

(43) International Publication Date
10 December 2009 (10.12.2009)(10) International Publication Number
WO 2009/147443 A3(51) International Patent Classification:
B05B 7/04 (2006.01) *A62C 31/07* (2006.01)(21) International Application Number:
PCT/GB2009/050626(22) International Filing Date:
4 June 2009 (04.06.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0810155.2 4 June 2008 (04.06.2008) GB(71) Applicant (for all designated States except US): **PUR-SUIT DYNAMICS PLC** [GB/GB]; Shackleton House, Kingfisher Way, Hinchingsbrooke Business Park, Huntingdon, Cambridgeshire PE29 6HB (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WORTHY, Jude Alexander Glynn** [GB/GB]; 76 Parkside, Grammar School Walk, Huntingdon, Cambridgeshire PE29 3LF (GB). **FRENCH, James Oliver** [GB/GB]; 30 Essex Road, Huntingdon, Cambridgeshire PE29 1SE (GB).(74) Agent: **MURGITROYD & COMPANY**; Scotland House, 165-169 Scotland Street, Glasgow G5 8PL (GB).

(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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, 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, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
28 January 2010

(54) Title: MIST GENERATING APPARATUS AND METHOD

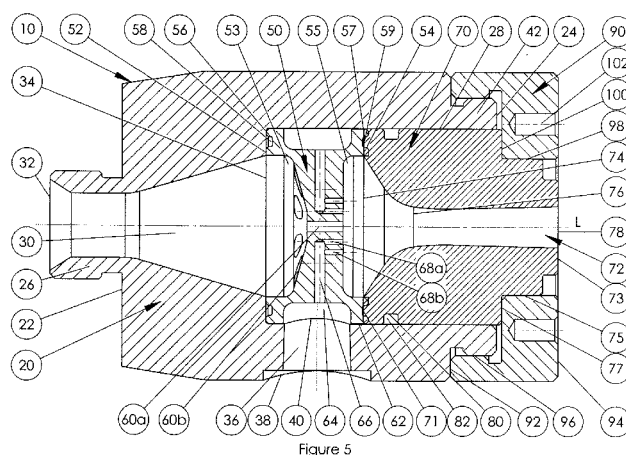


Figure 5

(57) Abstract: An improved apparatus for generating a mist is provided. The apparatus has at least one working fluid supply conduit (66) having an inlet in fluid communication with a supply of working fluid and an outlet in fluid communication with a first mixing chamber. The apparatus also includes a plurality of transport fluid passages (60a, 60b), each of which has an inlet adapted to receive a supply of transport fluid and an outlet in fluid communication with the mixing chamber. Downstream of the mixing chamber is a nozzle (72) having an inlet (74) in fluid communication with the mixing chamber, an outlet (78), and a throat portion (76) intermediate the nozzle inlet (74) and outlet (78). The throat portion (76) of the nozzle (72) has a cross sectional area which is less than that of either the nozzle inlet (74) or the nozzle outlet (78). The provision of a plurality of transport fluid passages flowing into the mixing chamber, and the nozzle downstream of the mixing chamber, enhance the atomisation of the working fluid to generate the mist.