



Design Concepts

Eaton's Model 61154 Dry Break Quick Disconnect (QD) supersedes earlier Model 60672-1 and is available for use on all of Eaton's Carter product line of nozzles, both commercial and military. It also mates all other makes of military nozzles. In addition, an overwing/underwing nozzle interchange adapter is also available. Although as a complete unit Model 61154 is fully interchangeable with Model 60672-1 and many of the internal parts are identical, the male and female connections are not interchangeable with the similar parts of the older unit.

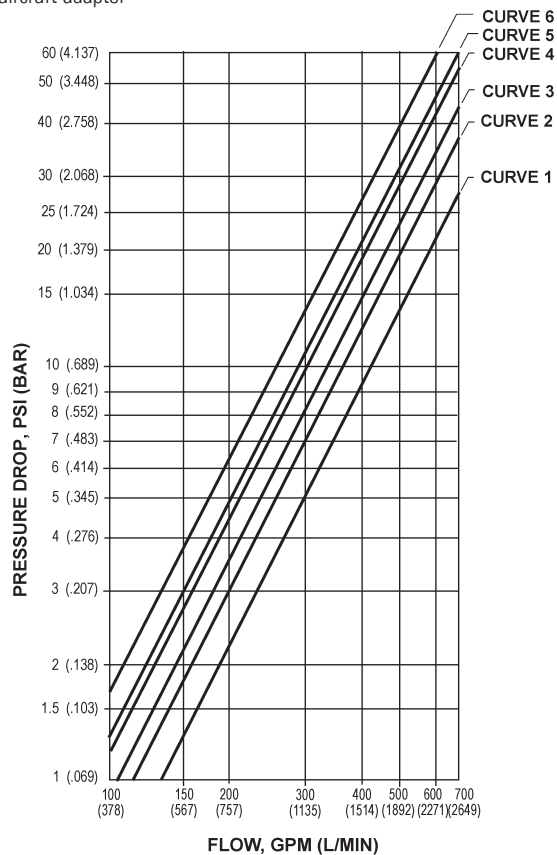
Most refueling procedures require that the nozzle screen be checked periodically. With a standard nozzle/hose system, the hose must be drained to accomplish this feat. The use of a dry break instead of the standard QD on the nozzle keeps the fuel in the hose. Only the residual fuel in the nozzle needs to be caught during the inspection. All previous dry break disconnects had several disadvantages, including the need to use a screwdriver to accomplish the disconnect. The separation of the two halves of the unit was a "two-man" job and the seal design prevented the unit from actually swivelling during nozzle connection.

Features

- Dry break mechanism proven from long years of service in the older Model 60672-1 design QD
- Dry break inlet half minimizes fuel spillage during screen check
- Special seal design and impregnated Teflon® wear rings facilitate disconnect and swivel capability. Teflon wear rings also reduce side loading of seal, providing better sealing capability than other designs.
- Wear rings prevent metal to metal contact (galling) of male and female halves
- Military male half adapter has O-ring groove — expensive gasket not needed
- Spring loaded thumb latches lock ball sleeve. No locking screws — no tools required. Either latch will keep sleeve in locked position. Provides two independent locks.
- Spring load on sleeve in opposite direction of normal hose drag (won't accidentally be pulled to the unlocked position) — third lock
- Safety clip (formerly Option X, now standard) — fourth lock
- Higher strength check valve actuating fork
- CRES (stainless steel) ball race rings utilized on male adapter half. Eliminates aluminum bronze male used on older commercial 60672-1 model.
- Female inlets available in 2, 2½ and 3-inch NPT and BSPP threads
- 40, 60 and 100-mesh screens available
- Male outlet adapters available to mate all military D-1/D-2, 60427, 64348, 1½ and 2-inch NPT overwing and closed circuit refueling (CCR) nozzles and 1½ and 2-inch BSPP overwing nozzles

Flow Characteristics

Pressure drop vs flow curves for various nozzle models, using Jet A and standard aircraft adapter

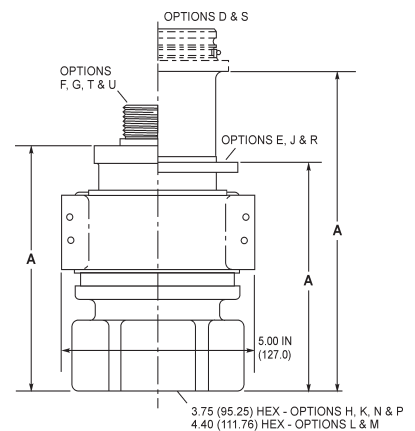


Curve 1	Model 64349H6H D-1 nozzle with Model 61154 Dry Break QD	Curve 4	Model 64348C8H nozzle with Model 61154 Dry Break QD
Curve 2	Model 643488H straight inlet nozzle with Model 61154 Dry Break QD	Curve 5	Model 60427C8H nozzle with 100-mesh screen and Model 61154 Dry Break QD
Curve 3	Model 64349CH6H D-1 nozzle with 100-mesh screen and Model 61154 Dry Break QD	Curve 6	Model 64348C8H nozzle with 100-mesh screen and Model 61154 Dry Break QD

Envelope Dimensions

Dimensions shown in inches (millimeters)

Options	— Dim. "A" —	
	inches	(mm)
D, S	8.03	(203.96)
F, G, T, U	5.97	(151.64)
E, J, R	5.72	(145.29)



Model 61154 dry break disconnect is available in six basic female half units (see descriptions shown at the right) to which the options listed below may be added to obtain a complete unit.

Superseding Information

Model 61154 Dry Break QD is designed to replace older Model 60672-1, used on the D-1 and Model 60427 nozzles, and Model 44363, used on older Model 61428 nozzles. The male and female halves of Model 61154 are not interchangeable with either the 60672-1 or 44363 model's male and female halves. The entire dry break disconnect must be replaced.

Note:

It is important to consider whether a hose end regulator is used or not when choosing the dry break disconnect. The male half option is different when a regulator is used. If the incorrect male half option is specified, either the nozzle opening handle will interfere with the dry break disconnect (short adapters, Options J or S, used where no regulator is present); or the nozzle assembly will be longer than necessary (long adapters, Options D or R, used with a regulator).

Illustrated Options

Model	Description
61154H	Female half with 2½-inch NPT inlet
61154L	Female half with 3-inch NPT inlet
61154K	Female half with 2½-inch BSPP inlet
61154M	Female half with 3-inch BSPP inlet

Option Letter	Description
A	Adds 40-mesh screen and retaining ring (44373-40)
B	Adds 60-mesh screen and retaining ring (44373-60)
C	Adds 100-mesh screen and retaining ring (44373-100)
D	Adds long male half adapter to mate with Model 60427 nozzle, less regulator and related accessories (44700)
E	Adds male half adapter to mate military D-1/D-2 nozzles (44663)
F	Adds male half adapter to provide 2-inch BSPP male thread to mate overwing nozzle (44746)
G	Adds male half adapter to provide 1½-inch BSPP male thread to mate overwing nozzle (47024)
J	Adds short male half adapter to mate Model 60427 nozzle with regulator and related accessories (44185)
R	Adds short male half adapter to mate Model 61428 nozzle with regulator and related accessories (44697)
S	Adds long male half adapter to mate Model 61428 nozzle without regulator and related accessories (44701)
T	Adds male half adapter to provide 1½-inch NPT male thread to mate overwing nozzle or CCR nozzle (44698)
U	Adds male half adapter to provide 2-inch NPT male thread to mate overwing nozzle (47065)

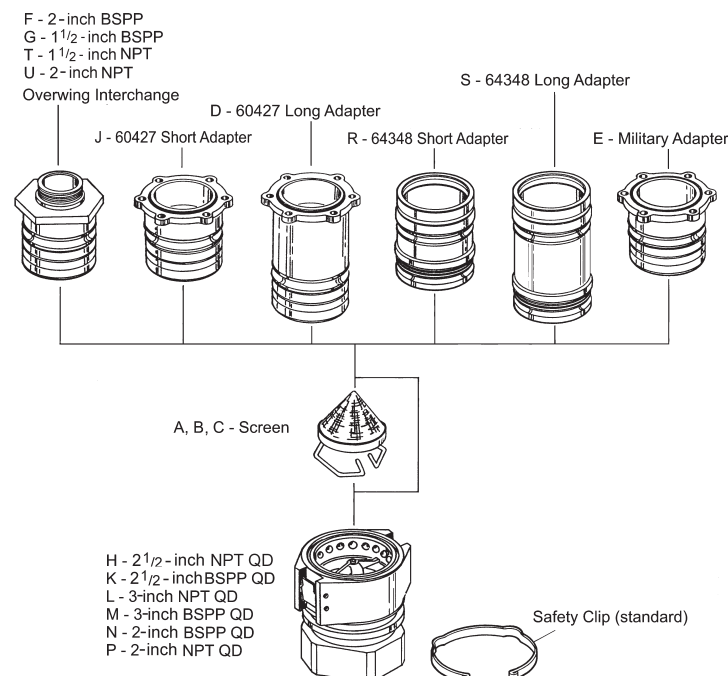
Notes:

- Options A, B, and C fit into the male half adapters only (Options D, E, F, J, R, S and T)
- Options D, E, F, G, J, R, S, T, or U must be ordered with one of the six basic units above to obtain a completed unit

NSN Information

Several Model 61154 Dry Break Quick Disconnect configurations have NSN numbers issued, as follows:

NSN	Eaton Model	Description
4730-01-366-7215	61154AEL	Dry Break QD, 40-mesh screen, 3-inch NPT inlet, outlet to mate D-1/D-2 nozzle
4730-01-366-9406	61154AEP	Dry Break QD, 40-mesh screen, 2-inch NPT inlet, outlet to mate D-1/D-2 nozzle
4730-01-306-6328	61154EP	Dry Break QD, 2-inch NPT inlet, outlet to mate D-1/D-2 nozzle
4730-01-353-8497	61154BEH	Dry Break QD, 60-mesh screen, 2½-inch NPT inlet, outlet to mate D-1/D-2 nozzle



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