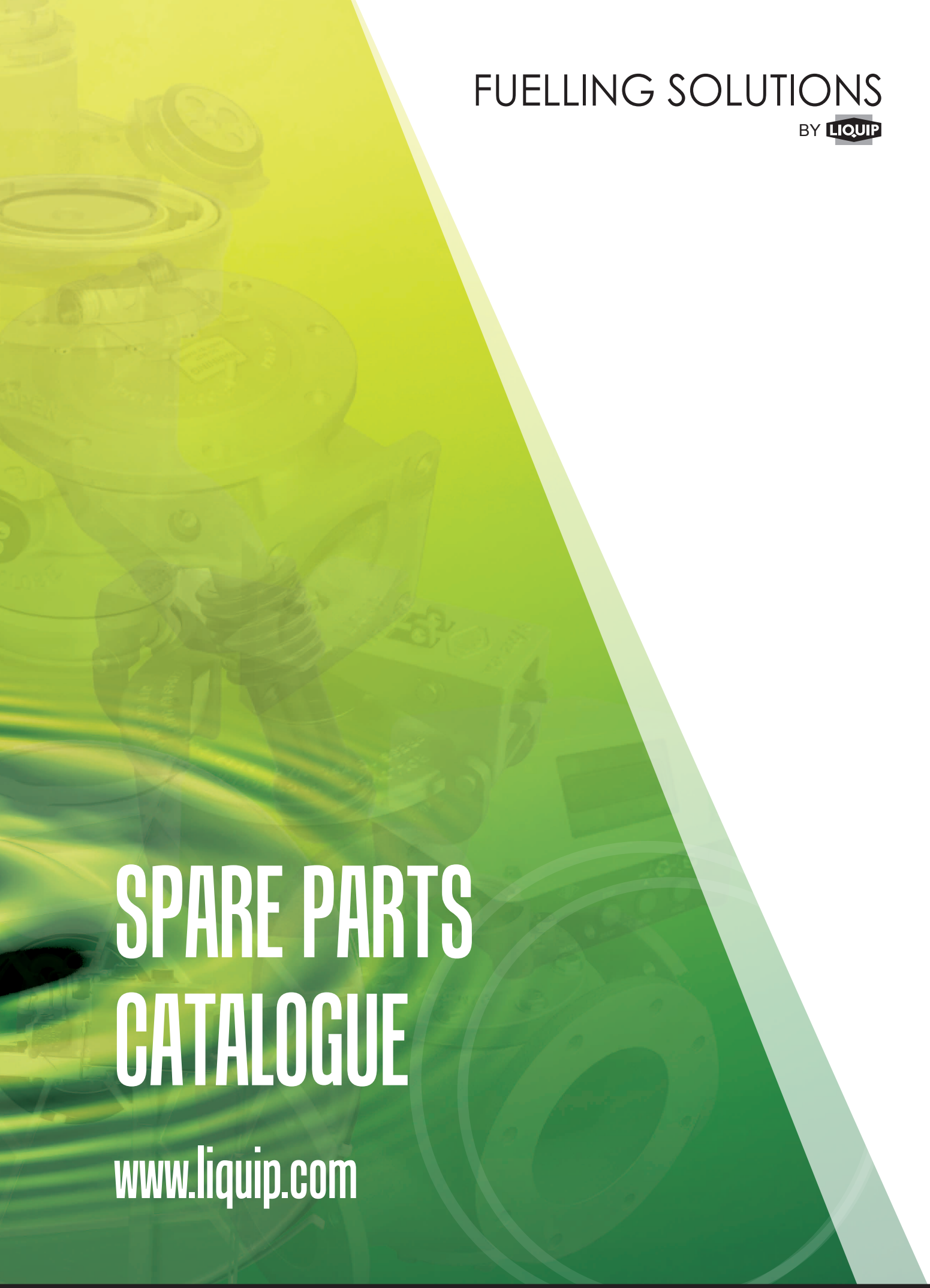
FUELLING SOLUTIONS

BY LIQUIP



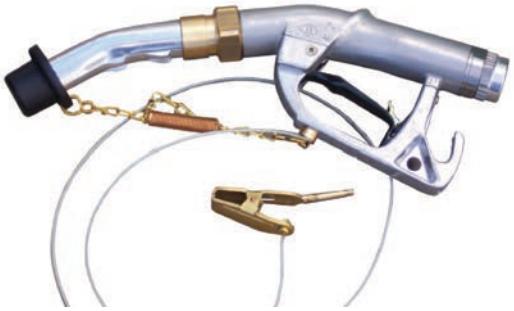
SPARE PARTS CATALOGUE

www.liquip.com

NOZZLES & ACCESSORIES

ELAFLEX BOWSER NOZZLE

The ZVF25 1" refuelling nozzle has been the bench-mark nozzle for aviation refuelling for decades. With an internal check valve, 100 mesh strainer and integral inlet swivel.

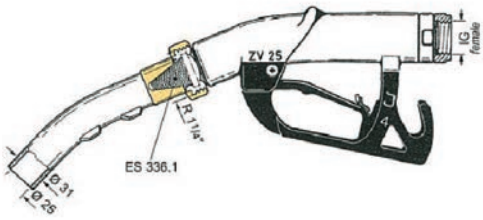


Maximum flow rate:	140 litres / minute
Working pressure:	up to 3.5 bar (50 psi)
Spout:	27 Ø - 1" BSP female inlet
Operation:	Manual shut-off
Materials:	Aluminium body, guard and inlet swivel, stainless steel and acetal internals, Nitrile and Vulkollan seals

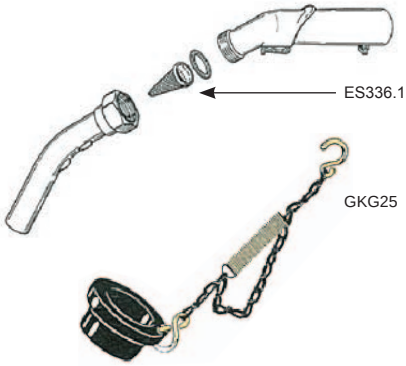
Ideal for fuels up to 50% aromatics, alcohols up to 15%, Jet fuels and Diesel **(NOT suitable for viscous oils)**

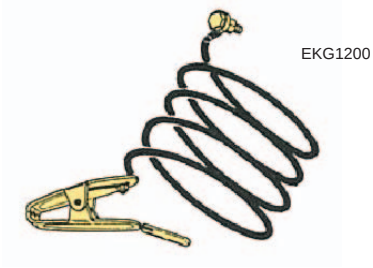
Ordering Information:

Complete Nozzle	
Part No	**Description**
ZVF25.41	Includes dust cap & spring loaded chain, swivel, strainer and 1.2m bonding cable & clip



Spare Parts	
Part No	**Description**
EA075.1	Inlet swivel
ES336.1	Strainer (100 mesh)
GKG25	Dust cap & spring loaded chain
EKG1200	Bonding cable (1.2m) and clip





NOZZLE OVERWING

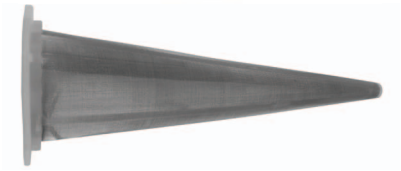
fine and accurate top-up

The Liquip AVN042 has been designed as an easy to operate nozzle for delivery of all fuels and aviation fuels. Unlike normal nozzles, it is equipped with “power assist” dashpot operation to make it as light as a service station nozzle.

The pressure-balance design allows a small, constant finger force on the trigger no matter what the pump pressure. In operation, the trigger action first opens a bullet-shaped internal seal to equalise internal nozzle pressure, making it easy to open the product seal.

This ease of operation allows for fine, accurate top-up without any surging and splashing. The body, handle and trigger are heavy duty but lightweight aluminium.

The handle and trigger are easily replaceable, and the body has wear ribs to protect it when dragged.



Technical Specifications

Adjustment:	None
Trigger Force:	constant 60N at midpoint
Flow-through diameter:	38mm (1 1/2”)
Pressure Drop:	Only 50kPa pressure drop at 300lpm with 32mm spout
Weight:	2.5kg with 32mm spout
Mounting:	38mm (1 1/2” BSPP female thread) inlet
Materials:	Aluminium body, handle, trigger and adaptor outlet Stainless steel shaft, pin and spring Viton and polyurethane seals
Dismantling:	Remove capscrew. Unscrew outlet adaptor. This will give access to all internals.

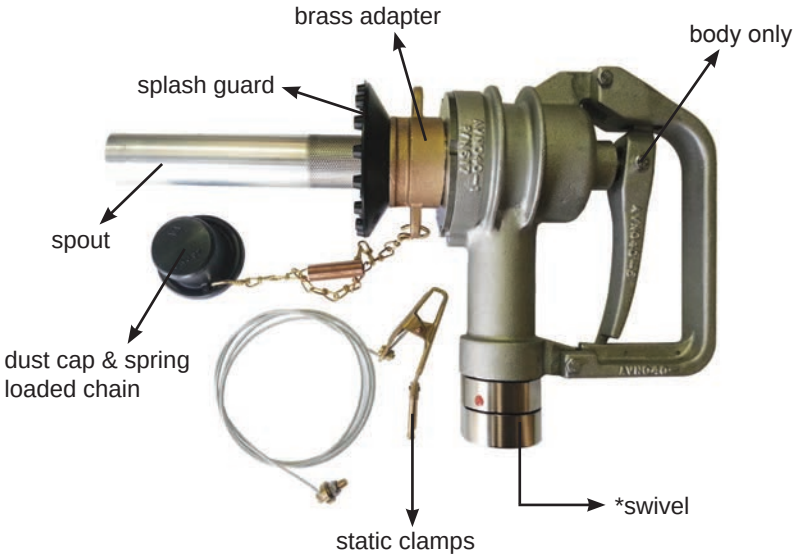
NOZZLE OVERWING

Ordering Information:

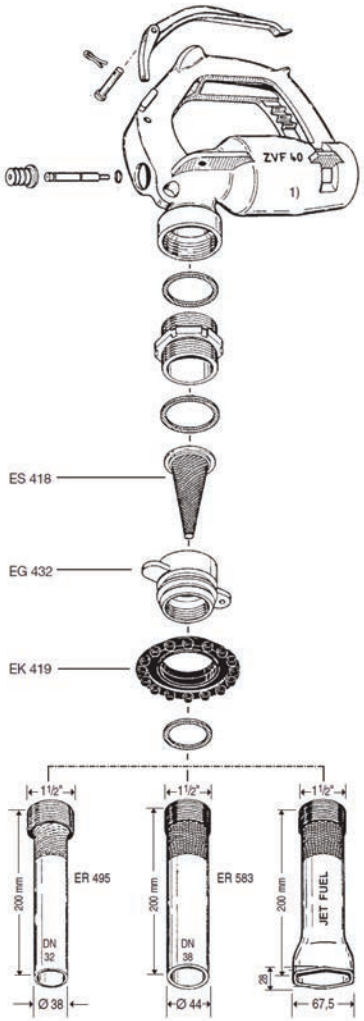
Ordering the Complete Nozzle:

Part No	Spout Size
AVN-25Z	25mm
AVN-32Z	32mm
AVN-38Z	38mm
AVN-JZ	Jet Selective

** Complete nozzle does not come with swivel*



Ordering Accessories:



NOZZLE BODY ONLY
AVN042

SPOUTS

ER250	25mm (reduced) spout
ER495	32mm aluminium spout
ER583	38mm aluminium spout
ER587 JET	Jet-Selective aluminium spout

DUST CAPS

GKG25	Buna-N dust cap & spring loaded chain suit 25mm spout
GKG32	Buna-N dust cap & spring loaded chain suit 32mm spout
GKG38	Buna-N dust cap & spring loaded chain suit 38mm spout
GKG38-J	Buna-N dust cap & spring loaded chain suit Jet Selective spout

ADAPTOR

EG432	Brass adaptor to suit AVN042 o/w nozzle for fitting spouts

STRAINER

ES418	Poly / stainless steel 100 mesh strainer suit EK432 adaptor
EG-ASS	(Adapter EG432 + Strainer ES418)

SPLASH GUARD

EK419	Buna-N guard suit EG432 adaptor

STATIC CLAMPS

EKG1200	1.2m bonding cable and clip

CARTER NOZZLE UNDERWING - 64348

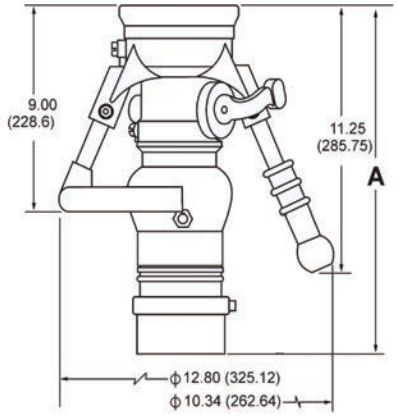
easier swivelling under all conditions

Features

- Swivel independent of quick disconnect (QD)
- Connects to 3-lug international standard aircraft adapter
- Designed in accordance with new SAE design specification for commercial nozzles AS5877
- Self-adjusting pressure-loaded nose seal. No mechanical adjustments or springs used. Leak free under extreme side loads, worn adapters and extreme temperatures.
- Optional easy change nose seal — no tools required
- Lead-in ramps (interface with aircraft adapter lugs) of stainless steel for longer life
- Positive mechanical interlock — nozzle can not be opened until connected to aircraft and can not be removed from aircraft in the open position
- Flow control handle of high strength zinc-aluminium alloy
- Replaceable bicycle handles and grips standard for ease of operation. Circular grip optional.
- Two threaded ports in nozzle body for simultaneous vacuum breaker and product sampling fitting installation are standard
- Lightweight and rugged
- Modular construction with use of bolt flanges minimized
- 2, 2-½, & 3 inch NPT & BSPP threaded QD inlets available
- Optional 40, 60 and 100-mesh screens retained with snap rings for ease of removal
- 35 psi (2.413 bar), 45 psi (3.103 bar) & 55 psi (3.792) hose end control valves (HECV) available
- Dry break or ball valve for easy strainer inspection available
- Low pressure drop
- Optional bonding cable and vacuum breaker
- Redundant safety lock on QD

CARTER NOZZLE UNDERWING - 64348

Ordering Information:



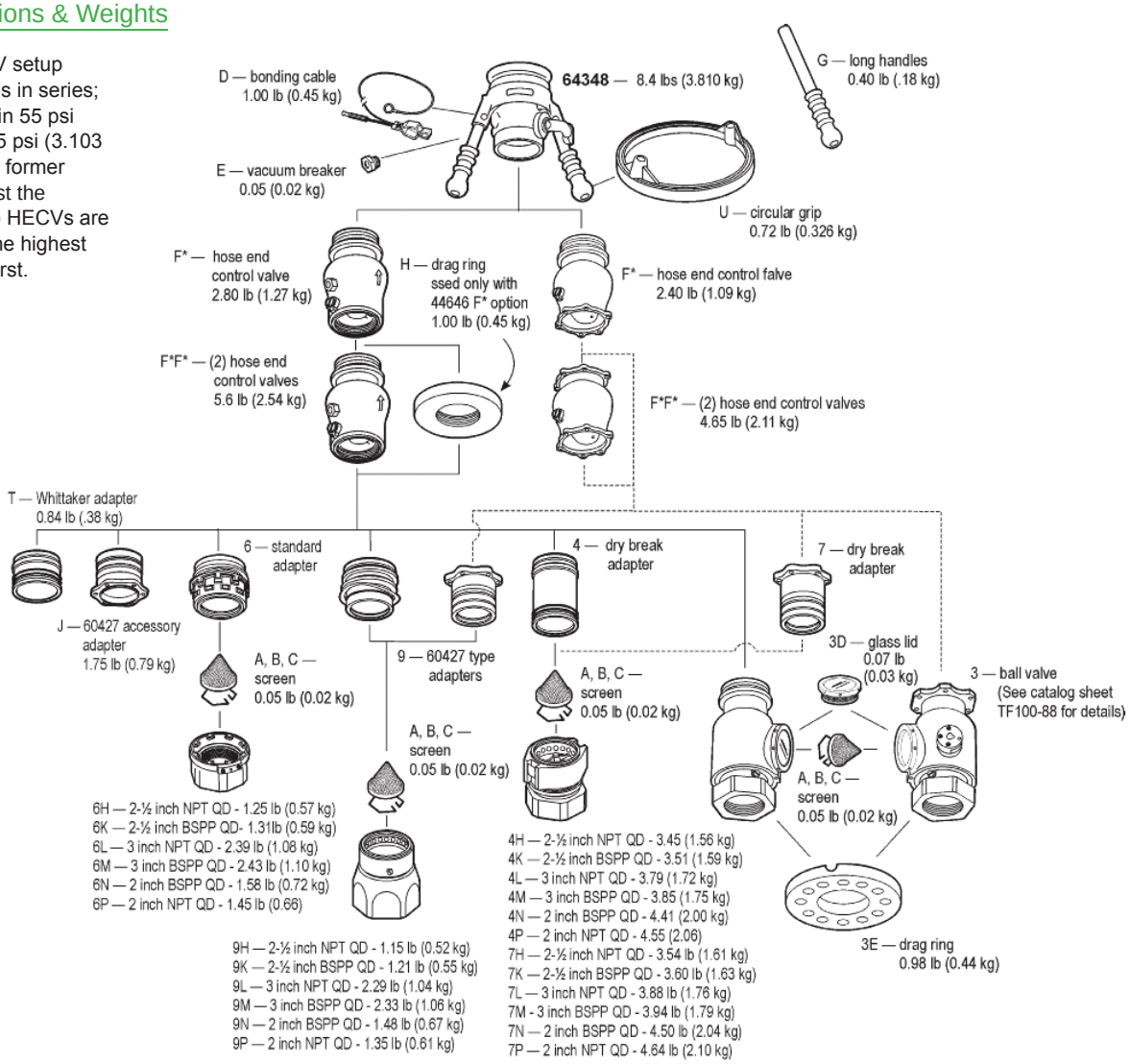
Envelope Dimensions

Dimensions shown in inches (millimetres)
A = Various options available.

Contact the Liquip Sales Department for assistance in determining which of the numerous models and options available will best suit your application.

Illustrated Options & Weights

* For a dual HECV setup specify two options in series; e.g. F5F4 results in 55 psi (3.792 bar) and 45 psi (3.103 bar) units with the former assembled nearest the nozzle inlet. If two HECVs are desired, specify the highest pressure setting first.



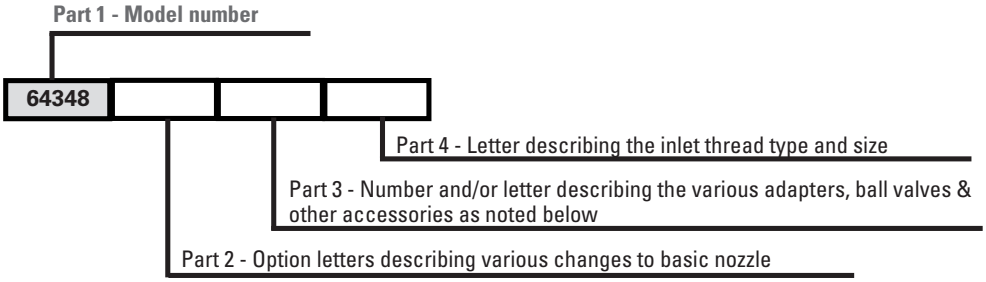
*F3 = 35 psi (2.413 bar) HECV
F4 = 45 psi (3.103 bar) HECV
F5 = 55 psi (3.792 bar) HECV

For a dual HECV setup specify two options in series, F5F4 results in 55 psi (3.792 bar) and 45 psi (3,193 bar) units with the former assembled nearest the nozzle inlet.
If two HECV's are desired, specify the highest pressure setting first.

CARTER NOZZLE UNDERWING - 64348

Ordering Data

The part number for a complete nozzle consists of four parts as illustrated (right) and described below.



Part 2

The following options may be added as part 2 of the part number as indicated above to order a unit to meet your requirement.

Option	Description	Option	Description
*A	Adds 40-mesh screen	G	Replaces standard handles with long handles
*B	Adds 60-mesh screen	H	Adds drag ring to nozzle with any option F in conjunction with option T or options 1 or 6 from part 3
*C	Adds 100-mesh screen	J	Adds adapter to allow mating to 60427 QD
D	Adds bonding cable	Q	Adds fuel sample QD (GTP-235-3/8)
E	Adds vacuum breaker	***R	Adds flight refueling adapter
**F3	Adds 35 psi (2.413 bar) HECV	T	Adds adapter to mate with Whittaker accessories
**F4	Adds 45 psi (3.103 bar) HECV	U	Replaces standard handle with circular handle
**F5	Adds 55 psi (3.792 bar) HECV		

* Options A, B & C only available when a male half from part 3 or option R is specified

** To obtain a nozzle with a dual HECV setup, specify two options in series, e.g. F5F4 results in 55 psi (3.792 bar) and 45 psi (3.103 bar) units with the former assembled nearest the nozzle inlet. If two HECVs are desired specify the highest pressure setting first.

*** Option R only available with 47013 HECV

Part 3

The configuration of the inlet is defined by adding the appropriate number or number and option letter from the table (right) in conjunction with the appropriate option letter from part 4 below. The nozzle may terminate in an adapter half only, if desired. In this case, leave part 4 blank. To obtain a female half, QD or dry break, or to complete the specification of the ball valve outlet, part 4 must be completed.

Option	Description	Option	Description
*1	For nozzle with flanged inlet HECV	R	Adds defuel key with option 3 only
*2	For nozzle with swivel inlet HECV	4	Adds male adapter half (44697) to mate with basic nozzle and dry break QD (61154)
3	Adds ball valve (64015). Part 4 must be completed with option 3. Add options D, E, J and R for other accessories to complete the specification.	6	Adds male adapter half to mate standard QD
D	Adds glass inspection port to ball valve	7	Adds male adapter half to mate dry break QD when a single HECV is used
E	Adds drag ring to ball valve	9	Adds male adapter half (43046 with HECV, 44362 without HECV) to mate 60427 style QD
J	Adds operating handle with option 3 only		

* If Option 1 or 2 is not used with any other option, then the shortest configuration nozzle will be provided

Part 4

Options specifying the desired thread for adapters or ball valves selected in part 3.

Option	Description	Option	Description
H	Inlet thread — 2-1/2 inch NPT	*M	Inlet thread — 3 inch BSPP
K	Inlet thread — 2-1/2 inch BSPP	P	Inlet thread — 2 inch NPT
*L	Inlet thread — 3 inch NPT		

* 3 inch Inlet threads not available with option 3 ball valves

Examples:

64348CD6H Nozzle with 100-mesh screen, bonding cable and standard QD with 2-½ inch NPT inlet thread

64348BF41 Nozzle with 60-mesh screen, 45 psi (3.103 bar) HECV with inlet flange to mate 60427 type accessories. Note — no inlet QD or other configuration is specified in this case.

64348F514P Nozzle with 55 psi (3.792 bar) HECV with flanged adapter half and 61154 dry break with 2 inch NPT inlet. Note — swivel adapter half can be specified by using 64348F524P.

CARTER NOZZLE UNDERWING - 64250

Features

- Easier swivelling under all conditions. Swivel independent of quick disconnect.
- Connects to 3-lug international standard aircraft adapter
- Designed in accordance with new SAE design specification for commercial nozzles AS5877
- Self-adjusting pressure loaded nose seal. Leak free under extreme side loads, worn adapters and extreme temperatures.
- Uses same accessories as previous 64200 and 64348 models. All accessories now have stainless steel wear ring in swivel ball joint.
- Lead-in ramps (interface with aircraft adapter lugs) of stainless steel for longer life
- Positive mechanical interlock — nozzle can not be opened until connected to aircraft; can not be removed from aircraft in open position
- Interlock mechanism internal to nozzle body
- No collar or other moving parts on exterior of nozzle with the exception of the operating lever
- Two threaded ports in nozzle body for simultaneous vacuum breaker and product sampling fitting installation are standard
- Lightweight and most rugged of any Carter brand nozzle
- Modular construction with use of bolt flanges minimized
- 2, 2-½ & 3 inch NPT & BSPP and 3 inch JIS threaded quick disconnect (QD) inlets available
- 60 & 100-mesh screens retained with snap rings for ease of removal
- Operating lever replaceable from exterior of nozzle and is made of less expensive, more ductile material. Also backed up with boss on nozzle body to prevent bending.
- 35 psi (2.413 bar), 45 psi (3.103 bar) & 55 psi (3.792 bar) hose end control valves (HECV) available
- Dry break or ball valve for easy strainer inspection available
- Low pressure drop
- Optional bonding cable and vacuum breaker
- Redundant safety lock on the QD
- Replaceable knob on operating handle eliminates razor sharp wear patterns prevalent on competitor's nozzles
- Options include a "U" bracket for nozzle stowage and one piece stirrup handle with stowage capability. No need to use an aircraft adapter as a stowage device.

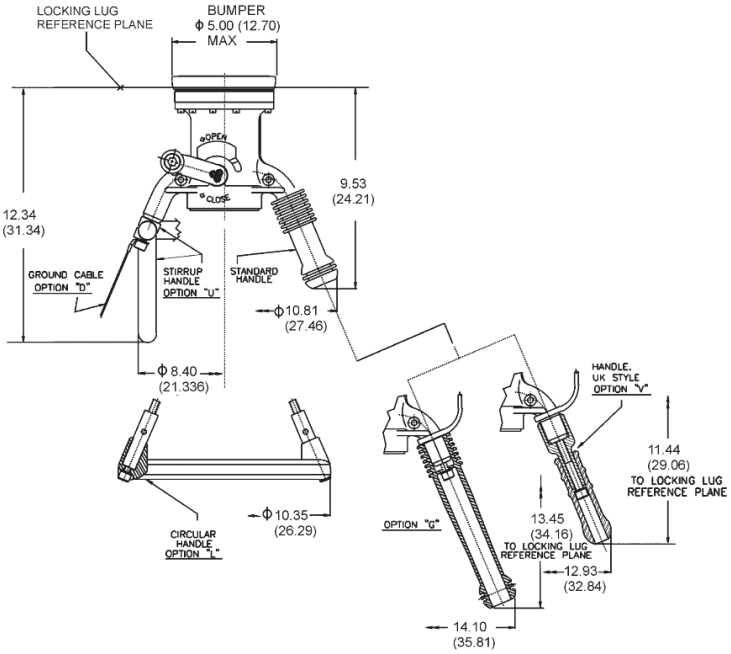
CARTER NOZZLE UNDERWING - 64250

Ordering Information:

Envelope Dimensions

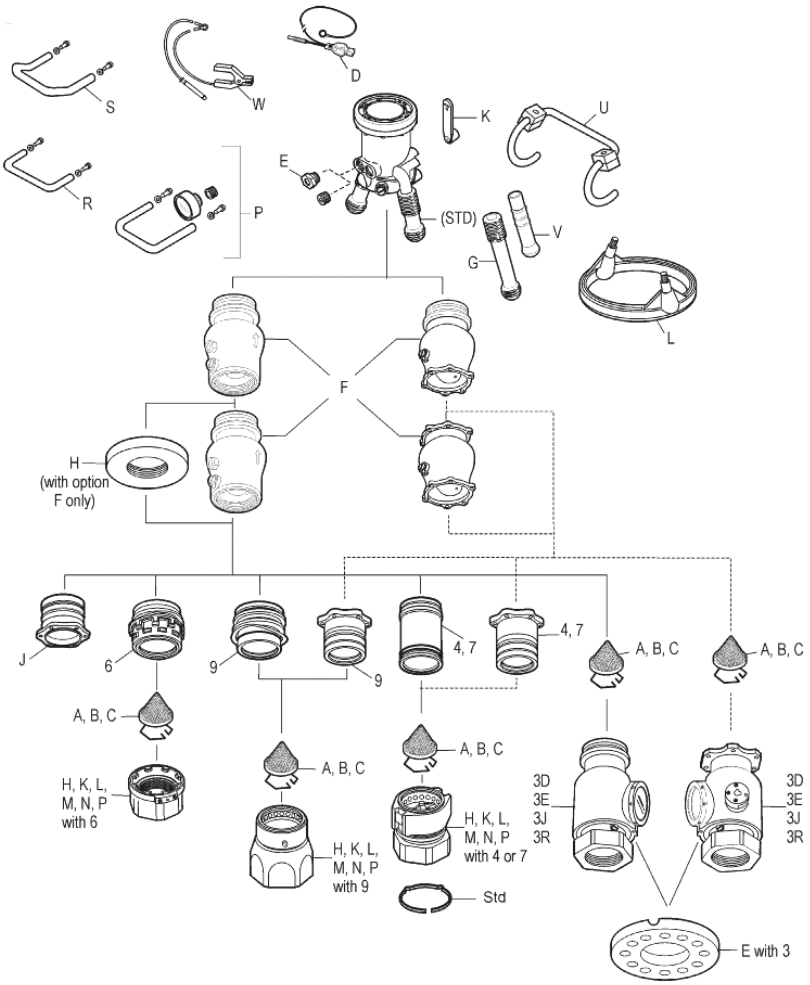
Dimensions shown in inches (millimetres)

Contact the Liquip Sales Department for assistance in determining which of the numerous models and options available will best suit your application.



Illustrated Options & Weights

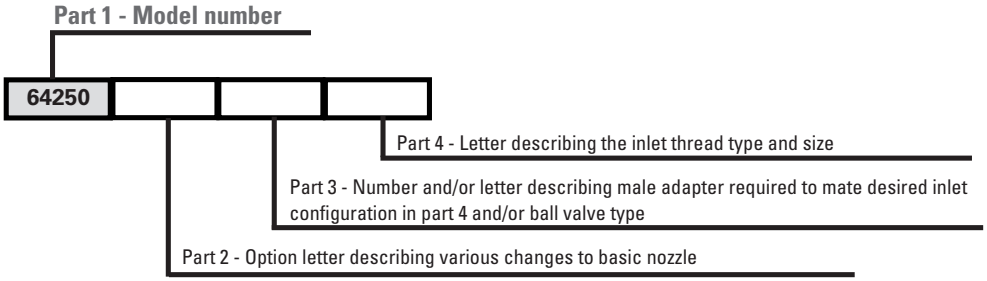
Note: The solid lines present one path of compatible options while the dotted lines connect an alternate path of compatible options. Refer to the tables under Ordering Data on page 3 for complete descriptions of the various options.



CARTER NOZZLE UNDERWING - 64250

Ordering Data

The part number for a complete nozzle consists of four parts as illustrated (right).



Part 2

The following options may be added to part two of the part number to obtain the desired unit configuration.

Option	Description	Option	Description
*A	Adds 40-mesh screen	J	Inlet adapter to mate 60427 style outlet
*B	Adds 60-mesh screen	K	Replaces standard operating handle with longer one
C	Adds 100-mesh screen	L	Replaces standard carrying handles with circular handle
D	Adds bonding cable	P	Adds pressure gauge with protective bracket
E	Adds vacuum breaker	R	Adds nozzle stowage bracket
**F3	Adds 35 psi (2.413 bar) HECV	S	Adds 45° nozzle stowage bracket
**F4	Adds 45 psi (3.103 bar) HECV	T	Adds adapter to mate Whittaker accessories
**F5	Adds 55 psi (3.792 bar) HECV	U	Replaces standard handle with stirrup handles
G	Replaces standard handles with long handles (47233-2)	V	Replaces standard carrying handles with UK RAF style handles
H	Adds drag ring to nozzle with any option F in conjunction with option T or options 2 or 6 from part 3 (220870)	W	Adds military style bonding cable

* Options A, B & C only available when a male half from part 3 is specified

** To obtain a nozzle with a dual HECV setup specify two options in series, F5F4 results in 55 psi (3.792 bar) and 45 psi (3.103 bar) units with the former assembled nearest the nozzle inlet. If two HECV's are desired specify the highest pressure setting first.

Part 3

The configuration of the inlet is defined by adding the appropriate number(s) and/or letter(s) from the table below as part 3 in conjunction with the appropriate option letter from part 4.

Option	Description	Option	Description
*1	Indicates nozzle with flanged inlet HECV	R	Adds defuel key to remove strainer cap to ball valve
*2	Indicates nozzle with swivel inlet HECV	4	Adds male adapter half (44701 w/o HECV, 44185 with flanged inlet HECV, 44697 with swivel inlet HECV) to mate basic nozzle and thumb latch QD
3	Adds ball valve (64015). Options D, E, J & R (below) may be added to complete the ball valve specification	6	Adds male adapter half to mate std QD
D	Adds glass inspection port to ball valve	7	Adds male adapter half (44697 w/o HECV, 44185 with flanged inlet HECV) to mate dry break QD
E	Adds drag ring to ball valve	9	Adds male adapter half (43046 with flanged inlet HECV, 44362 otherwise) to mate 60427 style QD
J	Adds spanner wrench to ball valve		

* If option 1 or 2 is used with no additional options from part 3, then the shortest configuration nozzle will be provided

Part 4

The following options may be added to obtain a female half, QD or dry break, or to complete the specification of the ball valve outlet. The nozzle may terminate in an adapter half only. In this case leave part 4 blank.

Option	Description	Option	Description
H	Inlet thread — 2-½ inch NPT	N	Inlet thread — 2 inch BSPP
K	Inlet thread — 2-½ inch BSPP	P	Inlet thread — 2 inch NPT
L	Inlet thread — 3 inch NPT	Z	Inlet thread — 3 inch JIS (used only with options 6 & 9)
*M	Inlet thread — 3 inch BSPP		

* Three-inch BSPP inlet threads not available with option 3 ball valves

Examples:

64250CD6H Nozzle with 100-mesh screen, bonding cable and standard QD with 2-½ inch NPT inlet thread

64250BF41 Nozzle with 60-mesh screen, 45 psi (3.103 bar) HECV with inlet flange to mate 60427 type accessories. Note that no inlet QD or other configuration is specified in this case.

64250F517P Nozzle with 55 psi (3.792 bar) HECV with flanged adapter half and 61154 dry break QD with 2 inch NPT inlet. Note: swivel adapter half and 61154 dry break QD can be specified by using 64250F527P.

CARTER HOSE END CONTROL VALVES (HECV)

For line mounted applications, these lightweight Hose End Control Valves (HECVs) provide pressure limitation at the outlet to protect the aircraft while refuelling. Several different pressure settings are available to tailor the control system to the customer's requirements.

Features

- Lightweight
- Low pressure drop
- Direct spring acting
- Three pressure settings available (see Ordering Data for details)
- Downstream surge pressure control — 75 psi (5.17 bar) max
- Fail safe design
- Model 60129-1 replaces older Model 40680 (part number change only)
- Mechanical blockout device Model 61656 for system test and defueling now available — no connection to fuel pressure required

Contact the Liquip Sales Department for assistance in determining which of the numerous models and options available will best suit your application.

Model 44646

Model 47013

Model 60129-1
(shown with quick disconnect)

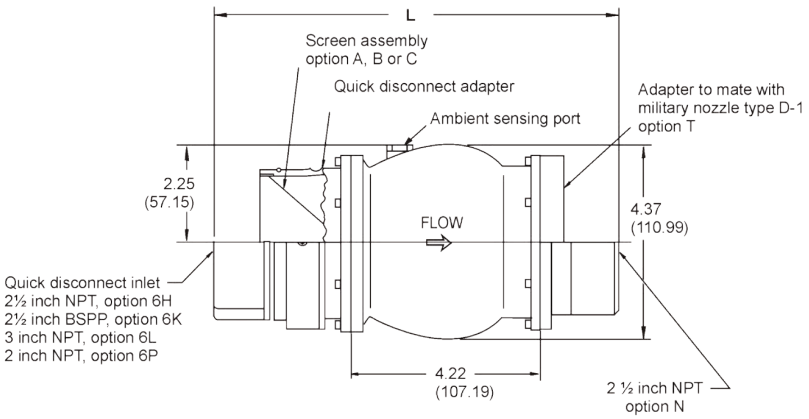
CARTER HOSE END CONTROL VALVES (HECV)

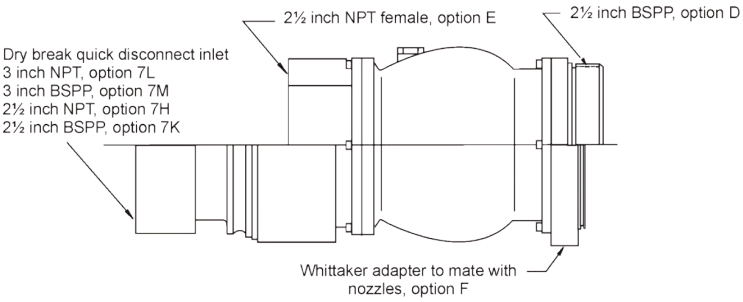
Ordering Information:

Envelope Dimensions

Dimensions shown in inches (millimetres)

Options for Model 60129-1	Length inches	(mm)
D6, DR, D7	8.30	210.82
D6H, D6K, D6L, D6M	10.20	259.08
DE, FR, F6, F7	.60	19.304
D7H, D7K, D7L, D7M	1.32	287.52
FE	.90	175.26
F6H, F6K, F6L, F6M	9.50	241.30
F7H, F7K, F7L, F7M	10.62	269.74
NE	8.16	207.26
NR, N6, N7	8.86	225.04
N6H, N6K, N6L, N6M	0.76	273.30
N7H, N7K, N7L, N7M	1.88	301.75
TE	6.72	170.69
T6H, T6K, T6L, T6M	9.32	236.72
TR, T6, T7	7.42	188.46
T7H, T7K, T7L, T7M	10.44	265.17

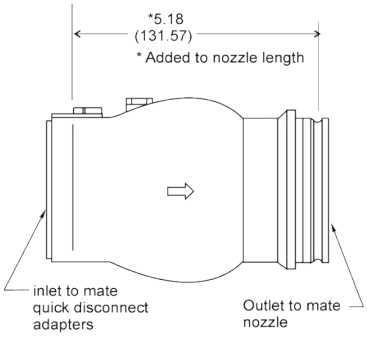




Model 44646

Designed for use with Eaton's Carter brand nozzle Models 64348, 64200, 64349 or 64201. It has a swivel joint on both ends.

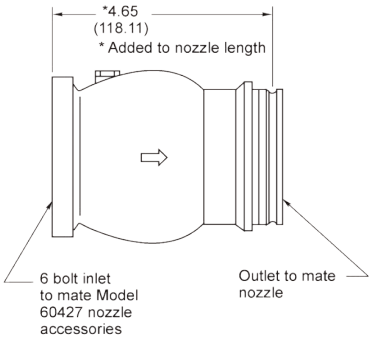
Available with 35, 45 or 55 psi springs (2.413, 3.103 or 3.792 bar). There are no additional options available for Model 44646.



Model 47013

Designed for use on Eaton's Carter brand nozzle Model 64049 or on Model 64348 or 64349 nozzles that incorporate a Model 64015 ball valve, or for use on any Carter brand nozzle with the dual HECV configuration. Swivel on the outlet end only.

Available with 35, 45 or 55 psi springs (2.413, 3.103 or 3.792 bar). There are no additional options available for Model 47013.

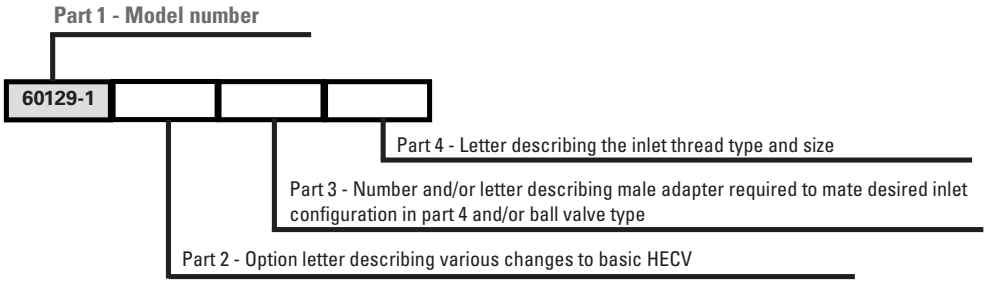


CARTER HOSE END CONTROL VALVES (HECV)

Ordering Information:

Model 60129-1

For installation on Eaton's Carter brand Model 60427, Whittaker Model F116/F117 or Avery Hardoll Model HU3000/HU4000 nozzles or for line mounted applications. The part number of a complete 60129-1 HECV will consist of four basic parts as shown at right.



Part 2

The options shown (right) may be added as part 2 of the part number as indicated above to order a unit to meet your requirements.

Option	Description
*A	40- mesh screen
*B	60-mesh screen
*C	100-mesh screen
D	Adds 2-½ inch BSPP male straight outlet
E	Adds 2-½ inch NPT female straight inlet
**F	Adds outlet adapter to mate Whittaker F116/F117 nozzle
**3	Specifies 35 psi (2.413 bar) spring setting
**4	Specifies 45 psi (3.103 bar) spring setting
**5	Specifies 55 psi (3.792 bar) spring setting
N	Adds 2-½ inch NPT male straight outlet
R	Adds inlet adapter to mate flight refueling disconnect
T	Adds adapter flange to outlet to mate military nozzle inlet
W	Inlet & outlet flanges to mate Whittaker F116/F117 nozzles

* Options A, B & C only available when a male half from part 3 or option R is specified

** The spring setting number must be included at the end of part 2. If not specified, a 45 psi (3.103 bar) spring setting will be supplied.

Part 3

One option numbers from part 3 must be included to specify the type of inlet configuration desired, except when option R is ordered. May be ordered with the inlet terminating in an adapter half only, if desired. In this case leave part 4 blank. If a female half QD or dry break is desired, part 4 must be completed.

Option	Description	Option	Description
6	Adds male adapter half to mate standard female QD Model 60679 & old style dry break QD Model 60672-1	7	Adds male adapter half to mate Model 61154 dry break

Part 4

One of the following letters must be included as part 4, as indicated, to specify the inlet thread and size.

Option	Description	Option	Description
H	Inlet thread — 2-½ inch NPT	M	Inlet thread — 3 inch BSPP
K	Inlet thread — 2-½ inch BSPP	P	Inlet thread — 2 inch NPT
L	Inlet thread — 3 inch NPT		

Examples:

60129-1	This unit is intended for use on Model 60427 nozzle or on 64049, 64348 or 64349 nozzles when a dual HECV setup is used
60129-14	45 psi (3.103 bar) HECV with inlet and outlet to mate Model 60427 nozzle (formerly ordered as 40680-45 or 60129-1-45)
60129-1C56K	55 psi (3.792 bar) HECV with 100-mesh screen, outlet to mate Model 60427 nozzle and inlet with 2-½ inch BSPP QD
44646	For installation on Models 64348, 64200, 64349 or 64201 nozzles. This unit may also be used on older nozzle Models 61428 or 61429. It has ball swivel joints on both ends. Order this HECV by the model number 44646 followed by the desired spring setting, -35, -45 or -55.
47013	For installation on Model 64348 or 64349 nozzles, either in conjunction with a Model 64015 ball valve or when a dual HECV installation is desired. This HECV has a 6-bolt flanged inlet and a ball joint swivel outlet connection to mate the above nozzles. Order this HECV by model number 47013, followed by the desired spring setting, -35, -45 or -55.

CARTER DRY BREAK QUICK DISCONNECT

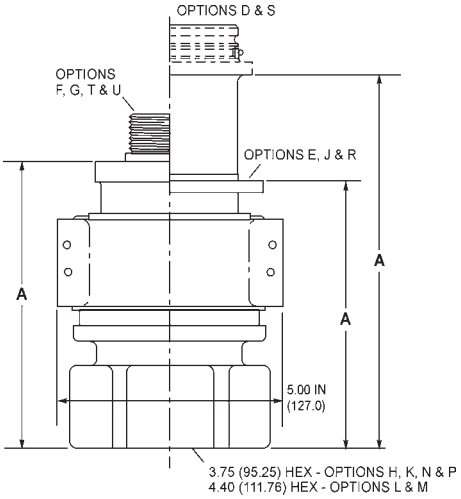
Features

- 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 aluminium bronze male used on older commercial 60672-1 model.
- Female inlets available in 2, 2-½ & 3 inch NPT & BSPP threads
- 40, 60 & 100-mesh screens available
- Male outlet adapters available to mate all military D-1/D-2, 60427, 64348, 1-½ & 2 inch NPT overwing and closed circuit refuelling (CCR) nozzles & 1-½ & 2 inch BSPP overwing nozzles

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)



CARTER DRY BREAK QUICK DISCONNECT

Ordering Information:

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.

Model	Description
61154H	Female half with 2-½ inch NPT inlet
61154L	Female half with 3 inch NPT inlet
61154K	Female half with 2-½ inch BSPP inlet
61154M	Female half with 3 inch BSPP inlet

Superseding Information

Model 61154 dry break disconnect is designed to replace the 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).

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 1-½ 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 1-½ 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:

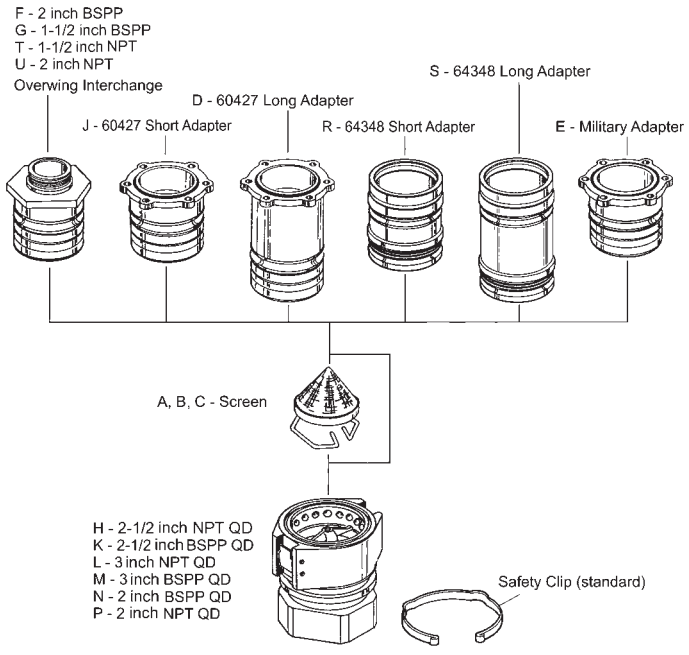
1. Options A, B, & C fit into the male half adapters only (options D, E, F, J, R, S, & T)
2. Options D, E, F, G, J, R, S, T, or U must be ordered with one of the six basic units above to obtain a completed unit

NSN Information

Several of the 61154 dry breaks 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, 2-½ inch NPT inlet, outlet to mate D-1/D-2 nozzle

Illustrated Options



NOZZLE STOWAGE

The Liquip Aviation Nozzle Stowages are used on virtually all Liquip aircraft refuelling vehicles as well as other non-vehicle or stand-alone aviation fuelling applications.

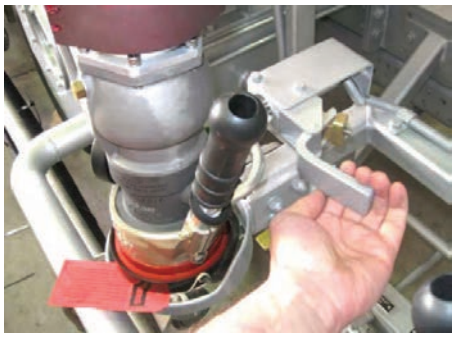
Ball & Socket - Underwing

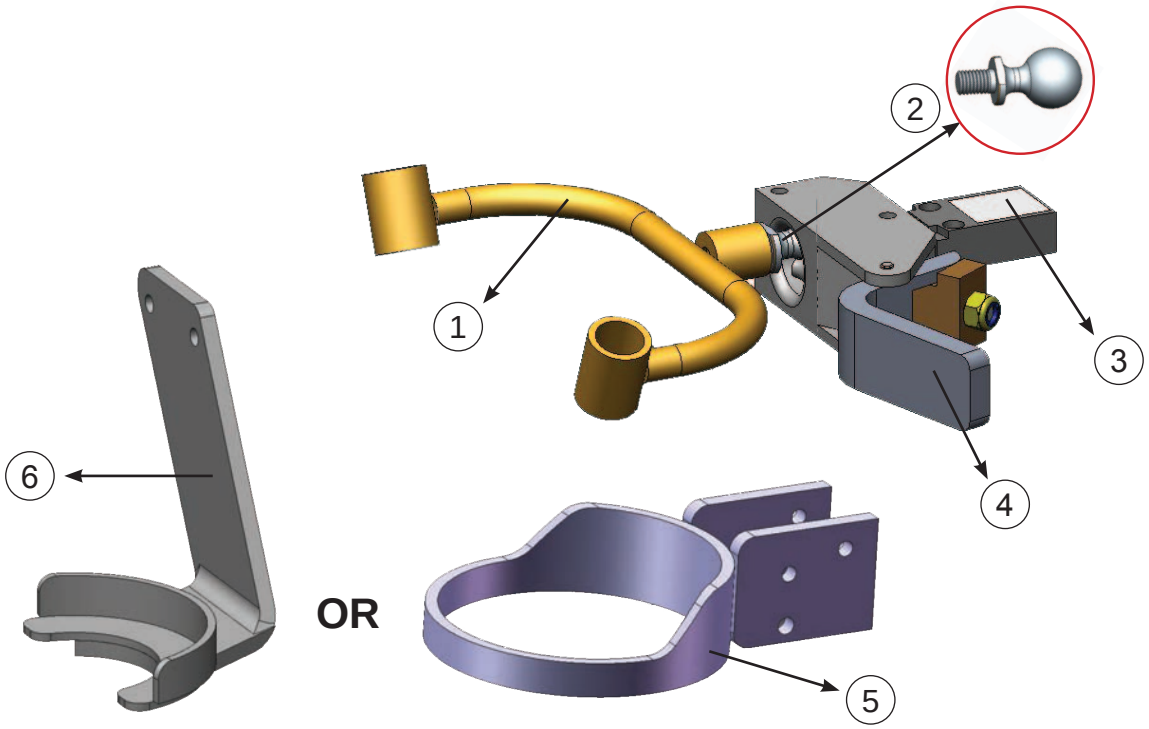
The Liquip ball and socket nozzle stowage assembly provides safe and sturdy nozzle storage as well as an interlocking mechanism. The interlocking mechanism can be connected to either an electrical interlock switch or a pneumatic interlock valve.

Releasing a nozzle from the socket is made easy using a lever located directly under the socket. This assembly consists of an anodised aluminium alloy body and stainless steel ball to minimise the chance of sparking on contact.

Ordering Information:

Item No	Part No	Description
1	4600-06-01	Interlock Handle only
2	4600-05-01	Interlock Ball only
3	8568	Plunger Interlock Switch
4	4600-05-00	Interlock Ball & Socket Assembly
5	4600-01-01	Nozzle Holder
6	4600-04-01	Nozzle Holder



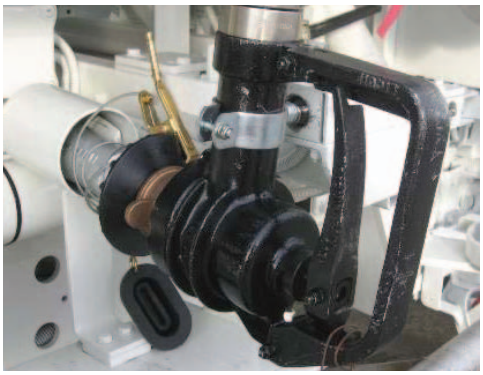


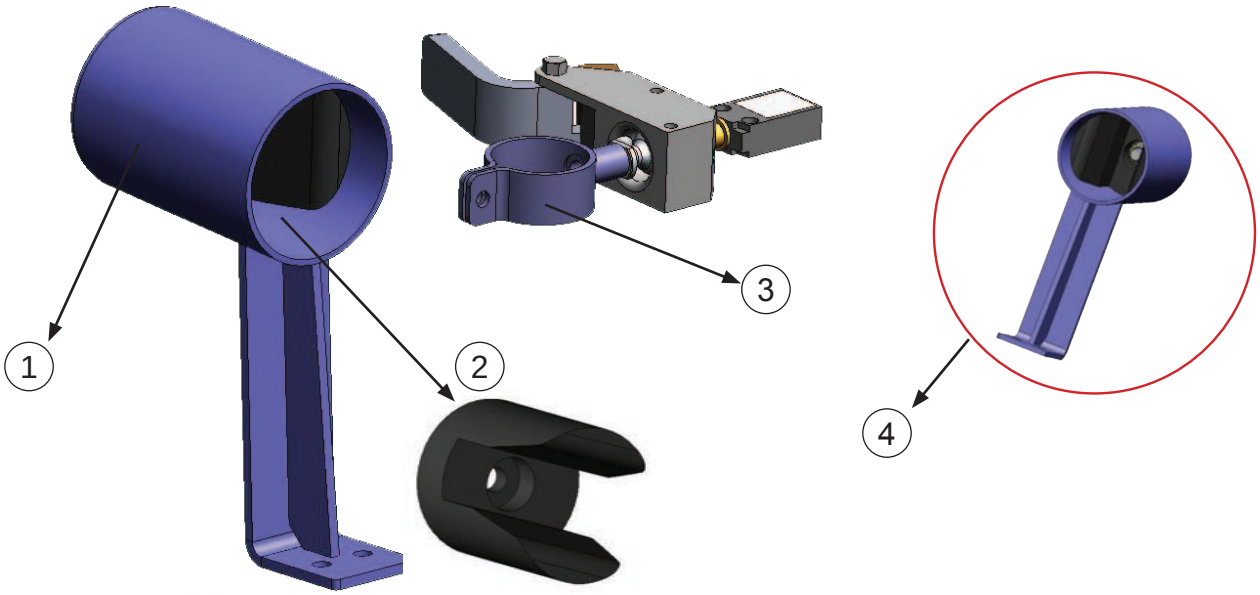
NOZZLE STOWAGE

Ball & Socket - Overwing

Ordering Information:

Item No	Part No	Description
1	4600-03-02	Nozzle Stowage Cover
2	4600-03-06	Jet Selective Nozzle Stowage
3	4600-06-02	Overwing Nozzle Interlock Bracket
4	4600-03-01	Nozzle Stowage Holder Assembly





NOZZLE STOWAGE

Twist-Lock Bayonet

A ‘cup stowage with “twist-lock” bayonet adaptor” is a recent variant.

Ordering Information:

Item No	Part No	Description
1	4600-01-07	Bucket Style Nozzle Stowage
2	20216201F	Twist-lock Bayonet Adaptor
3	8568	Plunger Interlock Switch (Ex’d Rated)

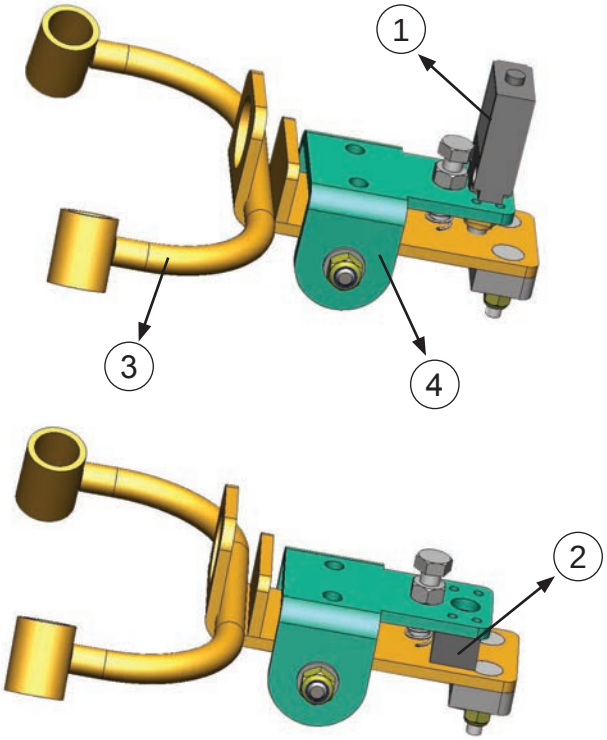
NOZZLE STOWAGE

Drop-In

The “drop-in” type is purely for platform stowages. The interlocking mechanism is typically connected to an electrical interlock switch (a pneumatic interlock valve could also be used).

Ordering Information:

Item No	Part No	Description
1	8568	Plunger Interlock Switch
2	8850	Proximity Interlock Switch
3	4600-02-03	Drop-In Handle
4	4600-00-02	Drop-In Nozzle Stowage



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