

### GENERAL DESIGN PRINCIPLES FOR FILL STATIONS

1. An adequate size storage tank free of sediment and scale must be supported by a stable and sturdy mounting stand mounted as high above the pump as practical. The assembly must be properly grounded.
2. Heavy duty schedule 80 pipe and fittings are required with an excess flow valve at the tank, and a strainer and a flex connector in the line to protect the piping and pump.
3. The pump should be located under the tank with a short, direct line of adequate size to supply the pump. This inlet line should never rise up to the pump.
4. The pump and motor must be properly sized to provide the capacity desired. A by-pass valve set at approximately 100 psi must be used and the by-pass line must have sufficient capacity to handle flow returning to tank.
5. Proper selection of a meter requires many considerations including capacity of the system and the meter features desired. Vapor line from vapor eliminator on the meter to a vapor opening on the tank must be free of scale and have no dips in the pipe.
6. Sufficiently sized hose and hose valve are necessary for the capacity required and must be protected by an excess flow valve. Filler couplings and adaptors must be selected to allow filling of the various type containers.
7. Safety considerations at the fill station should include a break-a-way coupling, fire extinguisher and proper warning and instructional signs.

### TANKS FOR FILL STATIONS

Tanks must be cleaned and free of scale and sediment and properly purged before using for a fill station. The maximum delivery rate from a tank is about 2.5% of the tank's capacity per minute.

TANKS FOR FILL STATIONS

Tank Size W.C.	Nominal Length	Nominal Diameter	Liquid Openings	Top Vapor	Output Capacity
500	9'-11"	37 $\frac{1}{2}$ "	1 $\frac{1}{4}$ "	$\frac{3}{4}$ "	12.5 GPM
1000	16'-1 $\frac{1}{2}$ "	41"	1 $\frac{1}{4}$ "	$\frac{3}{4}$ "	25 GPM

**KITS FOR PORTABLE CYLINDER AND SMALL MOTOR FUEL FILLING REQUIREMENTS**  
 DESIGNED TO BE USED WITH BLACKMER LGF1-1 HP 10 GPM PUMP AND SMITH DWIZM-3 AND EGIZM-3

**PK-11 COMPLETE VALVING KIT**

Key*	RMI Part No.	Description
1	C407M-10-03	Tank Valve w/ Relief
5	ME652S	Strainer
6	FLEX 1-12	Flex Connector
10	ME880-6/22	Excess Flow Valve
14	FH-1218	½" Hose w/ ends 18 ft.
15	ME791C	Hose End Valve
15	ME390	POL Filler Coupling
15	901H	Adaptor
15	ME392	Adaptor
16	ME449	Transfer Valve
16	ME880-6/14	Excess Flow Valve
16	MEH225	Relief Valve
18	ME202	Snubber
18	GB-400	Pressure Gauge

**PF-11 FITTING AND PIPE NIPPLE KIT\*\***

Includes the following:

Key*	RMI Part No.	Description
2	104-16	1" - 90° Elbow
2	125-02	1" X 2" Nipple
3	103-16	1" 45° Elbow
4	125-03	1" X 3" Nipple
7	109-16	1" Union
8	125-09	1" X 9" Nipple
8	150-2016	1-¼" X 1" Concentric Swage
9	106-1612	1" X ¾" Hex Bushing
11	124-03	¾" X 3" Nipple
11	107-1208	¾" X ½" Reducer Coupling
17	(2) 48IK	⅝" X ¾" Flare Fittings
17	KCT12-10	Copper Tubing-Type K, 10 ft.
17	(2) NS4I	⅝" Flare Nuts

**PK-11B VALVE KIT W/ BREAK A WAY**

Same as PK-11 Valve Kit, plus:

Key*	RMI Part No.	Description
13	ME860S-6	Break-A-Way Coupling

\* See diagram on preceeding page.

**PF-11B FITTING KIT USED W/BREAK-A-WAY**

Key*	RMI Part No.	Description
12	LPGH-3/4-3C	¾" X 3 ft. Hose w/ Ends
13	106-1208	¾" X ½" Hex Bushing
19	108-12	¾" Tee
19	106-1204	¾" X ¼" Hex Bushing
19	125-06	1" X 6" Nipple
19	TSS3169	Vent Valve

**KITS FOR LARGER MOTOR FUEL FILLING REQUIREMENTS**

DESIGNED FOR USE WITH BLACKMER LGF1P-1.5 HP 15 GPM PUMP AND SMITH DWHZM-5 AND ECHZM-5

**PK-153 COMPLETE VALVING KIT**

Key*	RMI Part No.	Description
1	C407M-10-03	Tank Valve w/ Relief
5	ME652S	Strainer
6	FLEX 1-12	Flex Connector
10	ME880-6/22	Excess Flow Valve
14	LPGH-3/4-15C	¾" Hose w/ ends 15 ft.
15	ME820-6	Hose End Valve
15	ME635-6	1-¾" Acme Coupling
15	ME210	Adaptor
15	ME390	Adaptor
15	G-820	Adaptor
16	ME449	Transfer Valve
16	ME880-6/14	Excess Flow Valve
16	MEH225	Relief Valve
18	ME202	Snubber
18	GB-400	Pressure Gauge
19	10AXXX	Liquid Level Gauge

**PK-153B VALVE KIT W/ BREAK A WAY**

Same as PK-153 Valve Kit, plus:

Key*	RMI Part No.	Description
13	ME860S-6	Break-A-Way Coupling

\* See diagram on preceeding page.

**NOTE:**

For the addition of either the Liquid Control or Neptune ¾" meter the following items must be ordered separately— ¾" union, elbows for alignment between pump and meter, ½" tubing (K or L) for vapor eliminator line and coupling to connect line to multivalve on top of tank.

**PF-15 FITTING & PIPE NIPPLE KIT\*\***

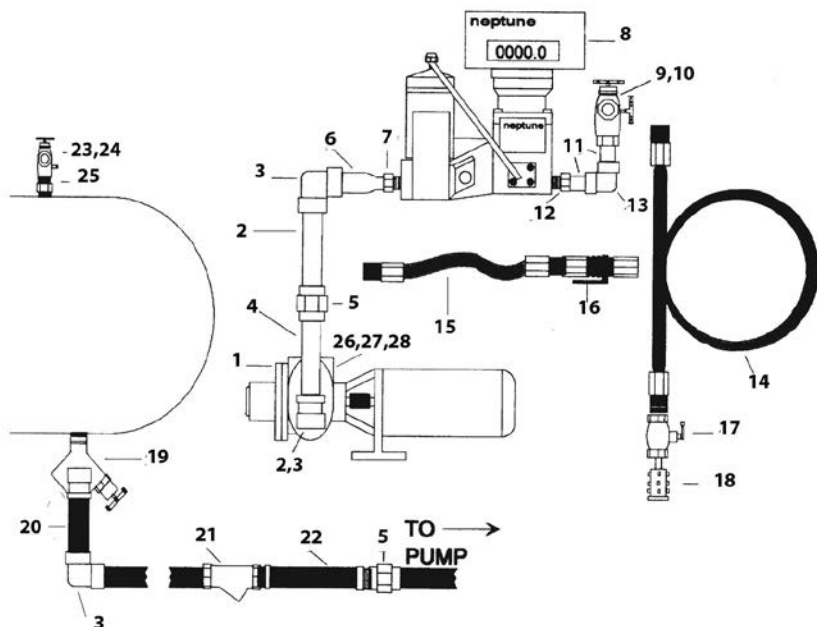
Key*	RMI Part No.	Description
2	104-16	1" - 90° Elbow
2	125-02	1" X 2" Nipple
4	(2) 125-03	1" X 3" Nipple
7	109-16	1" Union
8	125-09	1" X 9" Nipple
8	150-2016	1-¼" X 1" Concentric Swage
9	106-1612	1" X ¾" Hex Bushing
11	150-1612	1" X ¾" Concentric Swage
17	(2) 48IK	⅝" X ¾" Flare Fittings
17	KCT12-10	Copper Tubing-Type K, 10 ft.
17	(2) NS4I	⅝" Flare Nuts

**PF-15B FITTING KIT USED W/ BREAK AWAY**

Same as PF-15 Fitting Kit, plus:

Key*	RMI Part No.	Description
12	LPGH-3/4-3C	¾" X 3 ft. Hose w/ Ends
19	124-03	¾" X 3" Nipple
19	106-1204	¾" X ¼" Hex Bushing
19	108-12	¾" Tee
19	125-06	1" X 6" Nipple
19	TSS3169	Vent Valve

## BLACKMER FILL STATION DESIGNED FOR USE WITH D-2 CABINET



## BLACKMER FILL STATION Designed for Use w/ D-2 Cabinet

Key*	RMI Part No.	Description	PK-D2	PF-D2
1	LGF1P-1.5HP	Pump and Motor	~	~
2	125-05	1" X 5" Nipple	~	X
3	104-16	1" 90° Elbow	~	X
4	125-06	1" X 6" Nipple	~	X
5	109-16	1" Union	~	X
6	150-1612	1" X 3/4" Concentric Swage	~	X
7	ME870-6	3/4" Back Check	X	~
8	400051-001	Neptune Meter	~	~
9	MEN401-06	3/4" Angle Valve	X	~
10	MEJ602H	1/4" Elbow w/ Relief & Bleed	X	~
11	124-00	3/4" Close Nipple	~	X
12	ME880-6/22	Excess Flow Valve	X	~
13	104-12	3/4" 90° Elbow	~	X
14	FH-1218	1/2" Hose w/ 1/2" X 3/4" ends 18 ft.	X	~
15	LPGH-3/4-3C	3/4" X 3 ft. Hose w/ Ends	X	~
16	ME860S-6	3/4" Break-A-Way Coupling	X	~
17	ME791CJ	Toggle w/bleeder	X	~
18	G-820	POL Filler Coupling	X	~
19	C407M-10-03	Tank Valve w/ Relief	X	~
20	150-2016	1-1/4" X 1" Concentric Swage	~	X
21	ME652S	Strainer	X	~
22	FLEX 1-12	Flex Connector	X	~
23	ME449	Transfer Valve	X	~
24	MEH225	1/4" External Relief Valve	X	~
25	ME880-6/14	Excess Flow Valve	X	~
26	BL-4-4LP	1/4"F X 1/4"M Street Elbow	X	~
27	ME202	Snubber	X	~
28	GB400	Pressure Gauge	X	~
n/s	1124	Scale	~	~

### PK-D2 FITTING PACKAGE\*

RMI Part No.	Description
C407M-10-03	Tank Valve w/ Relief
ME652S	Strainer
105-12	3/4" Hex Plug
FLEX 1-12	Flex Connector
ME202	Snubber
GB-400	Pressure Gauge
ME870-6	3/4" Back Check
ME880-6/22	Excess Flow Valve
MEN401-06	3/4" Angle Valve
MEH225	1/4" External Relief Valve
MEJ602H	1/4" Elbow w/ Relief & Bleed
ME449	Transfer Valve
ME880-6/14	Excess Flow Valve
ME791CJ	Toggle w/bleeder
FH-1218	1/2" Hose w/1/2" x 3/4" ends 18 ft.
LPGH-3/4-3C	3/4" X 3 ft. Hose w/ Ends
ME860S-6	3/4" Break-A-Way Coupling
BL-4-4LP	1/4"F X 1/4"M Street Elbow
A680	MPOL X 3/8" FI Adaptor
G-820	POL Filler Coupling
ME393	1 5/16" ACME Adapter
ME569	1 3/4" ACME Fill Adapter

### PF-D2 FITTING PACKAGE

RMI Part No.	Description	Quantity
104-16	1" 90° Elbow	3
109-16	1" Union	2
150-1612	1" x 3/4" Concentric Swage	1
124-00	3/4" Close Nipple	2
104-12	3/4" 90° Elbow	1
481K	5/8" x 1/2" Flare Adapter	2
NS4I	5/8" Flare Nut	2
KCT12-20	1/2" Copper Tubing-Type K	20 ft.
NS4E	3/8" Flare Nut	2
LCT14-20	1/4" Copper Tubing-Type L	20 ft.
125-05	1" X 5" Nipple	2
150-2016	1-1/4" X 1" Concentric Swage	1
125-06	1" X 6" Nipple	1

All items listed above come in assembled cabinet, scale needs to be ordered separately

**FILL STATION**  
This package is available assembled with a steel or aluminum cabinet. Contact RMI Customer Service for details.

D-2 CABINET



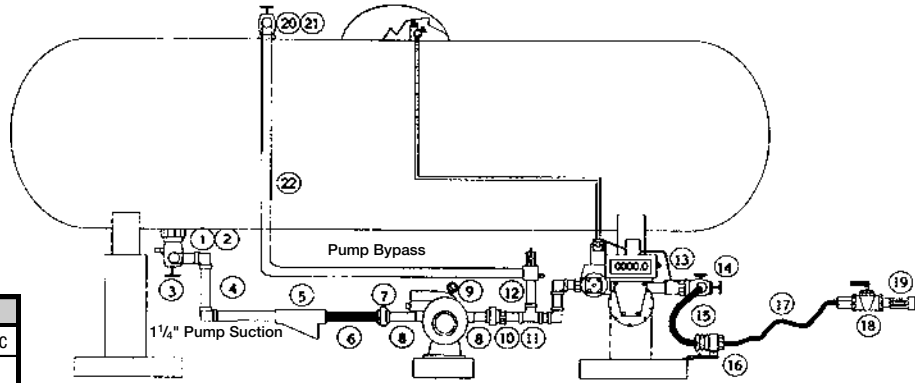
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PEOPLE PROVIDING FLOW TECHNOLOGY WORLDWIDE.

## 1 1/4" BLACKMER PACKAGE

### PKV-125 VALVE KIT

Key*	RMI Part No.	Description
3	C407M-10-3	Angle Valve plus Hydrostatic
5	ME653S	Strainer plus Plug
6	FLEX-1-1/4-14	Flex Connector
9	GB-400, NMF20BK, GS20S	Pressure Gauge plus Valve plus Snubber
10	A8013D	Excess Flow Valve
17	LPGH-3/4-15C	Hose with Ends
18	ME820-6	Snap Valve
19	ME210	Snap Valve
19	ME390	Snap Valve
19	G-820	Snap Valve
19	ME635-6	Fill Connector
20	ME880-6/14	Excess Flow Valve
21	ME449, MEH225	Service Valve plus Hydrostatic

\*See diagram above.



### PKF-125 FITTINGS KIT

Key*	RMI Part No.	Description
2	126-03	1 1/4" x 3" Nipple
4	104-20 (2)	1 1/4" 90° Elbow
7	109-20 (2)	1 1/4" Union
8	126-06 (2)	1 1/4" x 6" Union
11	108-12	3/4" Tee
12	124-08	3/4" Nipple
13	124-03	3/4" Nipple
22	KCT12, 48IK (2), NS41 (2)	Copper Tubing for By-Pass

\*See diagram above.

### PKB-125 BREAK-A-WAY

Key*	RMI Part No.	Description
14	MEN401-06 MEJ602H	3/4" Angle Valve plus Bleeder plus Hydrostatic
15	LPGH-3/4-3C	Hose w/ Ends
16	ME860S-6	Break-A-Way Coupling

\*See diagram above.

Solutions beyond products...

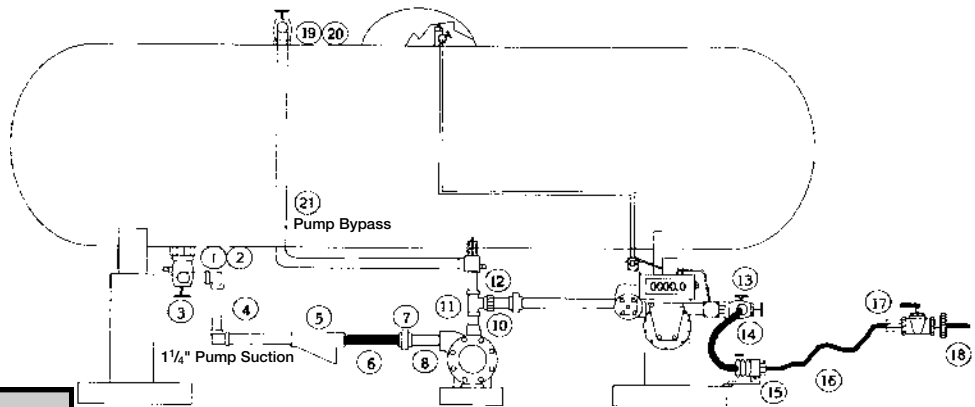
**CORKEN**  
**IBEX**

## 1 1/4" CORKEN PACKAGE

### PKV-C1012 VALVE KIT

Key*	RMI Part No.	Description
3	C407M-10-3	Angle Valve plus Hydrostatic
5	ME653S	Strainer plus Plug
6	FLEX-1-1/4-14	Flex Connector
9	GB-400, NMF20BK, GS20S	Pressure Gauge plus Valve plus Snubber
12	ME880-6/22	Excess Flow Valve
16	LPGH-1/2-15C	Hose with Ends
17	ME791CJ	Snap Valve
18	ME390	Fill Connector
19	ME880-6/14	Excess Flow Valve
20	ME449, MEH225	Service Valve plus Hydrostatic

\*See diagram above.



### PKF-C1012 FITTING KIT\*\*

Key*	RMI Part No.	Description
2	126-03	1 1/4" x 3" Nipple
4	104-20 (2)	1 1/4" 90° Elbow
7	109-20	1 1/4" Union
8	126-06	1 1/4" x 6" Nipple
10	150-1612	1" x 3/4" Swage Nipple
11	108-12	3/4" Tee
21	KCT12, 48IK (2), NS41 (2)	Copper Tubing for By-Pass

\*See diagram above.

### PKB-C1012 BREAK-A-WAY

Key*	RMI Part No.	Description
13	MEN401-06 MEJ602H	3/4" Angle Valve plus Bleeder plus Hydrostatic
14	LPGH-3/4-3C	Hose w/ Ends
15	ME860S-6 106-1208	Break-A-Way Coupling, 3/4" x 1/2" Bushing

\*See diagram above.

\*\*For C12 order 151-2420 Swage

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**Tel: 800-628-5044**

**RAY MURRAY, INC.**  
Order online at [www.raymurray.com](http://www.raymurray.com)  
or call for personal assistance

**Fax: 800-243-8341**

## STORAGE CABINETS



## 20LB EXCHANGE CABINETS

RMI Part No.	Capacity	Dimension	# of Shelves
20LBEX04	4	30 x 30 x 33	1
20LBEX12	12	44 x 30 x 53	2
20LBEX18	18	44 x 30 x 68	3

## 33LB LIFT TRUCK STORAGE CABINETS

RMI Part No.	Capacity	Dimension	# of Shelves
33MF04	4	30 x 30 x 38	2
33MF06	6	30 x 30 x 53	3
33MF09	9	44 x 30 x 53	3
33MF12	12	44 x 30 x 68	4
33MF16	16	58 x 33 x 65	4

- ALL Cabinets Feature:**
- 2" Structural Angle Iron Frame
  - Electrostatic Powder Coating
  - Galvanized Top and Back
  - Doors Can Be Mounted Right or Left Handed
  - Decals and Signs Included
  - \* Other Sizes and Configurations are Available

• Not Assembled

## FILL STATION CABINETS

### D-2

- 14 & 16 Gauge Steel Construction
- 3 Windproof Doors
- Secured with One Lock (Not Included)
- D-2 Cabinet will enclose meter, pump and scale for a secure storage facility.



### D-2A

Same as D-2, but made of .100 diamond plate Aluminum.

\*Available as an assemble package

### CAB-2

- 14 Gauge Steel Construction
- Open Area for Pump
- Locking Latch & Tamperproof Hinges
- Mounts on "MT-PUMP" Bracket



### CAB-1

- 14 & 16 Gauge Steel Construction
- Rolled Steel Shelf for Meter
- Locking Latch & Tamperproof Hinges
- Mounts on "MT-PUMP-2" Bracket



### CAB-3

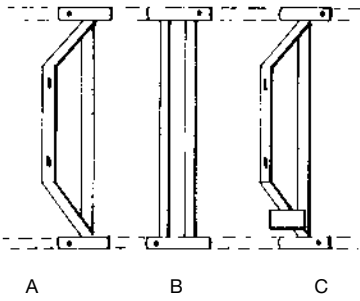
- 14 Gauge Steel Construction
- Door Lock
- Separate Pedestal (included)
- "MT-TANK" Stands



## FILL STATION CABINETS

RMI Part No.	Style	Encloses Items	H	W	D	OAH	Mounting Locations
D-1A	Enclosed Cabinet	Meter/Pump/Hose	48"	22"	45"	48"	Concrete Pad or 2" runners
D-2	Enclosed Cabinet	Meter/Pump/Scale/Hose	52"	48"	41"	52"	Concrete Pad or 2" runners
D-2A	Aluminum	Meter/Pump/Scale/Hose	53"	47"	45"	53"	Concrete Pad or 2" runners
D-4A	Enclosed Walk-In	Meter/Pump/Scale/Hose	78"	48"	48"	78"	Concrete Pad or 2" runners
CAB-1	Enclosed Cabinet	Meter/Pump/Hose	46"	36"	18"	46"	Concrete Pad or MT-PUMP-2
CAB-2	Cabinet & Stand	Meter/Hose	27"	24"	24"	55"	Concrete Pad or MT-PUMP-2
CAB-3	Cabinet w/Pedestal	Meter	19½"	24"	9"	45" - 50"	Side of MT-TANK-2

\* Overall height varies by selection of mounting location.



## TANK MOUNTING STANDS AND SKIDS

Our heavy duty stand includes 18" bracket feet for additional stability. The entire mount slides onto 2" pipe (not included).

### HORIZONTAL TANK STANDS

RMI Part No.	Description	Item
MT-TANK-2	Heavy Duty Stand 18" tall x 40" wide	A & C
MT-PUMP-2	Heavy Duty Pump Bracket	B
MT-TANK-3*	Reinforced Stand for 1450, 1850, 1990 Gal. Tank	A & C

\*Special order only.



## CAVANGA AUTO FILLING GUN



**Automatically Fills:**  
 OPD Valves  
 Forklift Cylinder  
 POL Cylinder Valves

- Filling is initiated simultaneously with connection to the valve.
- Insignificant loss of product.
- Air-release and gas flow. Stoppage in one quick motion
- Fits easily into any tank collar.
- Balanced jig for easy suspension.

RMI Part No.	Inlet	Pneumatic Connection	Item
129A003	3/8" FNPT	1/4" FNPT-Air	Female POL, Standard Valve
129A006	3/8" FNPT	1/4" FNPT-Air	1 1/4" ACME Forklift Adaptor
129A009	3/8" FNPT	1/4" FNPT-Air	OPD Type I ACME
BA-8-4HP	1/4" Male FNPT x 1/2" female NPT - Hose to Valve Adaptor		

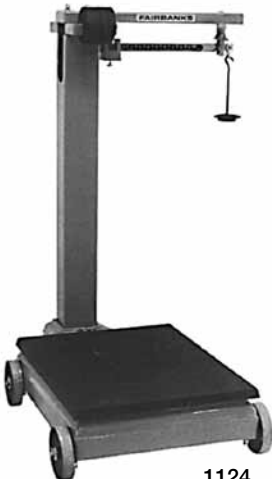
## AUTOMATIC CYLINDER FILLING VALVE



Used on cylinder filling manifold. Shuts off gas supply when specified cylinder weight is reached. Operates on propane vapor or air. No electricity required. 1/2" FNPT inlet and outlet. For beam scales only.

RMI Part No.	Description
N201	Filling Valve
N201RK	Repair Kit for N201
N201HA	Hose Assembly Only

## FAIRBANKS PORTABLE SCALES



1124

- Model 1124
- Rugged, Durable Design
- Cast Iron Base & Platform
- Platform is 17 3/4" x 23 1/2"
- Bronze Beam Assembly w/ Etched Numbers for Easy to Read Measurements
- 1000# Capacity:  
 S Model for 20# Cylinder  
 L Model for 100# Cylinder

RMI Part No.	Style	Height
1124	Standard Pillar	43"
1124-S	Short Pillar - 20#	28"
1124-L	Tall Pillar - 100#	66"
1124-100	100# Counterweight (1 lb)	
1124-200	200# Counterweight (2 lb)	
1124-400	400# Counterweight (4 lb)	

## GASGUARD LP NOZZLE



The "User Friendly" Dispensing Nozzle

- Fill Mobile & Stationary Tanks
- Lightweight & Well Balanced
- Will Not Disconnect From Filler Valve While Lever in Open Position
- Fine Filter Incorporated in Nozzle
- Long Swivel Nut for Fork Lift Truck Filling

RMI Part No.	Description
L.G.20S	3/4" FNPT x 1 3/4" ACME