



Puff Irons

Model PIA16 & PIA38

OWNER'S MANUAL

THIS MANUAL MUST BE GIVEN TO THE EQUIPMENT OWNER.

Equipment is subject to manufacturer's standard warranty.
Accuracy of illustration and description of equipment shown
herein applies to product as manufactured at time of publication.

PUFF IRON

TABLE OF CONTENTS

GENERAL INFORMATION & INSTALLATION

Operating Instructions, Safety Warnings	3
Specifications, Dimensions	4
Installation Drawings	5-6
Steam Connection Instructions	7

PARTS SHEETS

Panel Assembly for Fabric Pressing Heads	8
Panel Assembly for Fabric Pressing Heads	9
Backs, Corners, Extensions, Braces	10
Tee Pipes and Vacuum Manifolds	11
Valves and Linkage Parts	12
Central Air Vacuum and Upstem Valve	13
Steam Vacuum Valves	14
Heads	15-16
Head and Valve Assemblies	17
Fabric Pressing Heads	18

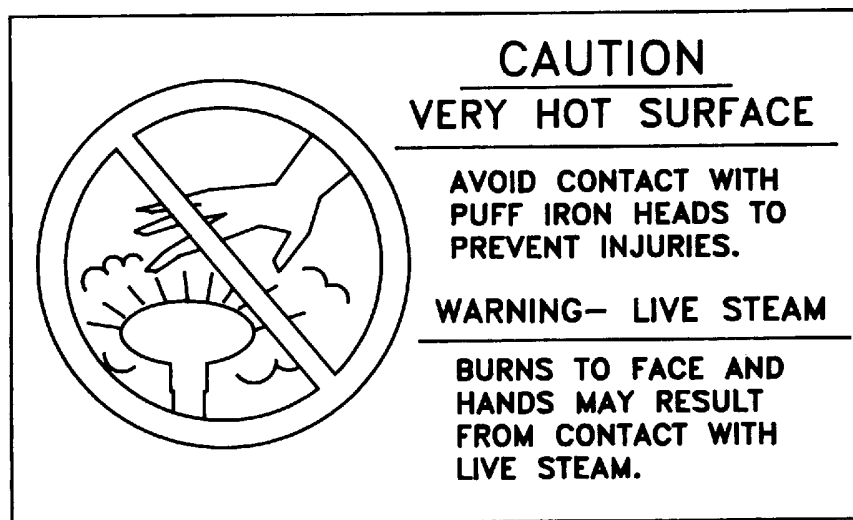
SERVICE AND ADJUSTMENTS

Spring Pre-Load Adjustment	19
Replacing Valve Packing Rings, Spring Replacement	20
Reseat Leaky Valve, Replace Valve Seat, Leaky Pack Nut	21

OPERATING INSTRUCTIONS

CAUTION: Compliance with ANSI Z8.1-1990 (Standard for Commercial Laundry and Drycleaning Operations) requires that each Puff Iron head be covered with at least one thickness of double-face flannel and suitable cloth cover. Refer to Page 23 for part numbers for required covers.

1. Open, first the return line, then the globe valve in steam line and allow Puff Iron to warm up. Do not operate machine until it is hot.
2. Place area of garment to be finished over the head and press foot pedal for steaming.
3. If unit is equipped with vacuum, after steaming, press foot pedal to activate the vacuum.

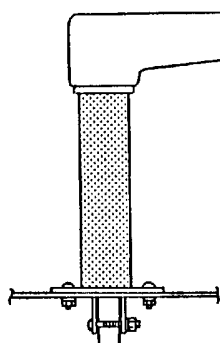


CAUTION

To prevent damage follow instructions listed below.

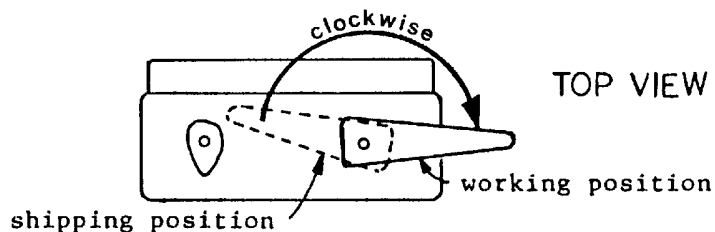
(Before installing the Puff Iron "E" Model,

the sleever head must be rotated to the working position.)

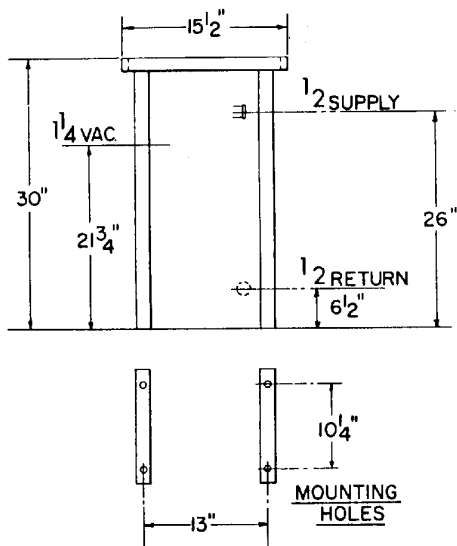


INSTRUCTIONS

While firmly holding jacket to prevent turning, swivel the head from the shipping position to the desired working position. (Sleeper Head Shown)



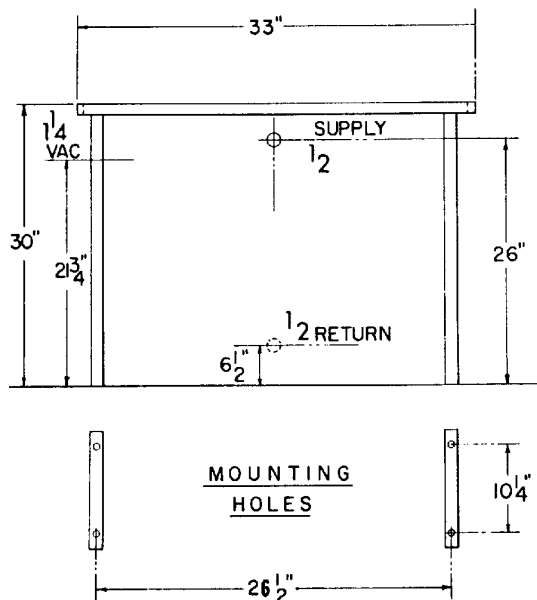
15 $\frac{1}{2}$ " SINGLE TABLE



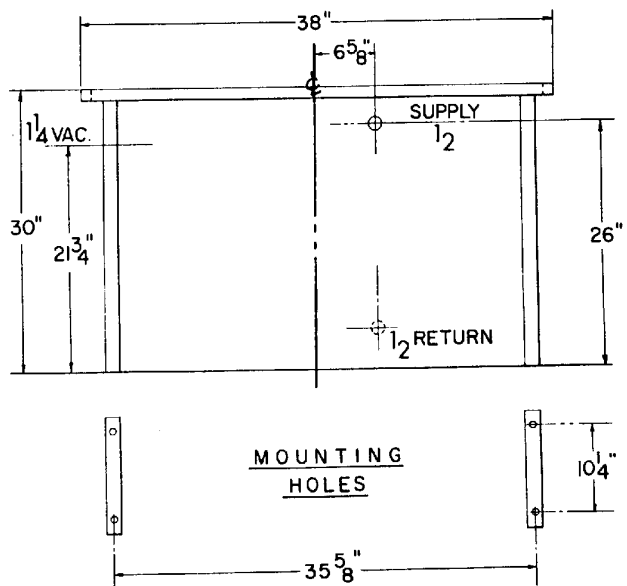
Steam Pressure.....60-100 P.S.I.G.
(4.14-6.9 Bars)
Steam Supply..... $\frac{1}{2}$ " Pipe Connection
Steam Return..... $\frac{1}{2}$ " Pipe Connection
Vacuum Connection....1 $\frac{1}{4}$ " Connection
Vacuum Requirement... $\frac{1}{4}$ Press Capacity

Boiler Horsepower
Single Table.....1/8 H.P.
Double Table.....1/4 H.P.
Triple Table.....3/8 H.P.

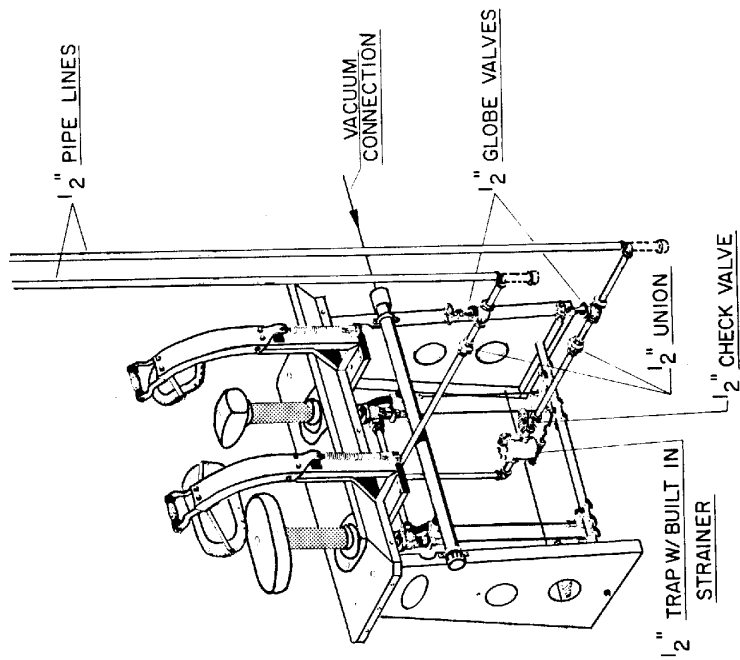
33" DOUBLE TABLE



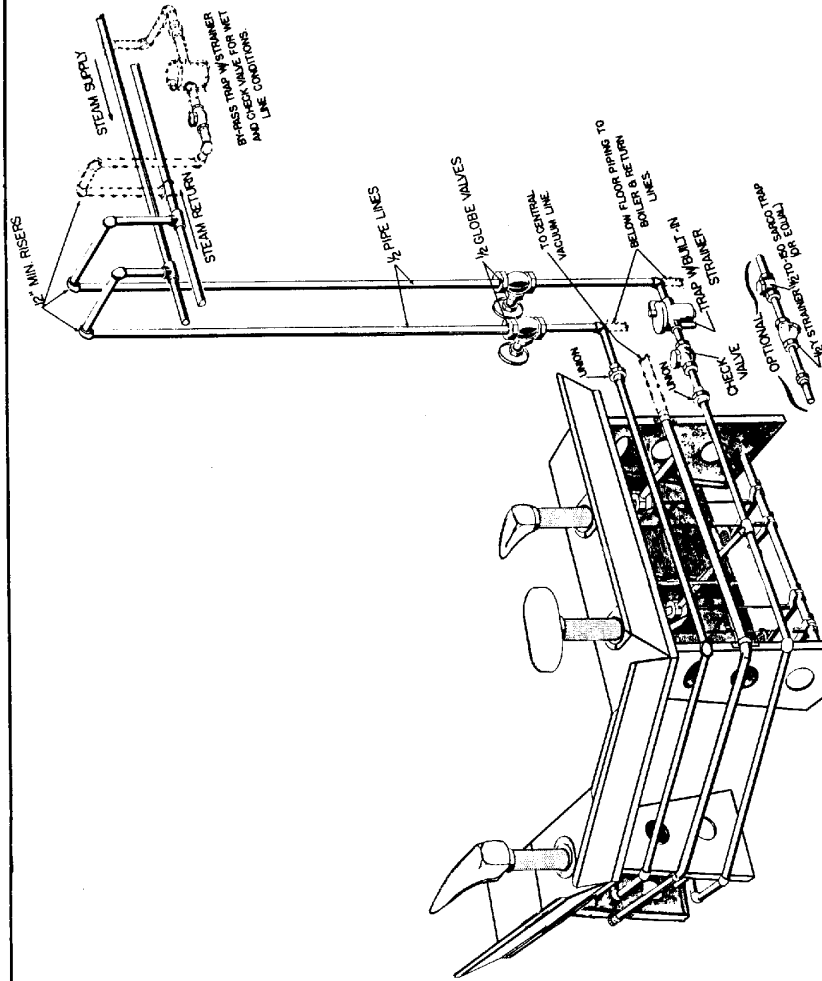
38" TRIPLE TABLE



INSTALLATION

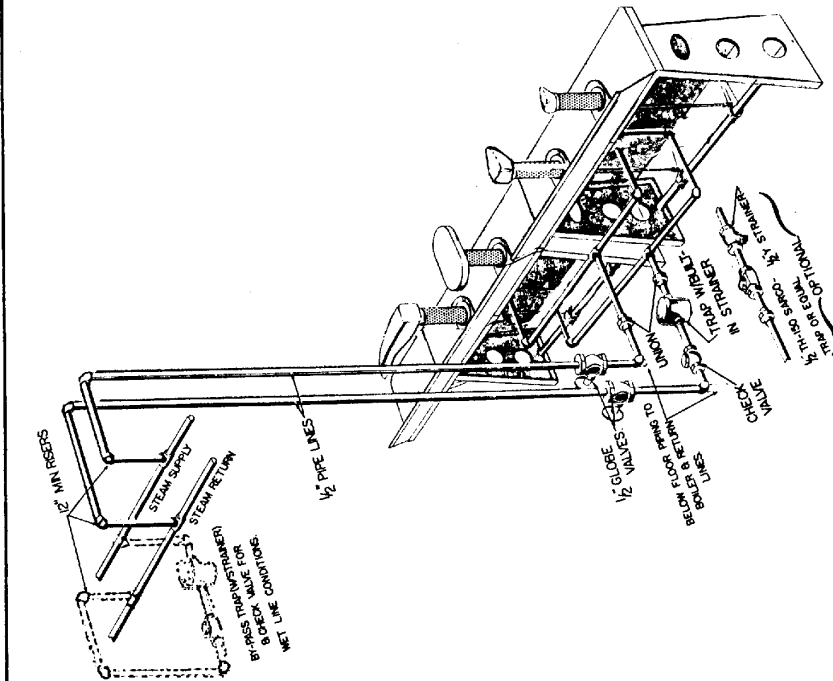


DOUBLE UNIT
CENTRAL VACUUM

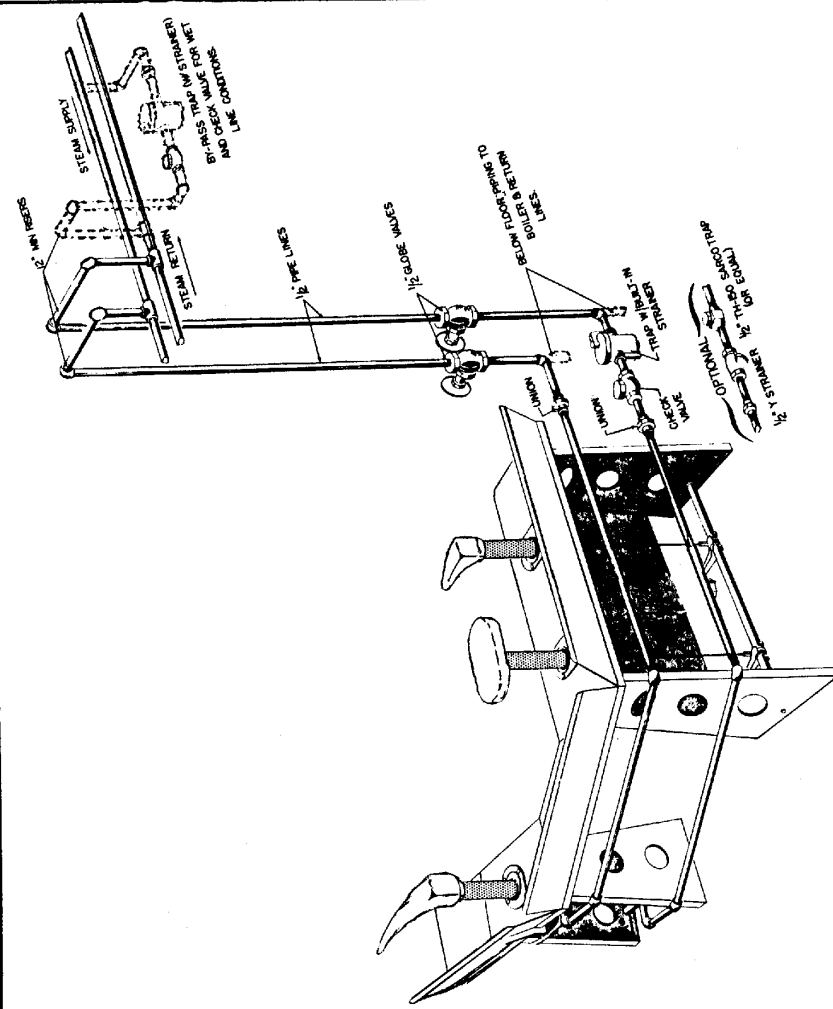


THREE-WAY (ANGULAR) UNIT
CENTRAL VACUUM

INSTALLATION



FOUR-WAY (IN-LINE) UNIT
LESS VACUUM



THREE-WAY (ANGULAR) UNIT
LESS VACUUM

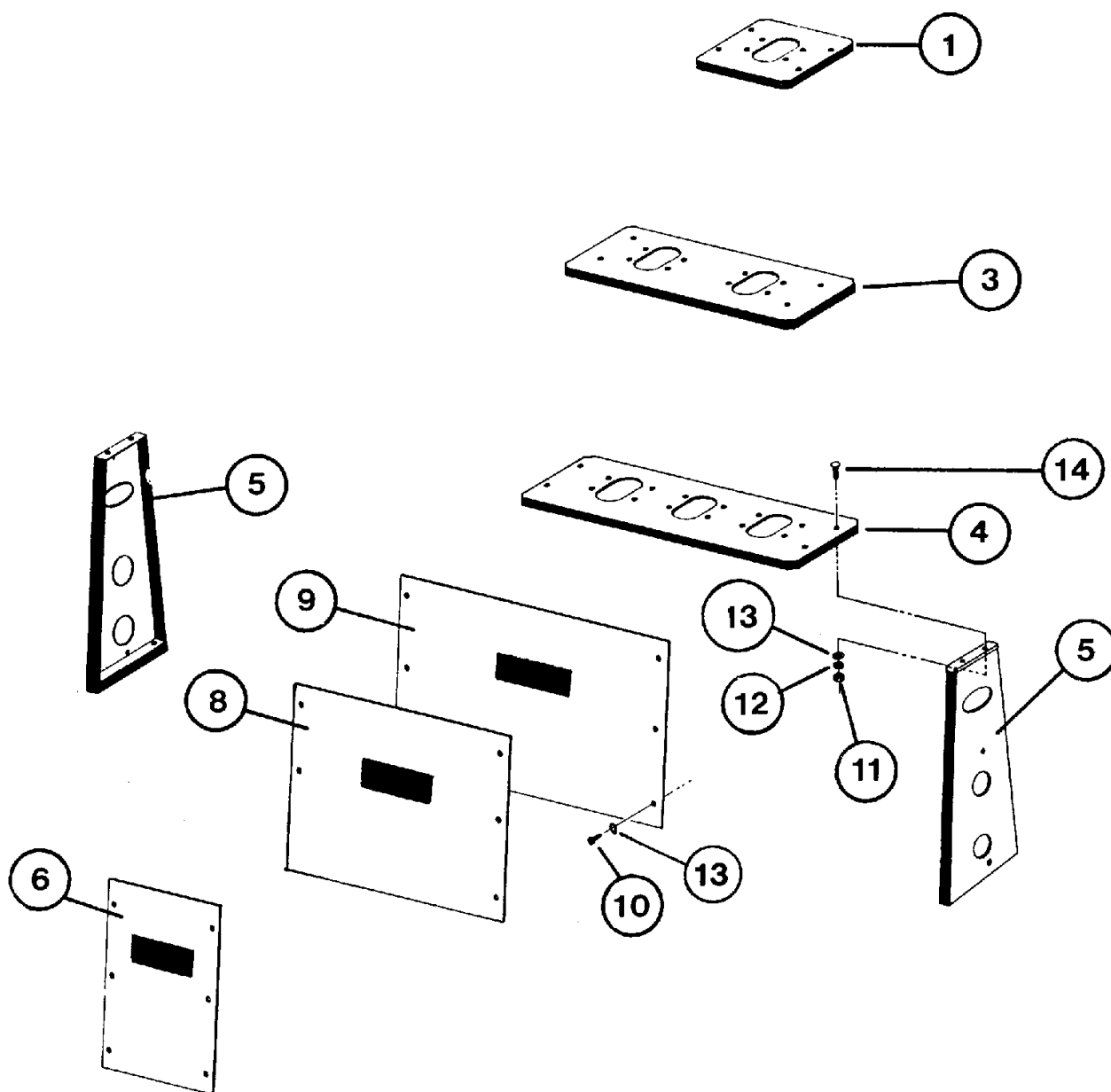
INSTRUCTIONS FOR STEAM CONNECTIONS FOR PUFF IRONS
IMPORTANT: INSTALL STEAM PIPING IN ACCORDANCE WITH
ALL LOCAL REGULATIONS AND REQUIREMENTS.

1. Set and anchor machine in position. Machine should be level to assure proper steam circulation.
2. To prevent condensate draining from headers to machine, piping should have a minimum riser 12" above each respective header as illustrated. Do not make steam connection to header with a horizontal or downwardly facing tee or elbow.
3. Whenever possible, horizontal runs of steam must drain, by gravity, to respective steam header. Water pocket or an improperly drained steam header will provide wet steam causing unnecessary wetting-out of head covers.
4. In both the steam supply and steam return line, it is recommended that each have a 1/2" union and 1/2" globe valve. This will enable you to disconnect the steam connections and block steam flow to and from machine while servicing machine.
5. Before installing trap and check valve in steam return line, open globe valve in steam supply line to allow steam to flow through machine to flush out any dirt and scale from machine. This will assure proper operation of trap when connected.
6. After flushing system, install bucket trap (with built-in stainer) and check valve as illustrated. For successful operation of machine, install trap as close to floor and as near to machine as possible. Inspect trap carefully for inlet and outlet marking and install according to manufacturer instructions.
If steam is gravity-returned to boiler, omit trap but install check valve in return line near machine.
7. Install union and globe valve to return line and make final pipe connection to return header.

CAUTION: Before operating Puff Iron, open globe valves in steam lines and allow Puff Iron to warm up. Under no circumstances should machine be operated until hot.

RECOMMENDATIONS

1. Use a separate trap for each unit. Always keep the trap clean and in good working condition.
2. When machine is on the end of a line of equipment, extend headers at least 4 ft. beyond machine. Install globe valve, union, check valve trap and optional by-pass at the end of a line. If gravity return to boiler, omit trap.
3. Insulate steam supply and return line for safety of operator and safety while servicing machine.
4. Keep machine in good working condition. Repair or replace any worn or defective parts.

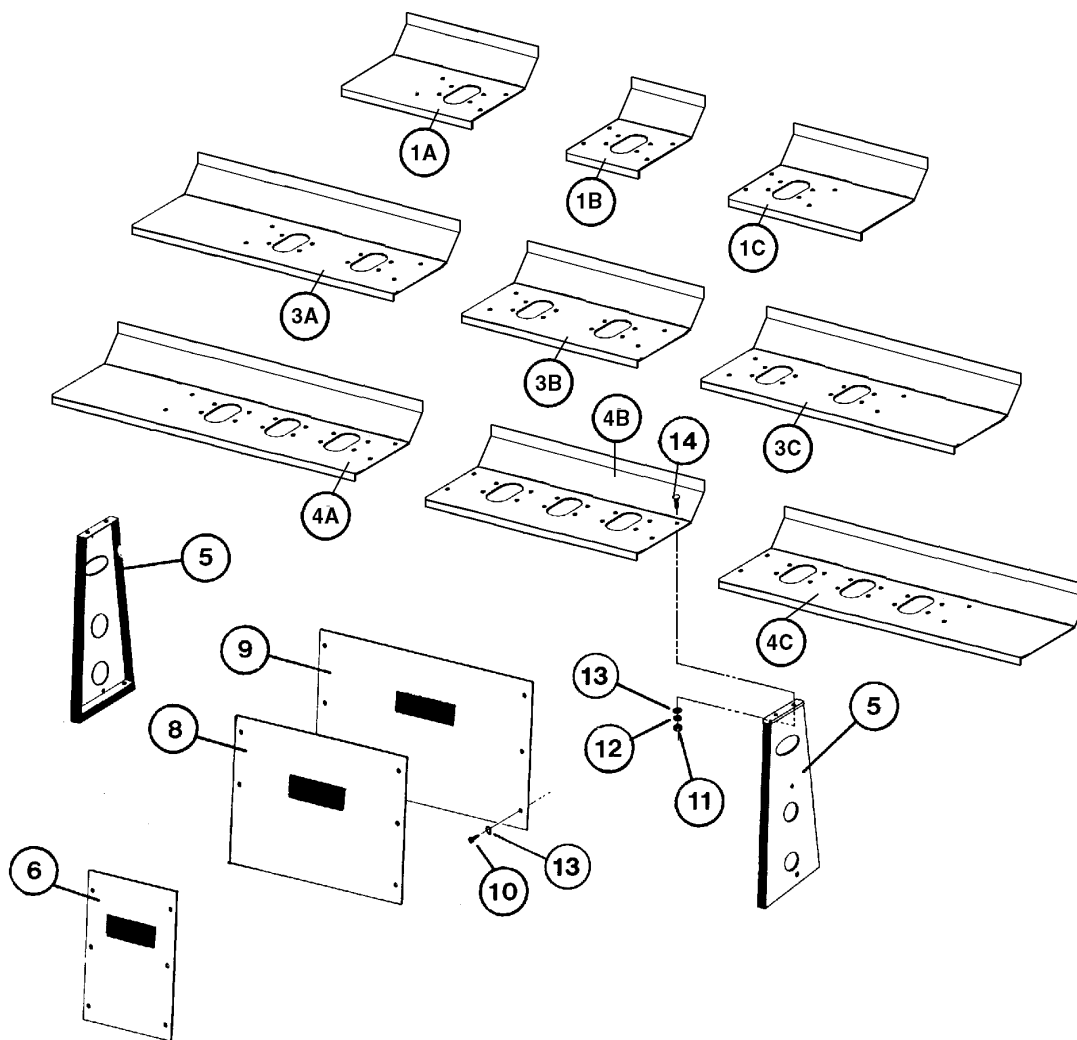


PANEL ASSEMBLY FOR FABRIC PRESSING HEADS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1	P154	Single Table Top	10	RC344	1/4 - 20 Ph. Hd. Screw (Pkg. of 6)
3	P153	33\" Table Top	11	TU4934	1/4 - 20 Hex Nut (Pkg. of 6)
4	P165	38\" Table Top	12	TU2846	1/4 Lockwasher (Pkg. of 6)
5	P454	Table Leg, R or L	13	TU2847	1/4 Cut Washer (Pkg. of 6)
*6	P511	Front Panel Asm. 15 1/2\"	14	P274	1/4 - 20 x 3/4 Tr. Hd. Screw (Pkg. of 6)
*8	P512	Front Panel Asm. 33\"			
*9	P513	Front Panel Asm. 38\"			

* Consists of Front Panel, Ajax Nameplate, screws, and washers.

Note: For servicing, new design allows easy access from front of machine by removing front panel screws. Nuts are welded to table leg.



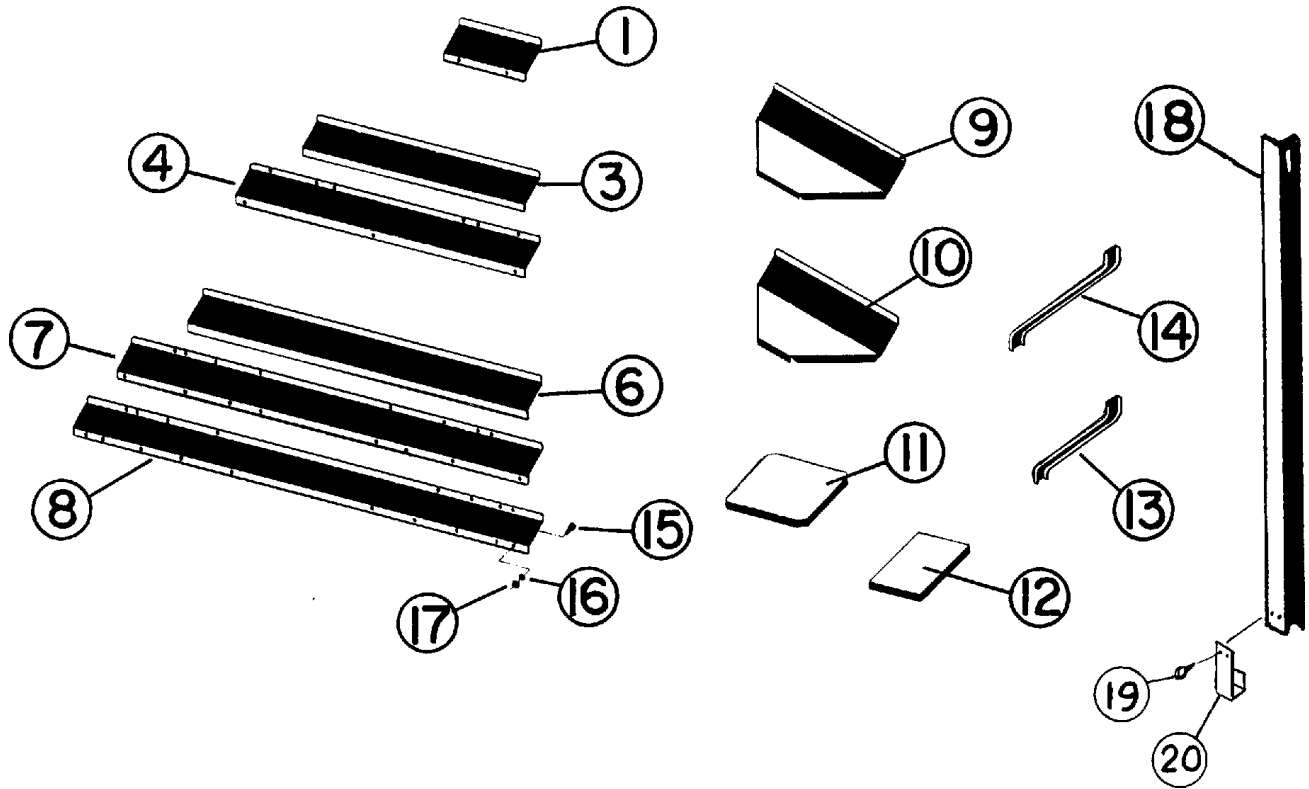
PANEL ASSEMBLY FOR NON-FABRIC PRESSING HEADS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1A	P637	1-Head Top w/Extension Left & Back	5	P454	Table Leg, R or L
1B	P631	1-Head Top w/Back	*6	P511	Front Panel Asm. 15 1/2"
1C	P634	1-Head Top w/Extension Right & Back	*8	P512	Front Panel Asm. 33"
3A	P638	2-Head Top w/Extension Left & Back	*9	P513	Front Panel Asm. 38"
3B	P632	2-Head Top w/Back	10	P509	1/4 - 20 Ph. Hd. Screw (Pkg. of 6)
3C	P635	2-Head Top w/Extension Right & Back	11	TU4934	1/4 - 20 Hex Nut (Pkg. of 6)
4A	P639	3-Head Top w/Extension Left & Back	12	TU2846	1/4 Lockwasher (Pkg. of 6)
4B	P633	3-Head Top w/Back	13	TU2847	1/4 Cut Washer (Pkg. of 6)
4C	P636	3-Head Top w/Extension Right & Back	14	P274	1/4 - 20 x 3/4 Tr. Hd. Screw (Pkg. of 6)

* Consists of Front Panel, Ajax Nameplate, screws, and washers.

Note: For servicing, new design allows easy access from front of machine by removing front panel screws. Nuts are welded to table leg.

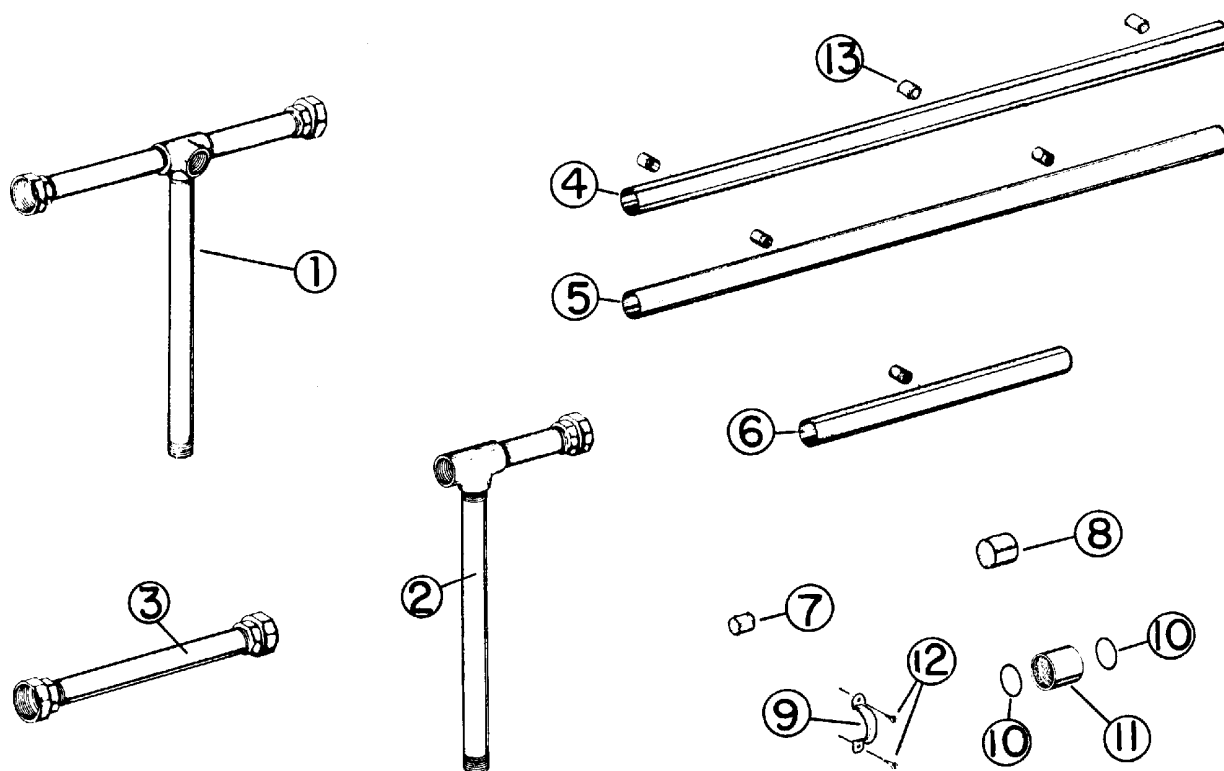
BACKS, CORNERS, EXTENSIONS & BRACES



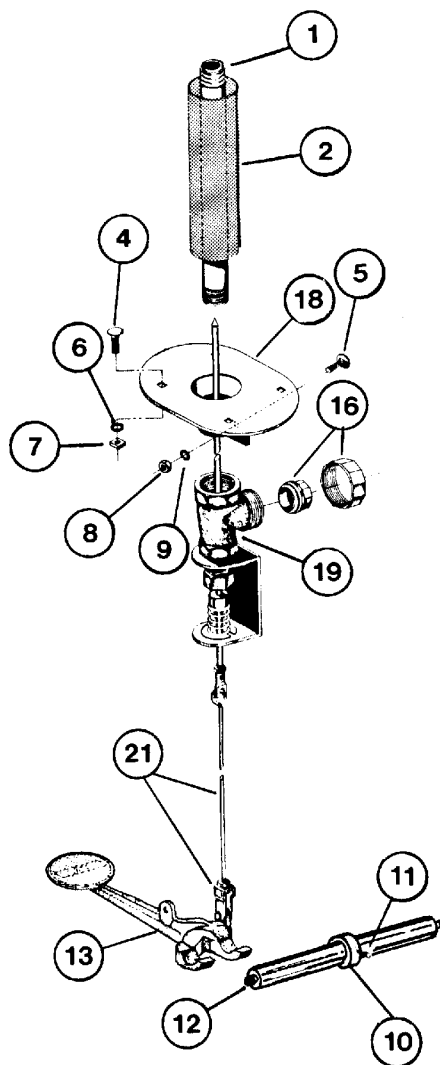
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1	P155	Back Single Table
3	P158	Back Single Table w/Extension
4	P159	Back 33" Double Table
6	P167	Back 38" Triple
7	P161	Back (Used on 33" Table w/Extension)
8	P166	Back (Used on 38" Triple w/Extension)
9	P189	17" Angular Corner Back

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
10	P157	15" Angular Corner and Back
11	P156	12" x 12" Sq. Extension
12	P192	7" x 10 1/2" Spacer
13	P484	Long Brace for 33" Table w/Extension (L or R)
14	P483	Short Brace for 15 1/2" & 38" Tables w/Extension (L or R)
	P507	12" Square Extension w/Brace for 33" Table (Not Illustrated)
	P505	12" Square Extension w/Brace for 15 1/2" & 38" Table (Not Illustrated)
15	P219	1/4" - 20 x 1/2" Truss Head Screw (Pkg. of 6)
16	TU2846	1/4" Lock Washer (Pkg. of 6)
17	TU4934	1/4 - 20 Hex Nut (Pkg. of 6)
18	P270	Center Brace (Triple Table)
19	TU7733	Self Drill Screw (Pkg. of 6)
20	P508	Center Brace Support

TEE PIPE & VACUUM MANIFOLD PARTS

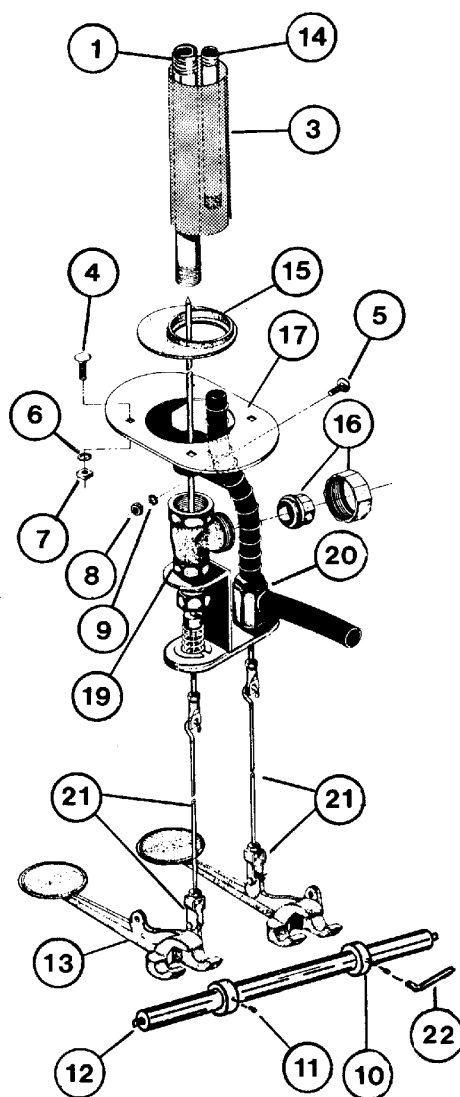


<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1	P557	Tee Pipe for 33" Double Table
	P551	Tee Pipe for 38" Triple Table
2	P549	Tee Pipe for Single Table
3	P550	Straight Pipe for 38" Triple Table
4	P251	Vacuum Manifold for 38" Triple Table 40 5/8" Lg.
5	P257	Vacuum Manifold for 33" Double Table 31 5/8" Lg.
6	P259	Vacuum Manifold for 15 1/2" Single Table 18" Lg.
7	P271	3/4" I.D. Plastic Cap
8	P253	1 1/2" I.D. Plastic Cap
9	P256	1 1/4" Pipe Clamp
10	P276	1 3/4" O.D. x 1 1/2" I.D. "O" Ring
11	P277	1 1/4" Union with "O" Ring
12	M263	#8 - 3/8" S.M.S. (Pkg. of 6)
13	P252	Hose Adapter



WITHOUT VACUUM

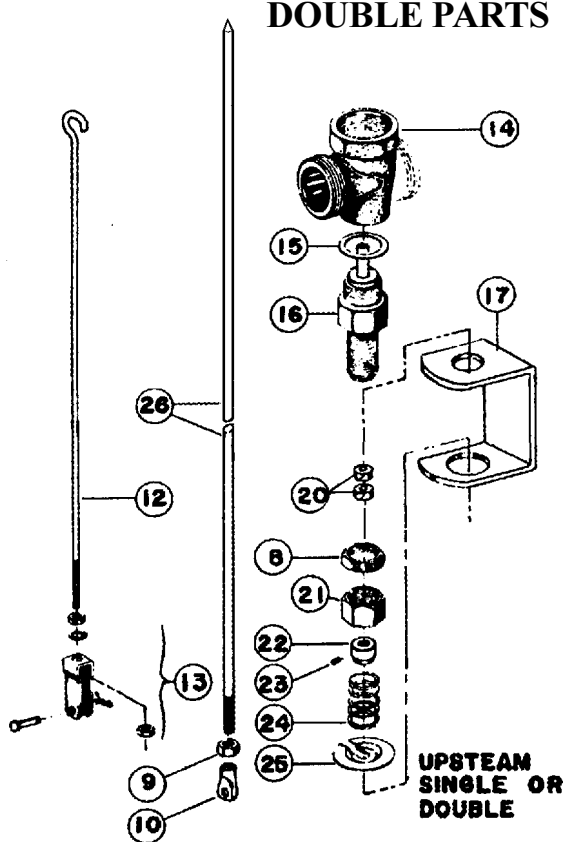
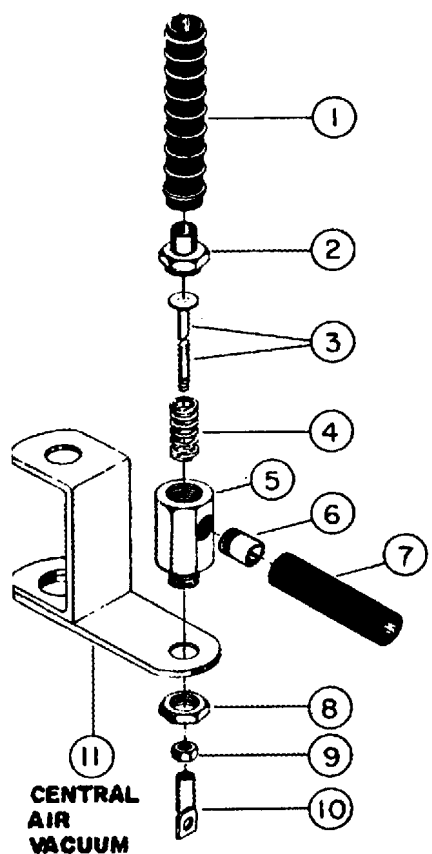
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1	P261	3/4" x 13" Black Pipe
2	P262	Jacket (Regular)
3	P298	Jacket (Vacuum)
4	M280	1/4" - 20 x 1" Carriage Bolt (Pkg. of 6)
5	P273	5/16" - 18 x 3/4" Carriage (Pkg. of 6)
6	TU2846	1/4" Lock Washer (Pkg. of 6)
7	TU4934	1/4" - 20 Hx. Hd. Nut (Pkg. of 6)
8	C249	5/16" - 18 Hex Nut (Pkg. of 6)
9	TU2814	5/16" Lock Washer (Pkg. of 6)
10	P98	Collar
11	PI26	1/4" - 20 Allen Set Screw (Pkg. of 6)
12	PI32	Support Bar for 15 1/2" Table
	P177	Support Bar for 33" Table
	P133	Support Bar for 38" Table



WITH VACUUM

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
13	P228	Pedal
14	P260	3/8" x 7 1/2" Black Pipe
15	P299	Flange Adapter (Vacuum)
16	P542	2/3 - 3/4" Union - NPT
17	P267	Flange (Vacuum)
18	P266	Flange (Regular)
19		(See separate page)
20		(See separate page)
21	P255	Pedal Rod & Yoke Ass'y.
22	P36	Pedal Bearing Wrench (1/8")

CENTRAL AIR VACUUM VALVE &UPSTREAM VALVE SINGLE OR DOUBLE PARTS



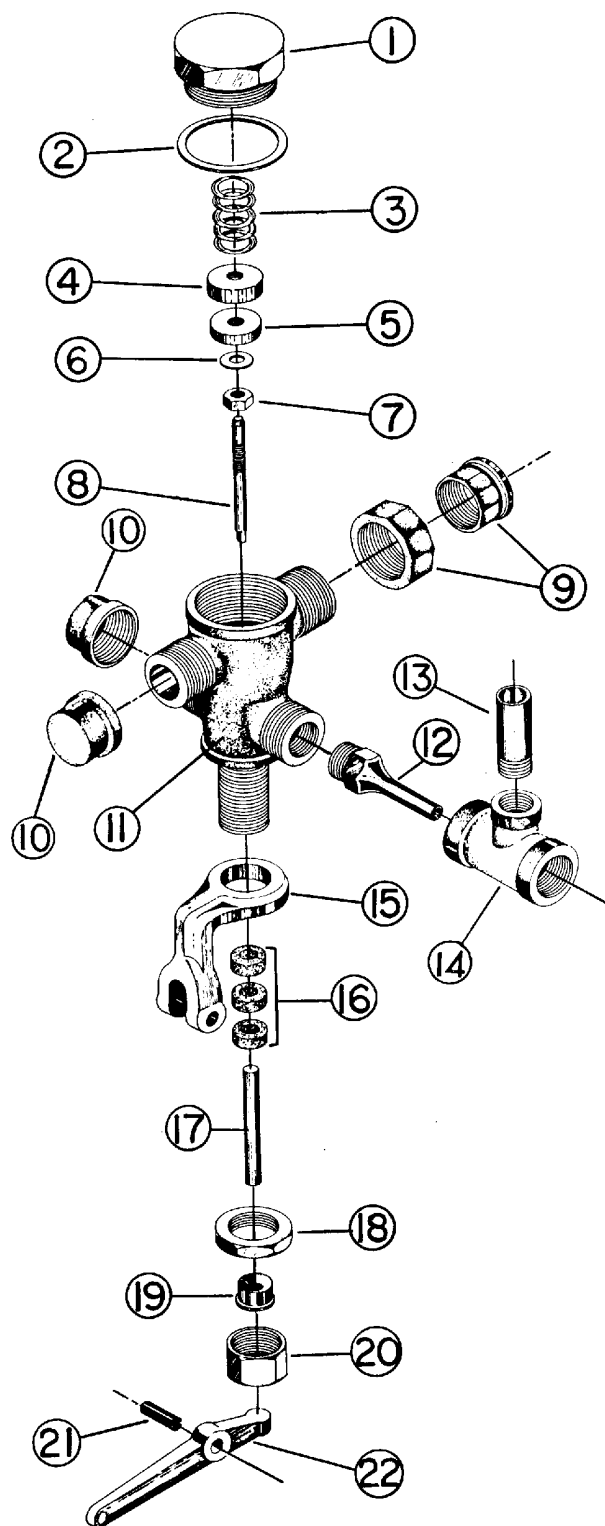
- P368 Central Air Vacuum Valve - Consists of Ref. No. 1-10.
P543 Single Upstream Valve Asm. (No Vacuum) - Consists of 8-10 & 14-27.
P548 Double Upstream Valve Asm. (No Vacuum) - Consists of 8-10 & 14-27.
P544 Double Upstream Valve Asm. (With Vacuum) - Consists of 1-11, 14-16, & 18-27.
P546 Single Upstream Valve Asm. (With Vacuum) - Consists of 1-11, 14-16, & 18-27.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1	P301	Rubber Tubing w/Spring
2	P226	Valve Seat
3	P246	Valve Seal w/Stem
4	P244	Spring (Pkg 6)
5	P223	Valve Body
6	P252	Hose Adapter
7	P232	Rubber Tubing
8	OP547	3/4" - 16 x 1/4" Lock Nut
9	V15	Small Lock Nut (Pkg. of 6)
10	P237	Pivot
11	P371	Support Bracket
12	**P254	Pedal Rod
13	**SF49	Yoke Assembly

***Included in the P255 assembly and is used on all valves*

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
14	K361	Single Valve Body NPT w/Union
	K362	Double Valve Body NPT w/Union
15	P236	Copper Gasket (Pkg. of 6)
16	P536	Packing Body Asm.
17	P372	Support Bracket
* 20	P695	"O" Ring
21	V05	Large Pack Nut
22	P33H	Spring Retainer
23	P126	1/4" - 20 x 1" Aln St Scr. (Pkg. of 6)
24	V345	Spring (Pkg. of 6)
25	P375	Spring Holder
* 26	P238	Valve Stem
28	K605	Valve Repair Kit

**Included in the K605 Repair Kit*

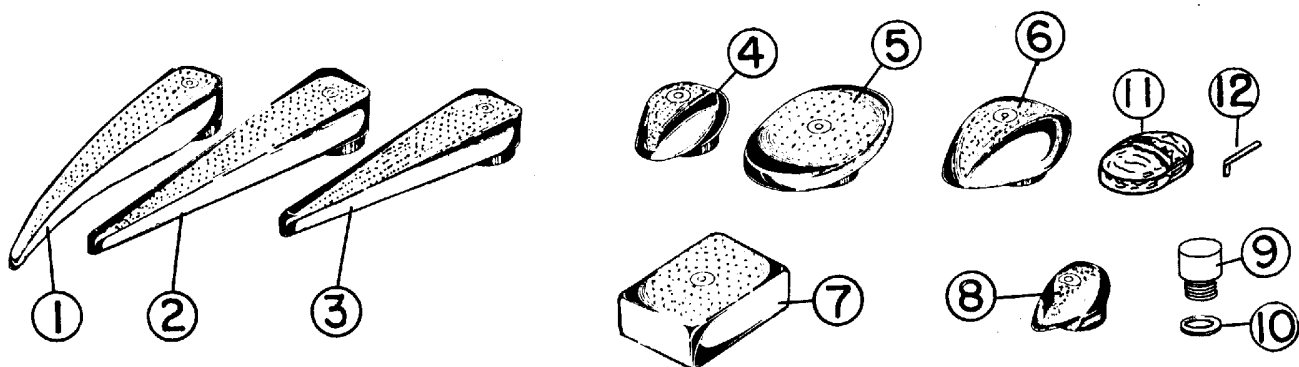


STEAM VACUUM VALVE - P140

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1	P86	Bonnet
2	P103	Large Copper Gasket (Pkg. of 6)
3	V330	Spring (Pkg. of 6)
4	P88	Disc Holder
5	P99	Disc
6	P104	Flat Washer (Pkg. of 6)
7	V15	Lock Nut (Pkg. of 6)
8	P89	Short Stem
9	P542	2/3 of 3/4" Union NPT
10	P102	3/4" Black Pipe Cap (2 Req'd)
11	P87	Valve Body
12	P93	Orifice
13	P269	Hose Adapter
14	P115	(3/4" x 3/4" x 3/8") Black Tee
15	SF15	Fork
16	V13N	Large Split Pack Ring (Set of 3)
17	P144	Long Stem
18	OP547	Large Lock Nut
19	V12	Gland
20	V05	Large Pack Nut
21	VSB128	Roll Pin (Pkg. of 6)
22	FB15	Lever

NOT ILLUSTRATED

23	SF49	Yoke Assembly
24	PV138	Pedal Rod 19 3/8"
25	PV134	Pedal Rod & Yoke Assembly

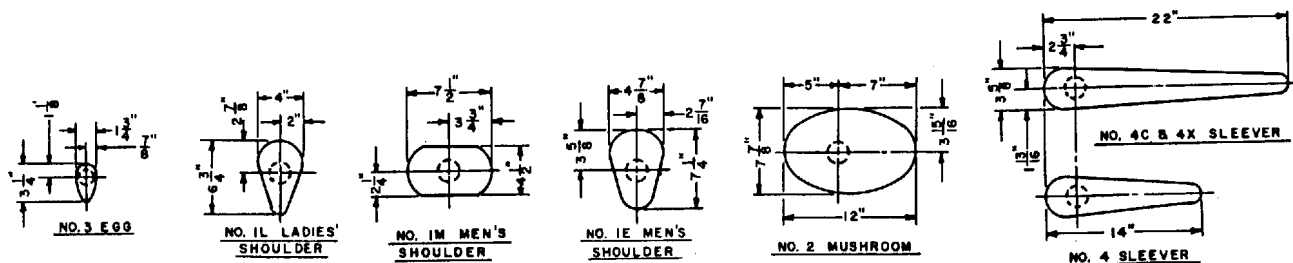


(see next page for Head & Valve Assemblies)

WHEN ORDERING SPECIFY POLISHED OR SANDED HEAD FINISH

Ref. No.	Part No.			Description
	Regular (Sanded)	Vacuum (Sanded)	Nomex Cover & Flannel Pad	
1	PS209	PVS209	P146N	No. 4C (22") Sleever Head
2	PS208	PVS208	P78N	No. 4X (22") Sleever Head
3	PS207	PVS207	P77N	No. 4 (14") Sleever Head
4	PS203	PVS203	P74N	No. 1L Ladies Shoulder Head
5	PS206	PVS206	P75N	No. 2 Mushroom Head
6	PS204	PVS204	P112N	No. 1E Men's Shoulder Head
7	PS205	PVS205	P83N	No. 1M Men's Shoulder Head
8	P202		P76N	No. 3 Egg Head
9	P28			Seat (Typical for All Heads)
			Except Egg)	
	PA28			Seat (For Egg Head Only)
10	P44			Copper Gasket
11			P145	8-Inch Nylon Hand Pad (Optional)
12	P37			Head Seat Wrench 5/16"

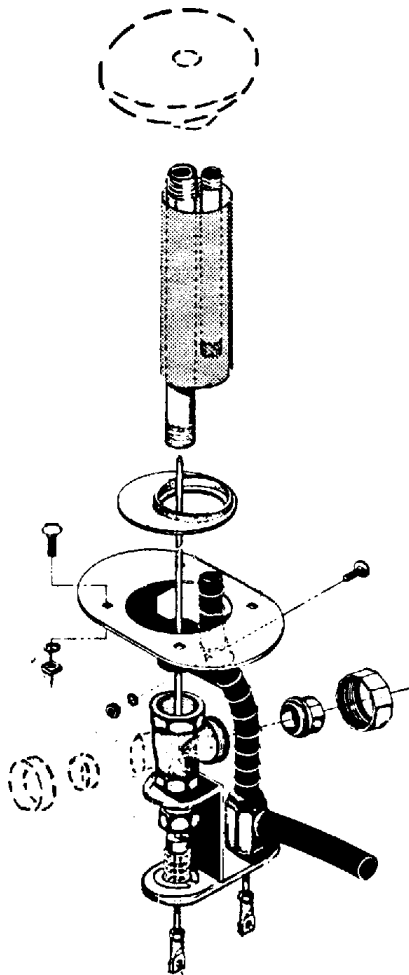
(Specify if polished heads are desired)



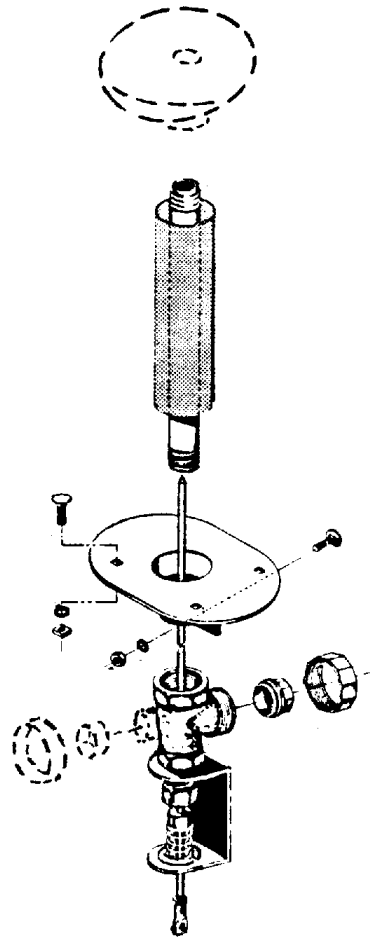
HEADS WITH UPSTEAM VALVE ASSEMBLIES

These assemblies include the head with valve and all other parts shown below. Furnished w/sanded heads. *Specify if polished heads are desired!*

Description	<u>Single Valve Body</u>		<u>Double Valve Body</u>	
	less vacuum	with vacuum	less vacuum	with vacuum
1L Ladies Shoulder	P592	PV592	P600	PV600
1E Men Shoulder	P593	PV593	P601	PV601
1M Men Shoulder	P594	PV594	P602	PV602
2 Mushroom	P595	PV595	P603	PV603
3 Egg	P591		P599	
4 Sleever	P596	PV596	P604	PV604
4X Sleever	P597	PV597	P605	PV605
4C Sleever	P598	PV598	P606	PV606



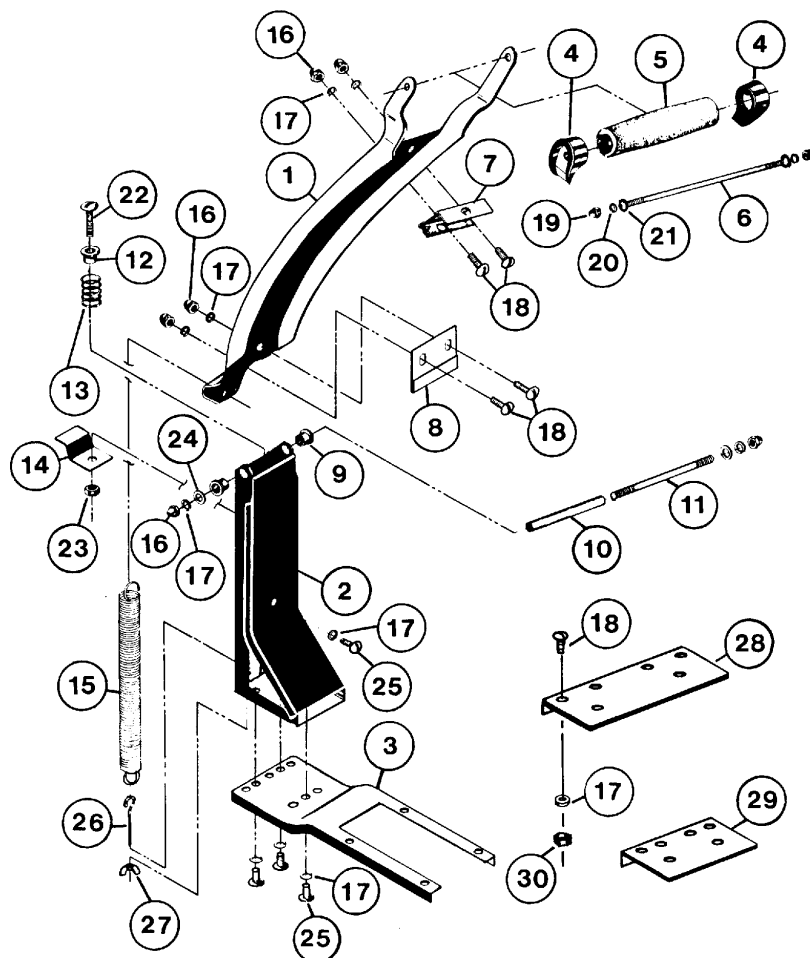
WITH VACUUM



LESS VACUUM

When ordering fabric pressing head, please specify type:

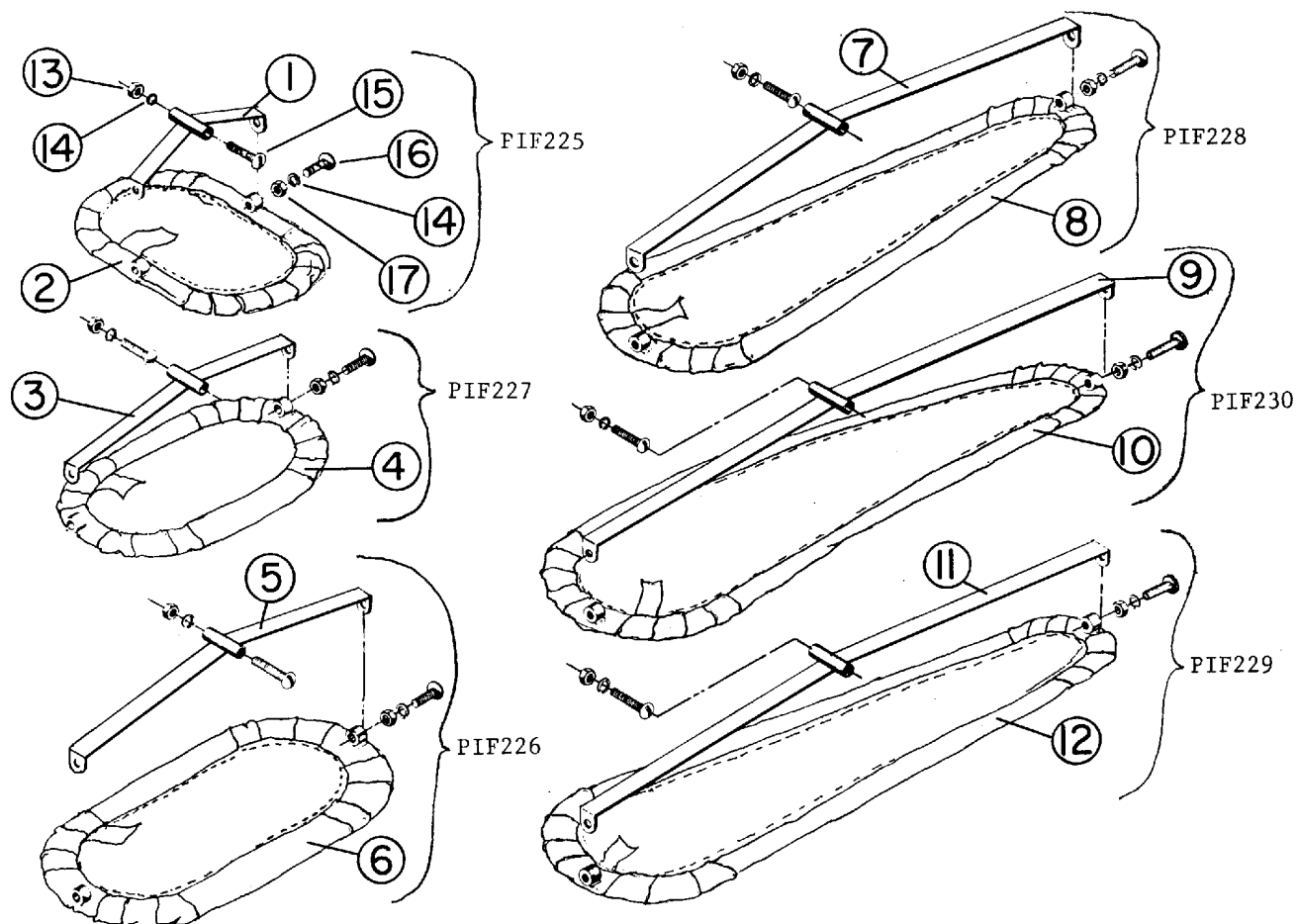
PIF215	No. 1E Men's Shoulder Head or No. 1L Ladie's Shoulder Head	PIF217	No. 1M Men's Shoulder Head
PIF216	No. 2 Mushroom Head	PIF219	No. 4X (22") Sleever Head
PIF218	No. 4 (14") Sleever Head		
PIF220	No. 4c (22") Sleever Head		



FABRIC PRESSING HEAD PARTS - PIF224

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	PIF163	Swinging Arm	16	C396	Crown Nut 1/4 - 20*
2	PIF162	Support Upright	17	TU2846	Lock Washer, 1/4**
3	PIF161	Support Base	18	P219	Tr. Hd. Scw., 1/4 - 20 x 1 1/2**
4	X54	Handle End	19	S20	#8 - 32 Crown Nut*
5	X56	Cork Handle	20	FB187	Split Lockwasher #10*
6	S9	Handle Bolt	21	TU4820	Cut Washer, #10*
7	PIF169	Support Holder	22	RC355	Hex Cap Scw., 1/4 - 28 x 1 1/2**
8	PIF204	Stop	23	IB143	Hex Nut, 1/4 - 28*
9	PIF172	Delrin Bushing (Pkg. of 2)	24	TU2847	Cut Washer, 1/4**
10	PIF164	Spacer	25	P302	Tr. Hd. Scw., 1/4 - 20 x 1**
11	PIF167	Pivot Stud	26	J10	Eye Bolt
12	V12	Gland	27	VSB154	Wing Nut, #10 - 24
13	V345	Spring*	28	P163	Large Adapter, 4C or 4X
14	PIF202	Latch	29	P164	Small Adapter, 4 Sleever
15	PIF154	Extension Spring	30	TU4934	Hex Nut, 1/4 - 20*

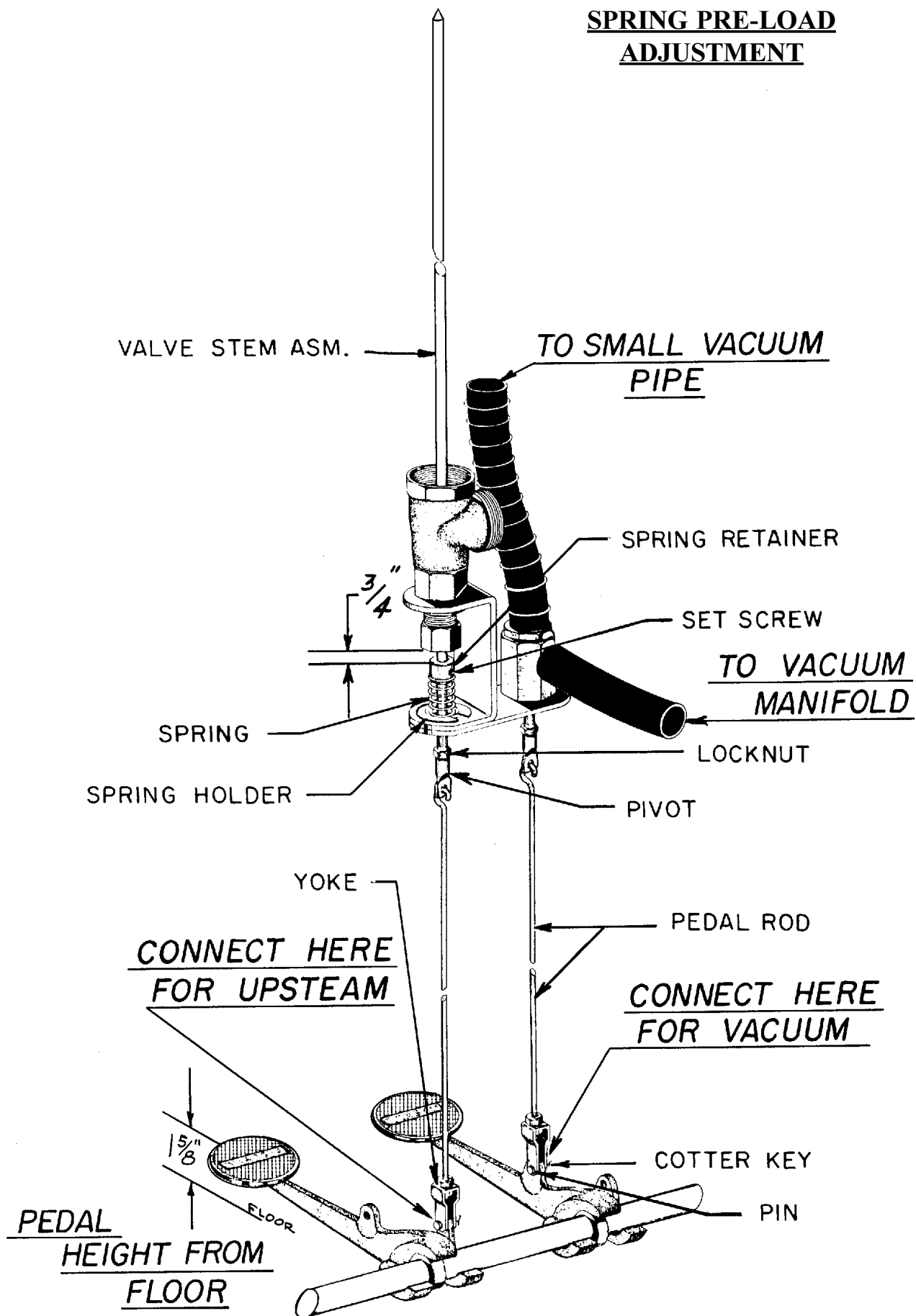
* Indicates a Package of 6



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1	PIF155	Fabric Head Support Arm
2	PIF148	Fabric Head Ring w/Screen and Cloth (For No. 1E Men's or No. 1L Ladies Shoulder)
3	PIF157	Fabric Head Support Arm
4	PIF152	Fabric Head Ring w/Screen and Cloth (For No. 1M Men's Shoulder)
5	PIF156	Fabric Head Support Arm
6	PIF149	Fabric Head Ring w/Screen and Cloth (For No. 2 Mushroom)
7	PIF158	Fabric Head Support Arm
8	PIF150	Fabric Head Ring w/Screen and Cloth (For #4 (14") Sleeve)

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
9	PIF160	Fabric Head Support Arm
10	PIF153	Fabric Head Ring w/Screen and Cloth (For No. 4C (22") Sleeve)
11	PIF159	Fabric Head Support Arm
12	PIF151	Fabric Head Ring w/Screen and Cloth (For No. 4X (22") Sleeve)
13	IB143	1/4" - 28 Hex. Hd. Nut (Pkg. of 6)
14	TU2846	1/4" Lock Washer (Pkg. of 6)
15	FB190	1/4" - 20 x 2" Hex Head Screw (Pkg. of 6)
16	P302	1/4" - 20 x 1" Truss Hd. Mach Screw
17	TU4934	1/4" - 20 Hex Nut (Pkg. of 6)

SPRING PRE-LOAD ADJUSTMENT



PUFF IRON

INSTRUCTIONS FOR REPLACING VALVE “O” RINGS

1. Shut steam off to Puff Iron, depress foot pedal to release steam pressure and allow machine to cool.
2. Remove cotter pin and pin to yoke. Remove pedal rod from pivot.
3. Use a 1/8” allen wrench to loosen set screw located in spring retainer. After spring tension is relaxed, remove spring holder.
4. Remove large pack nut.
5. Remove old “O” Rings and replace with new “O” Rings.
6. After installing new “O” Rings, reinstall large pack nut and tighten securely.
7. Make sure the upper seal of the stem engages and seats. Raise the spring retainer and spring into position. Install spring holder into its original position.
8. To set spring into position, a dimension of about 3/4” should be maintained. After 3/4” is established, tighten set screw securely.
9. Reinstall pivot, lock nut, pedal rod, pin, and cotter pin. Establish pedal clearance of 1-5/8” from the floor.
10. Open steam line, allow Puff Iron to heat up, and test for leaks.

REPLACEMENT OF SPRING

1. Shut off steam to Puff Iron, depress foot pedal to release steam pressure and allow machine to cool.
2. Remove cotter pin and pin from yoke. Remove pedal rod from pivot.
3. Remove pivot and small lock nut from the valve stem.
4. Using a 1/8” allen wrench, loosen set screw located in spring retainer. After spring tension is relaxed, remove spring holder.
5. After removing spring holder, old spring will slide down valve stem and new spring will slide into position.
6. Reinstall spring holder.
7. To set spring into position, a dimension of about 3/4” should be kept. After 3/4” is established, tighten set screw securely.
8. Reinstall pivot and small lock nut on valve stem as shown on opposite page.
9. Reinstall pedal rod, pin, and cotter key. Re-establish pedal clearance 1-5/8” from floor.
10. Open steam line, allow Puff Iron to heat up and test for leaks.

CAUTION: When working on Puff Iron Valve Heads...

1. Turn off Steam to Puff Irons.
2. Depress foot Pedal to release Steam pressure; then allow to cool.
3. Remove "Padded Nylon Covers" from Unpolished Heads.

TO REPLACE VALVE SEAT IN PUFF IRON (Figure 1)...

- (A) Insert 5/16" Allen Wrench (3) into hex opening in Seat. Hit wrench with hammer, (two or more very firm hits) to break corrosion bond between threads of Brass Seat and Aluminum Head. Unscrew Seat (1) counter-clockwise and remove with old Gasket (2).

NOTE: After removing old Gasket scrape and clean gasket seat in Aluminum Head with a small flat scraper before installing new Seat and new Gasket.

- (B) Screw in new Seat using new Gasket and be sure that Stem enters opening in Seat as the Seat comes down over the needle. Tighten Seat securely with 5/16" Allen Wrench.

NOTE: It is necessary to loosen Stem to replace Valve Seat.

- (C) Turn on Main Steam Supply to Puff Iron and check for leaks.

- (D) After installing new Seat, file or gring extended part of Valve Seat to match contour of Head.

NOTE: On Polished Heads use "Fine" emory cloth to remove sharp burrs and file marks, Polish if desired.

