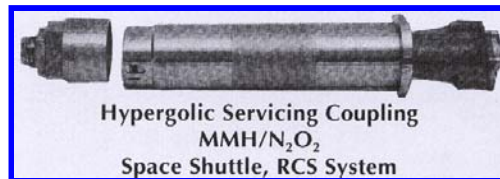


DESCRIPTION

VACCO Industries' couplings for hazardous fluids use the proven sealing and safety mechanisms required for operations involving a wide range of space-type propellants.



FEATURES	APPLICATIONS	HERITAGE
<ul style="list-style-type: none"> ⊕ Size: 1/4" to 6" ⊕ Operating Pressure: Vacuum to 600 psig ⊕ Fluids: Hydrazine, N₂O₄, MMH, Freon ⊕ Type: Breakaway and/or Manual Latch ⊕ Alignment: +1/8" Parallel, 5° Conical ⊕ Operating Temperature: +40° F to +120° F ⊕ Life Cycle: Up to 4000 cycles ⊕ Leakage: Depending on application as low as 10E-06 sccs GHe 	<ul style="list-style-type: none"> ⊕ Main Propulsion System ⊕ RCS/OMS Systems 	<ul style="list-style-type: none"> ⊕ Delta ⊕ Gemini ⊕ Lunar Module ⊕ Mariner ⊕ Jupiter/Saturn ⊕ Shuttle – RCS ⊕ Titan

PERFORMANCE CHARACTERISTICS

	Interstage	Hypergolic Loading	Interstage	Replacement
Vehicle	JPL	Space Shuttle	NASA	Experimental
Application	Interstage	Ground Servicing	Interstage	Interstage
Tube Size	1/2"	1/4", 1/2", 1"	1/2"	1/2"
Type	Breakaway	Pneumatic or	Breakaway Manual Latching	Breakaway
Manual Latching				
Weight, Flight	1.5 lbs total	.7, 1.0, 2.0 lbs	2.3 lbs total	2.07 lbs total
Operating Fluid	N ₂ H ₄ , Freon 21	MMH, N ₂ O ₄ , He, N ₂	MMH, N ₂ H ₄ , Freon 21	N ₂ H ₄ , N ₂ O ₄ , MMH
Operating Temperature	+10° to +150°F	+40° to +150°F	-50 to +225°F	+40 to +120°F
Operating Pressure	0 to 456 psig	0 to 350 psig	0 to 300 psig	0 to 590 psig
Leakage				
Mated	1X10 ⁻³ sccs GHe	5X10 ⁻⁴ sccch GHe	1X10 ⁻⁴ sccs GHe	1X10 ⁻⁶ sccs GHe
Flight	5 sccch GN ₂	3X10 ⁻⁴ sccs GHe	1X10 ⁻⁴ sccs GHe	—
Capped	N/A	1X10 ⁻³ sccs GHe	—	—
Self-Alignment	.03" Offset .5° Conical	.05" Offset 3° Conical	.062" Offset .5° Conical	.062" Offset >±1° Conical
Life Cycles	200	600	500	100
Flow Characteristics	6 psid MMH @ 1.1lbm/sec	8.5, 20, 60 psid MMH @ 1, 6, 50 gpm	28 psid MMH @ 1.1 lbm/sec	K=3.1
Features				
Self Sealing	X	X	X	X
Actuation	—	Manual, Pneumatic	Manual	Manual
Interlock	—	X	—	—
Position Indication	—	X	—	—
Indexing	—	X	X	—