

PRODUCTS - Couplings

AVIATION EQUIPMENT AIRCRAFT ADAPTORS AND CAPS



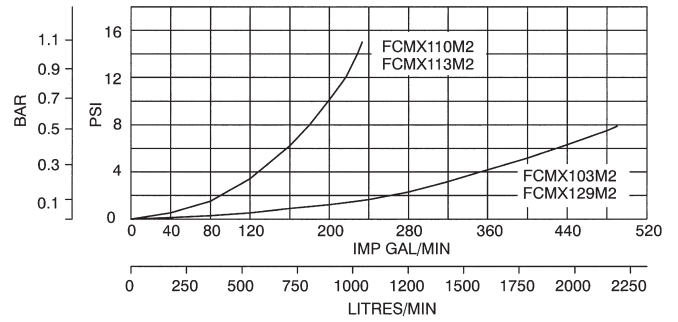
- LIGHTWEIGHT AIRCRAFT ADAPTORS AND SEALING CAPS
- UNDERWING TO OVERWING ADAPTORS
- 3/4-INCH WATER METHANOL COUPLINGS

LIGHTWEIGHT AIRCRAFT ADAPTORS

Avery-Hardoll lightweight adaptors have been developed to meet the requirements of high-speed fuelling; they comply with Ministry of Defence specifications and are approved by the CAA for civil aircraft use.

The adaptors are available in three sizes with varying types of fuel system connection; all units are manufactured to accept the International standard 2 1/2-inch three point bayonet, hose end refuelling nozzles. These units can also be used as bottom loading or priming points on refuelling vehicles.

Pressure Loss Curves



PART No.	SIZE	ATTACHMENT	WEIGHT	
			lb	kg
FCMX110M2	1 1/2"	4 point square attachment flange and 1 1/2" BSP screwed connection	1.62	0.74
FCMX113M2	1 1/2"	8 point round attachment flange (direct mounting)	1.62	0.74
FCMX103M2	2 1/2"	4 point square attachment flange and 2 1/2" BSP screwed connection	2.25	1.02
FCMX129M2	2 1/2"	8 point round attachment flange (direct mounting)	2.06	0.93
FCMX1307	2 1/2"	4 point square attachment flange with 36 1/2° elbow	1.62	0.74



FCMX103M2



FCMX129M2



FCMX113M2



FCMX110M2



FCMX1307

Sealing caps

Avery-Hardoll connectors and adaptors should be fitted with sealing caps to prevent the ingress of dirt and water. The sealing caps are provided with a dual 'O' ring spring-loaded seal, together with three equally disposed roller assemblies to facilitate locking and unlocking the bayonet flange.



FCMX109



FCMX441

PART No.	DETAILS	WEIGHT	
		lb	kg
FCMX109	Lightweight cap and attachment chain	0.51	0.22
FCMX109A	Lightweight cap and attachment cable	0.51	0.22
FCMX441	Combined access door and sealing cap, complete with a moisture deflecting fairing around the handle locking mechanism and a chain box and chain.	1.56	0.72
FCMX441-SP2	Combined access door and sealing cap, with a modified chain box and chain.	1.56	0.72

UNDERWING TO OVERWING ADAPTORS

To facilitate overwing fuelling, a lightweight adaptor can be fitted with a handle assembly; this combination is offered as an underwing to overwing adaptor. In use, the thread on the lightweight adaptor is screwed into a flexible hose terminating in a trigger nozzle; the unit is then coupled to the fuelling bowser's hose unit.



FCMY267



FCMY266

PART No.	DETAILS	WEIGHT	
		lb	kg
FCMY266	1 1/2" BSP comprising FCMX110M2 aircraft unit with handles	3.1	1.4
FCMY267	2 1/2" BSP comprising FCMX103M2 aircraft unit with handles	4.2	1.9

Wear gauge

TASS5050 - Available for checking bayonet lug wear on aircraft adaptors.

3/4-INCH COUPLINGS

Introduction

The complete coupling consists of two units; the 'aircraft unit' which is permanently mounted on the aircraft and the 'hose unit' which is attached to the replenishing trolley hose. The couplings, used mainly for water/methanol connections, meet the conditions of high speed turn around of civil and military aircraft. They comply with the Ministry of Defence and the CAA design and performance specifications.

Description

Aircraft unit (tank unit) the unit body is a light alloy casting having an integrally cast valve guide. A self-sealing, spring loaded poppet valve is retained within the body by the bayonet flange and the valve guide. The valve has an 'O' ring seal fitted in a groove in its seating face, thereby ensuring a positive seal.

Hose unit

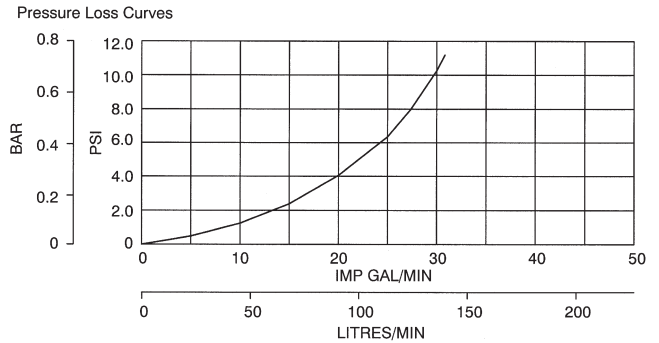
The unit consists of a sleeve housing a cam and valve assembly and fitted with a swivel hose connector. Two diametrically opposed helical slots are formed in the cam which carries a three lug bayonet coupling. The helical slots locate two bushed rollers carried on a spindle which passes through the stem of the valve and transmits the action that extends and retracts the valve to the open and closed positions. Between the valve seating and the recess in the cam is a wave spring which holds the seating against the mating face of the aircraft unit, when connection has been made. The hose connector swivels on the cam on non-corrodible ball bearings. The hose unit is thus able to rotate independently of the hose.

Aircraft unit blanking cap

Bayonet fitting cap with 'O' ring seal.

Hose unit dust cap

These caps are manufactured from synthetic rubber and are available as an external push-on bayonet fitting cap with 'O' ring seal fitting for the unit.



COUPLINGS					
PART No.	SIZE	TYPE	CONNECTOR	WEIGHT	
				lb	kg
CCMX 706S2	3/4"	Hose	Hose Unit	1.59	0.726
CCMX 208S2	3/4"	Aircraft	Round flange 6 hole	0.625	0.285
CCMX 216S2	3/4"	Aircraft	Threaded 7/8" UNF Male	0.53	0.24
BLANKING CAP					
CCMX 203	3/4"	Aircraft		0.125	0.057
DUST CAP					
CCMX 190	3/4"	Hose		0.187	0.085

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