


AEROSPACE
AND DEFENSE
2020





LAND SYSTEMS QUICK COUPLING NEED/HATE RELATIONSHIP

Land systems engineering groups all share a “need-hate” relationship with quick couplings. We “need” to use them to enable rapid vehicle servicing but “hate” them because of the unique technical challenges that are baked into land vehicle applications. These challenges cannot be overcome by standard industrial or even aerospace grade quick-connect solutions, resulting in dramatic failure and chronic frustrations.

Limited internal vehicle space can often result in technically improper hose routing. This leads to severe side-load on the coupled quick-connect set. Confined spaces force near-impossible coupling/uncoupling procedures which is further exacerbated by low light and cold conditions. Leakage and mechanical coupling failure are often expected. Oscillation, non-venting oil lines and ever-increasing working pressures combined with the continuous push for efficient flow performance create significant challenges that must be overcome when designing quick couplings for the harsh environment of a military land system.

Our systematic, experimentally developed high performance quick coupling designs (tested on a wide range of risk reduction land vehicles) solve these commonly shared QD failure points and set a new global standard in coupling engineering.

Over two years of laboratory Mil Spec testing was performed on our LS and HP product groups. The Mil Spec testing was augmented with additional application-specific testing including low pressure with high vibration and severe oscillation environments which are common in this industry.

Throughout on-vehicle and lab testing cycles, we made several LS and HP design revisions that were retested until each technical challenge was fully overcome.



INDUSTRY BASED DESIGN FOCUSED UAV-MLV

Battlefield International is a Canadian based manufacturer of high-performance fluid power solutions designed specifically to excel in UAV (unmanned air vehicle) and MLV (military land vehicle) applications. Systematic, experimental product development is woven into everything we do.

We apply laser focus toward meeting the unique and technically demanding challenges faced by these two specific industries alone. This has enabled us to become uniquely knowledgeable of the complete range of challenges within these industries. Our standard product offering is classified as "COTS" (commercial off the shelf) and does not fall under ITAR or Export Control classification.

This catalogue is only a small highlight of the products we produce. Should you require something slightly different than what's presented in this literature (in any way) including material, performance, function, feature, or product orientation we would love to hear from you! There's a very good chance we have what you need and if we don't, we would be pleased to review your requirements and quickly determine if we can develop an acceptable COTS solution to meet your project timeline.

Simply send us a napkin sketch, drawing or your design parameters and we'll follow up with a conceptual solution.

Although not limited to these items, our primary design and manufacturing capabilities include Quick disconnect couplings, Check valves, Relief valves, Ball valves, Fuel filters, Swivels, Manifolds, Air compressor intake silencers, Machined metal or plastic components, Custom fittings (adaptors etc.), Kitting and specialty assemblies.

BATTLEFIELD INTERNATIONAL DESIGN PROCESS

Our product design services are free of charge to all aerospace and defense-based customers if the scope of the request has been reviewed and accepted by Battlefield Management. Whether you're looking for a completely unique solution (outside of our current product list) a slight modification to an existing Battlefield Product or a Product design that meets an existing drawing we have you covered.

We will do our very best to realize the optimal solution.

Although we typically succeed in meeting all customer requirements, our approval of the project scope is not a guarantee that we can meet the parameters of the request, however it does mean that we will do our very best to realize the optimal solution. We reserve the right to suggest alternate approaches to realizing an acceptable solution and will work concurrently with your engineering team to ensure our design tactic and final performance attributes of the COTS parts we design are acceptable.

Tap into our expertise without cost or obligation.

This no-charge approach allows any interested company (Aerospace/Defense applications) to tap into our expertise without cost or obligation. Once the design concept is approved in theory, we will move forward with producing a no-charge/obligation sample of the part for your review.

This may be in the form of a 3D printed model however typically we produce (machine) the part as if it was in production so that it can be tested in a real-world environment. We will not expect any form of payment to be made, or for the samples to be returned.

Even after a no-charge sample has been accepted and testing completed we will not charge or expect an order.

If the project is cancelled or the customer decides to pursue another alternative (non-Battlefield) solution our desire to support the customer on future opportunities will unwaveringly remain the same. The cancellation of a previous development will not reduce our eagerness to continue providing no-charge/obligation design services and samples for future requirements. We have however discovered that 95% of our proposed solutions result in purchase orders for production quantities.

We are responsive, agile and have the best lead times in the industry.

Our pricing is typically a fraction of our worthy aerospace grade competitors and we will never discontinue a product that has been specified on a Military application.

CONNECT WITH US
SALES@BATTLEFIELD.BIZ | 905-772-3000

CORPORATE STRATEGY

We began with our sights set on becoming the world standard designer and producer of UAV quick connect couplings and we are proud say that we've since achieved that goal. Today, our EnduroLink™ (EL) is the World Standard UAV coupling and is in service on all contract winning small to midsized UAV platforms. With over a million successful flight hours, our EnduroLink™ couplings continue to excel in the most difficult environments, proving the reliability of our designs and the capability of our team.

After meeting that goal, we added the military land systems QD market to our business strategy. We made a dramatic entrance into the industry with a significant contract for our LS and HP series couplings supporting one of the most advanced military land vehicles on the planet (GDLS-C AB LAV-700).

We've travelled around the globe to establish a knowledge base of what the industry requires from quick couplings and valves by reviewing the inner workings of new vehicle designs from various land systems manufacturers. This experience has led to realizing a quick connect product group that perfectly matches this market's special needs.

We have an unprecedented understanding of the quick connect issues in theater. Just as we did in the UAV industry, we will not rest until the land systems market realizes the value of working with quick connects they can fully trust.

Our Policies revolve around the idea of continually increasing the benefit to our customers by aligning our processes to compliment their business model while exceeding their expectations. The effectiveness of our polices are continually reviewed and assessed on this basis.



QUICK DISCONNECTS

HIGH PERFORMANCE | SELF-SEALING | SINGLE-HAND OPERATION

LS SERIES

STYLE: Push-Pull

PRESSURE: Vacuum to 1,000psi

PAGE 6

HP SERIES

STYLE: Push-Pull

PRESSURE: Vacuum to 5,000psi

PAGE 7

LP SERIES

STYLE: Push-Pull

PRESSURE: Vacuum to 1,000psi

PAGE 8

HT SERIES

STYLE: Thread

PRESSURE: Vacuum to 4,000psi

PAGE 9

LT SERIES

STYLE: Thread

PRESSURE: Vacuum to 1,000psi

PAGE 10

HF SERIES

STYLE: Bayonet

PRESSURE: Vacuum to 75psi

PAGE 11

CP SERIES (IN DEVELOPMENT)

STYLE: Push-Pull

PRESSURE: Vacuum to 1,000psi

PAGE 12

ET SERIES

STYLE: Push-Pull

PRESSURE: Vacuum to 150psi

PAGE 13

EL SERIES

STYLE: Push-Pull

PRESSURE: Vacuum to 150psi

PAGE 14

DL SERIES

STYLE: Push-Pull

PRESSURE: Vacuum to 150psi

PAGE 15

VL SERIES

STYLE: Push-Pull

PRESSURE: Vacuum to 50psi

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LS SERIES

PUSH-PULL QUICK DISCONNECT



Operating Pressure Range (OP)

-04 to -16: Vacuum to 1,000psi
-20 to -24: Vacuum to 600psi

Proof Pressure: 1.5x OP
Burst Pressure: 2.5x OP



Dry Break

Zero-leakage with low air inclusion.



Materials

Aluminum or Hybrid (aluminum/ss).



Body Sizes

-04 to -24
(-01 equivalent to 1/16")



Fluid Types

Hydraulic, coolant, fuel, lube oil, pneumatic.



Optional Visual Key

Laser engraved number/symbol to verify connection with proper mating half.

Rotation Lock Sleeve

Mechanical sleeve detent that helps maintain the locked position during vibration or axial contact.

Indication Ring

Visual indication of a proper connection.



End Fitting Specification

Including but not limited to: AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc. Male or Female.

Alternate specifications or *custom ends available upon request.*



End Fitting Angle

45°, 90° or any unique angle.
(ie. 11°, 62°, 86°)

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

HP

SERIES

PUSH-PULL QUICK DISCONNECT



Operating Pressure Range (OP)
Vacuum to 5,000psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Dry Break
Zero-leakage with ultra low air inclusion.



Materials
Stainless Steel.



Body Sizes
-04 to -20
Additional body sizes available upon request.
(-01 equivalent to 1/16")



Fluid Types
Hydraulic, coolant, fuel, lube oil, pneumatic.



Optional Visual Key
Laser engraved number/symbol to verify connection with proper mating half.

Rotation Lock Sleeve

Mechanical sleeve detent that helps maintain the locked position during vibration or axial contact.

Indication Ring

Visual indication of a proper connection.



End Fitting Specification
Including but not limited to:
AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc.
Male or Female.

Alternate specifications or custom ends available upon request.



End Fitting Angle
Integrated 90° elbow end connect available upon request.

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

LP SERIES

PUSH-PULL QUICK DISCONNECT



Operating Pressure Range (OP)

-04 to -16: Vacuum to 1,000psi
-20 to -24: Vacuum to 600psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Dry Break

Zero-leakage with low air inclusion.



Materials

Aluminum or Hybrid (aluminum/ss).



Body Sizes

-04 to -24
Additional body sizes available upon request.
(-01 equivalent to 1/16")



Fluid Types

Hydraulic, coolant, fuel, lube oil, pneumatic.



Optional Visual Key

Laser engraved number/symbol to verify connection with proper mating half.

Rotation Lock Sleeve

Mechanical sleeve detent that helps maintain the locked position during vibration or axial contact.

Indication Ring

Visual indication of a proper connection.



End Fitting Specification

Including but not limited to: AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc. Male or Female.

Alternate specifications or custom ends available upon request.



End Fitting Angle

Integrated 90° elbow end connect available upon request.

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

HT

SERIES

THREAD/SCREW QUICK DISCONNECT



Operating Pressure Range (OP)
Vacuum to 4,000psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Dry Break
Zero-leakage with low air inclusion.



Materials
SS, Aluminum, Titanium upon customer request.

Pressure rating may change upon material choice.



Body Sizes
-04 to -20

*Additional body sizes available upon request.
(-01 equivalent to 1/16")*



Fluid Types
Refrigerant, Hydraulic, coolant, fuel, lube oil, pneumatic.



Optional Mechanical Key

- Thread pitch angle
- Thread starts
- Direction of thread (R/L)



Optional Visual Key

Laser engraved number/symbol to verify connection with proper mating half.



Hex Sleeve Option

Allows the user to connect the coupling by hand or alternatively with a wrench if preferable or required to overcome internal system pressure.



End Fitting Specification

Including but not limited to: AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc. Male or Female.

Alternate specifications or custom ends available upon request.



End Fitting Angle

45°, 90° or any unique angle.
(ie. 11°, 62°, 86°)

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

LT SERIES

THREAD/SCREW QUICK DISCONNECT



Operating Pressure Range (OP)
Vacuum to 1,000psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Dry Break
Zero-leakage with low air inclusion.



Materials
Aluminum.



Body Sizes
-04 to -20
(-01 equivalent to 1/16")



Fluid Types
Hydraulic, coolant, fuel, lube oil, pneumatic.



Optional Mechanical Key

- Thread pitch angle
- Thread starts
- Direction of thread (R/L)



Optional Visual Key

Laser engraved number/symbol to verify connection with proper mating half.



Hex Sleeve Option

Allows the user to connect the coupling by hand or alternatively with a wrench if preferable or required to overcome internal system pressure.



End Fitting Specification

Including but not limited to: AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc. Male or Female.

Alternate specifications or custom ends available upon request.



End Fitting Angle

45°, 90° or any unique angle.
(ie. 11°, 62°, 86°)

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

HF

SERIES

BAYONET QUICK DISCONNECT



Operating Pressure Range (OP)
Vacuum to 75psi

Proof Pressure 100psi
Burst Pressure 140psi



Dry Break
Zero-leakage with low air inclusion.



Materials
Aluminum.



Body Sizes
-32, -40
Additional body sizes available upon request.
(-01 equivalent to 1/16")



Fluid Types
Hydraulic, coolant, fuel, lube oil, pneumatic.



Optional Mechanical Key

- Thread slot size
- Thread starts



Optional Visual Key
Laser engraved number/symbol to verify connection with proper mating half.



End Fitting Specification
Including but not limited to:
AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc.
Male or Female.
Alternate specifications or custom ends available upon request.



End Fitting Angle
45°, 90° or any unique angle.
(ie. 11°, 62°, 86°)

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

CP

SERIES

IN DEVELOPMENT

**PUSH-PULL
CONNECT UNDER PRESSURE
QUICK DISCONNECT**



Operating Pressure Range (OP)

-04 to -16: Vacuum to 1,000psi
-20 to -24: Vacuum to 600psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Dry Break

Zero-leakage with low air inclusion.



Materials

Aluminum or Hybrid (aluminum/ss).



Body Sizes

-04 to -24
(-01 equivalent to 1/16")



Fluid Types

Hydraulic, coolant, fuel, lube oil, pneumatic.



Optional Visual Key

Laser engraved number/symbol to verify connection with proper mating half.

Rotation Lock Sleeve

Mechanical sleeve detent that helps maintain the locked position during vibration or axial contact.

Indication Ring

Visual indication of a proper connection.



End Fitting Specification

Including but not limited to: AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc. Male or Female.

Alternate specifications or custom ends available upon request.



End Fitting Angle

45°, 90° or any unique angle.
(ie. 11°, 62°, 86°)



*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

ET

SERIES

PUSH-PULL QUICK DISCONNECT

enduro
LINK™ 2.0



Operating Pressure Range (OP)
Vacuum to 150psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Dry Break
Zero-leakage with ultra low air inclusion.



Materials
Aluminum or Hybrid (aluminum/ss).



Body Sizes
-04 to -20
Additional body sizes available upon request.
(-01 equivalent to 1/16")



Fluid Types
Hydraulic, coolant, fuel, lube oil, pneumatic.



Optional Visual Key
Colour key and/or optional laser engraved number/symbol to verify connection with proper mating half.

Rotation Lock Sleeve

Mechanical sleeve detent that helps maintain the locked position during vibration or axial contact.

Indication Ring

Visual indication of a proper connection.



End Fitting Specification

Including but not limited to:
AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc.
Male or Female.

Alternate specifications or custom ends available upon request.



End Fitting Angle

Integrated 90 elbow end connect available upon request.

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

EL SERIES

PUSH-PULL QUICK DISCONNECT

enduro
LINK™



Operating Pressure Range (OP)

Vacuum to 150psi

Proof Pressure 3x OP
Burst Pressure 5x OP



Materials

Aluminum, brass.



Body Sizes

-01 to -06

(-01 equivalent to 1/16")



Fluid Types

Hydraulic, coolant,
fuel, lube oil, pneumatic.



Optional Visual Key

Laser engraved
number/symbol to verify
connection with proper
mating half.



End Fitting Specification

Including but not limited to:
AN, ORB, ORFS, Metric, Beaded
Tube, NPT, Bolted Flange etc.
Male or Female.

*Alternate specifications
or custom ends available
upon request.*



End Fitting Angle

45°, 90° or any
unique angle.
(ie. 11°, 62°, 86°)



*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

DL

SERIES

PUSH-PULL QUICK DISCONNECT



Operating Pressure Range (OP)
Vacuum to 150psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Dry Break
Zero-leakage with low air inclusion.



Flush Face
Easy to clean in dirty environments



Body Sizes
-02 to -08
(-01 equivalent to 1/16")



Fluid Types
Hydraulic, coolant, fuel, lube oil, pneumatic.



Materials
Aluminum, brass.



Optional Visual Key
Laser engraved number/symbol to verify connection with proper mating half.



End Fitting Specification
Including but not limited to: AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc. Male or Female.

Alternate specifications or custom ends available upon request.



End Fitting Angle
45°, 90° or any unique angle.
(ie. 11°, 62°, 86°)

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

VL

SERIES

PUSH-PULL QUICK DISCONNECT



Operating Pressure Range (OP)

Vacuum to 25psi

Burst Pressure 75psi



Dry Break

Zero-leakage with low air inclusion.



Body Sizes

-05
(-01 equivalent to 1/16")



Fluid Types

Oil



Materials

Aluminum, brass, stainless steel.



End Fitting Specification

Including but not limited to:
AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc.
Male or Female.

Alternate specifications or custom ends available upon request.



End Fitting Angle

45°, 90° or any unique angle.
(ie. 11°, 62°, 86°)



*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

VALVES

MC SERIES

STYLE: Full-flow, high efficiency
PRESSURE: Vacuum to 150psi
(ultra low cracking pressure)

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HC SERIES

STYLE: Full-flow, high efficiency
PRESSURE: Vacuum to 5,000psi

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LC SERIES

STYLE: Full-flow, high efficiency
PRESSURE: Vacuum to 1,000psi

PAGE 20

HR SERIES

STYLE: Compact relief valve,
precise cracking pressures
PRESSURE: Vacuum to 5,000psi

PAGE 21

LR SERIES

STYLE: Compact relief valve,
precise cracking pressures
PRESSURE: Vacuum to 1,000psi

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DV SERIES

Lightweight, high performance
aluminum ball-valve.

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FILTERS

FW SERIES

STYLE: Super efficient, high-flow
PRESSURE: Vacuum to 150psi

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battlefield international

MC

SERIES

ULTRA LOW CRACKING CHECK VALVE



Operating Pressure Range (OP)

Vacuum to 150psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Body Sizes

-02 to -06

*Additional body sizes available upon request.
(-01 equivalent to 1/16")*



Fluid Types

Hydraulic, coolant, fuel, lube oil, pneumatic.



Materials

Aluminum or Hybrid (aluminum/ss).



End Fitting Specification

Including but not limited to: AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc. Male or Female.

Alternate specifications or custom ends available upon request.



Sealing

GFLT soft seat.

Other seal materials available upon request.



Cracking Pressures

Gravity (no spring)
0.2psi, 1psi, 2psi

Additional cracking pressures available upon request.



*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

HC

SERIES

FULL FLOW CHECK VALVE



Operating Pressure Range (OP)
Vacuum to 5,000psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Body Sizes
-04 to -24

*Alternate body sizes available upon request.
(-01 equivalent to 1/16")*



Fluid Types
Hydraulic, coolant, fuel, lube oil, pneumatic.



Materials
Stainless steel.



End Fitting Specification
Including but not limited to:
AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc.
Male or Female.

Alternate specifications or custom ends available upon request.



Sealing
Elastomer soft seat or
Metal to metal seal.

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

LC

SERIES

FULL FLOW CHECK VALVE



Operating Pressure Range (OP)
Vacuum to 1,000psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Body Sizes
-04 to -24
*Additional body sizes available upon request.
(-01 equivalent to 1/16")*



Fluid Types
Hydraulic, coolant, fuel, lube oil, pneumatic.



Materials
Aluminum, stainless steel.



End Fitting Specification
Including but not limited to:
AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc.
Male or Female.

Alternate specifications or custom ends available upon request.

Depending on end connect requirements, integrated elbows may be available.



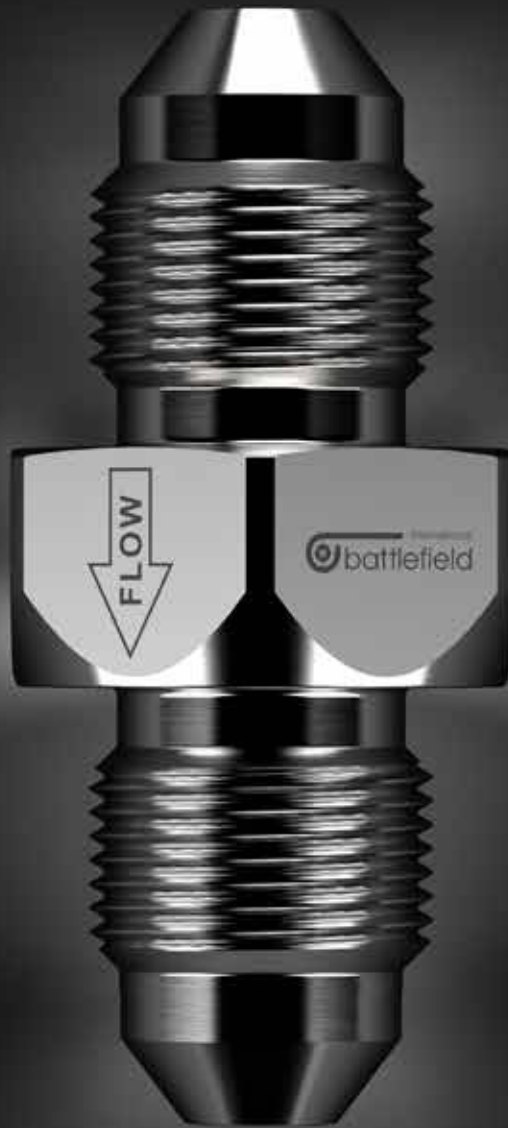
Sealing
Elastomer soft seat or Metal to metal seal.

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

HR

SERIES

RELIEF VALVE



Operating Pressure Range (OP)
Vacuum to 5,000psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Body Sizes
-04 to -24
(-01 equivalent to 1/16")



Fluid Types
Hydraulic, coolant,
fuel, lube oil, pneumatic.



Materials
Stainless steel.



End Fitting Specification
Including but not limited to:
AN, ORB, ORFS, Metric, Beaded
Tube, NPT, Bolted Flange etc.
Male or Female.

*Alternate specifications
or custom ends available
upon request.*



Sealing
Elastomer soft seat or
Metal to metal seal.

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

LR

SERIES

RELIEF VALVE



Operating Pressure Range (OP)
Vacuum to 1,000psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Body Sizes
-04 to -24
(-01 equivalent to 1/16")



Fluid Types
Hydraulic, coolant,
fuel, lube oil, pneumatic.



Materials
Aluminum, stainless steel.



End Fitting Specification
Including but not limited to:
AN, ORB, ORFS, Metric, Beaded
Tube, NPT, Bolted Flange etc.
Male or Female.
*Alternate specifications
or custom ends available
upon request.*



Sealing
Elastomer soft seat or
Metal to metal seal.

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

DV

SERIES

BALL VALVE



Operating Pressure Range (OP)
Vacuum to 1,000psi

Proof Pressure 1.5x OP
Burst Pressure 2.5x OP



Body Sizes
-06 to -08
(-01 equivalent to 1/16")



Fluid Types
Hydraulic, coolant,
fuel, lube oil, pneumatic.



Materials
Aluminum or Hybrid
(aluminum/ss).



End Fitting Specification
Including but not limited to:
AN, ORB, ORFS, Metric, Beaded
Tube, NPT, Bolted Flange etc.
Male or Female.

*Alternate specifications
or custom ends available
upon request.*



Sealing
PTFE.

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

FW

SERIES

FUEL FILTER



Operating Pressure Range (OP)
Vacuum to 150psi

Proof Pressure 400psi



Filter Collapse Pressure
50psi differential



Body Sizes

-02 to -06

*Additional body sized available upon request.
(-01 equivalent to 1/16")*



Fluid Types

Hydraulic, coolant, fuel, lube oil, pneumatic.



Materials

Aluminum or PEEK.



End Fitting Specification

Including but not limited to:
AN, ORB, ORFS, Metric, Beaded Tube, NPT, Bolted Flange etc.
Male or Female.

Alternate specifications or custom ends available upon request.



End Fitting Angle

45°, 90° or any unique angle.
(ie. 11°, 62°, 86°)



Filter Mesh Sizes

5µm, 10µm, 20µm, 40µm, 75µm, 100µm, 200µm.



*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

SERVO SAVERS & ROD LINKS

SS SERIES

Miniature mechanical breakaway clutch designed as a drop-in armature replacement, can be utilized on a variety of servo brands. Compact, light-weight and eliminates servo damage in the event of "overtorque".

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CA SERIES

The world standard UAV control linkage. Smooth and reliable motion. Consistent throughout a wide temperature range.

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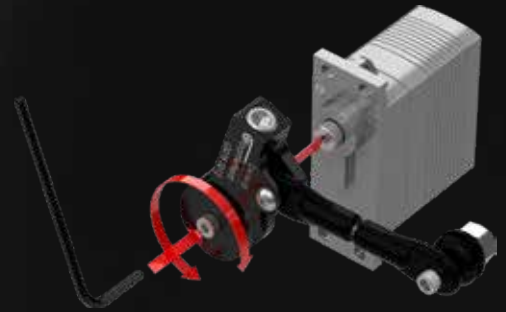
SS

SERIES

SERVO SAVER

Compact, lightweight and reliable, our servo savers are uniquely designed to replace the servo armature, and add a critically important mechanical breakaway "clutch" feature to your control assembly.

Designed specifically for operational environments where servos could be forced into an "over torque" condition, commonly experienced during net retrievals, deep stall landings, improper handling and extreme flight conditions. With the ability to reset (engage/disengage) mid-flight, the servo saver is a key asset to any UAV platform.



Standard Break-out Torque

- 130-160 in-oz
- 240-290 in-oz

Break-out torque can be customized to meet your application.



Materials

Aluminum.



Weight

As low as 9g.

*Battlefield International reserves the right to make changes to product specifications at any time. Consult the factory for current performance data.

CA

SERIES

CONTROL ROD

R/C Hobby control linkage and push rod assembly products were not designed for use in the extreme environments and altitudes required of today's premium UAS/UAV platforms.

In the early days of design however, R/C links were the only solutions available to UAV engineers and were initially installed in most small-to-medium sized unmanned products. Standard R/C hobby products have brass balls that must swivel within polymer rod eyes and do not cycle consistently in the extreme temperature swings UAV's must endure. The differing coefficient of thermal expansion between R/C-standard brass or nickel plated brass balls and the mating polymer rod eyes result in inconsistent fit as well as friction issues at altitude.

The general quality of off the shelf hobby products have proven catastrophic when integrated into UAV platforms. After the loss of UAS/UAV platforms were traced back to R/C flap control and throttle control linkages, Battlefield International Inc. was contacted to pursue a design that would minimize/eliminate swivel friction changes at extreme temperatures that was affecting flight attitude and in some cases, permanently damaging the servos. Our UAV Control Rod Linkage is now the standard in the UAV industry and is integrated into most small to medium sized unmanned aircraft available today.

The UAV Control Rod Linkage is a hybrid configuration that integrates strictly controlled R/C raw materials with Battlefield designed and produced critical components. Our approach has resulted in a fully tested and theater-proven solution that can be relied upon.





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BESPOKE PRODUCTS

DE-AERATOR

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IO SERIES

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ADAPTERS

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BATTLEFIELD PEN

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DE-AERATOR



UAV engine oil's required for today's UAV programs can gas out at altitude. This can lead to cavitation and oil pump ineffectiveness leading to catastrophic engine failure.

Our Deaerator provides the perfect solution for treating the oil before filling the aircraft's oil tank. Battlefield's deaerator gasses out the oil on the ground through the carefully specified combination of heat and vacuum ensuring maximum effectiveness.

For specification details you need only contact us.

IO SERIES

MINIATURE COUPLINGS

Designed specifically for modular UAV fluid systems, these compact, light-weight couplings are machined to match your systems nominal flow diameter to reduce pressure drop and increase efficiency.

Available in a variety of colors and end fitting specifications, the IO series is the perfect solution to transition your platform to a modular design.



ADAPTERS

Custom is our standard. Provide us with a simple napkin sketch, drawing or your design parameters and we will quickly follow up and present you with a concept solution for your review. Customer approved designs will be added to our line of COTS (commercial-off-the-shelf) adaptors and made readily available to the global market.

We are Controlled Goods Certified enabling us to support projects involving unique product design or technologies requiring export control.



BATTLEFIELD PEN

Our goal was to develop a promotional item that was produced in-house on our own equipment using aircraft grade materials.

Uses an actual EnduroLink EL01 fuel coupler sleeve latching system to retract ink cartridge.

Available to UAV and MLV engineering and procurement staff at no cost or obligation.



FOR MORE DETAILS
WWW.BATTLEFIELD.BIZ

GET IN TOUCH



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