



(51) International Patent Classification:

A62C 31/02 (2006.01) A62C 99/00 (2010.01)  
A62C 31/05 (2006.01)

(21) International Application Number:

PCT/FI2014/050569

(22) International Filing Date:

11 July 2014 (11.07.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(71) Applicant: **MARIOFF CORPORATION OY** [FI/FI];  
Plaza Business Park Halo, Äyritie 24, FI-01510 Vantaa (FI).

(72) Inventor; and

(71) Applicant (for US only): **HUOTARI, Arto** [FI/FI]; Plaza  
Business Park Halo, Äyritie 24, FI-01510 Vantaa (FI).

(72) Inventors: **MATTILA, Harri**; Plaza Business Park Halo,  
Äyritie 24, FI-01510 Vantaa (FI). **LEHTO, Esko**; Plaza  
Business Park Halo, Äyritie 24, FI-01510 Vantaa (FI).  
**SYRJÄNEN, Sami**; Plaza Business Park Halo, Äyritie 24,  
FI-01510 Vantaa (FI). **MATTILA, Juhani**; Plaza Business  
Park Halo, Äyritie 24, FI-01510 Vantaa (FI).

(74) Agent: **HEINÄNEN OY**; Äyritie 8 D, FI-01510 Vantaa  
(FI).

(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, BN, 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, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,  
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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,  
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,  
TM), European (AL, 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, RS, SE, SI, SK, SM,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a  
patent (Rule 4.17(ii))

Published:

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

(54) Title: WATER MIST FIRE SUPPRESSION DEVICE AND METHOD OF MANUFACTURING

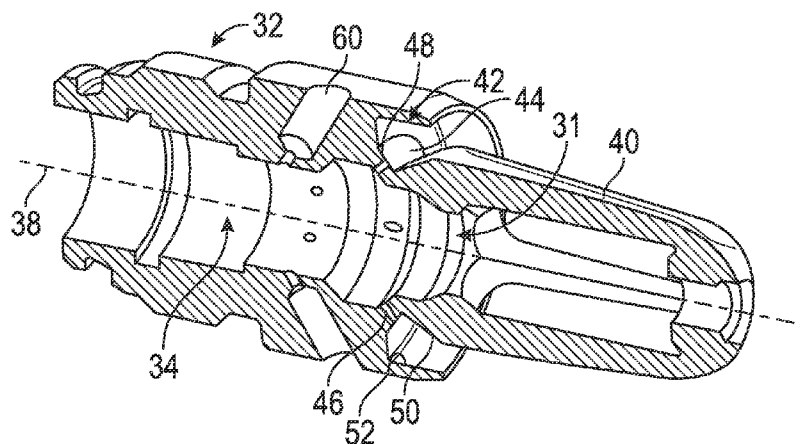


FIG. 2

(57) Abstract: A water mist fire suppression device includes a nozzle body disposed about a central axis. Also included is a nozzle arrangement configured to expel water. The nozzle arrangement includes an annular groove. The nozzle arrangement also includes a micro nozzle extending from a water plenum to the annular groove, wherein the micro nozzle is angularly oriented from the central axis. The nozzle further includes a deflector lip located proximate an outlet of the nozzle, wherein the deflector lip is positioned to contact water exiting the outlet of the nozzle arrangement.

