

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 July 2008 (17.07.2008)

PCT

(10) International Publication Number
WO 2008/086508 A3

(51) International Patent Classification:
F16L 55/00 (2006.01)

(21) International Application Number:

PCT/US2008/050821

(22) International Filing Date: 10 January 2008 (10.01.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/884,262	10 January 2007 (10.01.2007)	US
60/917,459	11 May 2007 (11.05.2007)	US
60/956,655	17 August 2007 (17.08.2007)	US
60/977,010	2 October 2007 (02.10.2007)	US

(71) Applicant (for all designated States except US): **TYCO FIRE PRODUCTS LP** [US/US]; 451 N. Cannon Avenue, Lansdale, PA 19446 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GOLINVEAUX, James, E.** [US/US]; 193 Torrie Lane, N. Kingstown, RI 02852 (US). **SCHIAVONE, Carmine, L.** [US/US]; 2071 Squirrel Hill Road, Schwenksville, PA 19473 (US). **RADZIK, Joseph, G.** [US/US]; One Carnival Terrace, West Warwick, RI 02893 (US). **AMARELLO, John, A.** [US/US]; 8 Tecumseh Avenue, Fairhaven, MA 02719 (US).

(74) Agent: **PROSKAUER ROSE LLP**; 1001 Pennsylvania Avenue, N.W., Suite 400 South, Washington, DC 20004 (US).

(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, 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, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

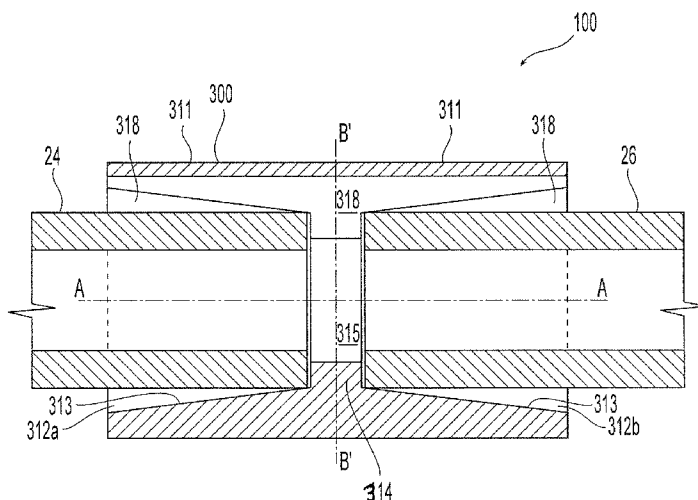
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, 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

[Continued on next page]

(54) Title: SYSTEM FOR DETECTING AND SEALING DRY FIT CONNECTIONS IN A PIPING ASSEMBLY



(57) Abstract: Systems and methods for evaluating a piping system for an improperly assembled fluid tight connection. Provided is a preferred joint assembly unable to hold fluid pressure in either one of a dry fit connection and partial seal connection. The joint assembly includes a coupler to identify a leak. More specifically, the coupler includes a substantially tubular wall portion having an outer surface, an inner surface and a channel disposed along one of the inner and outer surfaces. The channel has a first configuration for carrying a fluid between an interior of the piping system and an exterior of a piping system, and a second configuration to prevent fluid from being carried between the interior and the exterior of the piping system. The channel is further preferably convertible from the first configuration to the second configuration in the presence of a minimum amount of sealant material.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) **Date of publication of the international search report:**

25 September 2008