

Advanced Couplings LTD, specializes in manufacturing stainless steel clamp-type tube connections for the Food, Pharmaceutical, and related industries. Renowned for high quality and precision, our products excel in challenging applications. Leveraging cutting-edge tech like 3-D CAD and CNC tools, we offer end-to-end services, from design to testing.



Products

Tri Clamps

Ferrules

Gaskets

Adaptors

Hose-Tails

Reducers

Sight Glasses

Bubble Traps

Blanks

Patented Coca Cola Fitting

Cam & Groove couplings

Clamps

1. S-Type (New)
2. Safety Clamp
3. SH-Single Bolt
4. SSH
5. 3 Segment (Dairy & Food)
6. ASME VIII Clamp



6



5



1

Material: 304/1.4301
Application: Light Duty
Hinge Lay-Out: Single Interlocking Rivet

A high quality 304 stainless steel clamp manufactured & assembled to the usual Advanced Couplings precision and finish. This single hinged clamp is ideal for applications where high-pressure ratings are not a critical factor. Sizes range from ½" through to 6".



2

Material: 316/1.4401
Application: Normal / Heavy Duty
Safety Feature: Safety Gate & Eye-Bolt
Patented - 7.883.121, 125175, 1693609

[All Safety Clamps are available with an anti gall option](#)

The 'gate' style section combined with the stepped eyebolt ensures that the clamps bolting mechanism cannot swing open whilst the clamping union is part or fully assembled. Releasing the clamp is only possible when the wing nut has been significantly loosened to enable the smaller diameter of the eyebolt to swing and pass through the sectioned gate; this ensures the clamp cannot be knocked or accidentally opened. Complete wing-nut removal is not necessary to open the clamp but the design guarantees that the eyebolt cannot swing open whilst the union is subjected to either clamping forces or internal pressures.



3

Material: 316/1.4401
Application: Normal / Heavy Duty
Hinge Lay-Out: Double Rivet Hinge Plate

The premier and best-selling clamp in the ACL range. This double-hinged clamp is completely manufactured in stainless steel with a highly polished finish. The ACL flagship market leading clamp is suitable for the majority of applications, with pressure ratings certified by Force Denmark. Sizes range from ½" through to 12½".

[Test reports are available to download here](#)

Material: 304/1.4301
Application: Heavy Duty
Hinge Lay-Out: Separate Segments

The heavy-duty clamp in the Advanced Couplings standard range. This clamp has a double bolt configuration and is available in 304 stainless steel material as standard, with pressure ratings certified by Force Denmark. **SSH Clamps up to 4" are supplied with brass nuts as standard (as shown in the images on the left),** aiding repeated assembling and disassembling operations by alleviating the usual thread damage of heavy-duty clamps and are available with stainless steel nuts on request. **Clamp sizes 4 1/2" upwards are supplied with stainless steel nuts as standard.**

Please take care when ordering to ensure you have the correct material of nut. We have expanded the size range from ½" through to 12 5/8".



4

Gaskets

- Manufactured in all standards:
 - BS4825-3
 - Din 32676
 - ISO 11227
 - BPE

Available in materials such as:

- EPDM
- PTFE
- Viton

All Gaskets are FDA tested.

Gaskets can be configured with mesh inserts and orifice plates.

Incoming materials are checked using FTIR.

Finished gaskets are packaged and stored in black plastic (UV inhibitor)



Ferrule Ended Connections

- Ferrule.
- Hose-Tail.
- Blanks.
- Adaptors (Male & Female).
- Ferrule end reducers.

Manufactured to most standards such as:
BS4825-3, ASME BPE, ISO 1127, DIN 32676.

Available in both Hygienic (Dairy) and Pharma grades.

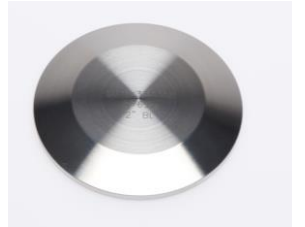


Ferrules

Advanced Couplings manufactures ferrules in accordance with the relevant British and European standards, as itemised in the detailed ferrule section. Pharmaceutical grade Ferrules are produced by machining from 316L stainless steel bar stock. To comply with customer specifications, we can produce from certified bar to, (but not limited to);
AD2000 W2
ASTM A 182/SA 479/SB 574 etc
PED 97/23/EC

Blanks

Advanced Couplings offer a comprehensive range of Blanking Caps in 316L stainless steel as standard for pharmaceutical applications, (for food & dairy requirements, [click here](#)) in sizes [1/2" to 12 5/8"](#) & [DN 10 to DN 300](#). We can also offer this product in other materials as required such as C22 Hastelloy, or AL6XN etc.



Hose-tails

Advanced Couplings Ltd can offer a comprehensive range of ferrule to hose-tail fittings that are designed to allow a clamp flange to be connected directly to a flexible hose. Our standard range of ferrule to hose-tail fittings are designed to suit both imperial and metric flexible hose sizes that are commonly available throughout the industry.
All our hose-tails are manufactured from 316L S/S.



Adaptors

Advanced Couplings Ltd offer a comprehensive range of threaded adaptors that are designed to allow a clamp flange to be connected directly to a threaded pipe, tube or fitting. Adaptors are available as either male or female and our standard stocked items are supplied with a BSP thread.
All threaded adaptors are manufactured from solid 316L bar stock. This offers both excellent material properties and guarantees good controllable surface finishes.



Reducers – Eccentric & concentric

Material: 316L / 1.4404

Surface Finish: equal to, or better than 0.8 Ra(µm) / 32 Ra(µin)

Manufactured: 3.1 Certified- Solid Bar

All concentric & Eccentric reducers are machined from 3.1b certified 316L solid bar, guaranteeing a high-quality surface finish manufactured to 0.8Ra as standard, although 0.6Ra, 0.4Ra and electro-polishing options can also be supplied upon request..



Sight Glasses

Advanced Couplings Ltd offer a range of In line Sight glasses, both Sterile Visual Flow Indicator (SVFI) and Full View Flow Indicator (FVFI), offering the highest quality and precision demanded by the modern food, pharmaceutical and chemical industry.

Using the best certified materials our sight glasses have been designed to a high specification.

The bore of the Borosilicate glass element is sized to precisely match the bore of the flange ends/connecting pipe work, resulting in a smooth transition and by also adopting the EHEDG guidelines regarding O-ring seal profile, our sight glasses become a very hygienic, C.I.P. (Clean In Place) cleanable product.

The stainless-steel flange ends are designed to suit standard clamp type coupling joints. The flange ends support the glass element on the outside diameter and also provide the housing for the face seal. The face seal is designed on the EHEDG principle utilising a precise deformed o-ring, this gives the unit its remarkable clean ability characteristics. The stainless-steel flanges are offered in 316L stainless steel as standard, although Hastelloy C22 and AL6XN can be supplied upon request.

The seals are to FDA food grade and USP Class VI specifications, offered in a variety of elastomer types. Seals are supplied with all relevant details such as grade, size, material, cure-date etc. Specialist seals can be provided for conditions outside the scope of the standard seal.

The metal body is permanently part marked with material heat number, size, surface finish and the CE mark. Other markings can be applied as requested. The basic unit is ASME-BPE SF4 on the internal bore, however alternative finishes can be supplied. All sight glasses are pressure tested once fully assembled, certification can be supplied if requested.

All Sight Glass units are pressure tested on site before despatch.



FVFI

- 0.500" to 6" in stock.
- 6.625" to 12" made to order.
- EU sourced & Manufactured.
- EPDM seals as standard.
- ASME BPE/BS4825-3.

SVFI

- 0.375" to 6" in stock.
- 6.625" to 12" made to order.
- EU sourced & Manufactured.
- EPDM seals as standard.
- ASME BPE/BS4825-3.



Applications - Pharma, Chemical, Food & Beverage.

Specified by **Novo Nordisk** in the Kalunborg expansion.

CT-SVFI

- Patented Design
- Aseptic in design due additional O-ring.
- O-rings cannot be over compressed due mechanical seal
- Tool-less assembly/dis-assembly
- 0.500" to 6" in stock.
- 6.625" to 12" made to order.
- EU sourced & Manufactured.
- EPDM seals as standard.
- ASME BPE/BS4825-3.



Applications - Pharma, Chemical, Food & Beverage.



Bubble Traps

Used to remove air from media. Most commonly used in Pharma applications.

Available in sizes 3" to 16"

Constructed from Stainless steel with a Borosilicate 3.3 viewing cylinder.

Customer configurable inlet/outlet port layout.

Operating pressures of up to 7.5 Bar.



Used in facilities by:

- Pfizer
- Eli Lilly
- Novo Nordisk

Applications - Pharma, Chemical, Food & Beverage.



CocaCola Syrup Delivery Hose



Superior Crimp Fitting Design



Smooth End Bump

- Prevents Hose Damage During Insertion
- Protects Hose During Sharp Bends Near Fitting

Rounded Serrations at End of Shank

- Improves Seal Between Hose & Fitting
- Protects Hose During Sharp Bends Near Fitting



Crimp Ferrule Matched to Shank Length

- Further Protects Hose During Sharp Bends Near Fitting
- Specified in all **Coca Cola Plants/McDonalds**

Syrup Exclusion Zone

O-Ring Placed in Front of Threads

- Isolates Syrup From Threaded Area
- Prevents Syrup Contamination
- Improves Effectiveness of Sanitation Cycle

Competitors Place O-Ring Behind Threads

- Puts Threads in Direct Contact With Syrup
- Risks Syrup Contamination
- Difficult to Clean During Sanitation Cycle

Loctite 243 Thread Locker

- Prevents Quick Coupler From Loosening
- Isolated From Syrup by Forward Placement of O-Ring
- NSF 61 Approved



Cam & Groove Couplings



Thank you for your
attention!

