

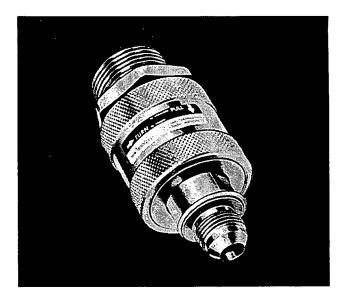
AEROSPACE ENGINEERING BULLETIN

COUPLINGS

3000 psi Self-Sealing Quick Disconnect/3200 Series*

For hydraulic applications... Meets requirements of MIL-C-25427A

FOR TYPE II (-65° F TO +275° F) SYSTEMS



The Aeroquip 3200 Series Self-Sealing Coupling is a reliable quick disconnect for 3000 psi aircraft and missile applications.

Advantages:

Quick Connecting . . . Easily connects with one hand; disconnects with a straight pull on the Union Nut.

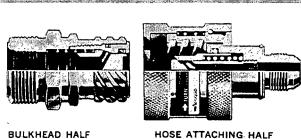
Positive Action . . . Valves open simultaneously with the locking action. There is no stable intermediate position where the coupling is partially open and unlocked.

No Fluid Loss . . . during connection or disconnection.

Excludes Air, Dirt, Moisture . . . No cavity to trap air, dirt, or moisture.

Simple Construction . . . only thirteen parts plus "O" rings and Teflon back-up rings. No delicate mechanisms to malfunction.

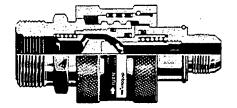
Principle of Operation



HOSE ATTACHING HALF

Disconnected Coupling with valves closed. Note how "O" rings provide unexposed and fully protected seal for poppet and tubular valve sleeve. When connecting, coupling halves align and mate without a cavity, thus preventing air entrapment on connection or fluid spillage on disconnection.

Fully coupled and locked . . . valves open. Internal hex in union nut is locked on male body hex. A straight pull of the union nut disengages the lock permitting quick disconnection of the coupling.



Coupling Styles and Part Numbers

Style I External MS33514 MS33656 AND10050

3200 Series Couplings are available for various hydraulic fluids and with all standard end fitting combina-tions. Select the base part number for coupling halves or coupling assembly from the table at right.

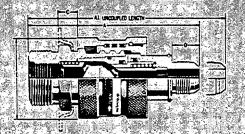
Complete the part number by adding dash size to base number (Example: 3200-8). Couplings for other fluids and end fitting styles are available; write for full information.

Removable, hinged type MS24335 mounting flanges, dust caps, and plugs are available for all sizes. See page 4.

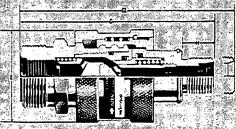
MATERIAL: ALUMINUM

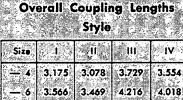
Application	HYDRAULIC	SKYDROL	
Coupling half, Bulkhead mounting	3202	320211	
Coupling Assembly	3200	320016	_
Coupling half, Hose attaching	3205	320516	

Coupling Dimensions

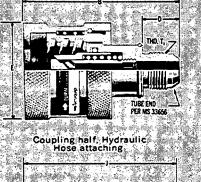


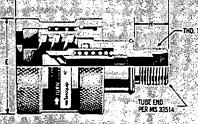
Style I



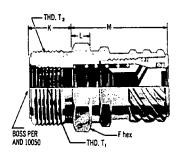


4.018 3.990 3.893 4.452 4.673 _10 5.176 4.543 5.410 4.640 4.919 4.799 5.842 5.507 6.719 6.433 5.814 5.715

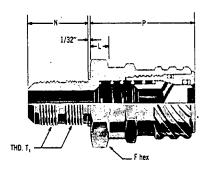




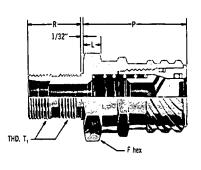
Coupling half, hydraulic Hose attaching

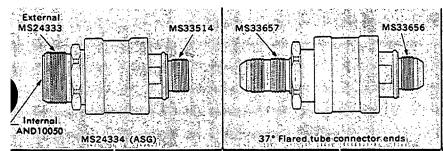


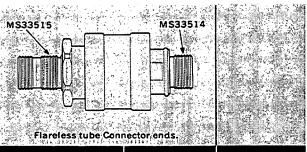
Coupling half, Hydraulic-Bulkhead mounting.



Coupling half, Hydraulic-Bulkhead mounting Coupling half, Hydraulic-Bulkhead mounting



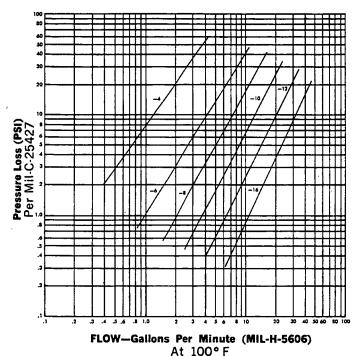




HYDRAULIC	SKYDROL	HYDRAULIC	SKYDROL	HYDRAULIC	SKYDROL	
3202	320211	3402	340218	3302	330217	
320000	320017	3400	340019	3300	330007	
3305	330509	3205	320516	3305	330509	

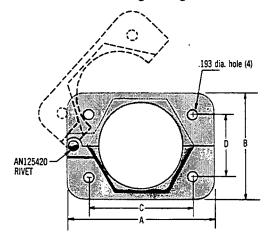
DASH SIZE-	4	–6	– 8	=10	-12	; -16
TUBE SIZE	1/4"	3/8"	1/2"	5/8"	3/4"	$ ilde{\mathbf{i}}^{ ilde{r}}$
Α	3.16	3.57	3.99	4.65	4.93	5.81
*Aı MAX.	3.77	4.14	4.61	5.34	5:73	6.77
В	2.16	2.59	2.89	3.38	3:48	4:15
D	550	.556	.657	.758	.864	.911
E dia. MAX.	1.54	1.67	1.89 💝 🥫	2.13	2.38	2.63
F hex	1.12	1.38	· · · · · 1.62	1.62	1.88	2.12
G	3.08	3.48	3.89	4.54	4.80	5.72
*G ₁ MAX.	3.68	4.06	4.52	5.23	5.58	6.67
Н	.453	.469	.562	.625	.688	.688
J	2.07	2.50	2.80	3.27	3.33	4.05
К	.594	.594	.718	.781	906	.938
L	7 26	.26	.26	.26	32	.32
M MAX.	1.28	1.41	1,60	1.84	1.98	2.51
N .	1.016	1.094	1.250	1.391	1.562	1.562
P MAX.	1.40	1.53	1.72	1.96	2:20	2.78
R	(* :: 193 8)	.984	1.125	1.266	1:375	1.375
T_{t}	⅓6-20UNF	% ₁₆ -18UNE	%-16UNF	%-14UNF	1½6-12UN	15/6-12UN
T_2	% 14UNF	11/16-12UN	1½6-12UN	1½:012UN	1%-12UN	1%-12UN
Style I	.281	.425	.638	.897	1.212	1.811
Style II	.322	.445	.649	.908	1.247	1.858
Style III	.275	.417	.626	.912	1.224	1.901
Style IV	.274	.414	.613	.902	1.199	1.827

^{*}Dimension with complete separation of coupling halves allowing lateral displacement without interference between coupling halves.



Write for ASB-54—Maintenance and Overhaul Manual on 3200 Series Couplings.

Mounting flange



Aeroquip 3222-size/MS24335-size Mounting Flange							
Dash Size	_4	-6	-8	-10	-12	-1	
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Size			•			-10
A	2.25	2.50	2.75	2.75	3.00	3.25
* B	1.63	1.81	1.94	2.13	2.38	2.63
· C	1.52	1.73	1.95	1.95	2.16	2.38
*** D****	88	1.00	1.13	1.13	1.25	1.38
Wt/lbs	043	051	063	070	074	102

Material: 1010 steel, cadmium plated (QQ-P-416, type II, Class 2)

Pressure loss versus flow

Pressure loss... to find the pressure loss for a given coupling size at a given flow rate:

1) find flow rate at bottom of chart and read up until line intersects the curve for the coupling size in question; 2) read across to find the pressure loss.

The Aeroquip 3200 Series Coupling is used wherever a fast, safe connection is needed in 3000 psi hydraulic systems. There is no stable, partially connected position permitting fluid to flow.

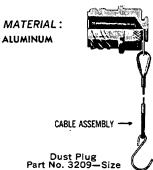
3200 Series couplings connect and disconnect with one hand in a single, easy motion. A visual check to verify positive connection is provided by a contrasting color on the locking hex. The positive thread action of the nut provides a mechanical advantage permitting connection against line pressures up to 60 psi.

The coupling may be bulkhead mounted using a jam nut (AN924) or with an optional 4-holed mounting flange (MS 24335).

3200 Series couplings are available with end fitting combinations, materials and packings for other fluid applications and for elevated temperature service. 3200 Series Part No's for Skydrol and MIL-H-5606 for Type II systems (-65° F to +275° F) are listed herein. Write for additional information on 3200 Series couplings to meet your specific requirements.

Dust Caps and Plugs.







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Specifications subject to change without notice.

Aeroquip products are protected by patents internationally.