



Stratoflex

*Symetrics Thread-Lok, Quick
Connect Valved Couplings
for the Aerospace Industry*

*Catalog 106-THREAD
September 1996*



The World Standard

WARNING

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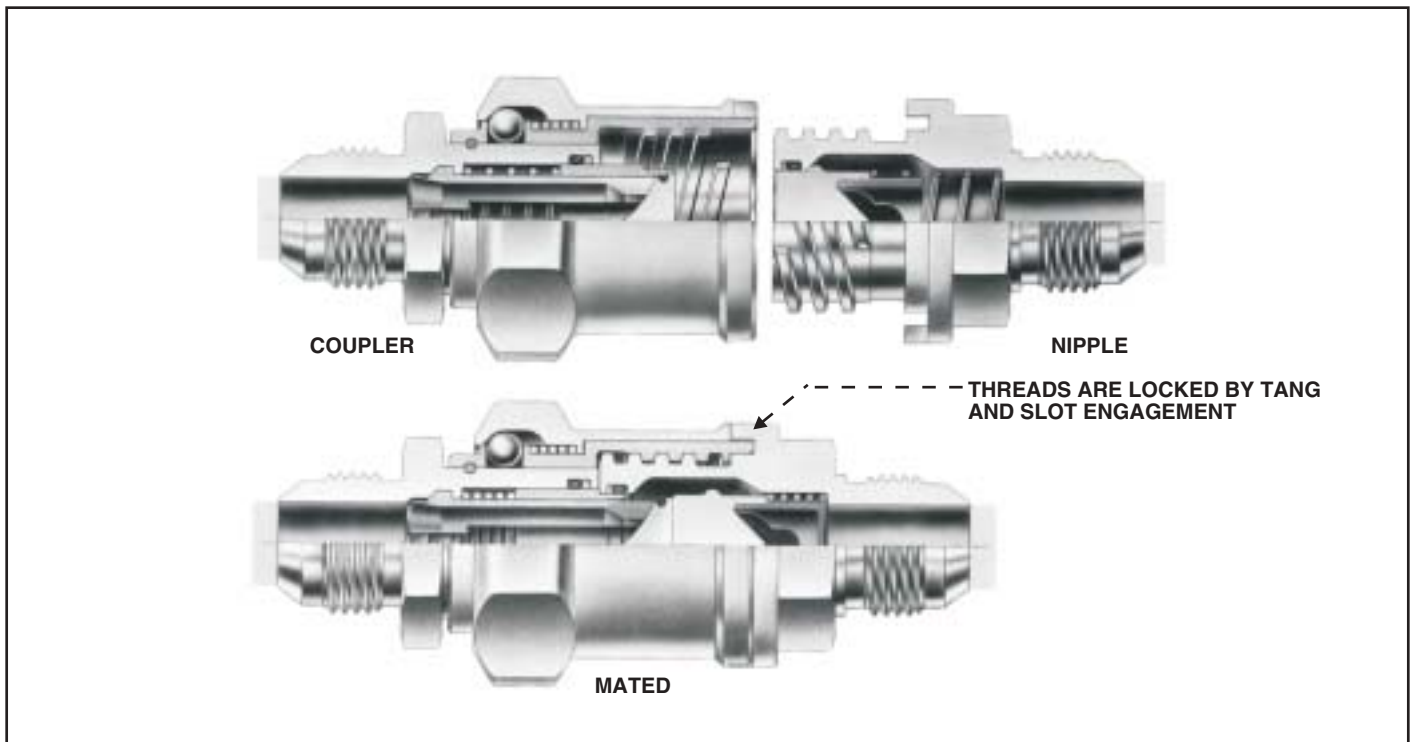
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Symetrics Thread-Lok Couplings



APPLICATIONS:

Thread-lok couplings provide today's aerospace fluid handling systems with quick disconnect capability, self-sealing action and visual/touch indication of a fully coupled position. Thread-lok couplings offer simple one hand operation and reliable performance for use during the maintenance of fluid handling systems. The thread-together coupling provides the mechanical advantage required for coupling under higher pressures. For compatible mating flex hose applications, refer to Stratoflex catalog 106.

TECHNICAL DATA:

General: Meets or exceeds requirements of MIL-C-25427 and AS1709.

Operating Pressure Range: Vacuum to 4000 psi.

Material: Stainless steel. Contact Symetrics Engineering for other materials.

Seals: Dependent upon fluid requirement.

Hose Applications: See Stratoflex catalog 106.

Note: Modified or custom designs are available for special applications. See Symetrics drawing #1000-155 for options and part number definition.

OPERATION:

Simple, fast and reliable.

To Couple: Thread coupler half onto the nipple until fully connected. Full connection occurs when the torque sleeve moves forward and locks on the mating nipple half tangs.

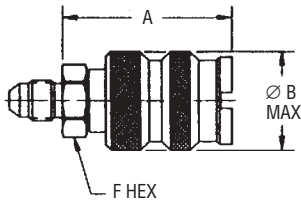
To Uncouple: Pull back on torque sleeve to disengage lock, and unthread coupler.

ACCESSORIES:

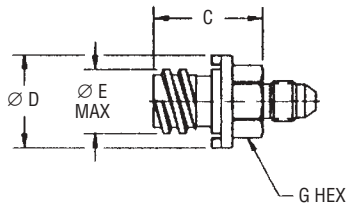
- Protective dust enclosures
- Redundant seal designs, pressure caps and plugs
- Built-in Relief Valves

Symetrics Thread-Lok Couplings

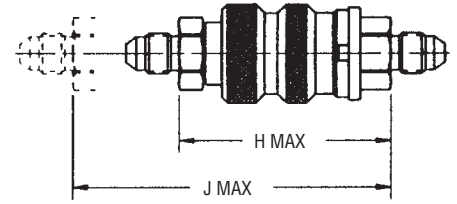
STAINLESS STEEL COUPLINGS



COUPLER



NIPPLE



LENGTH REQUIRED TO
COUPLE AND UNCOUPLE

Coupler
Basic

Tube Size (Inches)	Nipple Basic Number	Coupler Basic Number	A	Ø B MAX	C	Ø D	Ø E MAX	F HEX	G HEX	H MAX	J MAX	CRES Nipple Weight LBS (gms)	CRES Coupler Weight LBS (gms)
1/4	155504	155004	1.70	1.09	0.89	1.00	0.69	.688	.875	1.95	2.65	0.09 (41)	0.17 (77)
3/8	155506	155006	1.70	1.28	0.89	1.13	0.82	.813	1.000	1.95	2.65	0.13 (59)	0.23 (104)
1/2	155508	155008	1.90	1.34	1.00	1.31	1.01	1.000	1.125	2.15	2.96	0.19 (86)	0.39 (177)
5/8	155510	155010	2.10	1.41	1.15	1.44	1.13	1.125	1.250	2.35	3.31	0.27 (122)	0.52 (236)
3/4	155512	155012	2.25	1.78	1.40	1.63	1.26	1.375	1.500	2.53	3.71	0.39 (177)	0.65 (295)
1	155516	155016	2.40	2.03	1.60	2.00	1.63	1.625	1.750	2.72	4.06	0.54 (244)	0.89 (404)

TABLE OF COUPLING OPERATING CHARACTERISTICS

Tube Size (Inches)	Nipple Basic Number	Coupler Basic Number	Operating Pressure	Max. Pressure During Coupling	Flow Rated GPM (lpm)	Max. Fluid Loss CC	Max. Air Inclusion CC	CRES Nipple Weight LBS (gms)	CRES Coupler Weight LBS (gms)
			PSI (Kgms/cm ²)						
1/4	155504	155004	4000 (281)	400 (28)	1.20 (4.5)	.002	.005	0.09 (41)	0.17 (77)
3/8	155506	155006	4000 (281)	200 (14)	3.50 (13.2)	.003	.005	0.13 (59)	0.23 (104)
1/2	155508	155008	4000 (281)	120 (8.4)	6.00 (22.7)	.004	.006	0.19 (86)	0.39 (177)
5/8	155510	155010	4000 (281)	100 (7)	10.50 (39.7)	.004	.008	0.27 (122)	0.52 (236)
3/4	155512	155012	4000 (281)	60 (4)	16.00 (60.5)	.004	.008	0.39 (177)	0.65 (295)
1	155516	155016	4000 (281)	30 (2)	29.00 (109.7)	.008	.01	0.54 (244)	0.89 (404)

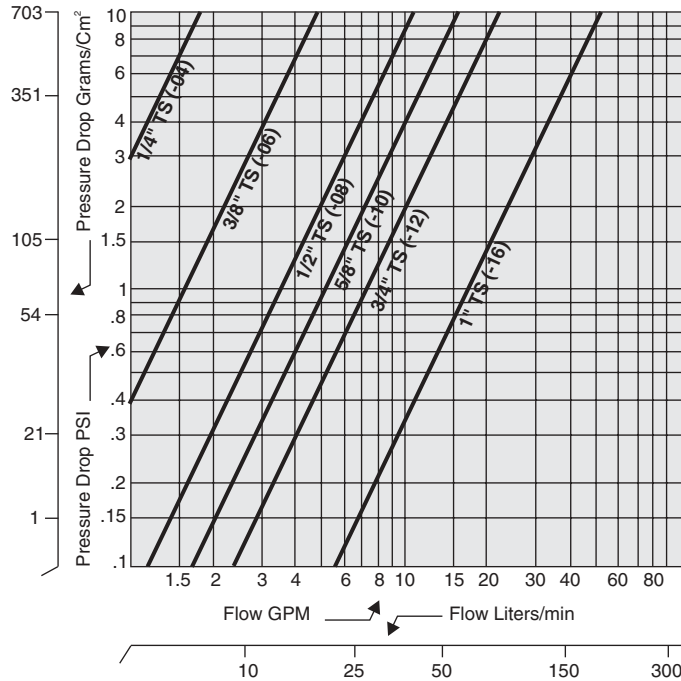
Note: 1. Weights are provided for couplings with SAE standard AS4395 end fittings of equivalent tube size.

Symetrics Thread-Lok Couplings

FLOW DATA

THE FOLLOWING INFORMATION IS BASED ON MIL-H-83282 HYDRAULIC FLUID AT 100°F (38°C)

PRESSURE DROP CURVE



FLOW COEFFICIENT (Cv FACTOR)

Tube Size (Inches)	Cv Factor
1/4	.5
3/8	1.5
1/2	3.2
5/8	4.8
3/4	6.4
1	15.6

NOTE: The flow coefficient is approximate within 10%.

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2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.

3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

4. Warranty: Seller warrants that the items sold thereunder shall be free from defects in material or workmanship for a period of 365 days from the date of shipment to Buyer, or 2,000 hours of use, whichever expires first. **THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GAURANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED.**

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5. Limitation Of Remedy: SELLER'S LIABILITY ARISING FROM OR IN ANY WAY CONNECTED WITH THE ITEMS SOLD OR THIS CONTRACT SHALL BE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF THE ITEMS SOLD OR REFUND OF THE PURCHASE PRICE PAID BY BUYER, AT SELLER'S SOLE OPTION. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY.

6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or specifications for the items sold herunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller of if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

10. Indemnity For Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. patents, U.S. trademarks, copyrights, trade dress and trade secrets (hereinafter "Intellectual Property Rights"). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes in the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and options, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter "Events of Force Majeure"). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

Stratoflex Division Sales Offices

Most Symetrics products can be integrated with most Stratoflex hose. For technical information on any Symetrics or Stratoflex product, please contact any location listed below.

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