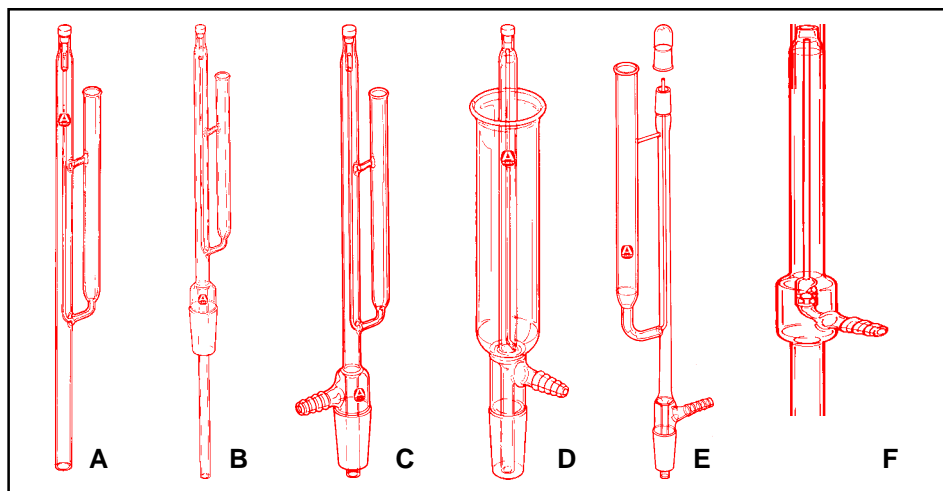


Aldrich NMR-Tube Cleaners and Accessories



Instructions for Using NMR Tube Cleaners

Eliminate washing and oven drying of NMR tubes. With solvent in the reservoir, rapid suction dislodges material, and an acetone wash followed by an air stream dries the tube in seconds. Average rate of cleaning is 1 tube/minute. Use with 7in. tubes only.

Integral Solvent Reservoir (Figure 1)

Models A, B, C, D

A PP tube cap placed on the closed end of an inverted NMR tube holds the tube in place and seals the system to allow efficient vacuum. Applied suction sprays solvent inside and against the closed end of tube for thorough cleaning.

Model D has 100ml solvent reservoir for less frequent filling.

Model E

As above, except the ground glass stopper is the cap.

External Solvent Reservoir (Figure 2)

Model F

Cleaning principle as for A, B, C, D above. Wash/dry cycle controlled by rotating integral Teflon stopcock ¼-turn. Connecting solvent bottle to cleaner with laboratory tubing eliminates manual reservoir filling. Integral check-valve prevents back flow of spent solvent into reservoir.

Aldrich Tube Cleaners

Model	Joint	For Tube (mm)	Cat. No.
A	Tooled end	5	Z10,724-7
B	24/40	5	Z17,479-3
C	24/40	10	Z17,480-7
	24/40	5	Z10,744-1
D	24/40	10	Z12,741-8
	24/40	5	Z23,921-6
E	29/32	5	Z23,922-4
	24/40	5	Z22,007-8
F	19/26	5	Z22,008-6
	Tooled end	5	Z23,925-9
	24/40	5	Z23,923-2
	29/32	5	Z23,924-0

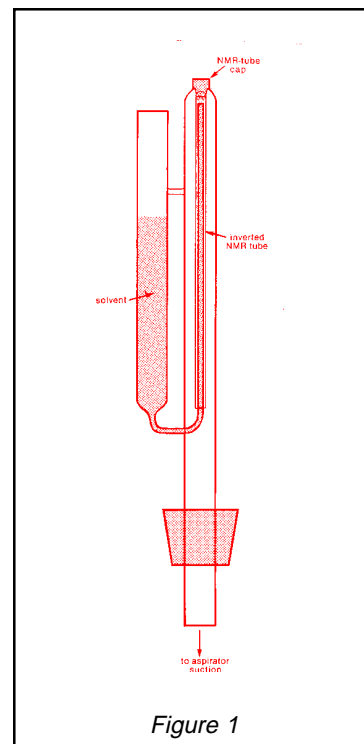


Figure 1

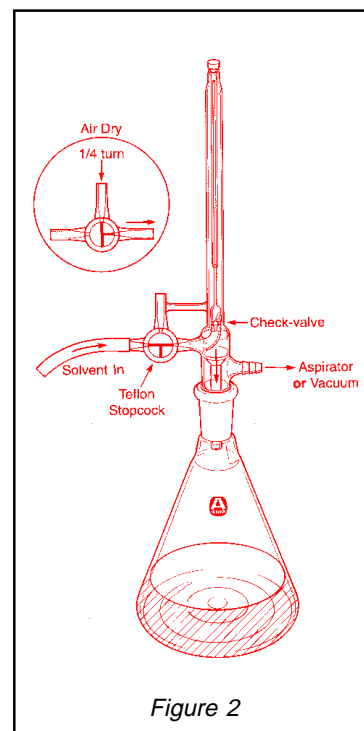


Figure 2

Aldrich NMR tubes

Precision ground and highly polished for rotational stability. 7-in. long. Available in five grades:


Economy— for 30-MHz instruments

Standard— for 60-MHz instruments

Premium— for 80- to 100-MHz instruments and more stringent camber requirements

Gold Label— for high-field, multiple-scan FT-NMR experiments

Ultra— for highest resolution experiments

	5mm size		10mm size	
	Grade	Cat. No.	Grade	Cat. No.
	Economy	Z11,730-7	—	—
	Standard	Z11,718-8	Z11,722-6	—
	Premium	Z11,719-6	—	—
	Premium-XL*	Z12,919-4	Z12,920-8	—
	Gold Label	Z11,721-8	Z11,723-4	—
	Ultra	Z23,101-0	—	—

*9-in. long, for making standards and for use with tip-off manifolds.

Aldrich NMR tube Specifications

Size (mm)	Grade	O.d. (in.)		I.d. (in.)		Wall uniformity (in.)	Camber (in.)
5	Economy	0.1955	+0.0000	0.168	+0.005	0.003 TIR	±0.002
			-0.0005		-0.0005		
5	Standard	0.1955	+0.0000	0.1655	+0.0005	0.002 TIR	±0.002
			-0.0005		-0.0000		
5	Premium Premium-XL	0.1955	+0.0000	0.1655	+0.0005	0.002 TIR	±0.001
			-0.0005		-0.0000		
5	Gold Label	0.1955	+0.0000	0.1655	+0.0005	0.001 TIR	±0.0005
			-0.0005		-0.0000		
5	Ultra	0.1955	+0.0000	0.1655	+0.0005	0.0005 TIR	±0.00025
			-0.0005		-0.0000		
10	Standard	0.3937	+0.0000	0.3569	+0.0005	0.003 TIR	±0.0015
			-0.0005		-0.0005		
10	Premium-XL	0.3937	+0.0000	0.3569	+0.0005	0.003 TIR	±0.0017
			-0.0005		-0.0005		
10	Gold Label	0.3937	+0.0000	0.3569	+0.0005	0.0015 TIR	±0.0005
			-0.0005		-0.0005		

TIR — Total Indicator Reading



NMR tube labels

Self-laminating vinyl labels with white write-on surface resist oil, water, and solvent. 38- L x 8.7-mm W. Label wraps around 5-mm tube for positive sample identification. Usable temperature range is -40 to 150°F. Supplied with 26 labels on a card, 25 cards per pack.

Z22,057-4

Ultra-thin pH electrode

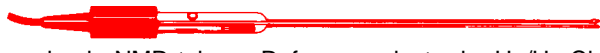
Allows pH measurement of samples in NMR tubes. Reference electrode: Hg/Hg₂Cl₂. Ultra-thin (3.5mm), extra-long (183mm). Temperature range 0 to 80°C. Low sodium-ion error at pH 0 to 12.

With U.S. standard plug

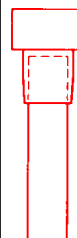
Z11,343-3

With Bayonet (BNC) connector

Z11,344-1



TUBE CAPS



Poly(propylene) caps

For 5-mm NMR tubes

Color **Cat. No.**

red Z11,807-9

black Z15,327-3

white Z15,328-1

yellow Z15,330-3

green Z15,331-1

blue Z15,333-8

set (100 of each color, with case)

Z15,326-5

For 10-mm NMR tubes

red Z11,808-7

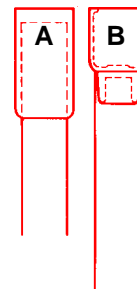
A. Teflon caps

For 5-mm NMR tubes

Z22,061-2

For 10-mm NMR tubes

Z22,062-0



B. Natural rubber septa

For 5-mm NMR tubes

white Z10,070-6

red Z12,433-8

Lil' Dewey

NMR-tube dewar flask

Borosilicate glass with protective aluminum housing is designed for freezing NMR samples in vacuum-thaw work. Attaches to lattice rack with clamp. Compact size minimizes volume of liquid nitrogen required. 2.0 i.d. x 23cm depth.

Z24,729-4



Rev. 5-94

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