

HYDRAFLOW

the connector taken

advanced R&D results in major user benefits

The Hydraflow 14J21 Clamshell is a threadless flexible coupling with a unique safety feature for fluid transfer in motorsport applications and used with industry standard flanges.

- Lightweight
- Flexible
- Durable
- Safety Strap
- Single handed operation
- Industry standard flanges
- Integral bonding wires

Safety first

The unique safety strap not only provides visual proof that the unit is locked but also gives added security as it cannot be engaged until the clamshell is closed correctly. Easy to use for peace of mind.

Product development

The 14J21 clamshell has taken well proven technology from aerospace and defence applications and applied it to the motorsport industry. The safety strap adds to the security of the dual action latching mechanism to give a lightweight, safe and quick action system.

About Hydraflow

Hydraflow specialises in creating engineered solutions for moving low pressure fluid within high technology platforms. Whether you are working in the motorsport, aerospace, marine, defence or any other high technology industries, it's likely that Hydraflow has the products and expertise to meet your challenges. Call Specialty Fasteners for details on how to solve your fluid transfer needs using Hydraflow products.



HYDRAFLOW



to the next stage



Locks automatically

Clamshell closure locks automatically when two halves are snapped together and cannot disengage accidentally since all three latch pawls must be lifted simultaneously to disengage the latch.

Gloved hand operation

No sharp edges to snag mechanics' gloves.

Meets tough requirements

Originally designed to meet stringent military and aerospace criteria which have been carried over to motorsport applications.

Flexible

Axial adjustment 1/4" angular misalignment is $\pm 4^\circ$ for full couplings.

Self Bonding

Electrical bonding to class "S" of MIL-B-5087B is automatically provided when the coupling is assembled.

Integral Bonding Wires

The bonding wires are captivated within the clamshell halves eliminating the chance of snagging experienced with external bonding systems and also improving the aesthetics of the coupling.

Safety device

The safety strap is provided to help correct installation and cannot be engaged unless the coupling has been completely closed. Operating instructions are available on our website: www.specialty-fasteners.co.uk and search 14J21

Easily inspected

The safety strap gives a fast, easy visual indication that the coupling is closed correctly.

Product Notes

Coupling flanges and seals are purchased as separate items. Seal material should be selected by the user to suit the application.

The 14J21-()A clamshell halves and sleeve are aluminium alloy with stainless steel and beryllium copper fittings and a nylon safety strap, please visit our website: www.specialty-fasteners.co.uk and search 14J21 to obtain full material specifications

Performance

The coupling meets the performance requirements of AS1650.

Temperature rating

-65°F to +450°F.

-08 thru -12 -16 thru -64

Operating Pressure:

500 PSIG 155 PSIG

Proof Pressure:

750 PSIG 227 PSIG

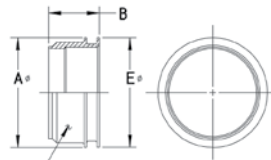
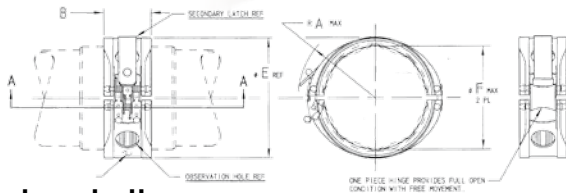
Burst Pressure:

1000 PSIG 382 PSIG

Note: All pressures are at room temperature

CAD

CAD STEP files available on request for coupling and flanges



clamshell dimensions/part numbers

TUBE Size Ref	COUPLING ASSEMBLY	SEAL SIZE	DIMENSIONS			Weight (Lbs)
			A Max	B Max	E Ref	
0.500	14J21-08A	-015	0.89	0.85	1.06	0.033
0.625	14J21-10A	-017	0.95	0.85	1.16	0.036
0.750	14J21-12A	-117	1.04	0.95	1.27	0.046
1.000	14J21-16A	-214	1.18	1.04	1.49	0.061
1.250	14J21-20A	-218	1.29	1.04	1.74	0.069
1.500	14J21-24A	-222	1.43	1.04	2.03	0.078
1.750	14J21-28A	-224	1.55	1.04	2.24	0.084
2.000	14J21-32A	-226	1.69	1.08	2.53	0.101
2.250	14J21-36A	-228	1.80	1.08	2.87	0.112
2.500	14J21-40A	-230	1.91	1.09	3.08	0.130
3.000	14J21-48A	-234	2.18	1.13	3.69	0.187
3.500	14J21-56A	-238	2.44	1.13	4.19	0.223
4.000	14J21-64A	-242	2.68	1.13	4.79	0.248

flange dimensions/part numbers

TUBE Size Ref	COUPLING ASSEMBLY	SEAL SIZE	DIMENSIONS			Weight (Lbs)
			A +/- .002	B +/- .010	E +/- .002	
0.500	14F03-08D	-015	0.685	0.739	0.682	0.010
0.625	14F03-10D	-017	0.810	0.739	0.807	0.013
0.750	14F03-12D	-117	0.990	0.773	0.987	0.017
1.000	14F03-16D	-214	1.266	0.828	1.263	0.023
1.250	14F03-20D	-218	1.516	0.828	1.513	0.030
1.500	14F03-24D	-222	1.786	0.828	1.783	0.035
1.750	14F03-28D	-224	2.036	0.828	2.033	0.042
2.000	14F03-32D	-226	2.309	0.844	2.306	0.051
2.250	14F03-36D	-228	2.559	0.844	2.556	0.058
2.500	14F03-40D	-230	2.809	0.844	2.806	0.065
3.000	14F03-48D	-234	3.309	0.844	3.306	0.079
3.500	14F03-56D	-238	3.821	0.844	3.818	0.091
4.000	14F03-64D	-242	4.328	0.844	4.324	0.111



Fits and is interchangeable with industry standard flanges