

(43) International Publication Date
15 September 2011 (15.09.2011)(10) International Publication Number
WO 2011/110726 A1

(51) International Patent Classification:

F28F 21/06 (2006.01) *C02F 1/08* (2006.01)
B01D 1/22 (2006.01) *C02F 1/10* (2006.01)
B29C 65/20 (2006.01) *F28D 9/00* (2006.01)
B29D 7/01 (2006.01) *F28F 3/08* (2006.01)

(21) International Application Number:

PCT/FI2010/050172

(22) International Filing Date:

8 March 2010 (08.03.2010)

(25) Filing Language:

English

(26) Publication Language:

English

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(81) Designated States (unless otherwise indicated, for every
 kind of national protection available): AE, AG, AL, AM,
 AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
 CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
 DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
 HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
 KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
 ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
 NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD,
 SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
 kind of regional protection available): ARIPO (BW, GH,
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,
 TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
 ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
 MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM,

[Continued on next page]

(54) Title: HEAT EXCHANGE ELEMENT, A HEAT EXCHANGER COMPRISING THE ELEMENTS, AND AN EQUIP-
 MENT FOR THE MANUFACTURE OF THE ELEMENTS

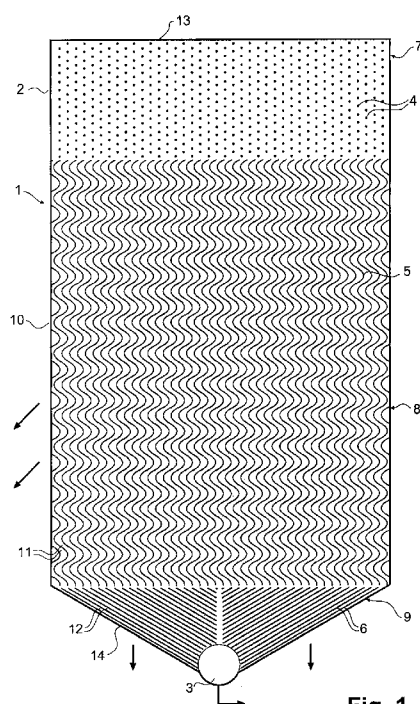


Fig. 1

(57) Abstract: The invention relates to a heat exchange element (1) of flexible plastic film material, a heat exchanger made up of such elements, and an equipment for the manufacture of the elements. The element (1) comprises a pair of opposite film sheets bonded by welds (4, 5, 6) to form an expandable bag with inside and outside heat exchange surfaces, an inlet opening (2) for supplying a pressurized heat exchange fluid to the bag, an outlet opening (3) for discharging the fluid from the bag after heat exchange, and an array of welds (4, 5, 6) defining routes for fluid flow inside the bag. According to the invention there are spot welds (4) in a first zone (7) of the element, parallel extended welds (5) in a second zone (8) of the element, defining fluid flow channels (11) through the second zone, and oblique welds (6) in a third zone (9) of the element, defining channels (12) for fluid flow towards the outlet opening (3). The heat exchanger comprises a pack of adjacent elements (1) for heat exchange between a pressurized first fluid flowing inside the elements and a second fluid flowing between the adjacent elements. In the equipment for the manufacture of the elements (1) a web of double plastic sheet material is made to pass a succession of three heatable weld rolls and a backing roll. The weld rolls have protrusions for forming welds of three different configurations, respectively, and are provided with means for selectively bringing the rolls into contact with the moving web and out of contact with it.

WO 2011/110726 A1



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, **Published:**
ML, MR, NE, SN, TD, TG).

— *with international search report (Art. 21(3))*