

INSTALLATION DATA

M Series units may be used in one-or two-pipe installations. They have vacuum capability up to 10" Hg on single-stage units, 15" Hg on two-stage units including piping and lift losses. They are rated for use with #1 and #2 fuel oil or kerosene.

IMPORTANT: Do not loosen or try to tighten any pump plugs not to be used in the installation. **NON HARDENING OIL PIPE DOPE IS RECOMMENDED** for use on the threads of all fittings. Teflon tapes or paste must be used with care to prevent depositing tape pieces or fibers into critical internal areas of the pump. Reduced torque must be used with teflon materials to avoid thread or casting damage. **EVIDENCE OF TEFLON MATERIAL IN INTERNAL AREAS OF THE FUEL UNIT WILL BE CAUSE TO VOID WARRANTY.**

Installation Notes:

Nozzle port pressure at cutoff is not less than 80% of set pressure on all except -15 models. -15 models do not have internal cutoff.

'Fuel unit inlet pressure should not exceed 3 psig in order to comply with National Fire Protection Association's Bulletin 31.'

M Series fuel units are available in standard C Style (counterclockwise rotation, nozzle port on left, as viewed from shaft end) or D Style models (clockwise rotation, nozzle port on right, as viewed from shaft end).

Important Rating Information

Recommended fire size (RFS) of pump decreases as pump operating pressure is increased above 100 psi nominal rated pressure, except M34DK-3, which is rated to 150 psi. For adequate service life, nozzle flow at set pressure must not exceed RFS figures in table below.

Max. UL listed operating press. = 135 psi ("K"-150 psi)

Pump Model	RFS at 100 psi	RFS at 135psi	RFS at 150 psi
M34-3, 2M34-3	3 gph	1 gph	—
M34-6, 2M34-6	6 gph	3 gph	—
M34-15, 2M34-15	15 gph	13 gph	—
M17-6, 2M17-6	6 gph	3 gph	—
M17-15	15 gph	13 gph	—
M34DK-3	3 gph	3 gph	3 gph

Total Allowable Feet of Tubing

Figures in body of table are total allowable feet of line length (vertical + horizontal) given feet of vertical lift for M pumps set 2 pipe.

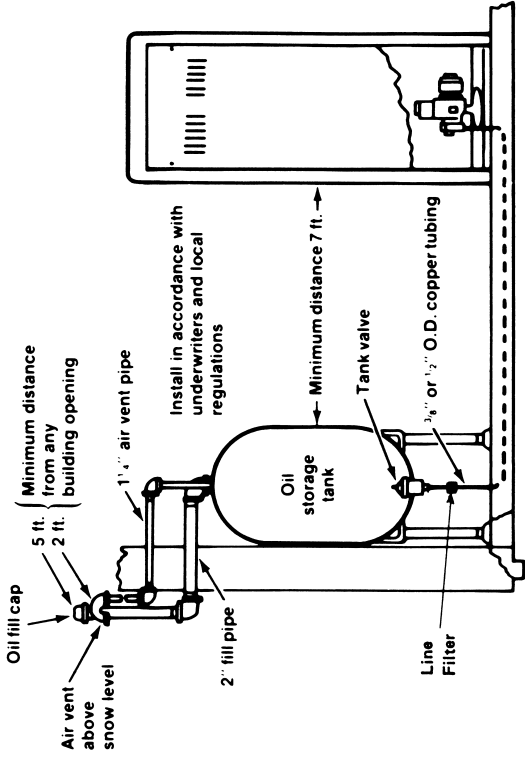
Feet Vertical Lift	1-Stage All Models Except "K"		1-Stage "K" Only	
	3/8" OD Tubing	1/2" OD Tubing	3/8" OD Tubing	1/2" OD Tubing
	0	50	100	100
1	46	100	93	100
2	42	100	85	100
3	39	100	78	100
4	35	100	70	100
5	31	95	63	100
6	27	83	55	100
7	24	72	48	100
8	20	60	40	100
9	16	49	33	99
10	12	38	25	76
11		27	18	53
12		15		31
13				
14				
15				
16				
17				
18				

Feet Vertical Lift	2-Stage All Models Except - 15		2M34-15 Only	
	3/8" OD Tubing	1/2" OD Tubing	3/8" OD Tubing	1/2" OD Tubing
	0	75	100	56
1	71	100	53	100
2	68	100	51	100
3	64	100	48	100
4	60	100	45	100
5	56	100	42	100
6	53	100	39	100
7	49	100	37	100
8	45	100	34	100
9	41	100	31	94
10	38	100	28	85
11	34	100	25	77
12	30	91	22	68
13	26	80	19	60
14	23	68	17	51
15	19	57		43
16		46		34
17		34		26
18		23		

One-Pipe Installation

Normally recommended for gravity feed only. Lift up to 8 feet max. is allowable if system is absolutely airtight. Even slight air leak can cause loss of prime with 1 pipe lift.

1. Remove **BYPASS PLUG** (if installed) through side **INLET PORT** in pump body.
2. Connect inlet line to preferred **INLET PORT**.
3. Connect nozzle outlet to nozzle line.
4. Plug all unused ports securely.
5. Start burner and bleed all air from the system by opening **VENT PLUG**. Close **VENT** securely when oil flow in tube is clear.



Two-Pipe Installation

Normally required when lifting oil from below pump. 2 pipe systems are self-venting. See table below for permissible line lengths.

Maximum Inlet Vacuum:

Single-stage M units—10" Hg

Two-stage 2M units—15" Hg

1. Insert BYPASS PLUG, if not installed, through side INLET PORT in pump body.
2. Connect supply line to preferred INLET PORT.
3. Connect return line to preferred RETURN PORT.
4. Connect nozzle outlet to nozzle line.
5. Plug all unused ports securely
6. Start burner. Unit will self vent.

Install in accordance with underwriters and local regulations

