) d'hélium et, en aval, au réseau (4) de canalisations secondaires. Utilisation d'une telle installation (1) dans une opération de remplissage de bouteilles de gaz de plongée, d'enveloppes gazeuses pour ballon dirigeable ou de récipients de gonflage de coussins de sécurité, de trempe de pièces métalliques, de fabrication de produits électroniques ou de fibres optiques. <IMAGE>

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