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GHR FC performance

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Catalogue, Performance, Maintenance and Commissioning Instructions for 1 1/2" - 2"

J125

Regulator

ELSTER AMCO

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J125

1½" & 2" Service Regulator

July 2002

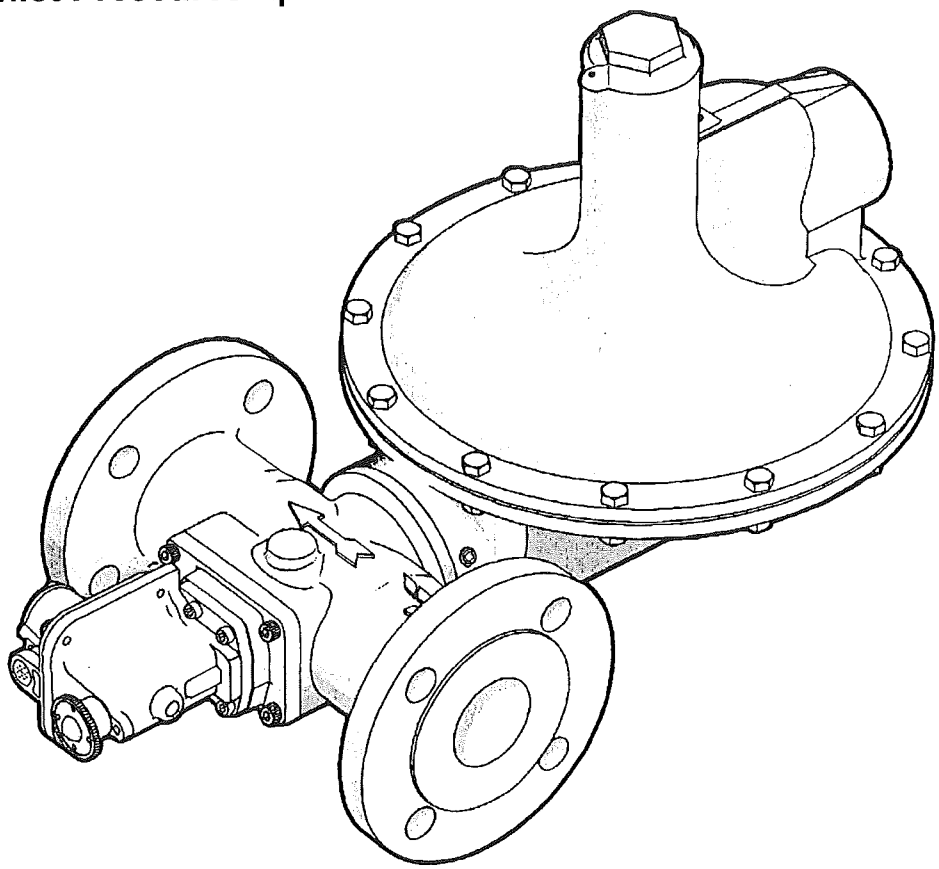
ELSTER Jeavons

J125 MKII SERVICE REGULATOR

1½" / 2" J125 MKII

Example illustrated is a
J125-S4 version with USSA
Over Pressure Slam Shut option.

Inlet Pressures up to 8.6 Bar



The MKII Jeavons J125 service regulator is fitted with an improved internal mechanism and can be supplied with the USSA safety shut-off assembly for both overpressure and/or underpressure protection.

DATASHEET CS25.03 ISSUE C JULY 2002

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J125 MKII SERVICE REGULATOR

APPLICATION

The J125 series provides a full range of regulators for service applications where accurate pressure control is required. The units are ideal for industrial pressure reducing, metering stations and for district distribution. A monitor version of the J125 is also available. The regulators are designed to maintain high accuracy and efficiency with inlet pressures up to 8.6 Bar (125 PSIG). Available with screwed connections, sizes 1½" and 2", and 50mm flanged connections .
Several valve orifices are available to cover the full inlet pressure range, together with a comprehensive number of outlet pressure springs.
The unit has been designed for ease of installation and servicing in confined areas. The diaphragm case can be fully rotated and, during inspection and servicing, the case can be removed without disturbing the pipework.
All units are suitable for operation on natural, liquid petroleum and manufactured gases.

Various versions of this regulator comply with the requirements of BGC/PS/E26 & IGE/TD/10, . The USSA unit is designed to meet the requirements of the standards BGES/V9 & DIN3381.

SIZES

1½" x 1½", 2" x 2" and 50mm x 50mm

NORMAL OPERATING TEMPERATURE

-20°C to +70°C.

CONNECTIONS

Taper or parallel screwed to BS21
Flanged to DIN, BS4504-NP16
Other standards may be available upon request

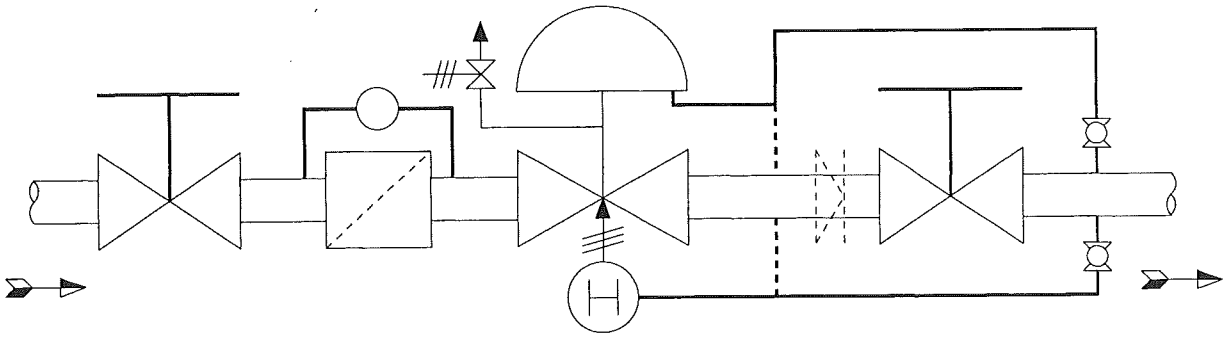
APPROVAL

The 1½" and 2" J125 has been approved to modules B + D of the PED 97/23/EC by BSI (Notified body No. 0086). It is classified as Category IV equipment and a pressure accessory.

OPTIONS

The J125 can be fitted with a full or limited capacity relief valve. In addition, the regulator can be supplied with the Jeavons Universal Safety Shut-off Assembly (USSA). This provides overpressure and/or underpressure protection with immediate shut-off at the regulator inlet. It uses well proven principles to give exceptional consistency of operation and an unrivalled insensitivity to nuisance tripping. The J125 is also available for use in a monitor application.

SCHEMATIC INSTALLATION DIAGRAM



REGULATOR SPRINGS

All Springs are colour coded for ease of identification.

mb	" WC	Part No.	Colour
8.8 - 15	3.5 - 6	J12509-091	Red
14 - 20	5.5 - 8	J12509-092	Orange
21 - 35	8.5 - 14	J12509-093	Yellow
36 - 70	14.5 - 28	J12509-094	Green
69 - 138	1 - 2 PSI	J12509-095	Royal Blue
104 - 173	1.5 - 2.5 PSI	J12509-096	Brown - Royal Blue
138 - 207	2 - 3 PSI	J12509-097	Brown - Green
207 - 350	3 - 5 PSI	J12509-098	Black - Green

OPSS SPRINGS

mb	" WC	Part No.	Colour
18 - 60	7.5 - 24	J12506 - 281	Black
50 - 80	20 - 32	J12506 - 282	Orange
60 - 110	24 - 44	J12506 - 283	Red
100 - 210	40 - 84	J12506 - 284	Dark Green
200 - 350	3 - 5 PSI	J12506 - 287	Yellow
280 - 500	4 - 7 PSI	J12506 - 288	White

UPSS SPRINGS

mb	" WC	Part No.	Colour
8 - 16	3 - 6	J12506 - 285	Light Blue
16 - 60	6 - 24	J12506 - 286	Brown
60 - 150	24 - 60	J12506 - 289	Purple

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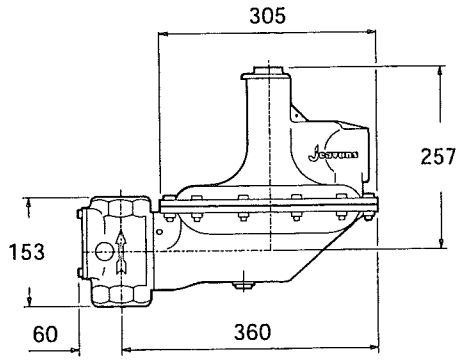
J125 MKII SERVICE REGULATOR

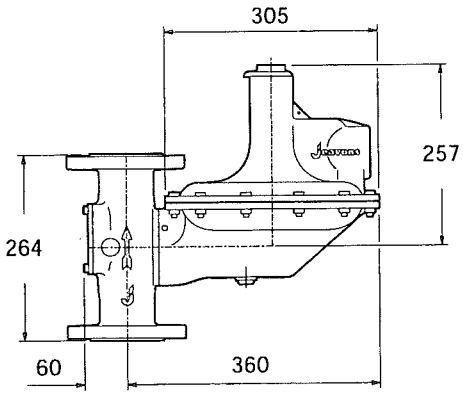
J125 VERSIONS The following table indicates the code numbers for the various J125 versions available.

TYPE	Full Capacity Relief (FR)	Limited Capacity Relief (LR)	Over Pressure Slam Shut (OPSS)	Under Pressure Slam Shut (UPSS)	Unit Weight (kg) Screwed	Unit Weight (kg) Flanged
J125 - S1					10.4	16.5
J125 - S2	❄				10.4	16.5
J125 - S3		❄			10.4	16.5
J125 - S4	❄		❄		10.9	17.0
J125 - S5		❄	❄		10.9	17.0
J125 - S6	❄			❄	10.9	17.0
J125 - S7		❄		❄	10.9	17.0
J125 - S8	❄		❄	❄	10.9	17.0
J125 - S9		❄	❄	❄	10.9	17.0
J125 - S10			❄		10.9	17.0
J125 - S11				❄	10.9	17.0
J125 - S12			❄	❄	10.9	17.0

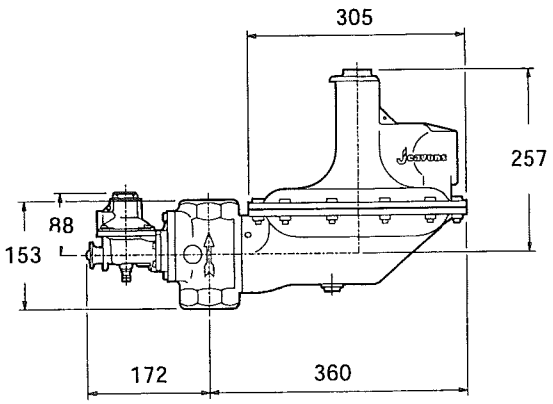
J125 S1/S2/S3 SCREWED



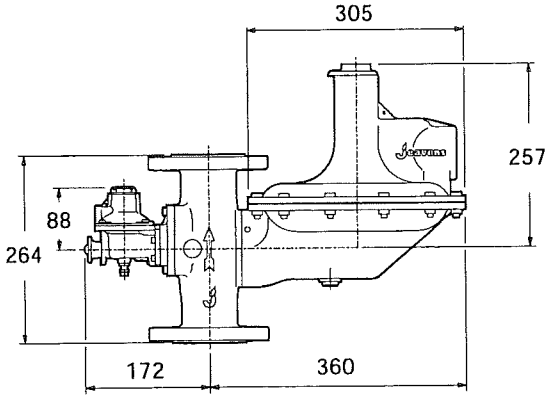
J125 S1/S2/S3 FLANGED



J125 S4 - S12 SCREWED



J125 S4 - S12 FLANGED



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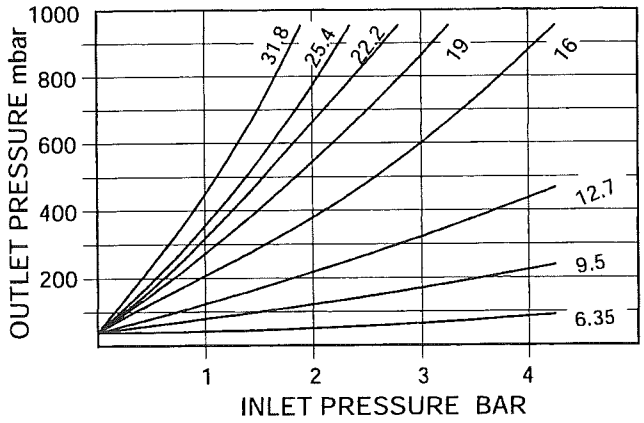
J125 MKII SERVICE REGULATOR

RELIEF VALVE PERFORMANCE



ORIFICE SIZES

Orifice Size

Inches	(mm)
1/4"	6.35
3/8"	9.5
1/2"	12.7
5/8"	15.9
3/4"	19.1
7/8"	22.2
1"	25.4
1 1/4"	31.8

INLET PRESSURES

For maximum inlet pressures see separate data sheets

ORIFICE SELECTION

For optimum regulator performance, the largest permissible orifice size should be selected from this table. For the optimum relief valve performance, the smallest orifice should be selected.

SERVICING

The J125 has been designed for ease of access, inspection and servicing of all the internal components. A soft spares kit is available for all versions.

MATERIAL SPECIFICATION

Description	Material
Regulator Body	Nodular Iron BS2789
Regulator Valve Disc and "O"Rings, USSA Diaphragm	Nitrile Synthetic Rubber (Buna)
USSA Valve Disc and "O"Rings	Nitrile Synthetic Rubber (DIN 3535 Part 3)
Regulator Valve, Valve Seat and USSA Valve	Aluminium Alloy BS4300/5 or BS1474
Regulator Case and Cover, Relief Valve, Spring Holder, Top Cap, Adaptor Plate, USSA Body and Cover	Aluminium Alloy BS1490
Regulator and USSA Valve Spindle	Stainless Steel BS970
Regulator Diaphragm	Reinforced Synthetic Rubber
USSA Internals	Acetal Resin
Lever Arm, Regulator Diap Plate, Vent Valve Plates, Clamping Plate and Spring Guide	Mild Steel, Zinc Plated and Passivated
Springs	Carbon Steel, Zinc Plated and Passivated

QUALITY

Elster Jeavons is committed to a programme of continuous quality enhancement. All equipment designed and manufactured by Elster Jeavons benefits from the company's quality assurance standards, which are approved to ISO 9001 (BS5750 Part 1).

PERFORMANCE

Detailed performance data is provided on separate technical bulletins.

Elster Jeavons has a programme of continuous product development and improvement and in consequence the information in this leaflet may be subject to change or modification without notice

DATASHEET CS25.03 ISSUE C JULY 2002

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J125 MkII 1½" / 40mm SERVICE REGULATOR

Capacities in SCMH 0.6sg gas Droop = 20%

CAPACITY CHART

6.35mm (1/4") Orifice

Spring Range (mbar)	8.8 - 15	14 - 20	21 - 35	36 - 70	69 - 138	104 - 173	138 - 207	207 - 350
Setting Pressure (mbar)	15	17.5	35	60	100	150	200	345
Inlet Pressure (mbar)								
350	34	35	32	30	30	26	22	-
689	50	51	49	50	47	38	45	35
1000	60	60	59	58	58	56	55	55
1500	76	76	75	72	72	75	70	75
2000	91	92	91	90	85	95	90	95
3000	121	121	121	126	115	120	110	115
4000	145	150	155	155	145	155	140	150
5000	160	165	175	175	170	180	170	175
6000	180	185	180	185	180	190	180	185
8000	230	230	240	230	230	240	215	225

9.5mm (3/8") Orifice

69	20	20	-	-	-	-	-	-
138	34	36	28	-	-	-	-	-
200	40	42	38	38	-	-	-	-
350	53	55	50	53	44	42	41	-
689	76	78	72	80	68	70	73	58
1000	87	92	88	99	86	91	95	80
1500	104	108	109	123	111	116	122	114
2000	119	124	126	152	130	146	151	140
3000	140	144	157	186	178	190	196	190
4000	160	164	178	218	210	230	242	236
5000	180	185	207	244	230	250	264	258
7000	-	-	-	282	284	294	311	314

12.7mm (1/2") Orifice

50	27	29	20	-	-	-	-	-
69	33	35	27	-	-	-	-	-
138	49	52	45	48	-	-	-	-
200	57	61	55	61	42	-	-	-
350	72	75	74	83	63	64	68	-
689	93	97	102	115	95	105	114	90
1000	107	111	121	135	118	131	149	125
1500	120	124	142	166	152	167	182	174
2000	132	137	157	182	180	198	222	211
3000	152	157	182	212	219	246	282	274
4000	174	178	208	234	251	292	322	326
5000	-	-	224	249	274	314	344	349

15.9mm (5/8") Orifice

50	32	33	-	-	-	-	-	-
69	38	40	32	-	-	-	-	-
138	53	56	49	67	-	-	-	-
200	60	64	58	75	54	-	-	-
350	72	76	75	99	77	77	78	-
689	89	93	96	129	115	120	128	104
1000	100	105	115	149	137	146	167	141
1500	113	120	132	170	170	184	207	195
2000	123	128	148	190	196	211	239	225
3000	142	149	173	210	233	254	287	288
4000	-	-	194	230	259	287	324	338
5000	-	-	-	-	270	304	344	360

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J125 MkII 1½" / 40mm SERVICE REGULATOR

Capacities in SCMH 0.6sg gas Droop = 20%

19.1mm (3/4") Orifice

Spring Range (mbar)	8.8 - 15	14 - 20	21 - 35	36 - 70	69 - 138	104 - 173	138 - 207	207 - 350
Setting Pressure (mbar)	15	17.5	35	60	100	150	200	345
Inlet Pressure (mbar)								
50	40	43	-	-	-	-	-	-
69	48	51	37	-	-	-	-	-
138	64	68	57	71	-	-	-	-
200	72	77	70	86	58	-	-	-
350	90	93	90	112	87	88	96	-
689	113	115	120	150	123	137	154	124
1000	127	129	138	167	154	171	188	168
1500	150	154	163	193	181	202	238	220
2000	170	174	183	212	210	240	274	266
3000	194	196	213	244	260	283	340	335
4000	-	-	242	273	285	322	397	416
5000	-	-	-	281	297	336	414	434

22.2mm (7/8") Orifice

50	41	45	-	-	-	-	-	-
69	51	56	-	-	-	-	-	-
138	70	76	67	-	-	-	-	-
200	79	86	85	98	-	-	-	-
350	95	102	109	131	100	102	109	-
689	123	130	145	179	150	167	193	162
1000	146	154	172	198	190	206	226	210
1500	182	188	203	236	234	257	288	279
2000	-	-	231	266	274	300	344	340
2500	-	-	-	289	305	337	386	392
3000	-	-	-	-	332	366	433	440

25.4mm (1") Orifice

50	47	51	40	-	-	-	-	-
69	54	57	49	-	-	-	-	-
138	71	76	73	-	-	-	-	-
200	77	84	84	105	70	73	-	-
350	94	99	108	131	105	115	120	130
689	121	126	136	167	150	179	198	163
1000	135	138	158	190	180	210	230	207
1500	-	-	189	215	215	246	285	270
2000	-	-	-	235	245	278	319	320

31.8mm (1¼") Orifice

50	43	45	48	-	-	-	-	-
69	50	53	56	-	-	-	-	-
138	66	73	82	96	-	-	-	-
200	78	82	92	117	83	-	-	-
350	94	97	117	143	122	141	144	-
689	-	-	149	178	174	208	210	195
1000	-	-	171	201	210	231	247	239
1500	-	-	-	-	234	269	296	306
2000	-	-	-	-	-	304	333	360

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J125 MkII 2" / 50mm SERVICE REGULATOR

Capacities in SCMH 0.6sg gas. Droop = 20%

CAPACITY CHART

6.35mm (1/4") Orifice

Spring Range (mbar)	8.8 - 15	14 - 20	21 - 35	36 - 70	69 - 138	104 - 173	138 - 207	207 - 350
Setting Pressure (mbar)	15	17.5	35	60	100	150	200	345
Inlet Pressure (mbar)								
350	35	35	35	37	25	26	22	-
689	45	50	50	46	40	38	45	35
1000	60	60	60	60	55	56	55	55
1500	75	80	70	80	75	75	70	75
2000	85	90	95	90	95	95	90	95
3000	125	125	120	120	120	120	110	115
4000	155	150	155	155	145	155	140	150
5000	160	165	175	175	170	180	170	175
6000	180	185	180	185	180	190	180	185
8000	230	230	240	230	230	240	215	225

9.5mm (3/8") Orifice

69	30	30	25	-	-	-	-	-
138	40	40	35	-	-	-	-	-
200	50	50	45	45	-	-	-	-
350	70	70	60	65	50	55	55	-
689	100	100	90	100	80	90	95	75
1000	125	125	120	125	105	115	125	100
1500	155	155	155	155	135	150	160	135
2000	185	190	190	190	165	190	190	170
3000	245	250	250	255	230	250	255	230
4000	310	315	315	315	300	315	315	300
5000	330	335	340	345	335	335	340	335
7000	-	-	-	405	400	405	415	410

12.7mm (1/2") Orifice

50	25	30	25	-	-	-	-	-
69	30	35	30	-	-	-	-	-
138	50	55	45	50	-	-	-	-
200	70	75	60	65	40	40	-	-
350	100	110	85	100	85	70	80	-
689	150	160	130	145	105	115	135	90
1000	190	200	165	190	135	150	180	130
1500	245	255	225	250	180	205	240	180
2000	295	305	275	305	225	255	300	225
3000	380	410	390	430	315	355	420	315
4000	430	460	515	540	440	480	530	435
5000	-	-	580	580	540	550	580	535

15.9mm (5/8") Orifice

50	35	38	-	-	-	-	-	-
69	45	48	30	-	-	-	-	-
138	75	80	55	-	-	-	-	-
200	90	95	65	85	50	-	-	-
350	130	135	95	120	70	80	80	-
689	205	210	150	190	115	135	135	115
1000	260	265	205	240	145	185	185	165
1500	335	345	285	320	195	245	255	230
2000	380	400	360	400	255	315	320	295
3000	445	470	525	555	370	455	465	420
4000	-	-	670	705	520	600	605	545
6000	-	-	-	-	-	700	700	640

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J125 MkII 2" / 50mm SERVICE REGULATOR

Capacities in SCMH 0.6sg gas Droop = 20%

19.1mm (3/4") Orifice

Spring Range (mbar)	8.8 - 15	14 - 20	21 - 35	36 - 70	69 - 138	104 - 173	138 - 207	207 - 350
Setting Pressure (mbar)	15	17.5	35	60	100	150	200	345
Inlet Pressure (mbar)								
50	35	45	-	-	-	-	-	-
69	45	60	45	-	-	-	-	-
138	70	85	75	90	-	-	-	-
200	90	110	100	120	65	-	-	-
350	130	145	135	165	105	130	135	-
689	190	205	200	250	155	205	220	170
1000	235	250	250	300	210	265	290	235
1500	320	330	330	390	275	355	400	325
2000	370	395	420	485	350	455	500	415
3000	465	490	565	600	515	610	655	590
4000	-	-	600	655	615	690	760	760
5000	-	-	-	670	625	700	785	785

22.2mm (7/8") Orifice

50	40	45	-	-	-	-	-	-
69	45	55	-	-	-	-	-	-
138	70	85	80	-	-	-	-	-
200	95	110	100	125	-	-	-	-
350	130	145	140	170	105	120	125	-
689	195	205	205	240	160	190	215	165
1000	240	250	250	295	210	250	285	225
1500	320	330	330	390	290	335	375	310
2000	-	-	420	490	360	430	485	390
2500	-	-	-	560	440	520	580	475
3000	-	-	-	-	540	605	645	545

25.4mm (1") Orifice

50	50	45	40	-	-	-	-	-
69	65	58	48	-	-	-	-	-
138	100	95	75	-	-	-	-	-
200	135	125	100	140	75	90	-	-
350	175	168	135	180	120	140	80	-
689	265	260	230	300	190	230	150	170
1000	330	335	305	360	250	300	210	245
1500	-	-	371	416	330	330	300	360
2000	-	-	-	-	420	510	375	460

31.8mm (1¼") Orifice

50	65	60	50	-	-	-	-	-
69	80	80	60	-	-	-	-	-
138	130	125	105	-	-	-	-	-
200	165	165	135	180	110	-	-	-
350	220	220	190	245	150	180	160	-
689	-	-	290	365	240	280	290	215
1000	-	-	380	450	325	345	390	315
1500	-	-	-	-	460	490	520	465
2000	-	-	-	-	-	600	630	570

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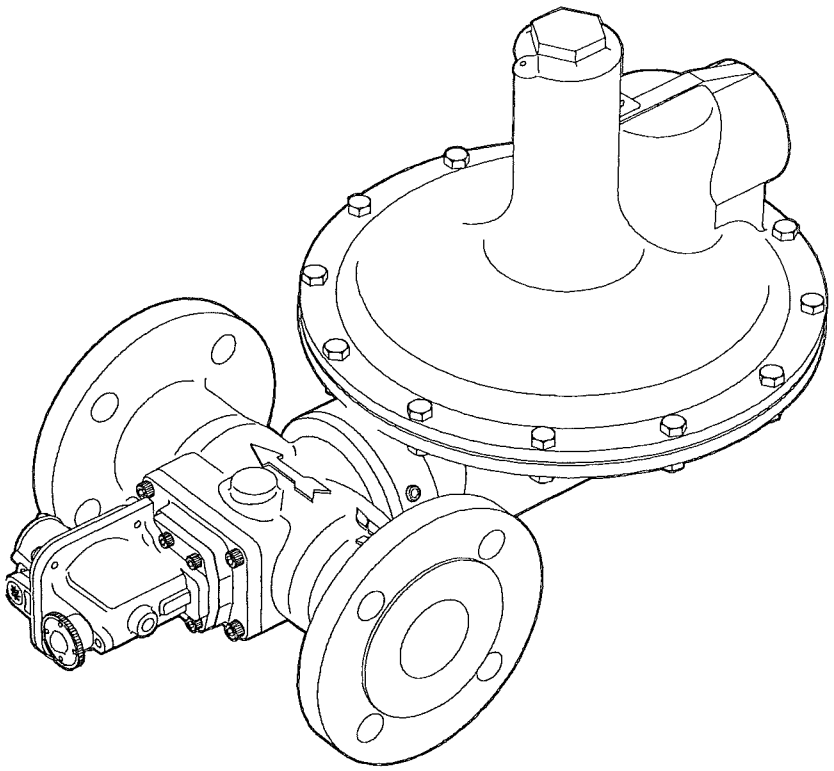
J125 MKII REGULATOR
1½" - 2" (40 - 50mm)

COMMISSIONING AND MAINTENANCE INSTRUCTIONS



CHECK WITH DESIGNATION NUMBER ON REGULATOR NAMEPLATE AND CROSS REFERENCE TO TABLE TO ESTABLISH WHICH, IF ANY, OF THE SAFETY FEATURES ARE FITTED.

REGULATOR TYPES

TYPE	FULL CAPACITY RELIEF	LIMITED CAPACITY RELIEF	OVER PRESSURE SAFETY DEVICE	UNDER PRESSURE SAFETY DEVICE
J125-S1				
J125-S2	✓			
J125-S3		✓		
J125-S4	✓		✓	
J125-S5		✓	✓	
J125-S6	✓			✓
J125-S7		✓		✓
J125-S8	✓		✓	✓
J125-S9		✓	✓	✓
J125-S10			✓	
J125-S11				✓
J125-S12			✓	✓

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COMMISSIONING INSTRUCTIONS FOR J125 MKII REGULATOR

FITTING UNITS INTO PIPEWORK.

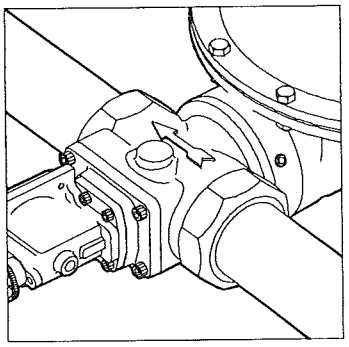


Fig. 1.

1) The unit should not be installed in a corrosive environment.
2) The ambient temperature (surface temperature) should be within the limits stated on the regulator catalogue.
3) Check the maximum allowable pressure on the regulator nameplate against the installation specification.
4) Remove the protection from inlet and outlet ports.
5) Ensure that installation pipework is thoroughly clean.
6) The direction of gas flow must be the same as the arrows on the regulator body. See Fig. 1.
7) Install the regulator into pipework using jointing compound approved to national standards.
8) In order to fit the regulator into confined spaces it may be necessary to rotate the diaphragm case. This is achieved by slacking off the three set screws, rotating the diaphragm case, and then re-tightening the set screws evenly. See Fig. 2.

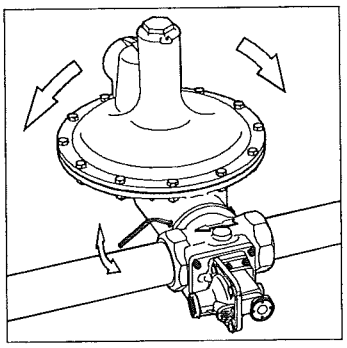


Fig. 2.

INSTALLATION OF VENT LINE.

1) Remove clip and vent screen from regulator top cover.
2) Connect the vent line (2"), using a jointing compound approved to national standards, and lead to atmosphere in accordance with national standards. Ensure that no water can penetrate vent pipeline. See Fig. 3.
3) If the regulator is fitted with an internal relief valve, ensure that the vent line is of sufficient diameter to carry gas vented by the relief valve to a safe outside location. Reference to any national standard.

FOR PRE-SET UNITS ONLY.

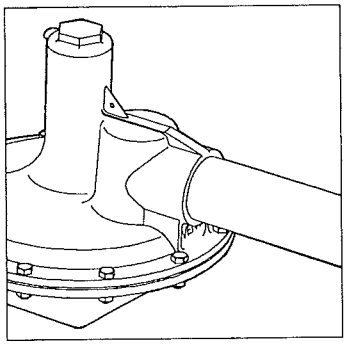


Fig. 3.

1) Turn off downstream valves.
2) Slowly turn on inlet supply.
3) If safety shut-off device is not fitted, go to instruction 6.
4) If safety shut-off device is fitted unscrew reset spindle end cap and firmly pull. Hold in this position until the outlet pipework is fully pressurised, then release reset spindle end cap gently. See Fig. 4.
5) Re-screw reset spindle end cap into body, ensuring not to jam reset spindle.
6) Commission downstream appliances.

WARNING : DO NOT UNDER ANY CIRCUMSTANCES WEDGE OPEN SAFETY SHUT-OFF RESET END CAP AS THIS WILL NOT ALLOW THE SAFETY DEVICE(S) TO FUNCTION IN ADVERSE PRESSURE CONDITIONS.

SETTING THE REGULATOR & SAFETY SHUT OFF DEVICE PRESSURES.

OPSS = Over Pressure Safety Shut-off.
UPSS = Under Pressure Safety Shut-off.

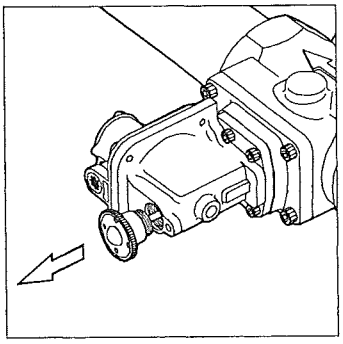


Fig. 4.

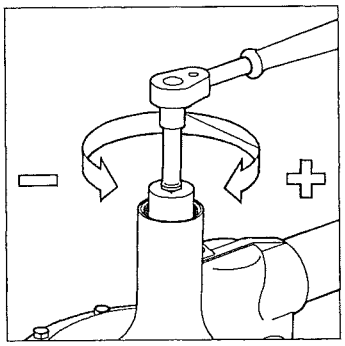


Fig. 5.

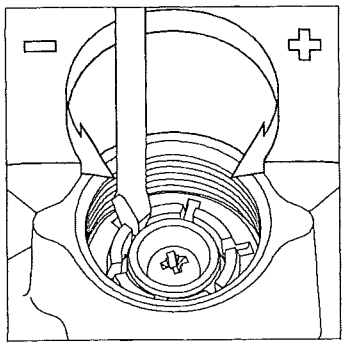


Fig. 6.

1) Turn off inlet and outlet valve's).
2) Remove top cap from regulator cover.
3) Insert a 11/4" A/F socket over the top of the adjustment screw.
4) Turn anticlockwise (-) to reduce loading on regulator spring to minimum. See Fig. 5 (If no safety devices are fitted go to instruction 10).
5) Remove top cap from safety shut-off device cover (If UPSS only go to instruction 8).
6) Insert a flat bladed screwdriver into one of the partial slots on the OPSS spring holder. See Fig. 6.
7) Turn clockwise (+) to increase loading on OPSS spring to maximum
8) If UPSS fitted, insert a pozidriv screw driver (No.2 point) into UPSS adjusting screw in bottom spring holder. See Fig. 7.
9) Turn anticlockwise (-) to reduce loading on UPSS spring, making sure screw head does not protrude from the bottom spring holder.
10) Slowly open inlet valve's).
11) If safety device fitted, re-cock by unscrewing reset spindle end cap and pulling firmly. Hold in this position until the outlet pipework is fully pressurised, then release reset spindle end cap gently. Re-screw reset spindle end cap into body. See Fig. 4.
12) Turn regulator adjustment screw clockwise (+) to increase the loading on the spring until the required outlet pressure, plus approximately 1"wg (2.5mbar) is obtained. (This is an allowance for the regulator being set with zero flowrate).

If UPSS only go to instruction 19, if no safety device go to instruction 26.

13) Apply external pressure source to a suitable point on the outlet pipework. Increase pressure to that required for OPSS trip-off.

Note: If pressure test point on underside of slam shut unit is used as external source point, care must be taken to ensure pressures are equalised across restricted orifice within test point.

14) Slowly turn OPSS spring holder anticlockwise (-) until OPSS device trips off. See Fig. 6.
15) Reduce external pressure source to level set in instruction 12.

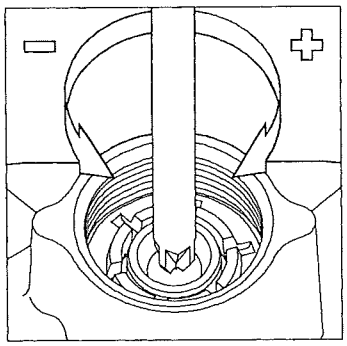


Fig. 7.

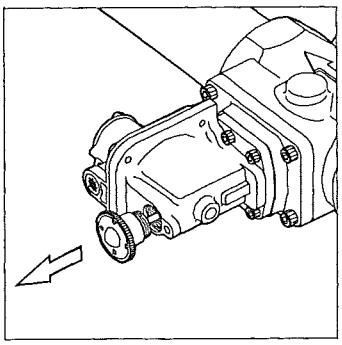


Fig. 8.

16) Re-cock OPSS device by unscrewing reset spindle end cap and firmly pull. Hold in this position until the outlet pipework is fully pressurised, then release reset spindle end cap gently. Re-screw reset spindle end cap into body. See Fig. 8.

17) Slowly increase external pressure to check for OPSS trip-off. Trim adjustment if necessary and repeat instructions 15 - 17.

18) Remove external pressure source.

NOTE : OPSS device is now set.

19) Close inlet valve's.

20) Reduce inlet pressure to approximately 2 PSI (140mbar).

21) Reduce outlet pressure by introducing a slow controlled bleed until the required UPSS trip-off pressure is obtained and close bleed.

22) Slowly turn UPSS adjusting screw clockwise (+) until UPSS device trips off. See Fig. 7.

23) Slowly open inlet valve to regain inlet pressure up to approximately 2 PSI (140mbar), then close inlet valve.

24) Re-cock UPSS device by unscrewing reset spindle end cap and firmly pull. Hold in this position until the outlet pipework is fully pressurised, then release reset spindle end cap gently. Re-screw reset spindle end cap into body. See Fig. 8.

25) Slowly reduce outlet pressure to check for UPSS trip-off. Trim adjustment if necessary and repeat instructions 23 - 25.

NOTE : UPSS device is now set.

26) Commission installation's.

27) Trim the regulator outlet pressure if necessary once normal flow rates have been achieved.

28) Replace all top caps (seal if necessary).

WARNING : DO NOT UNDER ANY CIRCUMSTANCES WEDGE OPEN SAFETY SHUT-OFF RESET END CAP AS THIS WILL NOT ALLOW THE SAFETY DEVICE(S) TO FUNCTION IN ADVERSE PRESSURE CONDITIONS.

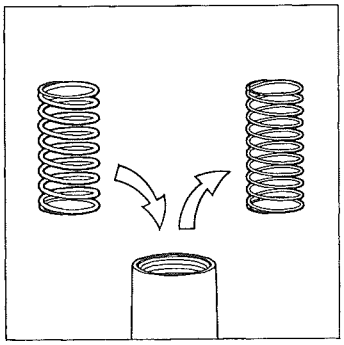


Fig. 9.

IF THE REQUIRED REGULATOR OUTLET PRESSURE CANNOT BE ACHIEVED WITH THE SPRING FITTED.

29) Remove top cap from regulator cover.

30) Choose a loading spring from catalogue or page 17 that will give the required outlet pressure range.

31) Fully unscrew and remove the adjustment screw, See Fig. 10.

32) Remove spring and replace with new one. See Fig. 9.

33) Screw adjustment screw back in place.

34) Adjust the outlet pressure as described previously.

35) Replace the top cap (seal if necessary).

NOTE : Outlet pressure is now set.

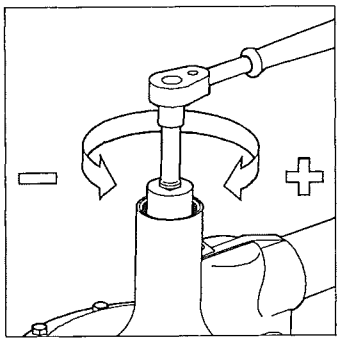


Fig. 10.

IF THE REQUIRED TRIP-OFF PRESSURES CANNOT BE ACHIEVED WITH THE SPRINGS FITTED.

A) OPSS spring.

36) Remove top cap from the safety shut-off device cover.

37) Choose an OPSS spring from the catalogue or page 17 that will give the required pressure range.

38) Fully unscrew and remove top spring holder. See Fig. 11.

39) Remove spring and replace with new one. See Fig. 9.

40) Screw spring holder back in place, ensuring that castellated spigot is uppermost in chimney. See Fig. 11.

41) Adjust the trip-off pressure as described previously.

42) Replace the top cap (seal if necessary).

NOTE : OPSS pressure is now set.

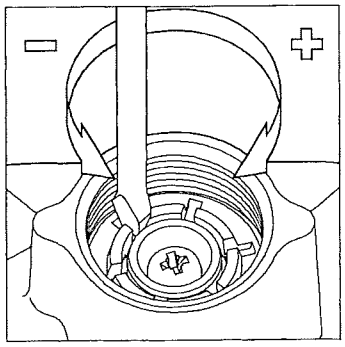


Fig. 11.

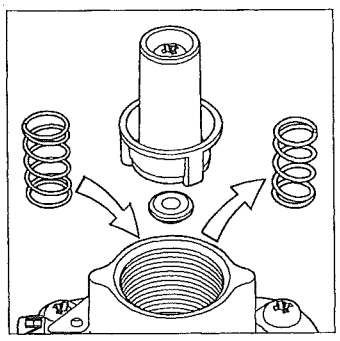
B) UPSS spring.

43) Remove top cap from the safety shut-off device cover.

44) Choose an UPSS spring from the catalogue or page 17 that will give the required pressure range.

45) Fully unscrew and remove top spring holder. See Fig. 11.

46) Remove OPSS spring (or spacer tube if UPSS only).



47) Remove bottom spring holder and UPSS top spring holder.

48) Remove UPSS spring and replace with new one. See Fig. 12.

49) Replace UPSS spring holder, ensuring that spigot locates in UPSS spring.

50) Replace bottom spring holder locating three webs into slots in bottom of cover, ensuring not to disturb UPSS spring and UPSS spring holder.

51) Replace OPSS spring (or spacer tube if UPSS only).

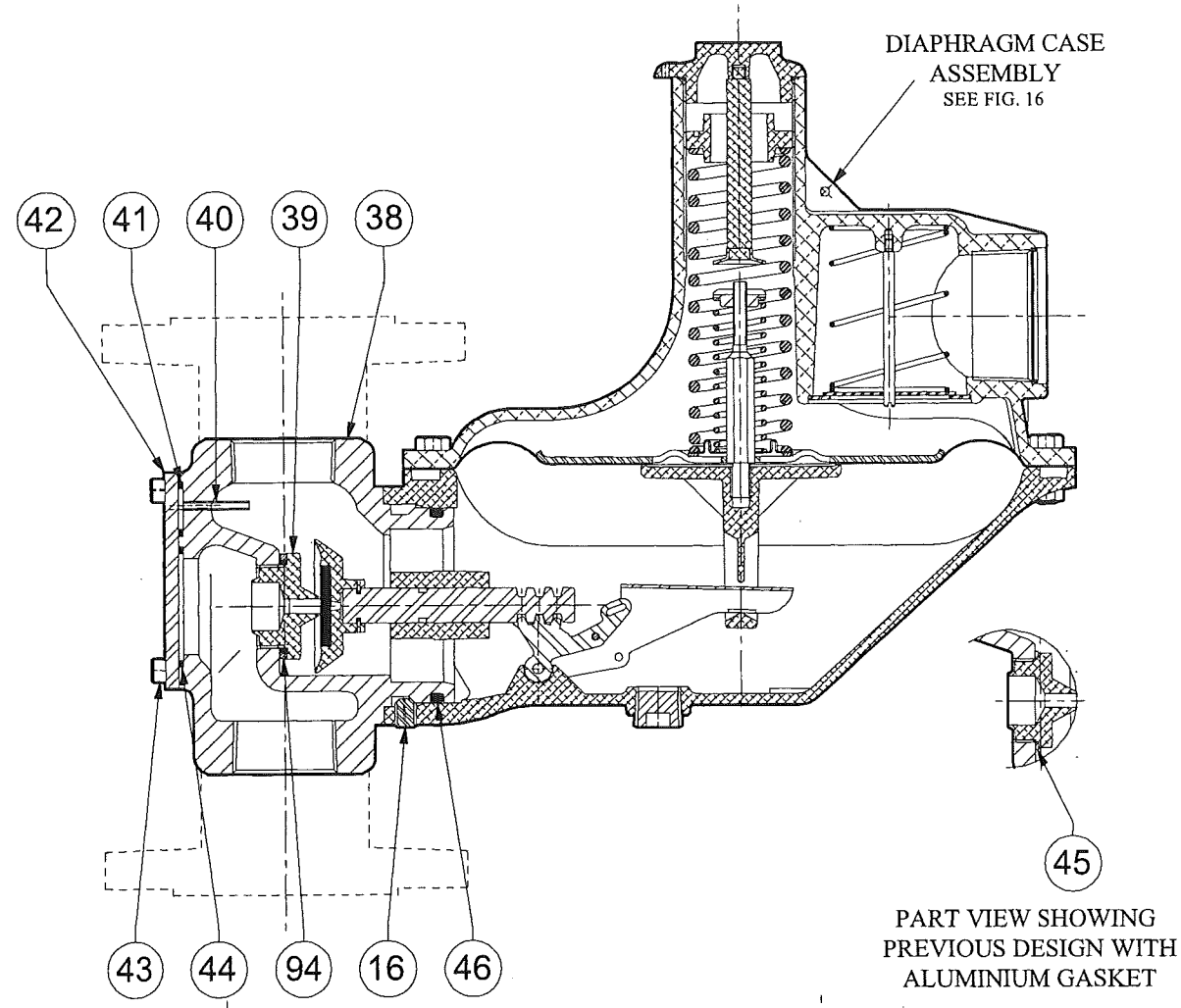
52) Screw top spring holder back in place, ensuring that castellated spigot is uppermost in chimney. See Fig. 11. (If UPSS only ensure that spacer tube is firmly clamped).

53) Adjust the trip-off pressure as described previously.

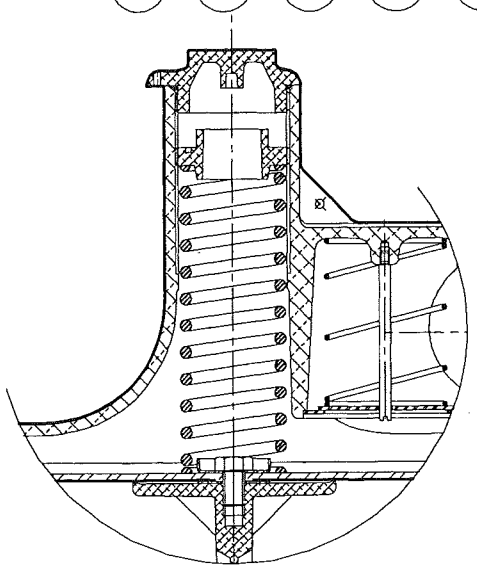
54) Replace the top cap (seal if necessary).

NOTE : UPSS pressure is now set.

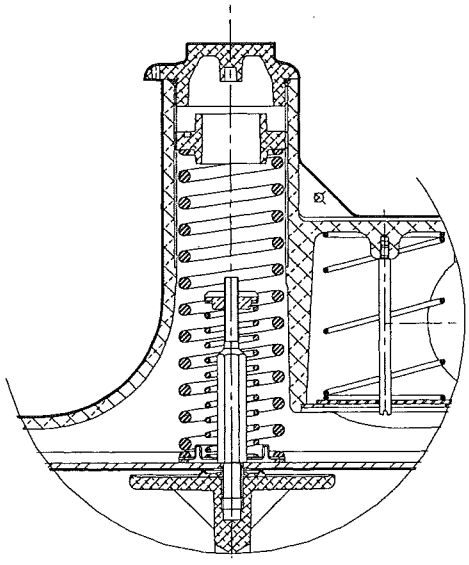
J125-S1, S2, S3 ASSEMBLY
FIG. 13



PART VIEW SHOWING PREVIOUS DESIGN WITH ALUMINIUM GASKET

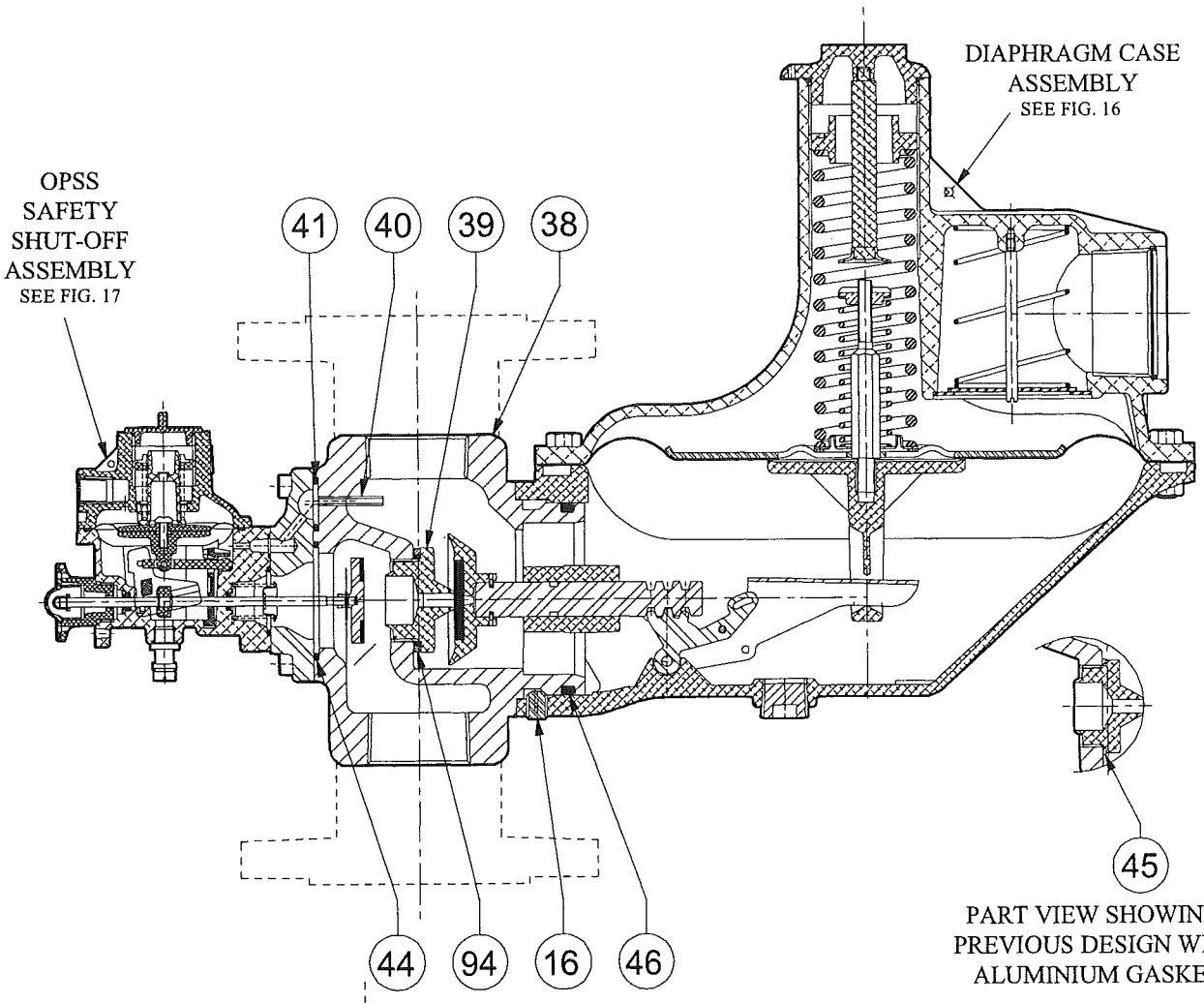


S1 VERSION ONLY
(NO RELIEF VALVE)

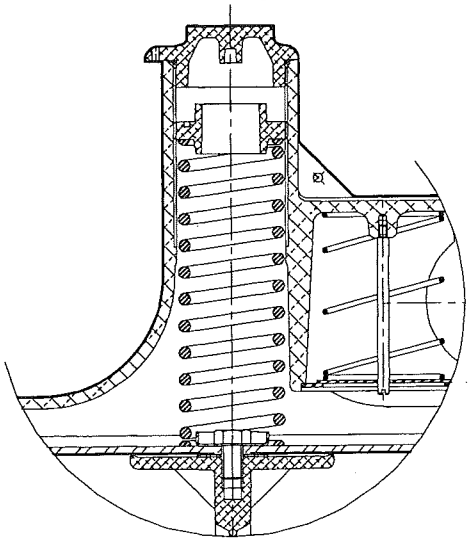


S3 VERSION ONLY
(LIMITED RELIEF VALVE)

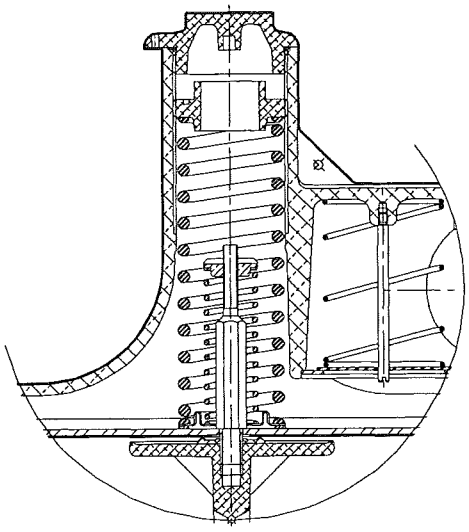
J125-S4, S5, S10 ASSEMBLY
FIG. 14



PART VIEW SHOWING PREVIOUS DESIGN WITH ALUMINIUM GASKET

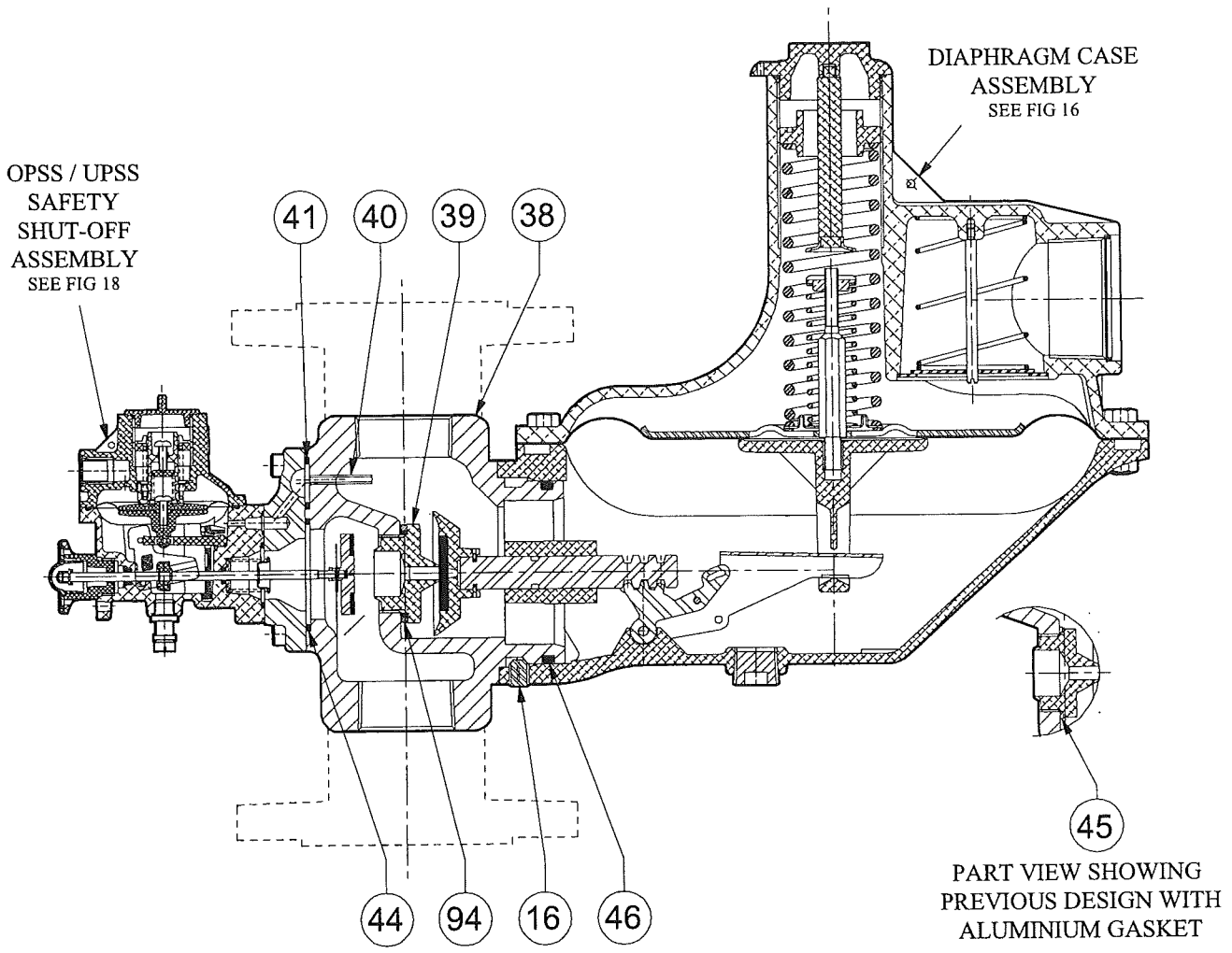


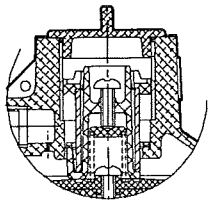
S10 VERSION ONLY
(NO RELIEF VALVE)



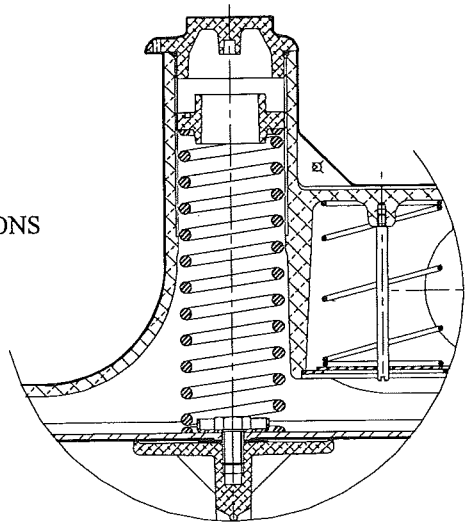
S5 VERSION ONLY
(LIMITED RELIEF VALVE)

J125-S6, S7, S8, S9, S11, S12 ASSEMBLY FIG. 15

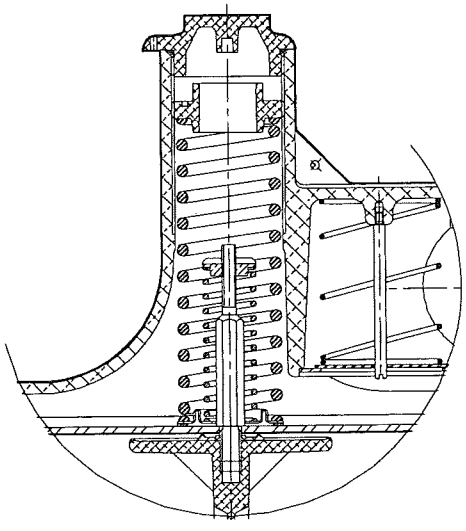




S6, S7 & S11 VERSIONS
UPSS ONLY
SEE FIG 19

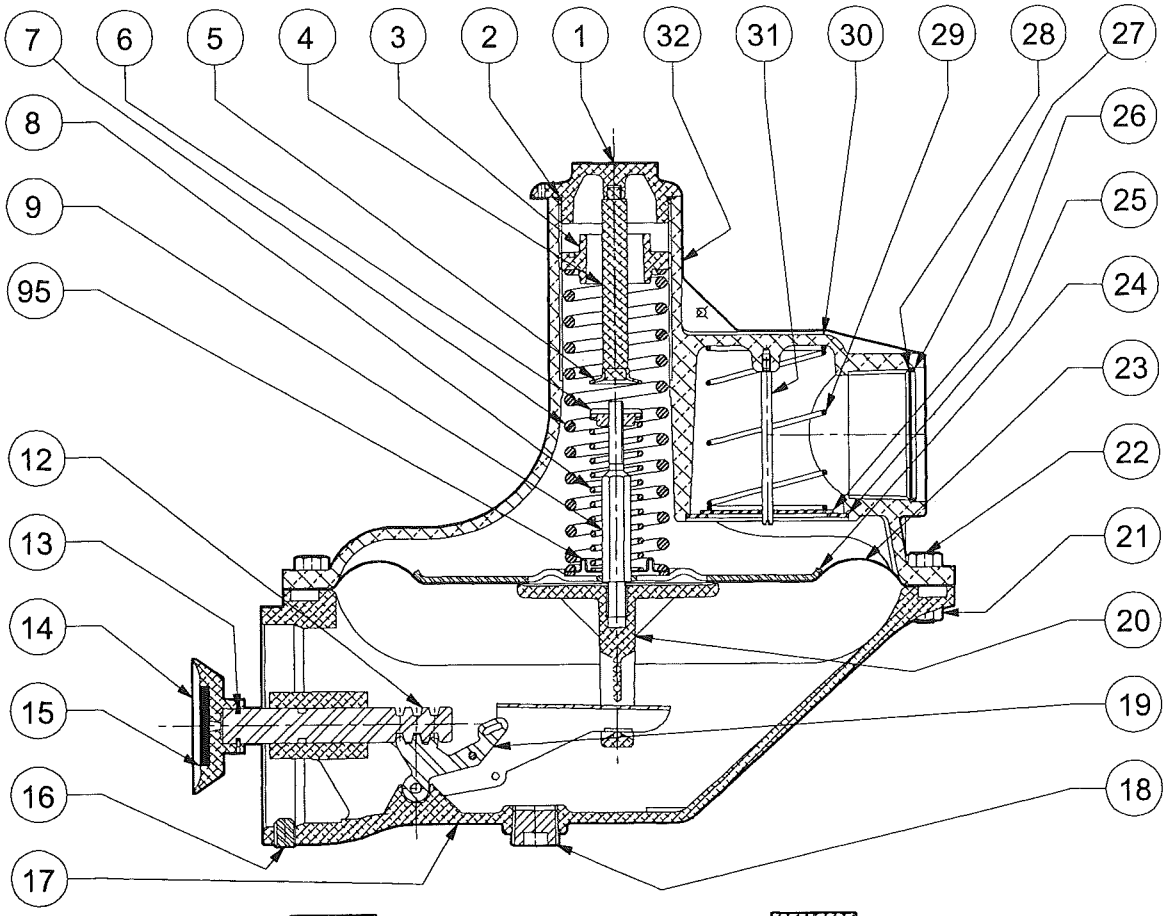


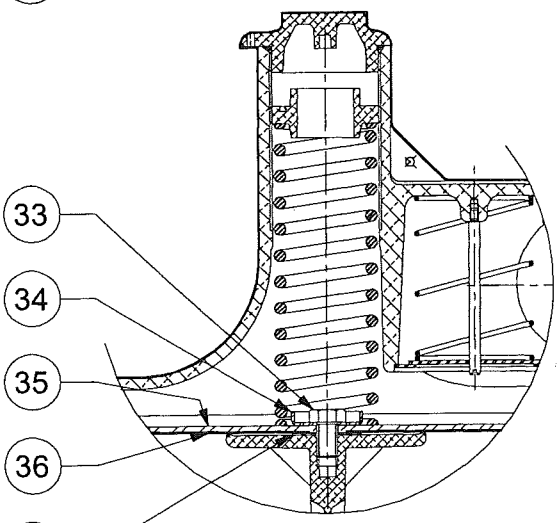
S11 & S12
VERSIONS ONLY
(NO RELIEF VALVE)



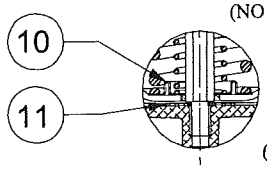
S7 & S9
VERSIONS ONLY
(LIMITED RELIEF VALVE)

DIAPHRAGM CASE ASSEMBLY
FIG. 16

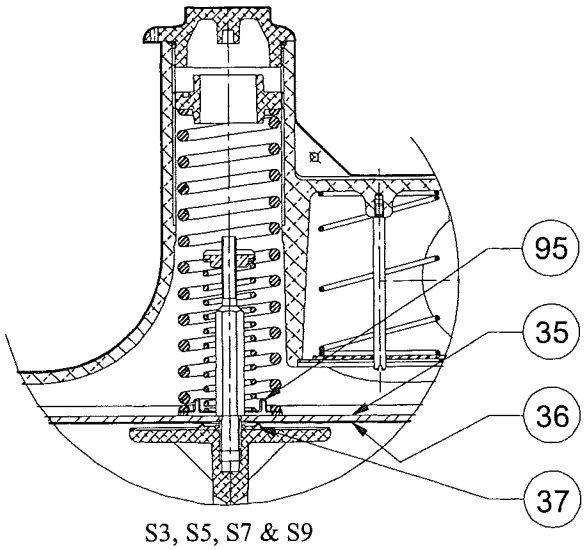




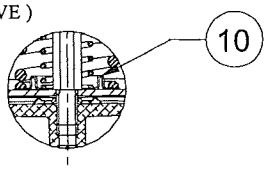
S1, S10, S11 AND S12
VERSIONS ONLY
(NO RELIEF VALVE)



S2, S4, S6 AND S8
VERSIONS ONLY
(FULL RELIEF VALVE)
(UP TO SEPTEMBER 2001)

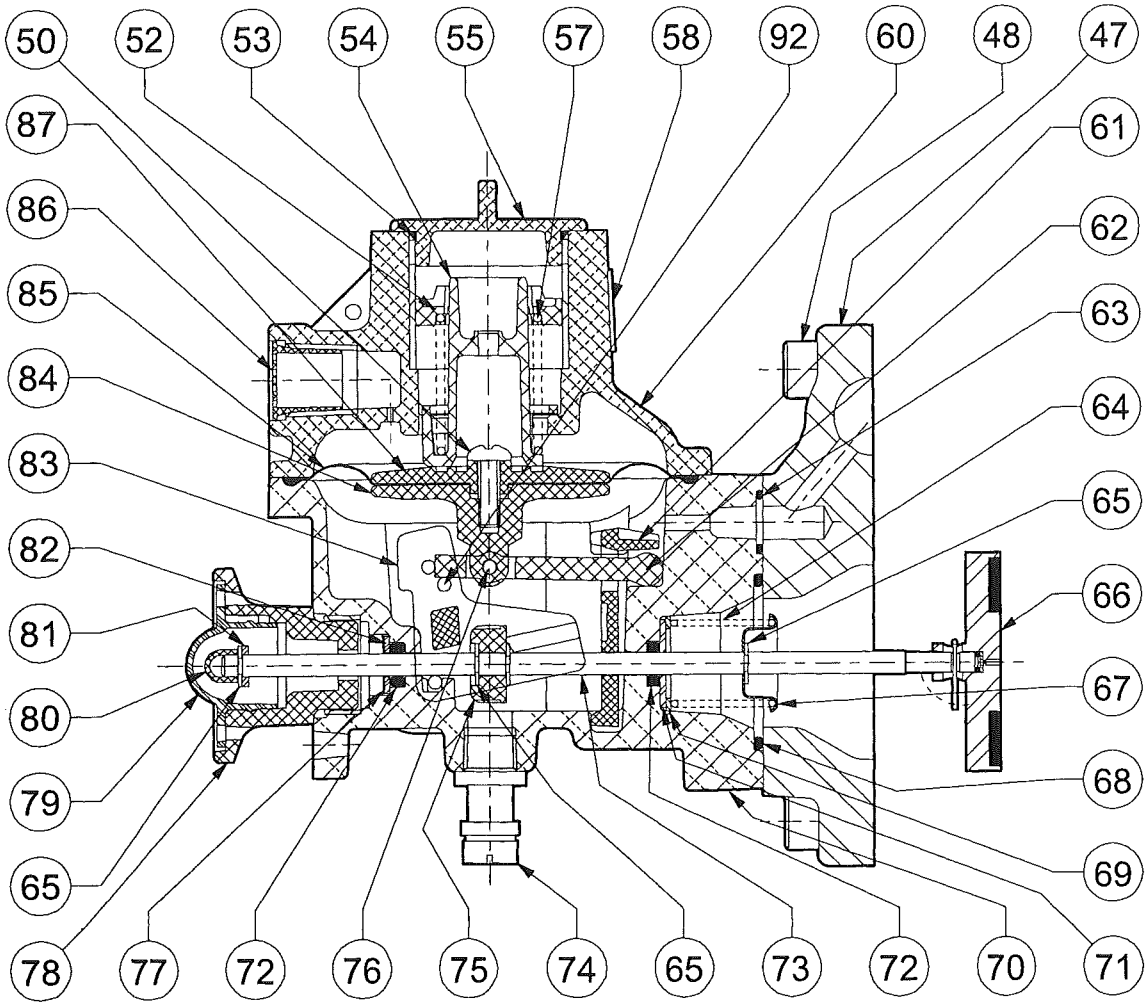


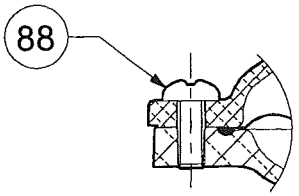
S3, S5, S7 & S9
VERSIONS ONLY
(LIMITED RELIEF VALVE)



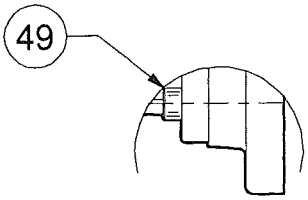
S3, S5, S7 AND S9
VERSIONS ONLY
(LIMITED RELIEF VALVE)
(UP TO SEPTEMBER 2001)

OPSS SAFETY SHUT OFF ASSEMBLY
FIG. 17

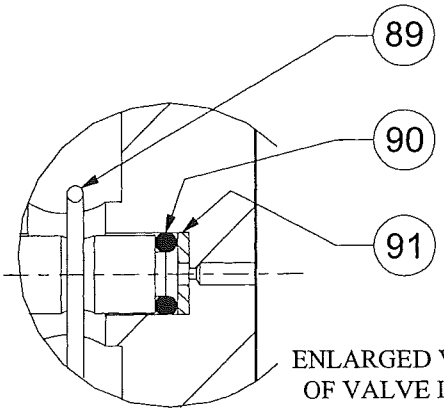




TOP COVER TO BODY FIXING

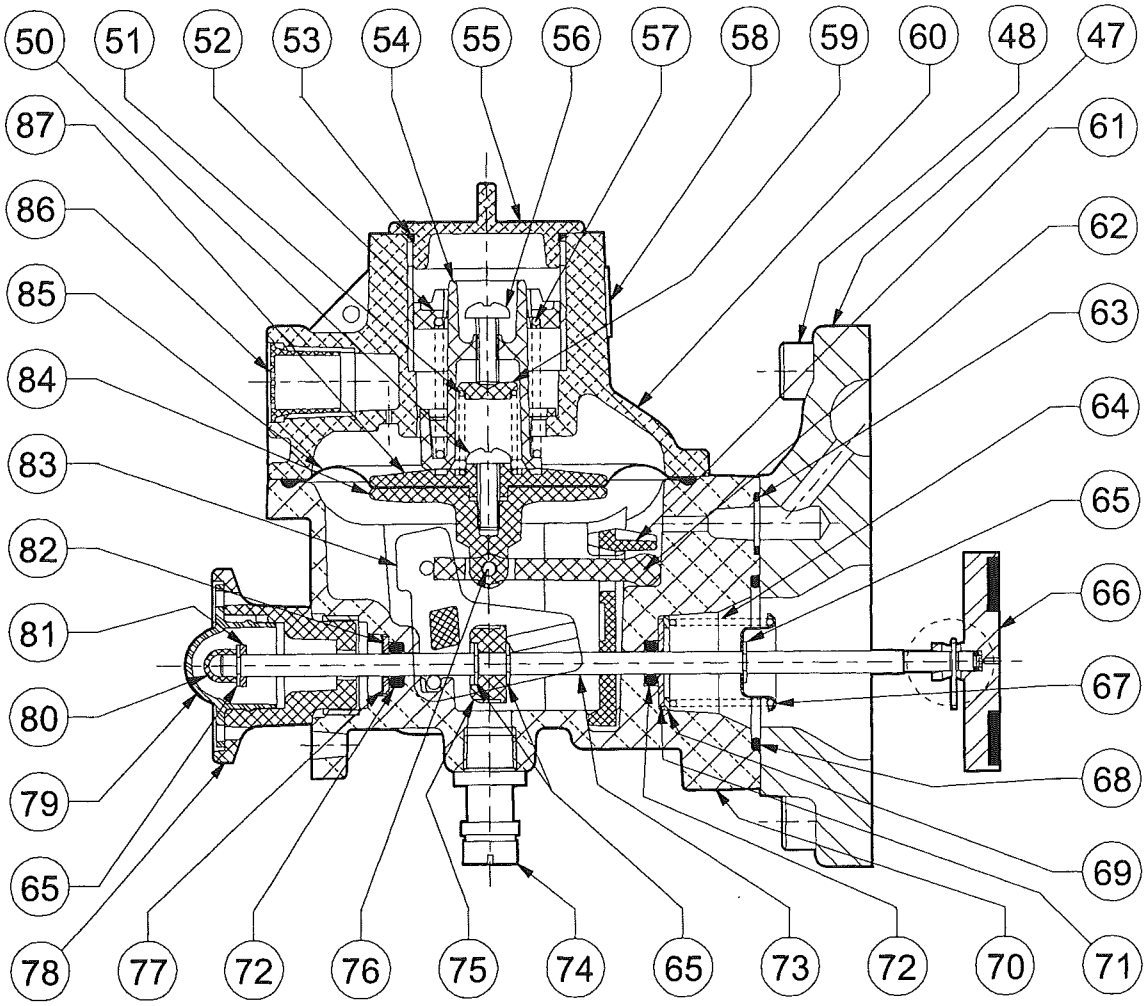


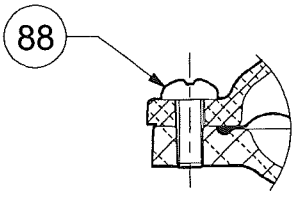
OPSS BODY TO ADAPTOR PLATE FIXING



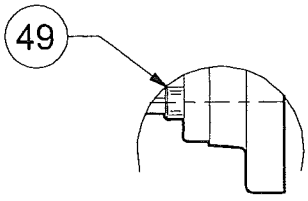
ENLARGED VIEW OF VALVE DISC

OPSS/UPSS SAFETY SHUT OFF ASSY
FIG. 18

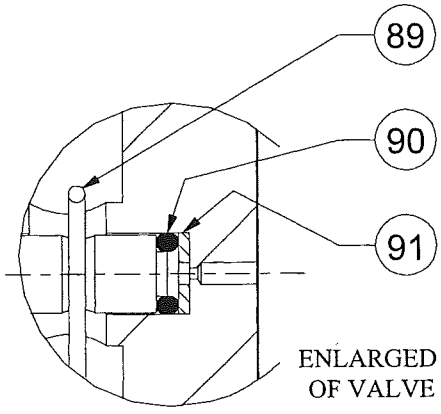




TOP COVER TO BODY FIXING

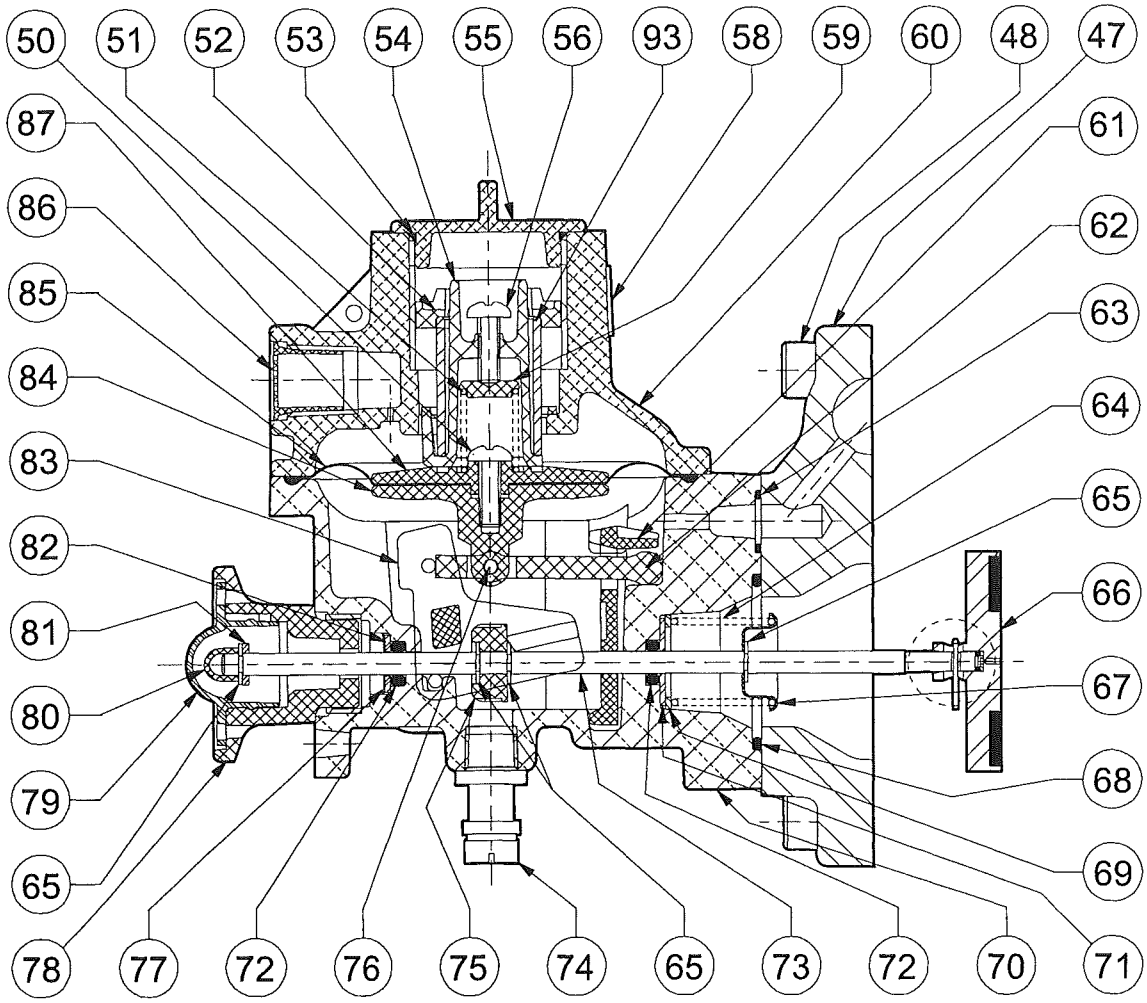


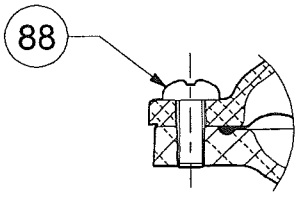
OPSS/UPSS BODY TO ADAPTOR PLATE FIXING



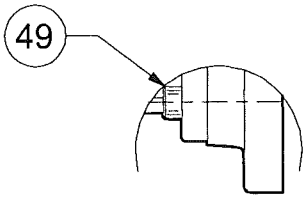
ENLARGED VIEW OF VALVE DISC

UPSS SAFETY SHUT OFF ASSEMBLY
FIG. 19

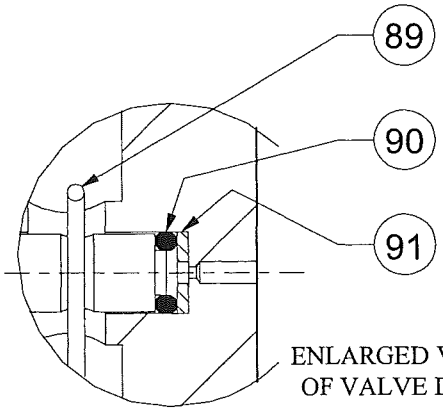




TOP COVER TO BODY FIXING



UPSS BODY TO ADAPTOR PLATE FIXING



ENLARGED VIEW OF VALVE DISC

ELSTER Jeavons

PARTS LIST
TABLE 1.

ITEM No.	DESCRIPTION	PART No.	No. OFF
1	TOP CAP	I70103P002	1
2	"O" RING (TOP CAP)	JOBS133 ❄	1
3	ADJUSTMENT SCREW	I73183P001	1
4	ROD STOP	I73056P001	1
5	FLANGE STOP ROD	I73174P001	1
6	SPRING ADJUSTING NUT (Full Relief)	I71533P001	1
7	LOADING SPRING	SEE TABLE	1
8	RELIEF VALVE SPRING	J12509-099	1
9	RELIEF VALVE STEM	I73058P001	1
10	SPRING LOCATOR (Up to September 2001)	I73175P001	1
11	FLAT WASHER (No Relief) (Was Full & No Relief {Up to September 2001})	I13981P076	1
12	VALVE PLUNGER	I72627P001	1
13	RETAINER CLIP	I72858P001 ❄	1
14	SEAT DISC HOLDER	I72624P001 ❄	1
15	VALVE SEAT DISC	I70041P072 ❄	1
16	SOCKET GRUB SCREW	JSA1012S0NSS	3
17	REGULATOR DIAPHRAGM CASE	I72628 (+ if tapped)	1
18	PLUG (C/Sunk Recess ½" BSP Galv)	JMFP2G04 (if fitted)	1
	PLUG (C/Sunk Recess ½" NPT Galv)	I11970P031 (if fitted)	1
19	LEVER ASSEMBLY	I72626G001	1
20	DIAPHRAGM STEM	I72629P005	1
21	HEXAGON NUT	JNA8FZD	12
22	SCREW HEX HEAD	JSA825HHNZG	12
23	DIAPHRAGM (Full Relief)	I70014P203 ❄	1
24	DIAPHRAGM PLATE (Full Relief)	I73057P002 ❄	1
25	VENT VALVE SEAT	J12509-028	1
26	VENT VALVE DISC	J12509-029	1
27	VENT SCREEN SPRING CLIP	J12509-038	1
28	VENT SCREEN	J12509-037	1
29	VENT VALVE SPRING	J12509-060	1
30	TOP COVER	J12509-079 +	1
31	VENT VALVE GUIDE PIN	J12509-042	1
32	NAMEPLATE	J8112-124	1
33	HEX CAP SCREW	JSNEIHHNZR	1
34	SPRING GUIDE	I72272P001	1
35	DIAPHRAGM PLATE (No / Limited Relief)	I70012P052 ❄	1
36	DIAPHRAGM (No / Limited Relief)	I70014P143 ❄	1
37	RELIEF VALVE CUP	I73054P002	1

ITEM No.	DESCRIPTION	PART No.		No. OFF
38	SCREWED BODY 1½"	J12508-080 +		1
	SCREWED BODY 2"	J12509-080 +		1
	FLANGED BODY 50mm	J12509-081 +		1
39	VALVE SEAT	SEE TABLE		1
40	IMPULSE TUBE SCREWED	J12509-112		1
	IMPULSE TUBE FLANGED	J12509-111		1
41	"O" RING	JORM0195-30	❄	1
42	BLANKING PLATE	J12509-083		1
43	SCREW (Blanking Plate)	JSA616SANSS		4
44	"O" RING	JORM0495-30	❄	1
45	GASKET (Aluminium)**(For Bonded Seal see Item 94)**	I70019P094	❄	1
46	"O" RING	JOBS338	❄	1
47	ADAPTOR PLATE (USSA)	J12509-082Z01		1
48	SCREW (Adaptor Plate/Reg Body)	JSA620SANSS		4
49	SCREW (OPSS Body/Adaptor Plate)	JSA516SANSS		4
50	SCREW (Shut-off Diaphragm)	JSA412XPTZ		1
51	UPSS SPRING	SEE TABLE		1
52	SAFETY SHUT OFF SPRING HOLDER	J12506-248		1
53	"O" RING (Safety Shut Off Top Cap)	JORM0251-16D	❄	1
54	BOTTOM SPRING HOLDER	J12506-250		1
55	SAFETY SHUT OFF TOP CAP	J12506-142		1
56	SCREW (UPSS Adjustment)	JSA412XPTZ		1
57	OPSS SPRING	SEE TABLE		1
58	SAFETY SHUT-OFF NAMEPLATE	J150D-076		1
59	UPSS SPRING HOLDER	J12506-249		1
60	SAFETY SHUT-OFF TOP COVER	J12506-240 +		1
61	TRIP-OFF LEVER RETAINING PLATE	J12506-243		1
62	TRIP-OFF LEVER	J12506-242		1
63	"O" RING (Impulse Passage) Replaces JORM0081-16D	JOBS011D	❄	1
64	VALVE SPRING	J12506-049		1
65	CIRCLIP VALVE SPINDLE	JCIR1500-015B	❄	4
66	VALVE DISC (Moulded)	J12509-109M	❄	1
67	VALVE SPRING CUP	J12506-251		1
68	"O" RING (Safety Shut off/Adaptor Plate)	JORM0276-24D	❄	1
69	CIRCLIP (Front "O" Ring Washer)	JCIR2000K-17B	❄	1
70	SAFETY SHUT OFF BODY	J12506-239 +		1
71	FRONT "O" RING RETAINING WASHER	J12506-252		1
72	"O" RING (Shut-Off Spindle)	JOBS105D	❄	2

ITEM No.	DESCRIPTION	PART No.		No. OFF
73	SAFETY SHUT-OFF VALVE SPINDLE	J12509-110		1
74	PRESSURE TEST NIPPLE	JPTN01-0.71		1
75	TRIP-OFF BUSH	J12506-244		1
76	NEEDLE ROLLER	JNR02S		1
77	STARLOCK WASHER	JCIR1305-043B		1
78	RESET SPINDLE END CAP	J12506-254		1
79	COVER (Spindle End Cap)	J12506-255		1
80	INDICATOR CAP (Safety Shut Off)	JCLOSEMC4		1
81	WASHER-REAR (circlip protection)	J12506-292		1
82	REAR "O" RING RETAINING WASHER	J12506-253	❄	1
83	TRIP-OFF LATCH	J12506-241		1
84	LOWER DIAPHRAGM PLATE	J12506-247		1
85	SAFETY SHUT-OFF DIAPHRAGM	J12506-246	❄	1
86	VENT SCREEN	J12506-277		1
87	TOP DIAPHRAGM PLATE	J12506-245		1
88	SCREW (Top Cover/Body)	JSA512XPTS		4
89	"R" CLIP VALVE	J12506-274	❄	1
90	"O" RING VALVE	JO200606-4475D	❄	1
91	GASKET VALVE	J12506-267	❄	1
92	NEEDLE ROLLER (OPSS only)	JNR02S		1
93	UPSS SPACER TUBE	J12506-279		1
94	BONDED SEAL **(Replaces Aluminium Gasket see Item 45)**	JBSMB45017	❄	1
95	SPRING LOCATOR ASSY **(From October 2001)**	I73175G001		1

NOTES: Item marked ❄ is contained in spares kits (See table below).
Part Numbers ending with + require connection information.

VALVE SEAT

ORIFICE SIZE			PART NUMBER
1/4"	-	6.35mm	J12509-101
3/8"	-	9.5mm	J12509-102
1/2"	-	12.7mm	J12509-103
5/8"	-	15.9mm	J12509-104
3/4"	-	19.1mm	J12509-105
7/8"	-	22.2mm	J12509-106
1"	-	25.4mm	J12509-107
1 1/4"	-	31.8mm	J12509-108

SPRING TABLES

REGULATOR SPRINGS

mb.	"w.g.	PART NUMBER	COLOUR
8.8 - 15	3.5 - 6	J12509-091	RED
14 - 20	5.5 - 8	J12509-092	ORANGE
21 - 35	8.5 - 14	J12509-093	YELLOW
36 - 70	14.5 - 28	J12509-094	GREEN
69 - 138	1 - 2 PSI	J12509-095	ROYAL BLUE
104 - 173	1.5 - 2.5 PSI	J12509-096	BROWN - ROYAL BLUE
138 - 207	2 - 3 PSI	J12509-097	BROWN - GREEN
207 - 345	3 - 5 PSI	J12506-098	BLACK - GREEN

OVER PRESSURE SLAM-SHUT SPRINGS

mb.	"w.g.	PART NUMBER	COLOUR
18 - 60	7.5 - 24	J12506-281	BLACK
50 - 80	20 - 32	J12506-282	ORANGE
60 - 110	24 - 44	J12506-283	RED
100 - 210	40 - 84	J12506-284	DARK GREEN
200 - 350	3 - 5 PSI	J12506-287	YELLOW
280 - 500	4 - 7 PSI	J12506-288	WHITE

UNDER PRESSURE SLAM-SHUT SPRINGS

mb.	"w.g.	PART NUMBER	COLOUR
8 - 16	3 - 6	J12506-285	LIGHT BLUE
16 - 60	6 - 24	J12506-286	BROWN
60 - 150	24 - 60	J12506-289	PURPLE

NOTE: A minimum differential of 30mb must be maintained between OPSS and UPSS set pressures

SPARES KITS

REGULATOR TYPE	SPARES KIT PART NUMBER
J125-S1 & S3	SK2529-01
J125-S2	SK2529-02
J125-S4, S6 & S8	SK2529-03
J125-S5, S7, S9, S10, S11 & S12	SK2529-04

Drawing Reference : Figs. 13, 14 & 15
Parts List Reference : Table 1
NOTE : Numbers in brackets identify items on drawings.

Regulator Dismantling Procedure

1. Check external surfaces for excessive corrosion.
2. Disconnect diaphragm case assembly from regulator body (38) by removing the three grub screws (16), gently pull out the case from the regulator body (38).
3. Disconnect the safety shut-off unit assembly, or blanking plate (42), from the regulator body (38) by removing the four cap screws (43) or (48).
4. Remove valve seat (39) assembly from the regulator body (38).
5. Remove bonded seal (94) or gasket (45) from valve seat (39) assembly. Note: the old design valve seat assembly with gasket (45) was glued into body (38).
6. Wipe clean the valve seat (39) assembly, check for any damage and take note of whether bonded seal (94) or aluminium gasket (45) is fitted to the valve seat.
7. Check that the impulse tube (40) is clear. DO NOT REMOVE TUBE FROM BODY.

Regulator Rebuilding Procedure.

NOTE : Inspect all sealing "O" rings, and replace where necessary
(a soft spares kit is available for this purpose, see page 17.)

The use of Molykote 111 "O" ring lubricant is recommended during the rebuild - unless for use with oxygen when no lubricant should be used.

1. If, when the valve seat (39) assembly was dismantled, the bonded seal (94) was fitted, then replace with a new bonded seal (94). DO NOT USE ALUMINIUM GASKET (45).
2. If, when the valve seat (39) assembly was dismantled, the aluminium gasket (45) was fitted, then replace with new aluminium gasket (45). DO NOT USE WITH BONDED SEAL (94).
   Note: The bonded seal (94) and aluminium gasket (94) CANNOT be interchanged with each other, due to valve seat (39) being a different length and this may affect unit performance and safety.
3. Refit valve seat (39) assembly into regulator body (38) by screwing it in until metal contact is made.
4. Fit new "O" ring (46) onto diaphragm case assembly and apply "O" ring lubricant.
5. Insert diaphragm case assembly into regulator body (38) being careful not to damage the "O" ring, secure in place with three grub screws (16).
6. Replace "O" rings (41) and (44) into regulator (38) making sure the contact surfaces are clean and the "O" rings are lubricated.
7. Locate and secure the safety shut-off assembly, or blanking plate (42), in place using four cap screws (43) or (48).
8. Test unit for gas tightness.
9. Commission unit as described on pages 2 - 6.

MAINTENANCE INSTRUCTIONS FOR DIAPHRAGM CASE

Drawing Reference : Fig 16
Parts List Reference : Table 1
NOTE : Numbers in brackets identify items on drawing.

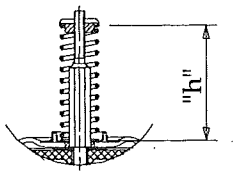
Diaphragm Case Dismantling Procedure.

1. Unscrew top cap (1) and remove "O" ring (2).
2. Unscrew and remove adjusting screw (3) and loading spring (7).
3. Remove top cover (30) by unscrewing the 12 nuts (21) and screws (22).

NOTE: It is not recommended to strip down the Vent Valve Assembly items: (25), (26), (29) & (31). For Relief Versions go to instruction (6).

4. Remove diaphragm assembly (35), from the diaphragm case (17).
5. Unscrew the hexagon cap screw (33) from the diaphragm assembly (35) to allow assembly to be dismantled.

   For No Relief Version go to instruction (9).
6. Prior to dismantling the relief valve assembly, measure the height "h" of the relief valve spring (8). The spring will have to be compressed to the same dimension on reassembly.



7. Remove diaphragm assembly (FullRelief)(23) or (Limited Relief)(35), and relief assembly from the diaphragm case (17).
8. Unscrew spring adjusting nut (6) from Diaphragm assembly (23) or (35) to allow assembly to be dismantled.
9. Using a pair of pliers, remove retaining clip (13), so seat disc assembly (14) can be removed from valve plunger (12).
10. Valve plunger (12) and lever assembly (19) can be removed from the diaphragm case (17).

Diaphragm Case Rebuilding Procedure.

NOTE : Inspect all sealing "O" rings, diaphragms and gaskets and replace where necessary (a soft spares kit is available for this purpose see page 17).

1. Check main diaphragm (23) or (36) for signs of damage, if necessary replace with a new diaphragm assembly (23) + (24) or (35) + (36).
2. Check that the sealing surfaces on the diaphragm (23) + (36) and diaphragm stem (20) are clean.

For Relief versions go to instruction (7).

3. Push cap screw (33) through centre hole of spring guide (34) with lip facing screw head.
4. Now push cap screw (33) through centre hole of diaphragm assembly (35) + (36), with diaphragm plate lip facing spring guide (34).
5. Replace flat washer (11) over cap screw (33).
6. Screw diaphragm stem (20) onto cap screw (33) securing diaphragm assembly

For No Relief version go to instruction (18)..

Diaphragm Case Rebuilding Procedure continued..

For Full & Limited Relief units built after September 2001 go to instruction (11).

Full & Limited Relief units before October 2001

7. (Full Relief Version): Replace flat washer (11), over centre hole in diaphragm stem (20). (Limited Relief Version): Replace relief cup (37) with projections facing upwards, over centre hole of the diaphragm stem (20).
8. Screw relief valve stem (9) into diaphragm stem (20).
9. Place diaphragm assembly (full relief (23) + (24)) or (limited relief (35) + (36)) with diaphragm plate lip facing upwards, on top of relief cup (37)or flat washer (11).
10. Replace spring locator (10) with convolution facing upwards, over relief valve stem (9). We now go to Instruction 16.

Full & Limited Relief units after September2001

11. (Limited Relief Version): Replace relief cup (37) with projections facing upwards, over centre hole of the diaphragm stem (20).
12. Screw relief valve stem (9) into diaphragm stem (20).
13. (Limited Relief Version): Place diaphragm assembly (35) + (36)) with diaphragm plate lip facing upwards, on top of relief cup (37) .
14. (Full Relief Version): Place diaphragm assembly (23) + (24)) with diaphragm plate lip facing upwards, on top of relief valve stem (9) .
15. Replace spring locator (95) with convolution facing upwards, over relief valve stem (9).
16. Place relief spring (8) over relief valve stem (9).
17. Screw relief spring adjusting nut (6) with spigot located in relief spring (8), onto relief valve stem (9). Screw relief adjusting nut (6) to the required height "h", as measured during dismantling, see instructions (page 19).
18. Place lever assembly (19) into the slot in the diaphragm case (17).
19. Check valve disc (15) and valve disc holder (14) for damage and excessive wear, if necessary replace with a new assembly.
20. Refit valve disc assembly on to valve plunger (12) using retainer clip (13).
21. Push valve plunger (12) through hole in the diaphragm case (17) and engage grooves into teeth in lever assembly (19).
22. Relocate the main diaphragm / relief valve assembly into position. Make sure of the following:
    (a) The lever assembly (19) is fitted correctly into the slot in the diaphragm stem (20).
    (b) The holes in the diaphragm (23) or (36) and diaphragm case (17) are aligned correctly.
23. Check that the vent valve in the top cover (30) moves freely.
24. Replace top cover (30) on top of diaphragm case (17) taking care not to damage diaphragm (23) or (36), and secure in place using 12 screws (22) and nuts (21).
25. Place loading spring (7) into chimney of top cover (30).
26. With slot in adjusting screw (3) facing upwards, screw adjusting screw (3) into the chimney of the top cover (30), so that it locates on loading spring (7).
27. For Full Relief Version only: Screw rod stop assembly (4) and (5) into top cap (1).
28. Replace "O" ring (12) onto top cap (1).
29. Screw top cap (1) into chimney of top cover (30).
30. Screw 3 grub screws (16) into case (17).
31. Refit screen (28) and clip (27) into vent.
    For reassembly to body see page 18.

Drawing Reference : Figs. 17, 18 & 19.

Part list Reference : Table 1.

NOTE : Numbers in brackets identify items on drawing.

Safety Shut-off Dismantling Procedures.

1. Unscrew top cap (55) and remove "O" ring (53).
2. Unscrew and remove top spring holder (52) together with OPSS spring (57), or UPSS spacer tube (93).
3. Remove bottom spring holder (54) together with UPSS screw (56) if fitted.
   DO NOT REMOVE UPSS SCREW (56).
4. Remove top cover (60) by unscrewing the four screws (88).
5. If fitted remove UPSS spring holder (59) together with UPSS spring (51).
6. Lift diaphragm assembly from body (70).
7. Unscrew diaphragm clamping screw (50) and remove top diaphragm plate (87) and main diaphragm (85).
8. Remove needle roller (76) to release lever arm (62) from lower diaphragm plate (84).
9. Remove "R" clip (89) from spindle (73). Valve (66) (with "O" ring (90) and gasket (91) inside) can now be removed. Push valve spring cup (67) towards body (70) and remove circlip (65). Valve spring cup (67) and valve spring (64) can now be withdrawn.
10. Remove four screws (49) securing USSA body (70) to adaptor plate (47).
11. Remove "O" rings (63) and (68) from USSA body (70).
12. Unscrew reset spindle end cap (78) and pull out until it comes to a stop.
13. Within body prise visible circlip (65) from valve spindle (73) to release trip-off bush (75).
14. Slide trip-off bush (75) forward and prise second circlip (65) from valve spindle (73).
15. Withdraw valve spindle (73) and end cap assembly (65),(78),(79),(80) & (81) from body (70), Remove trip-off lever retaining plate (61), trip-off bush (75) and trip-off latch (83).
16. Remove circlip (69), front "O" ring retaining washer (71) and front "O" ring (72).

NOTE : It is not recommended to interfere with the rear "O" ring (72) unless absolutely necessary. A new "O" ring and starlock washer should be refitted if dismantled.

17. Remove starlock washer (77), rear "O" ring retaining washer (82) and rear "O" ring (72) from body (70).
18. It is not necessary to remove test point (74).

Safety Shut-off Rebuilding Procedure.

NOTE : Inspect all sealing "O" rings, diaphragms and gaskets and replace where necessary (a soft spares kit is available for this purpose see page 17).
The use of Molykote 111 "O" ring lubricant is recommended during the rebuild - unless for use with oxygen when no lubricant should be used.

1. Fit new "O" ring (72) into rear "O" ring groove in body (70) and apply "O" ring lubricant. Replace rear "O" ring retaining washer (82) and secure with new starlock washer (77), making sure starlock washer is central in bore.
2. Locate lever retaining plate (61) into recesses in body (70).
3. Position trip-off bush (75) with slots engaged with rails of trip-off latch (83) and arrow facing away from steel needle rollers. Relocate assembly into body (70) making sure that the needle roller is correctly positioned in raised recess in body (70).
4. Push valve spindle (73) and cap assembly (65),(78),(79),(80) & (81) through rear of body (70), trip-off bush (75), lever retaining plate (61) and front of body (70).
5. Slide trip-off bush (75) up against lever retaining plate (61) and fit a new circlip (65) into groove on valve spindle (73) furthest away from trip-off bush (75).
6. Slide trip-off bush (75) back against 1st circlip (65) and fit a 2nd new circlip (65) to groove on valve spindle (73) which clamps trip-off bush (75) to valve spindle (73).
7. Fit new "O" ring (72) into front "O" ring groove in body (70) and apply "O" ring lubricant, replace front "O" ring retaining washer (71) and secure firmly with new circlip (69).
8. Replace valve spring (64) into front face of body (70).
9. Locate valve spring cup (67) over spindle (73) and into valve spring (64)
10. Push valve spring cup (67) to compress valve spring (64) until circlip (65) can be assembled into groove in spindle (73) nearest body (70).
11. Fit new "O" rings (63) and (68) into grooves in front face of body (70).
12. Reassemble adaptor plate (47) to body (70) and secure with four screws (49).
13. Place gasket (91) into centre hole of valve (66). Insert "O" ring (90) into centre hole of valve (66).
14. Push valve assembly (66) over spindle (73), align hole in valve (66) and spindle (73), assemble together with "R" clip (89).
15. Align hole in diaphragm (85) with convolution upper most, with hole in lower diaphragm plate (84). Locate spigot of top diaphragm plate (87) through diaphragm (85) and into recess in lower diaphragm plate (84). Secure with diaphragm clamping screw (50).
16. Position slot in lever arm (62) over spigot on lower diaphragm plate (84) and align holes, replace needle roller (76) through holes.
17. Unscrew reset end cap (78) and withdraw it, until it comes to a stop.
18. Locate diaphragm assembly and lever arm (62) into recess between lever retaining plate (61) and body (70), ensuring bead of diaphragm (85) locates into groove in body (70).

Safety Shut-off Rebuilding Procedure Continued:

19. Replace bottom spring holder (54) together with UPSS screw (56) if fitted, into chimney of top cover (60) by aligning ribs of bottom spring holder (54) with slots in top cover (60).
20. Replace OPSS spring (57), or UPSS spacer tube (93), into bottom spring holder (54).
21. Screw top spring holder (52) into chimney of top cover (60) ensuring that castellated spigot is uppermost. If UPSS spacer tube (93) is fitted, screw top spring holder (52) down firmly.
22. If fitted locate UPSS spring (51) into recess in top diaphragm plate (87), refit UPSS spring holder (59) ensuring that spigot locates in UPSS spring (51).
23. Replace top cover assembly (60) and secure with four screws (88), ensuring UPSS spring arrangement (51) and (59) if fitted is undisturbed. Take care not to pinch diaphragm bead (85).
24. Fit new "O" ring (53) to top cap (55) and screw into chimney of top cover (60).
25. If removed, replace test point (74).
26. For reassembly to body see page 18

A monitor version of the J125 regulator is also available which is not included in these instructions:

Elster Jeavons is committed to a programme of continuous quality enhancement. All equipment designed and manufactured by Elster Jeavons benefits from the company's quality assurance standards, which are approved to ISO 9001 (BS5750 Part 1).

Elster Jeavons has a programme of continuous product development and improvement and in consequence the information in this leaflet may be subject to change or modification without notice.

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