AIRBUS DEFENCE & SPACE	**Memo Nº:** TAO-F0-TD-15-0001 **Issue:** A **Date:** 31/10/2014
Subject: Coupler between fuel hoses and defueling pits in new Fuel Station	

From: TAOEG3 – Ground System Test Engineering	**To:** Juan Antonio Díaz Barco Virginia López Grado
Author: Manuel Campillo Muñoz 	**Approval:** Fátima Lozano Montoya 
External distribution:	**Internal distribution:** Francisco Prieto Piñero Humberto Astudillo Mendinueta

1. OBJECTIVE

The objective of this coupler is being an interface between the refueling hoses PRFU-01-4820-10100 (described in ET-MTISG-ISA-V40-11014) and the defueling pits in the new fuel station.

2. PRODUCT REQUIREMENTS

1. It will be necessary 2 units.

2. The refuelling hoses and these new couplers will be part of the new POD defueling rig specified in MT-F0-TD-14-0010.

3. This new coupler shall be connected in one of the end of the hose as the next figure 1:

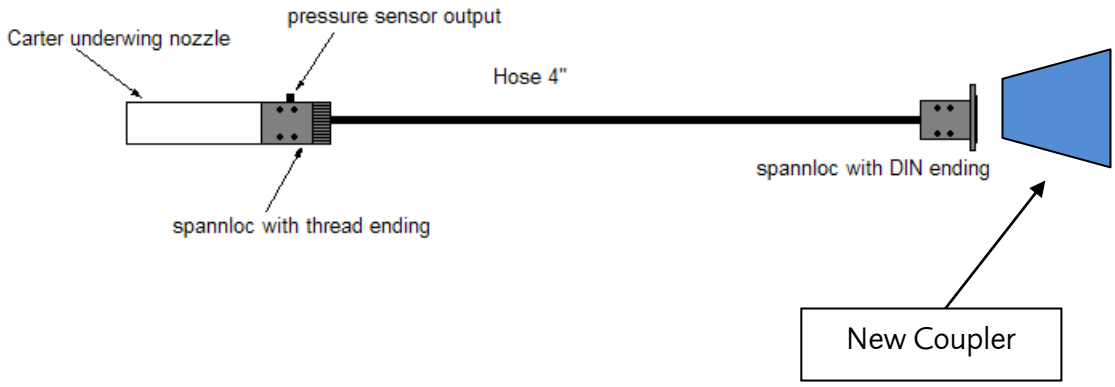

Figure 1. Schematic of the hose

4. They must be assembled with the end of the hose (see figure 2):

   1) PN: DIN2632/33 PN 10/16 DN100/114.3 C22.8 101204

   +

   2) PN: R S DY DIN2673/74 PN 10/16 DN 100/108 RST 37-2/S235

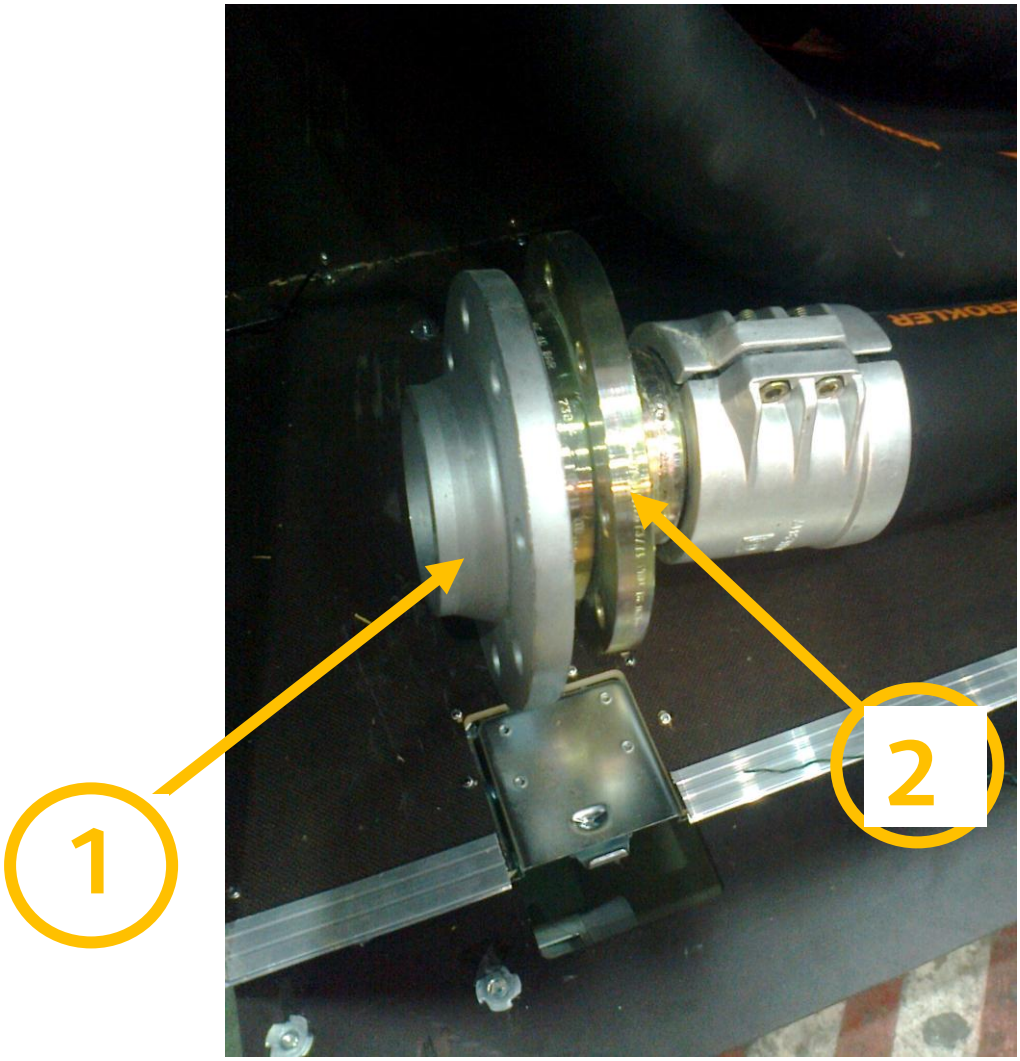

Figure 2. End of the hose

5. Taking into account the end of the hose (see figure 2), it will be necessary several Klinger joints (vegetal fibre) to avoid leaks and 8 bolts + 8 nuts, because the flanges are unscrewed.

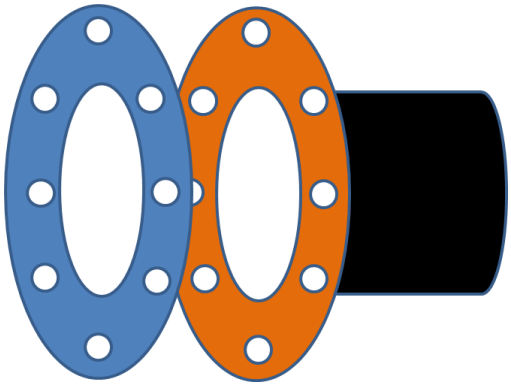

Figure 3. Flanges of the hose

6. This kit must be connected to the new defueling pits in the Fuel Station (Getafe - ST 30) → PN: DAB-24ULWP-ENV-S-FHEB-6A544-700D. Therefore, it will be necessary a coupler. See figure 4.

Figure 4. Defueling pit

7. As a proposal, the PN: S539B1101 could be the correct. To use this coupler, you must use 4 of the holes for bolts in the end of the hose. See Annex.

3. ANNEX

Figure 4. PN: S539B1101

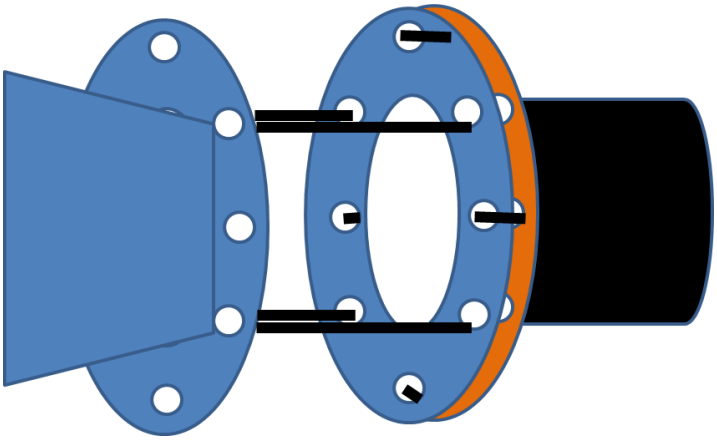

Figure 5. Assembly

4" (Ø 164 mm) DDCouplings

4" (Ø 164 mm) Hose Unit (Coupler) – Female Thread

Acc. to NATO STANAG 3756

Connection [1] Inch/DN	Body Material [2]	Seal [3] O-Ring	Seal [3] Thread Seal	Weight ≈ kg	Weight ≈ lbs	Mann Tek Code No.
F 4 BSP	Al	Standard: FPM/FKM (Viton®) Other on request.	PUR (Polyurethane)	7,6	16.8	S516B1101B
F 4" ASSPT	Al		PUR (Polyurethane)			S5136B1101B
F 4" NPT	Al		—	7,9	14.2	S517B1101
F 4" BSP	GM		PUR (Polyurethane)	17,5	38.6	S516B2201B
F 4" ASSPT	GM		PUR (Polyurethane)			S5136B2201B
F 4" NPT	GM		—	17.7	39.0	S517B2201
F 4" BSP	SS		PTFE	15,6	34.4	S516B4401A
F 4" ASSPT	SS		PTFE			S5136B4401A
F 4" NPT	SS		—	15.9	35.0	S517B4401

ELAFLEX Part Number
Type DDC-M...
Catalogue Page 345

[1] F = Female thread, BSP = EN ISO 228, NPT = ANSI B1.20.3, ASSPT = American Straight Pipe Thread, identical to NPS. NPT male threads can be connected with ASSPT female treads.
[2] Material: Al = Aluminium, GM = Gunmetal, SS = Stainless Steel
[3] Standard seal FPM/FKM. Alternative materials, e. g. EPDM, Chemraz ®, Kalrez ®, NBR or HNBR on request

4" (Ø 164 mm) Coupler – Flanged Inlet

Acc. to NATO STANAG 3756

Flange [1]	Body Material [2]	Seal [3] O-Ring	Weight ≈ kg	Weight ≈ lbs	Mann Tek Code No.
undrilled Ø 230 mm	Al	Standard: FPM/FKM			S521B1101
DN 100 PN 10 / 16 Type B	Al		9,3	20.0	S539B1101
4" ASA 150	Al		9,4	20.7	S563B1101
4" TTMA	Al		8,7	19.2	S568B1101
DIN 28459 "TW 3" / DN 100	Al		8,7	19.2	S566B1101
undrilled Ø 230 mm	Br				S521B2201
DN 100 PN 10 / 16 Type B	Br				S539B2201
DN 100 PN 25 / 40 Type B	Br		23,9	52.7	S540B2201
4" ASA 150	Br		23,9	52.7	S563B2201
4" ASA 300 ps	Br				S564B2201
4" TTMA	Br				S568B2201
DIN 28459 "TW 3" / DN 100	Br				S566B2201

ELAFLEX Part Number
Type DDC-M... -F

Figure 6. Different Coupler Types