

APPLICATION:

Regulation of inlet pressure to gas compressors. Control of supply or distribution system pressure

PRESSURE RANGE:

Ductile Iron:

Upstream: 10 psig to 125 psig
Downstream: 5 psig to 125 psig

Ductile Iron:

Upstream: 10 psig to 300 psig
Downstream: 10 psig to 300 psig

Steel:

Upstream: 10 psig to 300 psig
Downstream: 10 psig to 300 psig

CAPACITY:

Refer to Table of Contents

OPERATION:

The Pilot Assembly and Motor Valve Stem Assembly (Crosshatched) are the only moving units in the regulator.

The PILOT PLUG consists of two stainless balls rigidly connected together. Upstream Pressure (Red) is the supply pressure to the pilot and is also in constant communication with the top side of the MOTOR VALVE DIAPHRAGM. The area of the MOTOR VALVE DIAPHRAGM is twice the area of the motor valve seat, assuring a positive shut-off.






The lower seat for the PILOT PLUG is the Motor Valve Diaphragm Pressure inlet (Red to Yellow). The upper seat for the PILOT PLUG is the pressure vent (Yellow to Atmosphere). The PILOT SPRING loads the upper side of the Pilot Assembly and is opposed on the underneath side by the controlled Downstream Pressure (Blue).

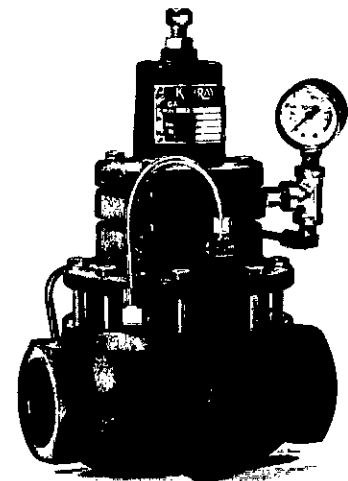
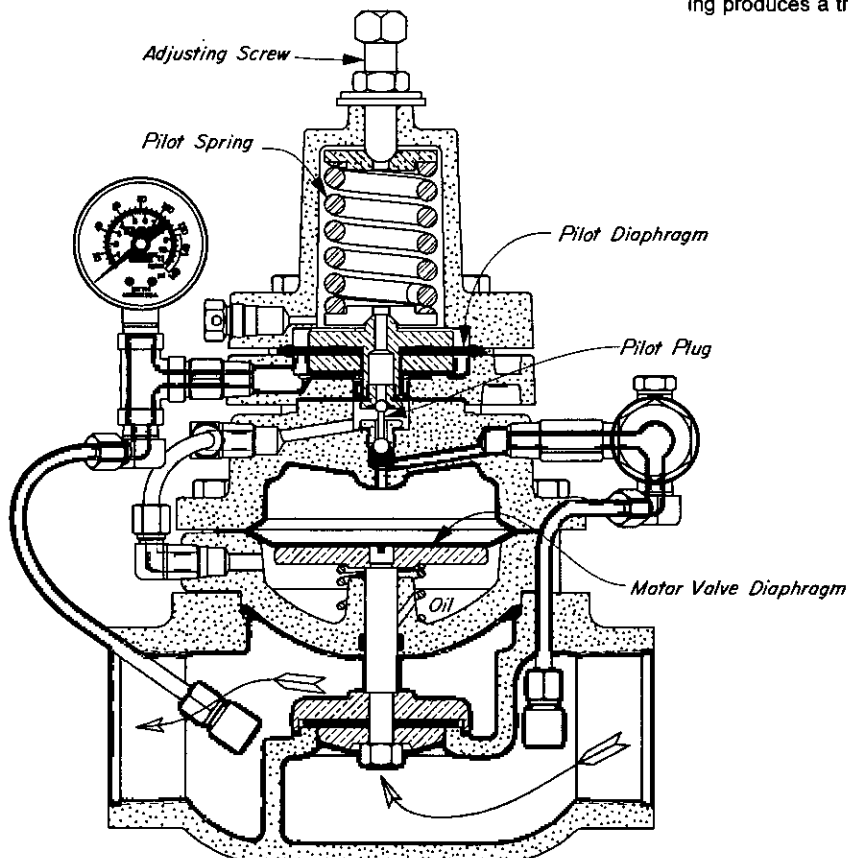
Assume the PILOT SPRING is compressed with the ADJUSTING SCREW for a desired Downstream Pressure setting. With Downstream Pressure (Blue) too low, the PILOT SPRING forces the Pilot Assembly downward to close the upper seat (Yellow to Atmosphere) and open the lower seat (Red to Yellow).

This lets full Upstream Pressure (Red) load the underneath side of the MOTOR VALVE DIAPHRAGM to balance the pressure on the top side. Upstream Pressure (Red) acting under the motor valve seat, opens the valve. As Downstream Pressure (Blue) increases to the set pressure Pilot Assembly assumes a position in which both seats of the PILOT PLUG are closed.

Should Downstream Pressure (Blue) rise above the set pressure, the Pilot Assembly moves upward against the PILOT SPRING to open the pressure vent (Yellow to Atmosphere). Motor Valve Diaphragm Pressure (Yellow) decreases to reposition the Motor Valve Stem Assembly.

The intermittent bleed pilot, three-way valve action of the PILOT PLUG against its seat adjusts the Motor Valve Diaphragm Pressure (Yellow), repositioning the Motor Valve stem Assembly to accommodate any rate of flow. The rapid but stable repositioning produces a true throttling action.

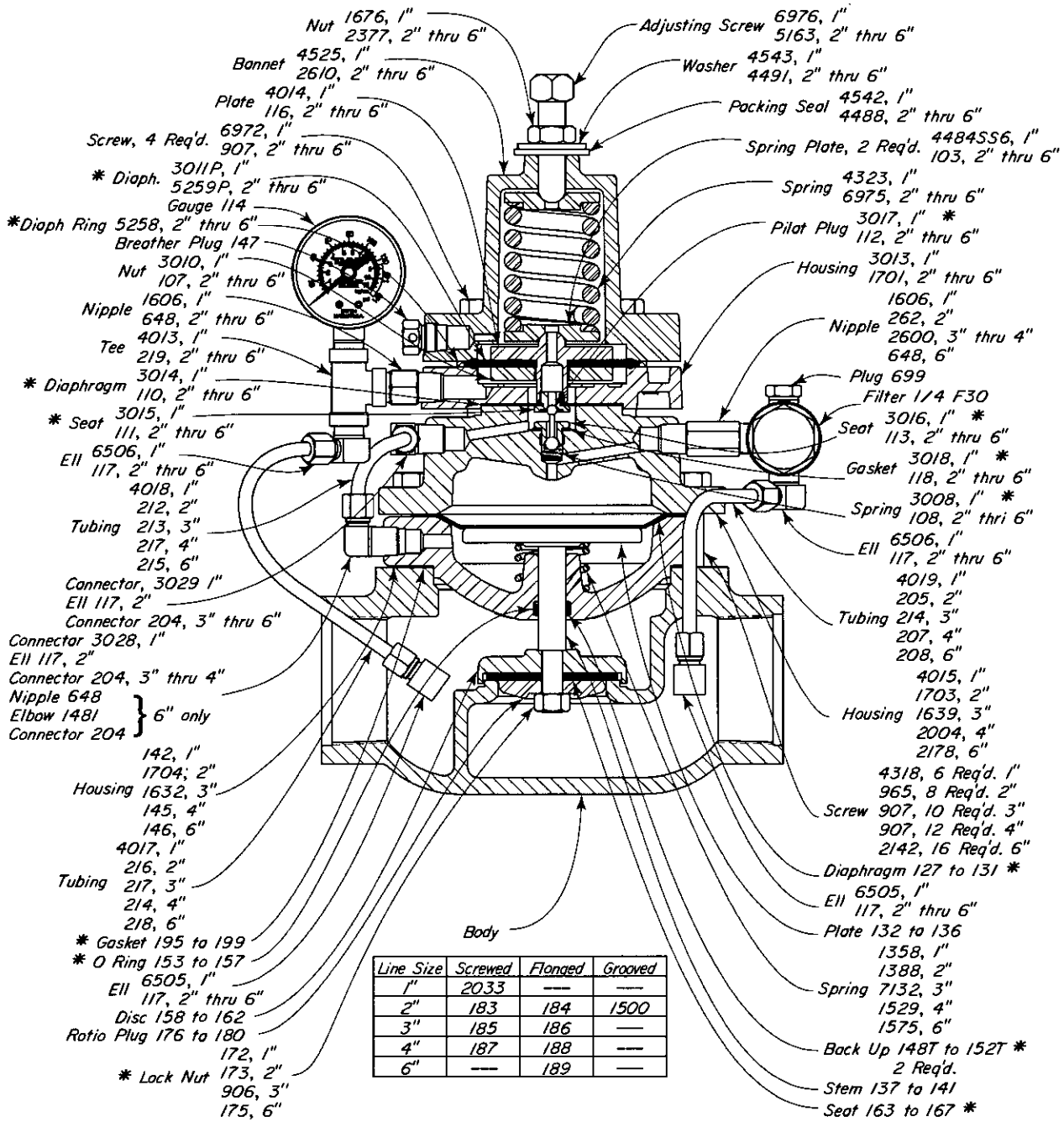
-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Motor Valve Diaphragm Pressure



PRESSURE REGULATOR



PRESSURE REDUCING DUCTILE IRON



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AKE	1" SCRD.	112 SGT PR	125	175	RRT
ABK	2" SCRD.	212 SGT PR	125	175	RAA
ABL	2" FLGD.*	212 FGT PR	125	175	RAA
ABM	2" GRVD.	212 GGT PR	125	175	RAA
ABN	3" SCRD.	312 SGT PR	125	175	RAB
ABP	3" FLGD.*	312 FGT PR	125	175	RAB
ABR	4" SCRD.	412 SGT PR	125	175	RAC
ABS	4" FLGD.*	412 FGT PR	125	175	RAC
ABT	6" FLGD.*	612 FGT PR	125	175	RAD

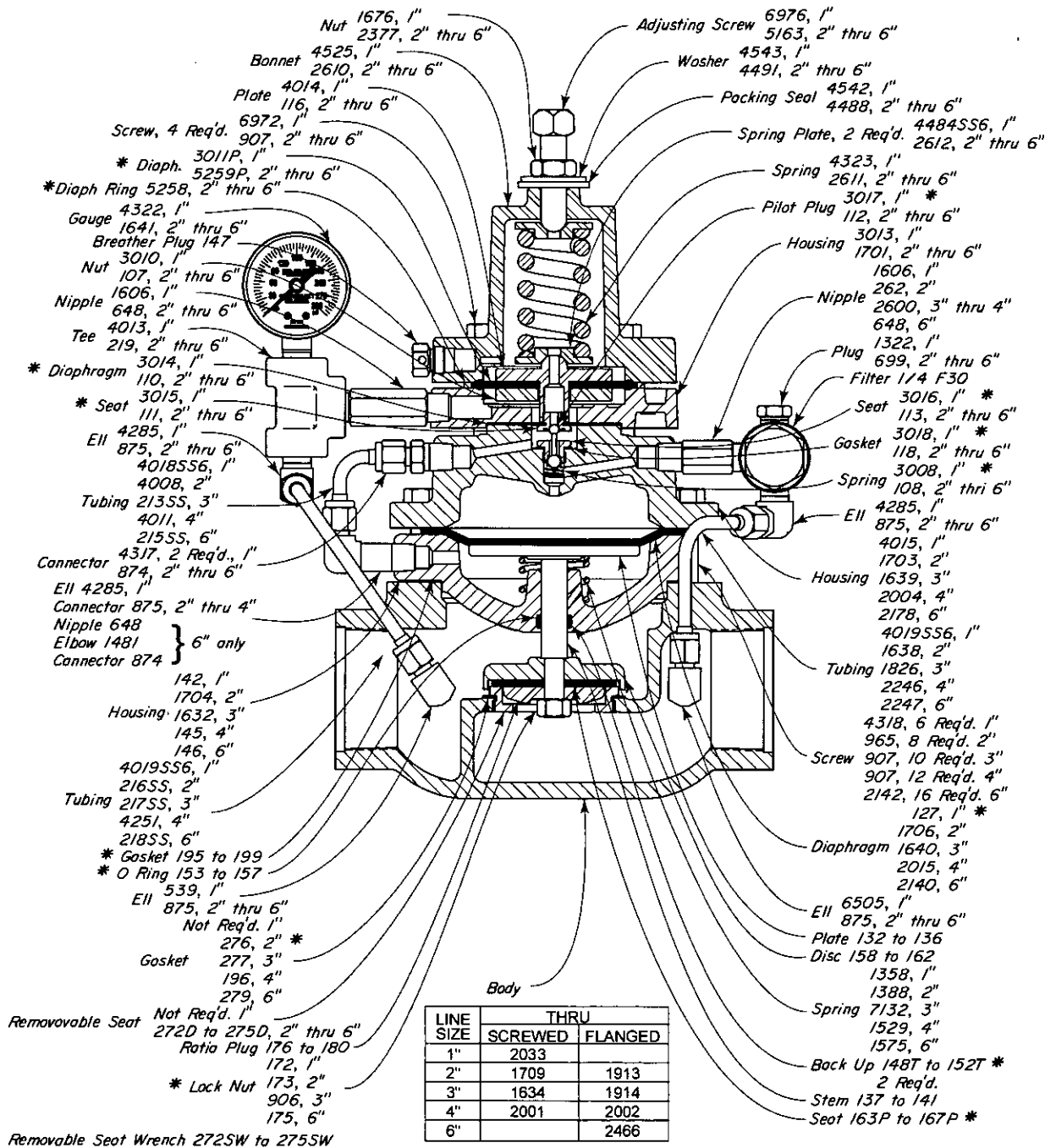
NOTES:

Dimensions, refer to Table of Contents.

*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Diaphragm 127-1", 128-2", 129-3", 130-4", 131-6".

*Companion flanges, nuts, bolts and gaskets are furnished at extra cost. Refer to Section "Y" for ordering.



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AKF	1" SCRD.	130 SGT PR-D	300	300	RRU
ABU	2" SCRD.	230 SGT PR-D	300	300	RDG
ABW	2" FLGD.	218 FGT PR-D	250	250	RDG
ABX	3" SCRD.	330 SGT PR-D	300	300	RDH
ABY	3" FLGD.	318 FGT PR-D	250	250	RDH
ACA	4" SCRD.	430 SGT PR-D	300	300	RDI
ACB	4" FLGD.	418 FGT PR-D	250	250	RDI
ACC	6" FLGD.	618 FGT PR-D	250	250	RDJ

NOTES:

Dimensions, refer to Table of Contents.

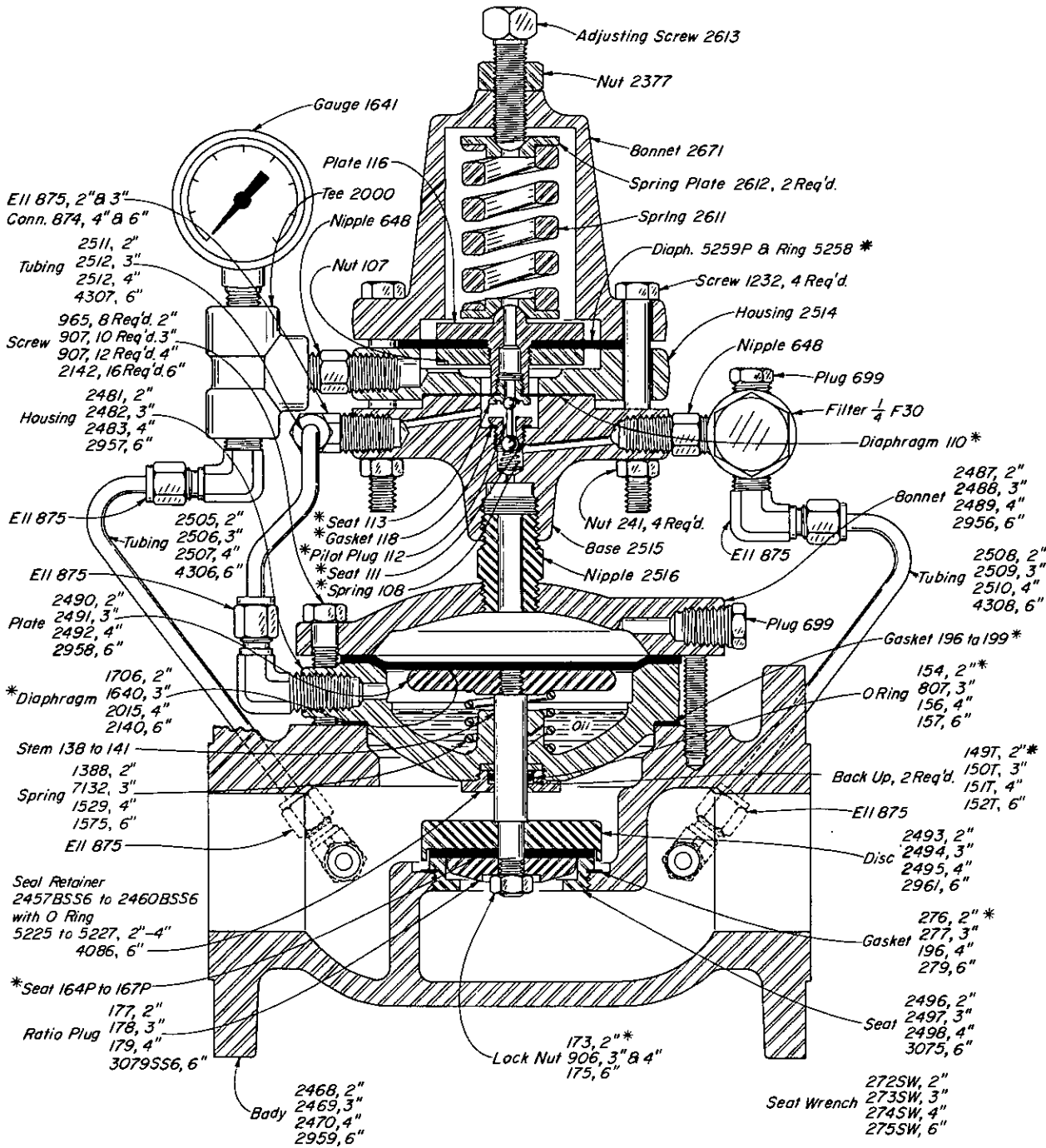
*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Seats 163-1", 164-2", 165-3", 166-4", 167-6".

PRESSURE REGULATOR



PRESSURE REDUCING STEEL



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AGG	2" FLGD.	227 FGT PR-S	285	285	RAE
AGH	3" FLGD.	327 FGT PR-S	285	285	RAF
AGI	4" FLGD.	427 FGT PR-S	285	285	RAG
AGJ	6" FLGD.	627 FGT PR-S	285	285	RAH

NOTES:

Dimensions, refer to Table of Contents.

*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Stem 138-2", 139-3", 140-4", 141-6".

APPLICATIONS:

Regulation of inlet pressure to gas compressors. Control of supply or distribution system pressures.

PRESSURE RANGE:

Upstream: 75 psig to 500 psig
Downstream: 75 psig to 500 psig

PILOT SUPPLY PRESSURE:







40 psig

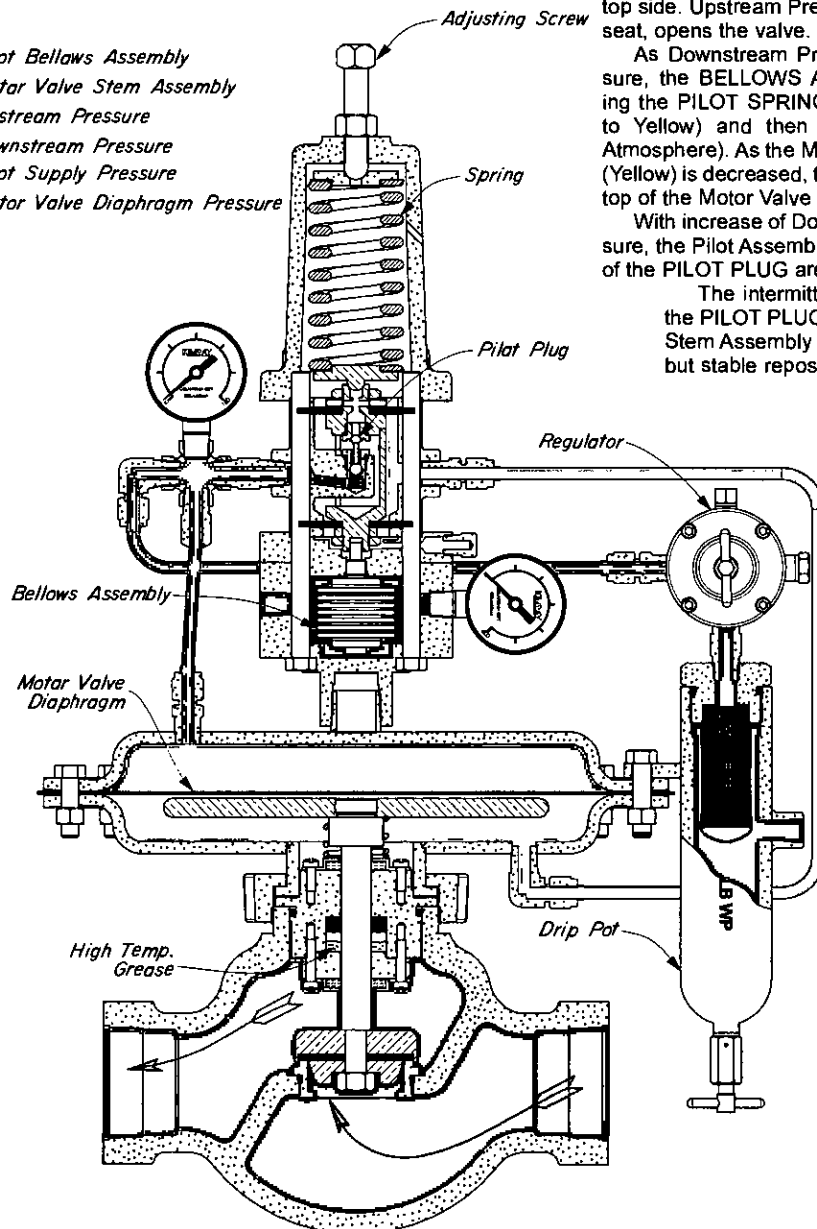
NOTE:

For upstream pressure less than 50 psig use outside source of supply to operate MOTOR VALVE DIAPHRAGM.

CAPACITY:

Refer to Table of Contents.

-  Pilot Bellows Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Pilot Supply Pressure
-  Motor Valve Diaphragm Pressure



OPERATION:

The Pilot assembly and Motor Valve Stem Assembly (Crosshatched) are the only moving units in the regulator. The PILOT PLUG consists of two stainless balls rigidly connected together. The upper seat for the PILOT PLUG is the Motor Valve Diaphragm Pressure inlet (Violet to Yellow). The lower seat for the PILOT PLUG is the pressure vent (Yellow to Atmosphere).

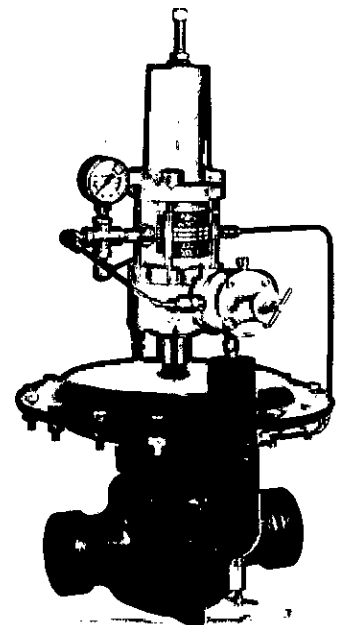
The Pilot Supply Pressure (Violet) leads the MOTOR VALVE DIAPHRAGM to provide the closing force for the Motor Valve against the Upstream Pressure.

The PILOT SPRING in the bonnet loads the upper side of the Pilot Assembly and is opposed in the under side by Downstream Pressure (Blue) in the BELLOWS ASSEMBLY. Assume the PILOT SPRING is compressed with the ADJUSTING SCREW for a set pressure greater than the Downstream Pressure (Blue) in the BELLOWS ASSEMBLY. The Pilot Assembly is forced downward by the PILOT SPRING. The lower seat for the PILOT PLUG (Yellow to Atmosphere) is closed and the upper seat for the PILOT PLUG (Violet to Yellow) is open. This allows Pilot Supply Pressure (Violet) to load the underneath side of the MOTOR VALVE DIAPHRAGM to balance the pressure on the top side. Upstream Pressure (Red) acting under the motor valve seat, opens the valve.

As Downstream Pressure (Blue) increases to the set pressure, the BELLOWS ASSEMBLY expands upward, compressing the PILOT SPRING and first closing the upper seat (Violet to Yellow) and then opening the pressure vent (Yellow to Atmosphere). As the MOTOR VALVE DIAPHRAGM PRESSURE (Yellow) is decreased, the PILOT SUPPLY PRESSURE acting on top of the Motor Valve Diaphragm begins to close the valve.

With increase of Downstream Pressure (Blue) to the set pressure, the Pilot Assembly assumes a position in which both seats of the PILOT PLUG are closed.

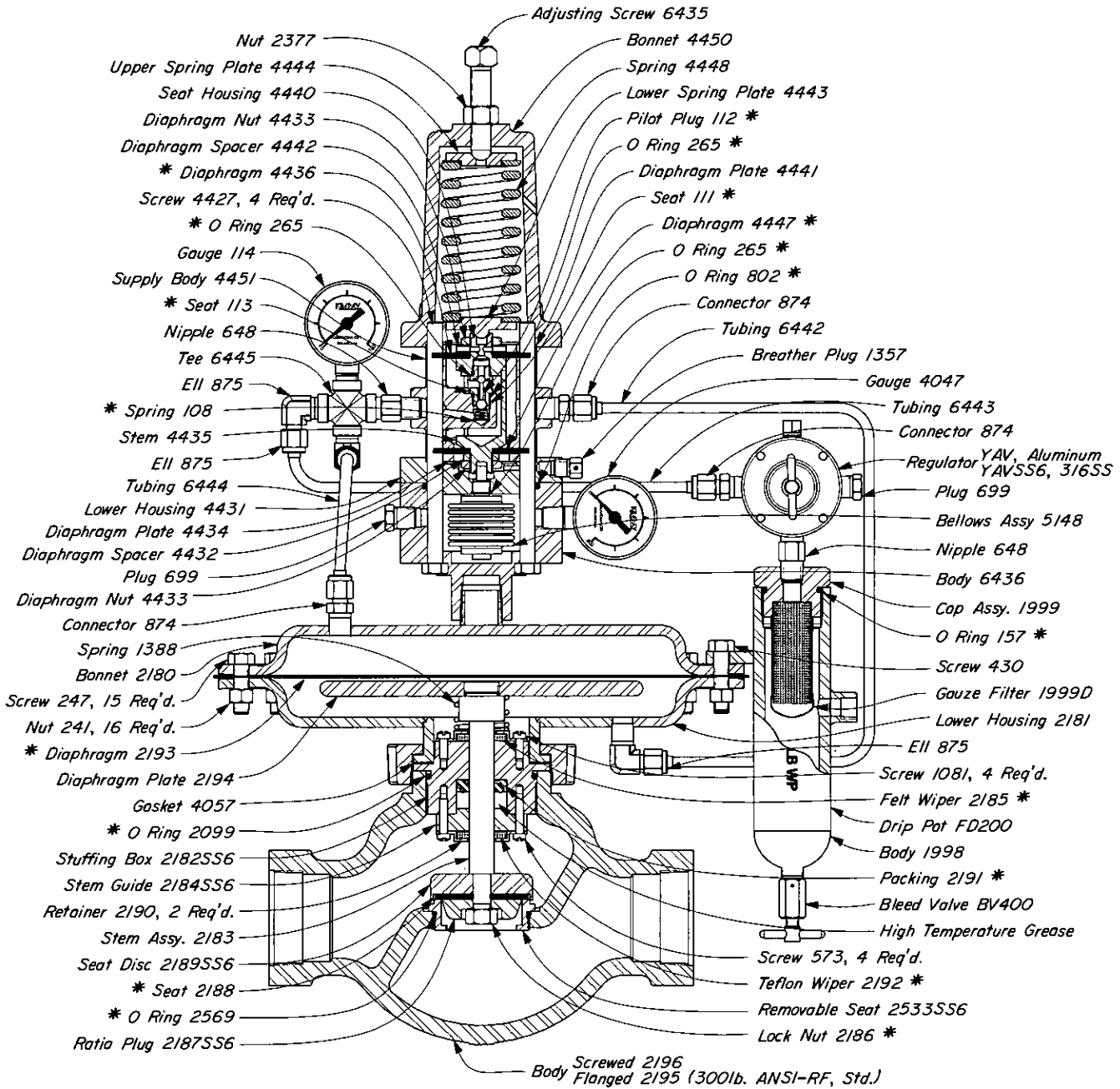
The intermittent bleed pilot, three-way valve action of the PILOT PLUG against its seats adjusts the Motor Valve Stem Assembly to accommodate any flow rate. The rapid but stable repositioning produces a true throttling action.



PRESSURE REGULATOR



PRESSURE REDUCING STEEL / ALL STEEL



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
ACD	2" SCRD.	250 SGT PR-S	500	500	RAI
ACE	2" FLGD.	250 FGT PR-S	500	500	RAI
ACD1	2" SCRD.	250 SGT PR-STL	500	500	RAI
ACE1	2" FLGD.	250 FGT PR-STL	500	500	RAI

NOTES:

Dimensions, refer to Table of Contents.

*These parts are recommended spare parts and are stocked as repair kits.

APPLICATIONS:

Regulation of inlet pressure to gas compressors. Control of supply or distribution system pressures.

Regulation of down stream pressure where it is desired that no gas be vented.

- Inside Buildings
- In Populated Areas
- Emissions Regulated Areas
- Sour or Poisonous Gas Systems

PRESSURE RANGE:

Ductile Iron:

Upstream: 10 psig to 125 psig

Downstream: 5 psig to 125 psig

Ductile Iron:

Upstream: 10 psig to 300 psig

Downstream: 10 psig to 300 psig

Minimum Differential:

5 psig

CAPACITY:

Refer to Table of Contents.

OPERATION:

The Pilot assembly and Motor Valve Stem Assembly (Crosshatched) are the only moving units in the regulator. The PILOT PLUG consists of two stainless balls rigidly connected together. Upstream Pressure (Red) is the supply pressure to the pilot and is also in constant communication with the top side of the MOTOR VALVE DIAPHRAGM. The area of the MOTOR VALVE DIAPHRAGM is twice the area of the motor valve seat, assuring a positive shut-off.






The lower seat for the PILOT PLUG is the Motor Valve Diaphragm Pressure inlet (Red to Yellow). The upper seat for the PILOT PLUG is the pressure vent (Yellow to Blue). The PILOT SPRING loads the upper side of the Pilot Assembly and is opposed on the underneath side by controlled Downstream Pressure (Blue).

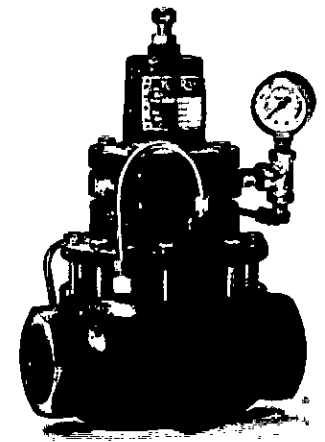
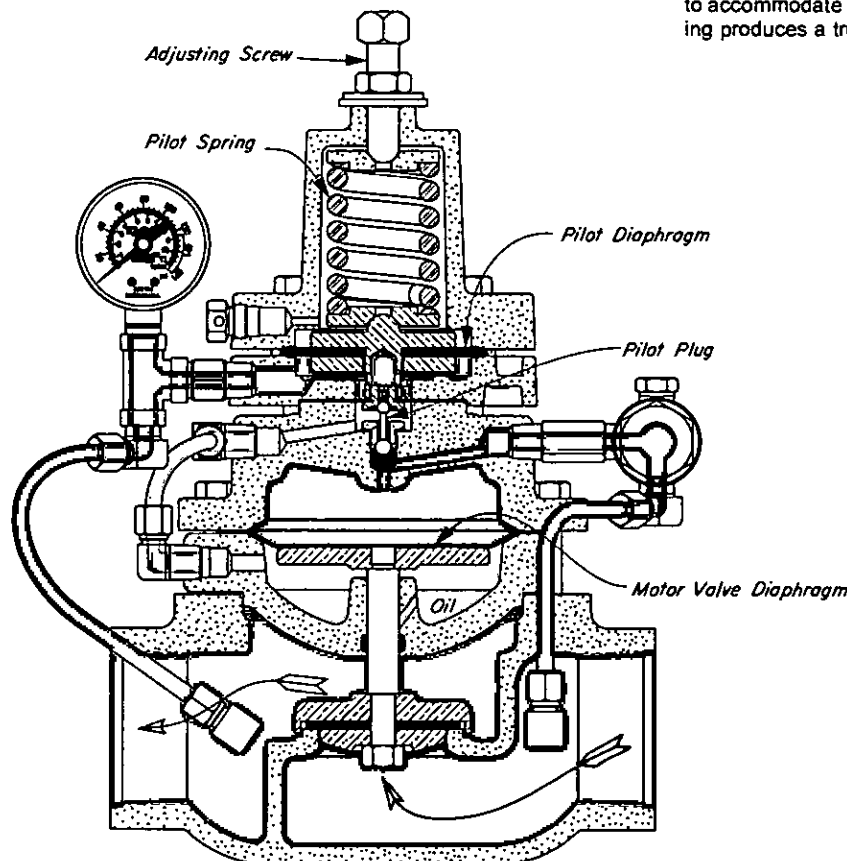
Assume the PILOT SPRING is compressed with the ADJUSTING SCREW for a desired Downstream Pressure setting. With Downstream Pressure (Blue) too low, the PILOT SPRING forces the Pilot Assembly downward to close the upper seat (Yellow to Blue) and open the lower seat (Red to Yellow).

This lets full Upstream Pressure (Red), if necessary, load the underneath side of the MOTOR VALVE DIAPHRAGM to balance the pressure on the top side. Upstream Pressure (Red) acting under the motor valve seat, opens the valve. As Downstream Pressure (Blue) increases to the set pressure, the Pilot Assembly assumes a position in which both seats of the PILOT PLUG are closed.

Should Downstream Pressure (Blue) rise above the set pressure, the Pilot Assembly moves upward against the PILOT SPRING to open the pressure vent (Yellow to Blue). Motor Valve Diaphragm Pressure (Yellow) decreases to reposition the Motor Valve Stem Assembly.

The intermittent bleed pilot, three-way valve action of the PILOT PLUG against its seat adjusts the Motor Valve Diaphragm Pressure (Yellow), repositioning the Motor Valve Stem Assembly to accommodate any rate of flow. The rapid but stable repositioning produces a true throttling action.

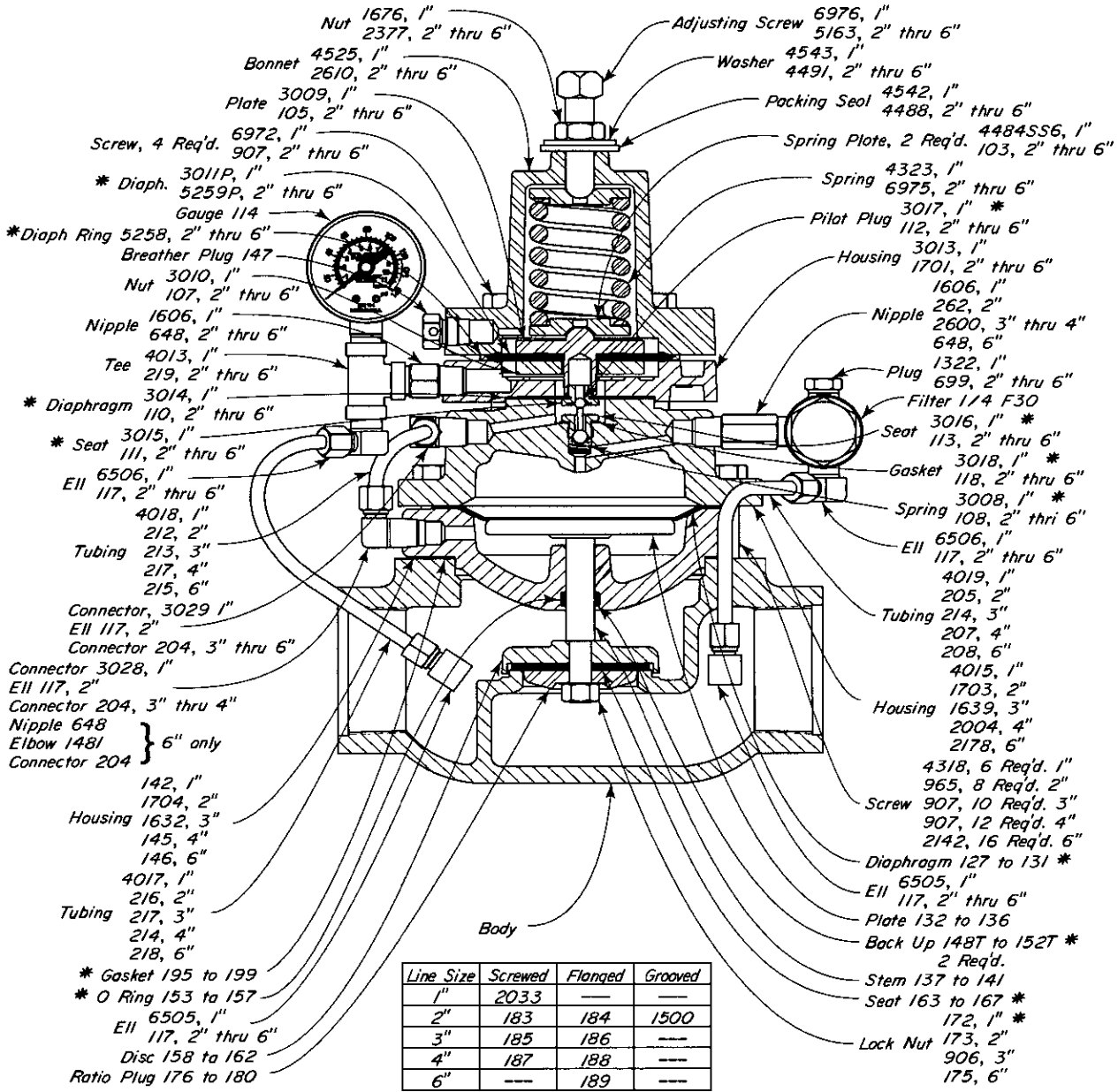
-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Motor Valve Diaphragm Pressure



PRESSURE REGULATOR



PRESSURE REDUCING NON VENTING DUCTILE IRON



Line Size	Screwed	Flanged	Grooved
1"	2033	---	---
2"	183	184	1500
3"	185	186	---
4"	187	188	---
6"	---	189	---

THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AKL	1" SCRD.	112 SGT PR-NV	125	175	RRT
AKM	2" SCRD.	212 SGT PR-NV	125	175	RAA
AKN	2" FLGD.*	212 FGT PR-NV	125	175	RAA
AKO	2" GRVD.	212 GGT PR-NV	125	175	RAA
AKP	3" SCRD.	312 SGT PR-NV	125	175	RAB
AKQ	3" FLGD.*	312 FGT PR-NV	125	175	RAB
AKR	4" SCRD.	412 SGT PR-NV	125	175	RAC
AKS	4" FLGD.*	412 FGT PR-NV	125	175	RAC
AKT	6" FLGD.*	612 FGT PR-NV	125	175	RAD

NOTES:

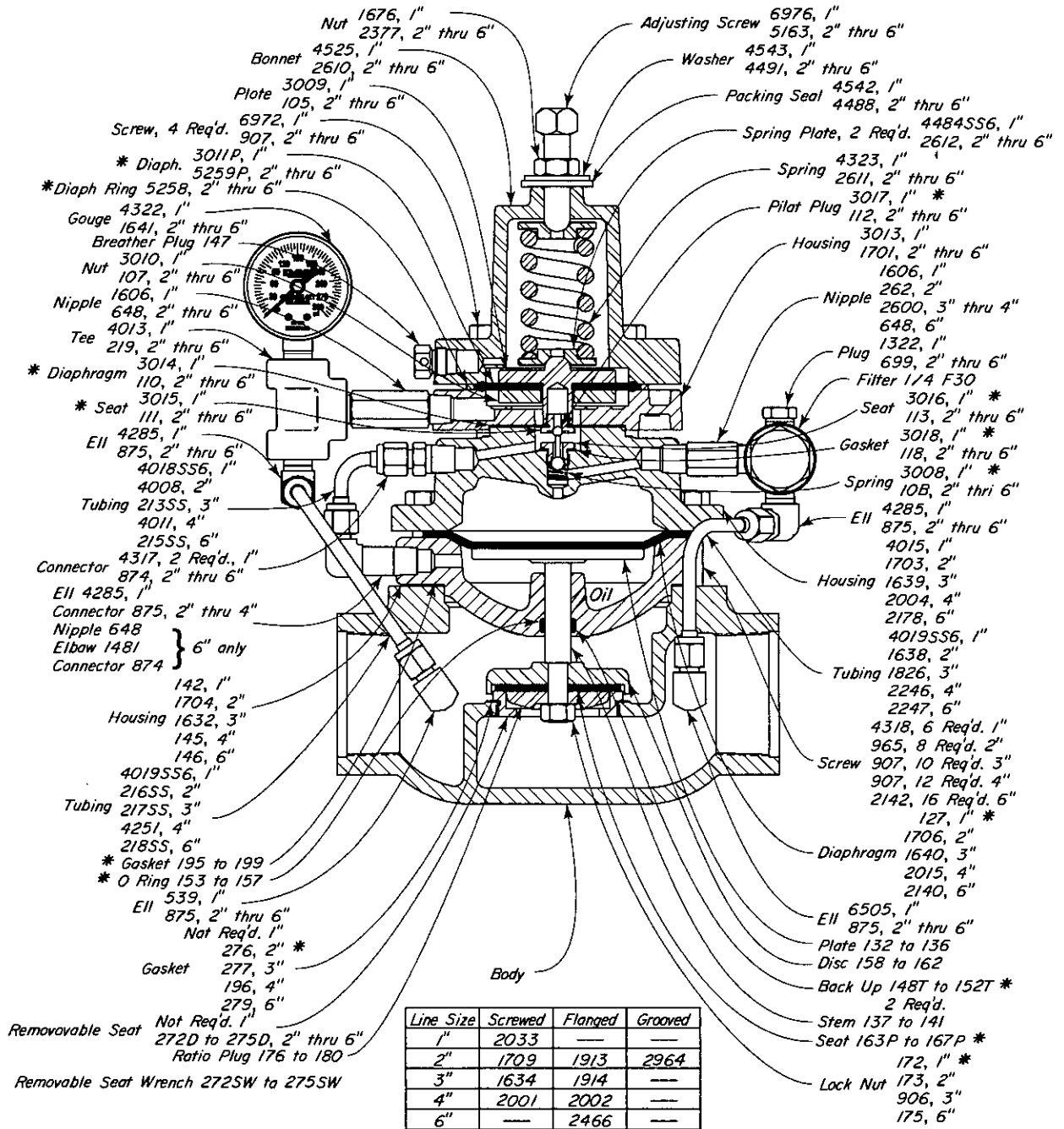
Dimensions, refer to Table of Contents.

*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Diaphragm 127-1", 128-2", 129-3", 130-4", 131-6".

*Companion flanges, nuts, bolts and gaskets are furnished at extra cost. Refer to Section "Y" for ordering.

PRESSURE REDUCING NON VENTING DUCTILE IRON



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AKLD	1" SCR.D.	130 SGT PR-NV-D	300	300	RRU
AKMD	2" SCR.D.	230 SGT PR-NV-D	300	300	RDG
AKND	2" FLGD.	218 FGT PR-NV-D	250	250	RDG
AKOD	2" GRVD.	230 GGT PR-NV-D	300	300	RDG
AKPD	3" SCR.D.	330 SGT PR-NV-D	300	300	RDH
AKQD	3" FLGD.	318 FGT PR-NV-D	250	250	RDH
AKRD	4" SCR.D.	430 SGT PR-NV-D	300	300	RDI
AKSD	4" FLGD.	418 FGT PR-NV-D	250	250	RDI
AKTD	6" FLGD.	618 FGT PR-NV-D	250	250	RDJ

NOTES:

Dimensions, refer to Table of Contents.

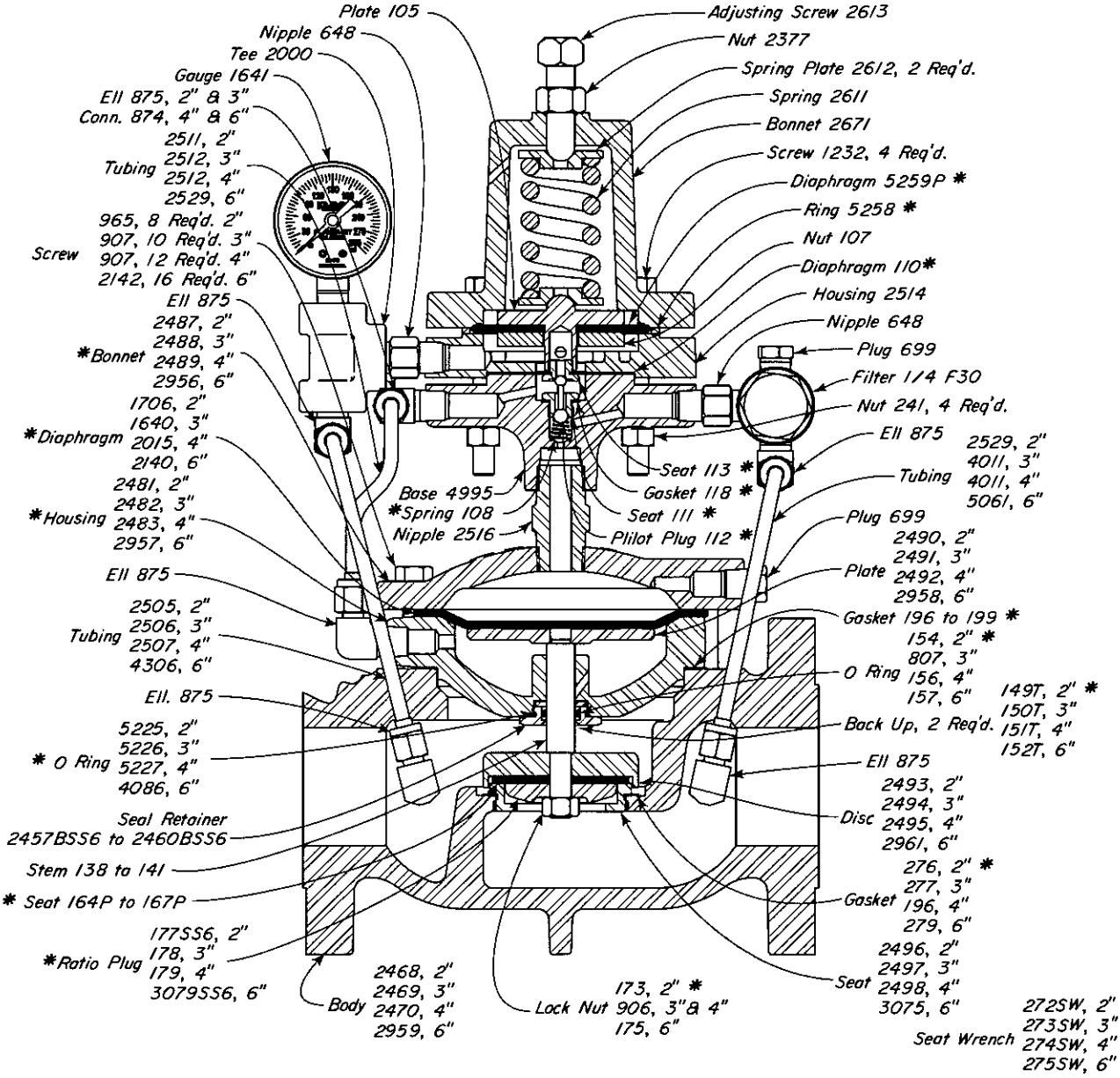
*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Seat 163P-1", 164P-2", 165P-3", 166P-4", 167P-6".

PRESSURE REGULATOR



PRESSURE REDUCING NON VENTING STEEL



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AEV	2" FLGD.	227 FGT PR-S NV	285	285	RAE
AEW	3" FLGD.	327 FGT PR-S NV	285	285	RAF
AEX	4" FLGD.	427 FGT PR-S NV	285	285	RAG
AEY	6" FLGD.	627 FGT PR-S NV	285	285	RAH

NOTES:

Dimensions, refer to Table of Contents.
 *These parts are recommended spare parts and are stocked as repair kits.
 The numbers of a series assigned to a part indicate different line sizes. For example: Stem 138-2", 139-3", 140-4", 141-6".

APPLICATIONS:

Regulation of inlet pressure to gas compressors and control of supply or distribution system pressures where the pressure to the regulator varies significantly and regulated pressure must remain constant.

PRESSURE RANGE:






Ductile Iron:	Upstream: 10 psig to 125 psig
	Downstream: 5 psig to 125 psig
Ductile Iron:	Upstream: 10 psig to 300 psig
	Downstream: 5 psig to 300 psig
Steel:	Upstream: 10 psig to 300 psig
	Downstream: 5 psig to 300 psig

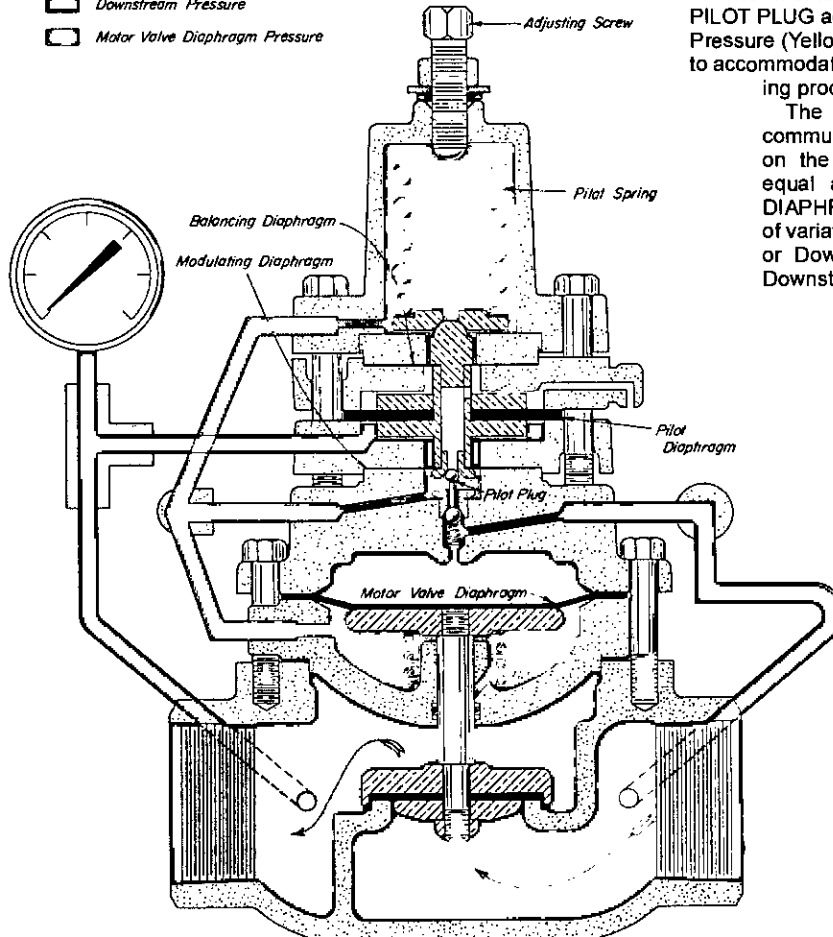
NOTE:

For upstream pressure less than 10 psig use outside source of supply to operate Motor Valve Diaphragm.

CAPACITY:

Refer to Table of Contents.

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Motor Valve Diaphragm Pressure



OPERATION:

The Pilot Assembly and Motor Valve Stem Assembly (Crosshatched) are the only moving units in the regulator.

The PILOT PLUG consists of two stainless balls rigidly connected together. Upstream Pressure (Red) is the supply pressure to the pilot and is also in constant communication with the top side of the MOTOR VALVE DIAPHRAGM. The area of the MOTOR VALVE DIAPHRAGM is twice the area of the motor valve seat, assuring a positive shut-off.

The lower seat for the PILOT PLUG is the Motor Valve Diaphragm Pressure inlet (Red to Yellow). The upper seat for the PILOT PLUG is the pressure vent (Yellow to Atmosphere). The PILOT SPRING loads the upper side of the Pilot Assembly and is opposed on the underneath side by the controlled Downstream Pressure (Blue).

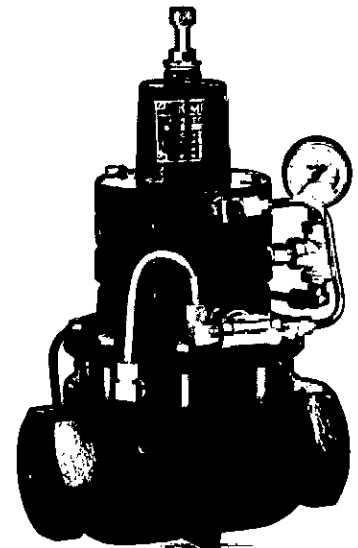
Assume the PILOT SPRING is compressed with the ADJUSTING SCREW for a desired Downstream Pressure setting. With Downstream Pressure (Blue) too low, the PILOT SPRING forces the Pilot Assembly downward to close the upper seat (Yellow to Atmosphere) and open the lower seat (Red to Yellow).

This lets full Upstream Pressure (Red) load the underneath side of the MOTOR VALVE DIAPHRAGM to balance the pressure on the top side. Upstream Pressure (Red) acting under the motor valve seat, opens the valve. As Downstream Pressure (Blue) increases to the set pressure, the Pilot Assembly assumes a position in which both seats of the PILOT PLUG are closed.

Should Downstream Pressure (Blue) rise above the set pressure, the Pilot Assembly moves upward against the PILOT SPRING to open the pressure vent (Yellow to Atmosphere). Motor Valve Diaphragm Pressure (Yellow) decreases to reposition the Motor Valve Stem Assembly.

The intermittent bleed pilot, three-way valve action of the PILOT PLUG against its seat adjusts the Motor Valve Diaphragm Pressure (Yellow), repositioning the Motor Valve Stem Assembly to accommodate any rate of flow. The rapid but stable repositioning produces a true throttling action.

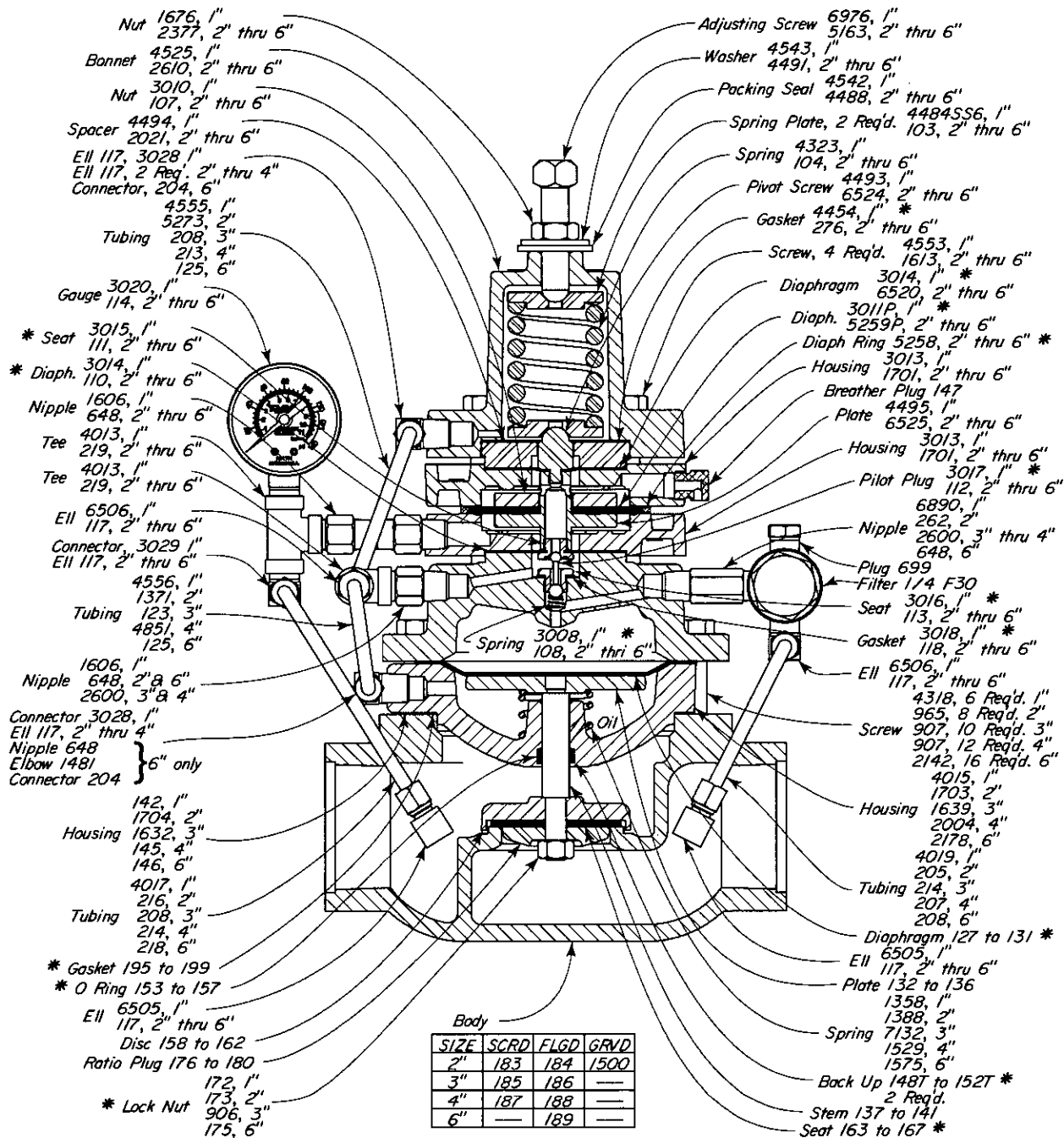
The Motor Valve Diaphragm Pressure (Yellow) is communicated to the bonnet area, this pressure acts on the BALANCING DIAPHRAGM to counteract the equal and opposite pressure on the MODULATING DIAPHRAGM. This balancing action reduces the effect of variation in Upstream Pressure (Red) on the controlled or Downstream Pressure (Blue) resulting in constant Downstream Pressure (Blue).



PRESSURE REGULATOR



PRESSURE REDUCING BALANCED DUCTILE IRON



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AKI	1" SCRD.	112 SGT PRB	125	175	RRF
AJA	2" SCRD.	212 SGT PRB	125	175	RR1
AJB	2" FLGD.*	212 FGT PRB	125	175	RR1
AJC	2" GRVD.	212 GGT PRB	125	175	RR1
AJD	3" SCRD.	312 SGT PRB	125	175	RRJ
AJE	3" FLGD.*	312 FGT PRB	125	175	RRJ
AJF	4" SCRD.	412 SGT PRB	125	175	RRK
AJG	4" FLGD.*	412 FGT PRB	125	175	RRK
AJH	6" FLGD.*	612 FGT PRB	125	175	RRL

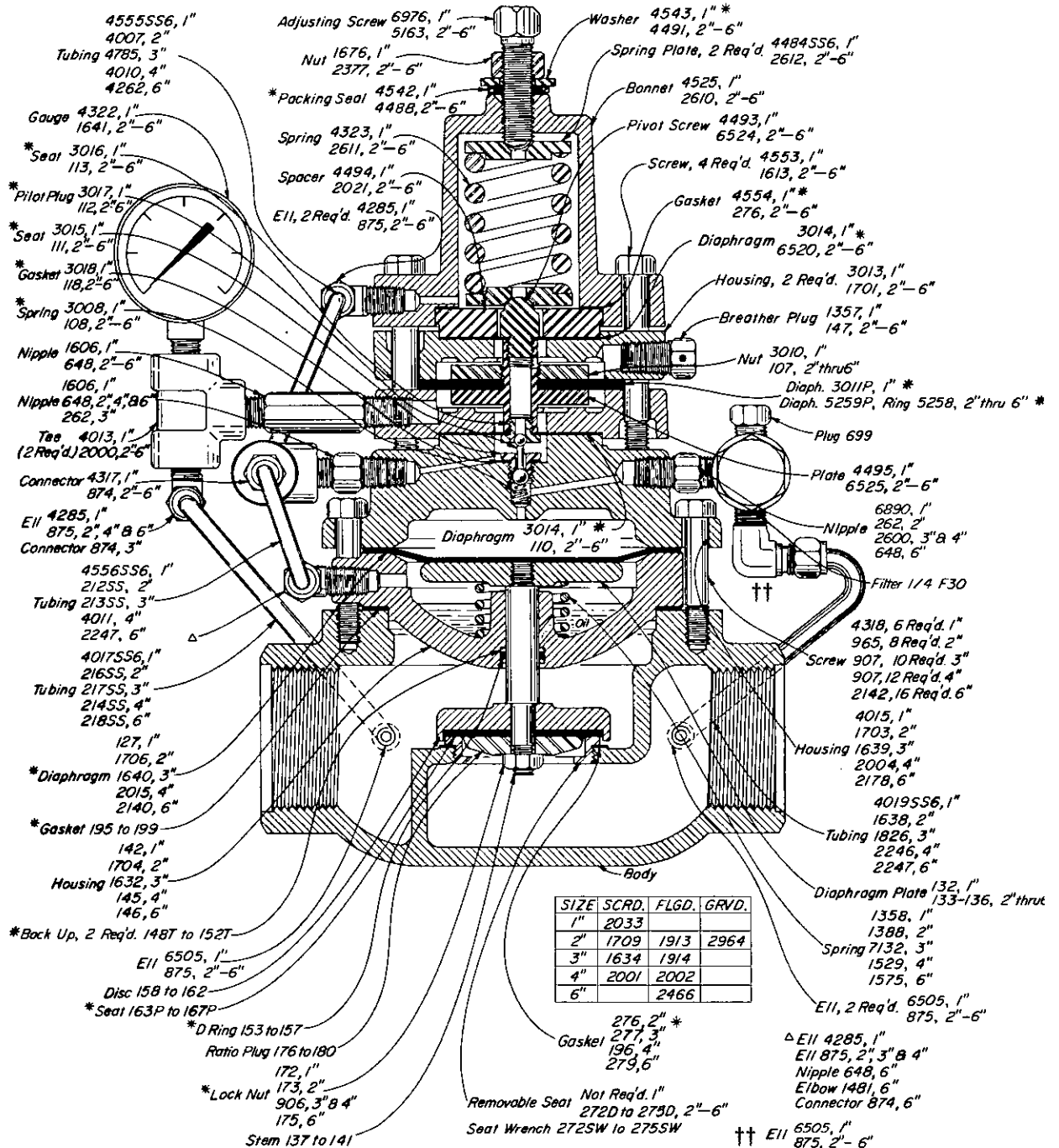
NOTES:

Dimensions, refer to Table of Contents.

*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Diaphragm 127-1", 128-2", 129-3", 130-4", 131-6".

*Companion flanges, nuts, bolts and gaskets are furnished at extra cost. Refer to Section "Y" for ordering.



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AKJ	1" SCRD.	130 SGT PRB-D	300	300	RRZ
AJI	2" SCRD.	230 SGT PRB-D	300	300	RRM
AJJ	2" FLGD.	218 FGT PRB-D	250	250	RRM
AJK	3" SCRD.	330 SGT PRB-D	300	300	RRN
AJL	3" FLGD.	318 FGT PRB-D	250	250	RRN
AJM	4" SCRD.	430 SGT PRB-D	300	300	RRO
AJN	4" FLGD.	418 FGT PRB-D	250	250	RRO
AJP	6" FLGD.	618 FGT PRB-D	250	250	RRP

NOTES:

Dimensions, refer to Table of Contents.

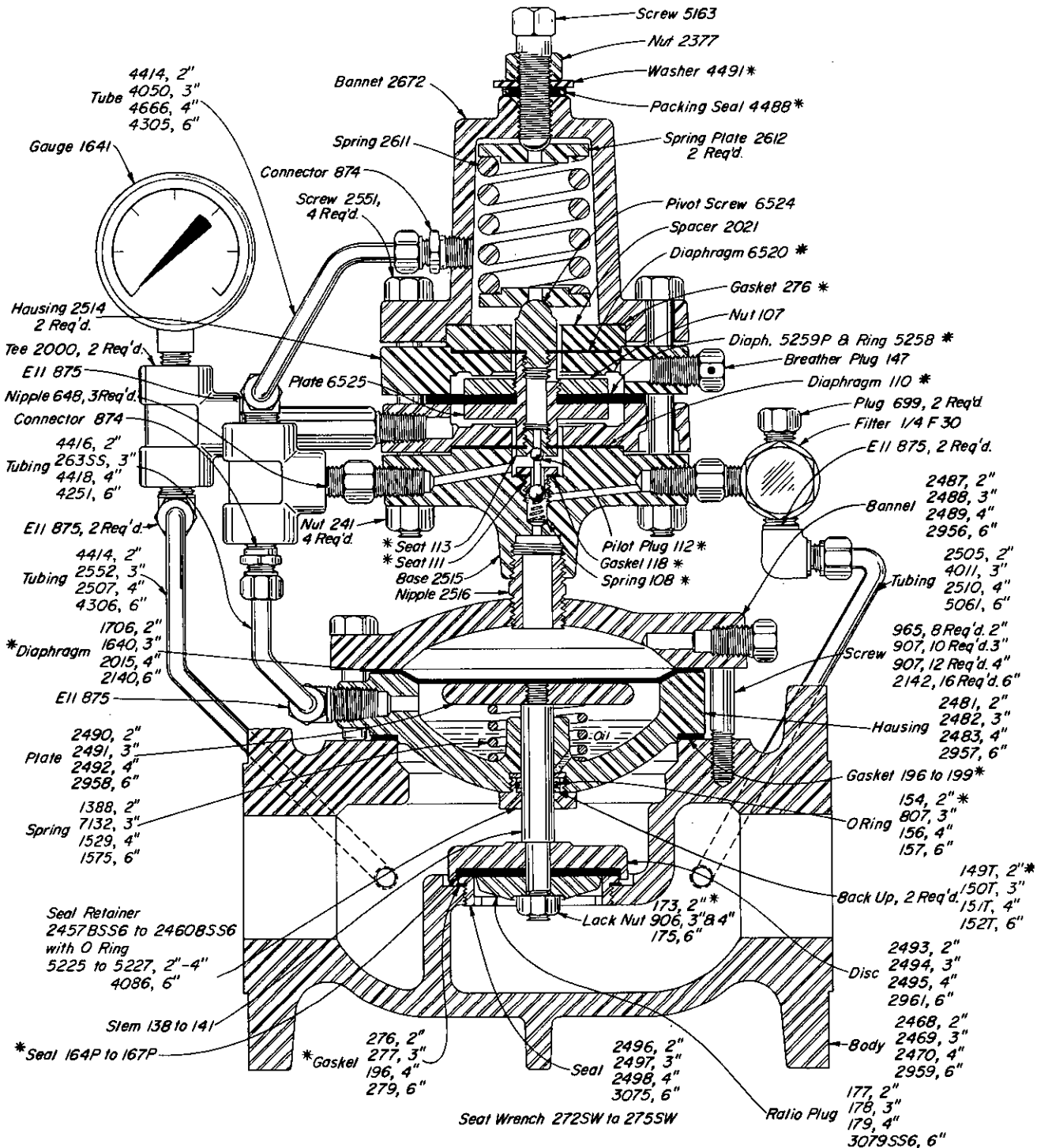
*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Seat 163P-1", 164P-2", 165P-3", 166P-4", 167P-6".

PRESSURE REGULATOR



PRESSURE REDUCING BALANCED STEEL



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AJR	2" FLGD.	227 FGT PRB-S	285	285	RRQ
AJS	3" FLGD.	327 FGT PRB-S	285	285	RRR
AJT	4" FLGD.	427 FGT PRB-S	285	285	RRS
AJU	6" FLGD.	627 FGT PRB-S	285	285	RRX

NOTES:

Dimensions, refer to Table of Contents.

*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Gasket 196-2", 197-3", 198-4", 199-6".

APPLICATION:

Control back pressure in liquid packed systems where an auxiliary source of supply gas pressure is available.

PRESSURE RANGE:

Ductile Iron: 5 psig to 125 psig
 Ductile Iron: 10 psig to 300 psig
 Steel: 10 psig to 300 psig

SUPPLY PRESSURE:

Equal to or not less than 60% of controlled pressure upstream.

CAPACITY:

Refer to Table of Contents.

OPERATION:

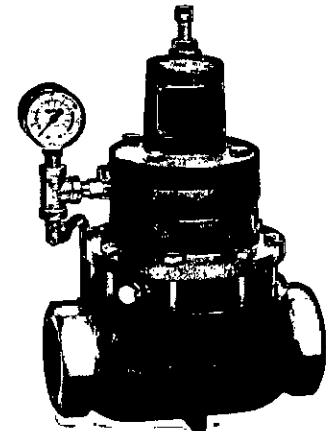
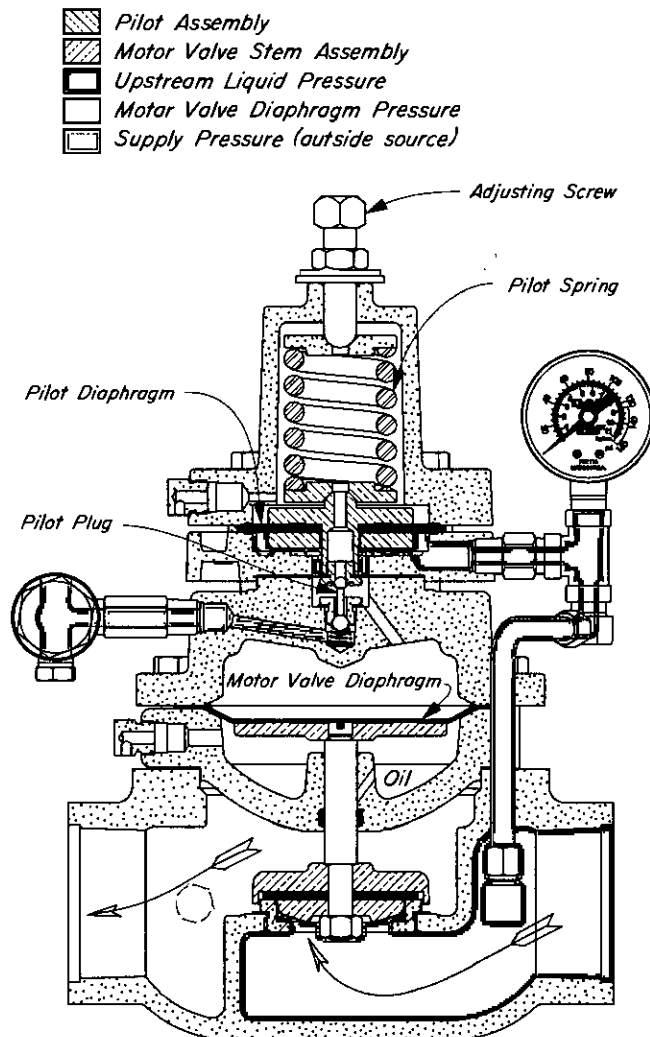
The Pilot Assembly and Motor Valve Stem Assembly (Crosshatched) are the only moving units in the regulator. The PILOT PLUG consists of two stainless balls rigidly connected together. The lower seat for the PILOT PLUG is the Motor Valve Diaphragm Pressure inlet (Purple to Yellow). The upper seat for the PILOT PLUG is the pressure vent (Yellow to Atmosphere).

The PILOT SPRING in the bonnet loads the upper side of the Pilot Assembly and is opposed on the underside by Upstream Liquid Pressure (Green).

Assume the PILOT SPRING is compressed with the ADJUSTING SCREW for a set pressure greater than the Upstream Liquid Pressure (Green). The Pilot Assembly is forced downward by the PILOT SPRING. The upper seat for the PILOT PLUG (Yellow to Atmosphere) is closed and the lower seat for the PILOT PLUG (Purple to Yellow) is open. This lets full Supply Pressure (Purple) load the MOTOR VALVE DIAPHRAGM to close the motor valve. The area of the MOTOR VALVE DIAPHRAGM is twice the area of the motor valve seat, assuring a positive shut-off.

As the Upstream Liquid Pressure (Green) increases to the set pressure, the Pilot Assembly moves upward against the PILOT SPRING to first close the lower seat (Purple to Yellow) and open the pressure vent (Yellow to Atmosphere). As the Motor Valve Diaphragm Pressure (Yellow) is decreased, the Upstream Liquid Pressure (Green) acting under the motor valve seat, opens the valve. With relief of Upstream Liquid Pressure (Green) through the motor valve, the Pilot Assembly assumes a position in which both seats of the PILOT PLUG are closed.

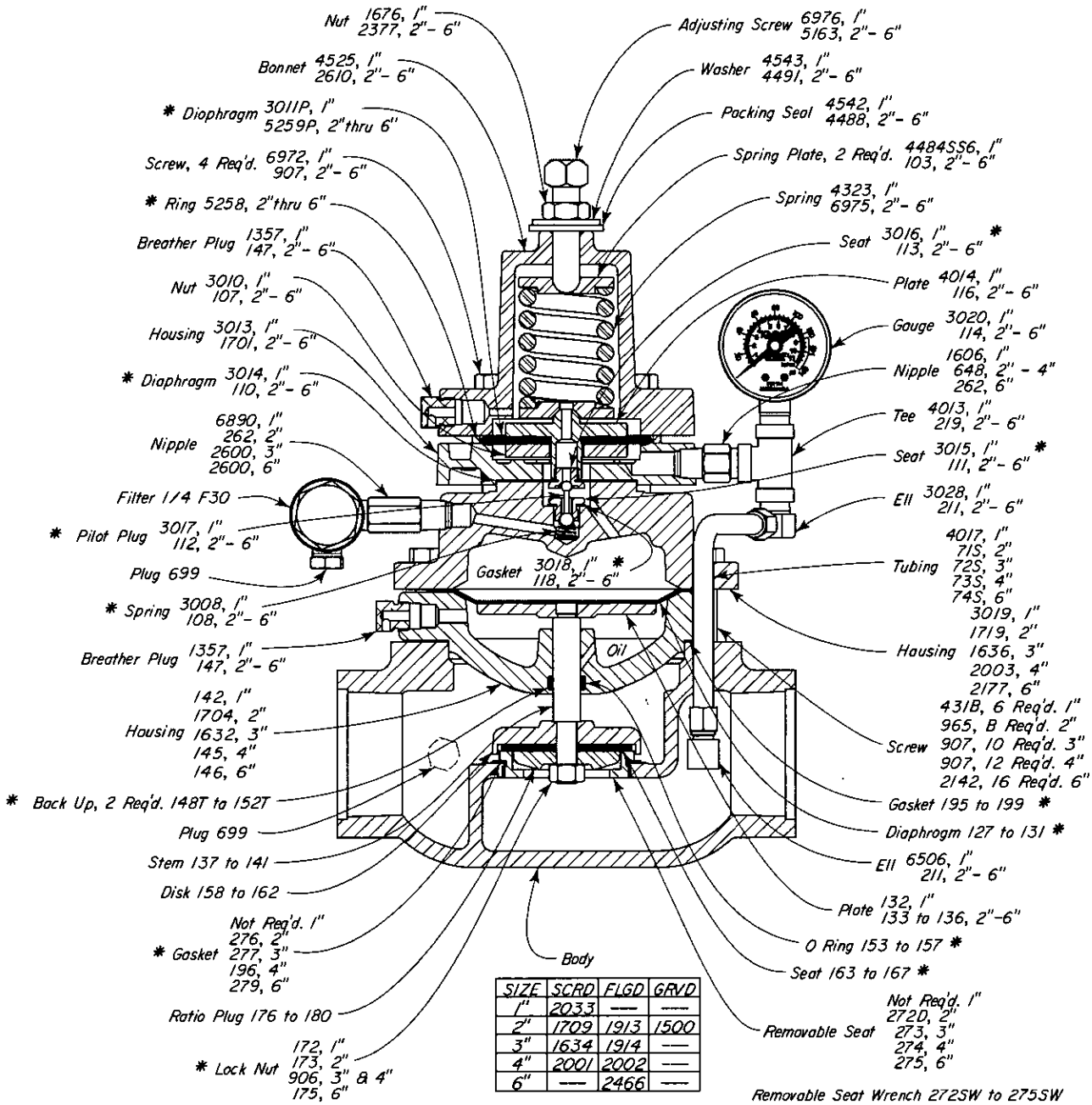
The intermittent bleed pilot, three-way valve action of the PILOT PLUG against its seat adjusts the Motor Valve Diaphragm Pressure (Yellow), repositioning the Motor Valve Stem Assembly to accommodate any rate of flow. The rapid but stable repositioning produces a true throttling action.



PRESSURE REGULATOR



LIQUID BACK PRESSURE DUCTILE IRON



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
ACF	1" SCRD.	112 SGT LBP	125	175	RRT
AEE	2" SCRD.	212 SGT LBP	125	175	RAA
AEF	2" FLGD.*	212 FGT LBP	125	175	RAA
AEG	2" GRVD.	212 GGT LBP	125	175	RAA
AEH	3" SCRD.	312 SGT LBP	125	175	RAB
AEI	3" FLGD.*	312 FGT LBP	125	175	RAB
AEJ	4" SCRD.	412 SGT LBP	125	175	RAC
AEK	4" FLGD.*	412 FGT LBP	125	175	RAC
AEL	6" FLGD.*	612 FGT LBP	125	175	RAD

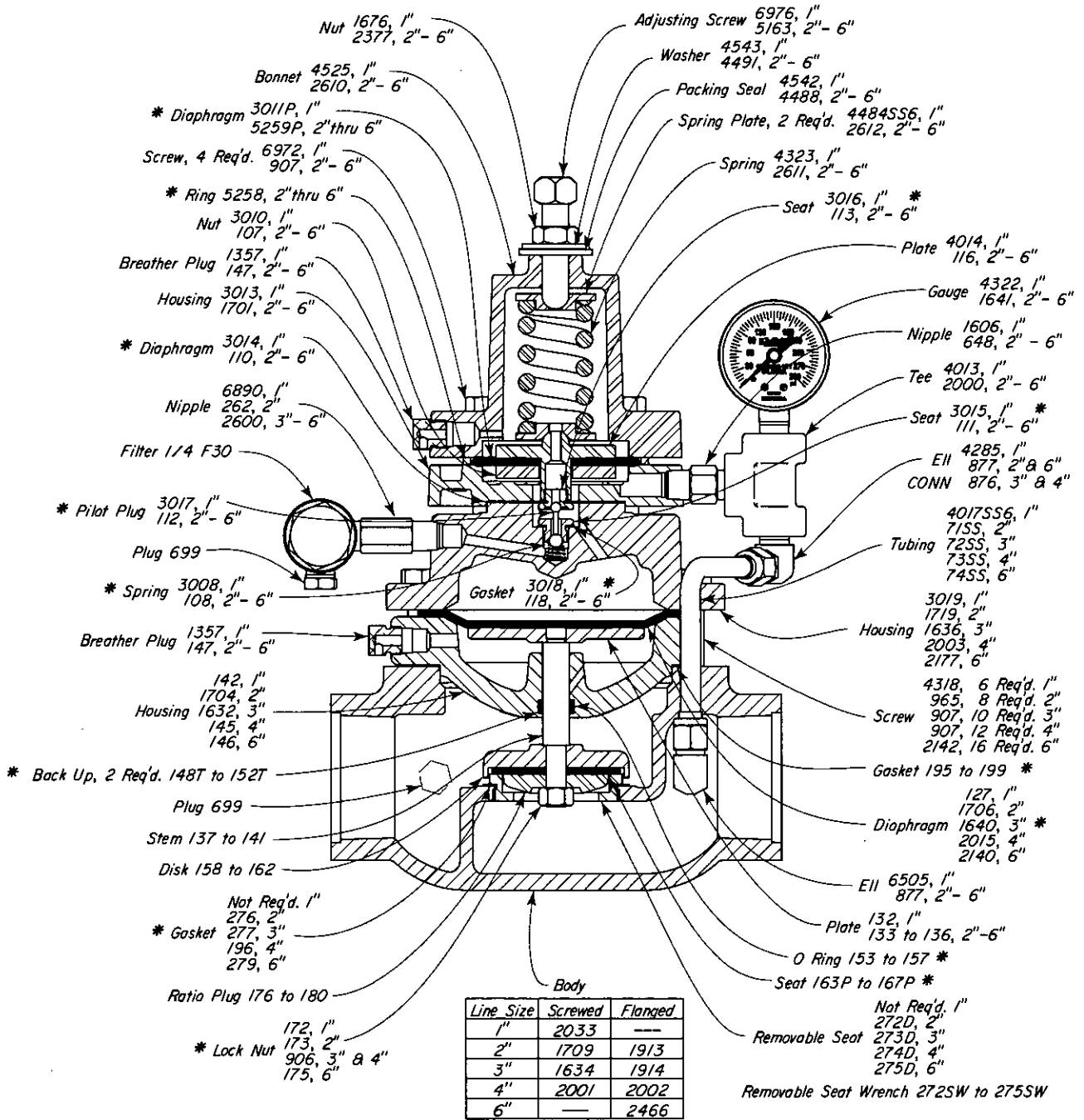
NOTES:

Dimensions, refer to Table of Contents.

*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Seat 163-1", 164-2", 165-3", 166-4", 167-6".

*Companion flanges, nuts, bolts and gaskets are furnished at extra cost. Refer to Section "Y" for ordering.



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
ACG	1" SCRD.	130 SGT LBP-D	300	300	RRU
AEM	2" SCRD.	230 SGT LBP-D	300	300	RDG
AEN	2" FLGD.	218 FGT LBP-D	250	250	RDG
AEP	3" SCRD.	330 SGT LBP-D	300	300	RDH
AER	3" FLGD.	318 FGT LBP-D	250	250	RDH
AES	4" SCRD.	430 SGT LBP-D	300	300	RD1
AET	4" FLGD.	418 FGT LBP-D	250	250	RD1
AEU	6" FLGD.	618 FGT LBP-D	250	250	RDJ

NOTES:

Dimensions, refer to Table of Contents.

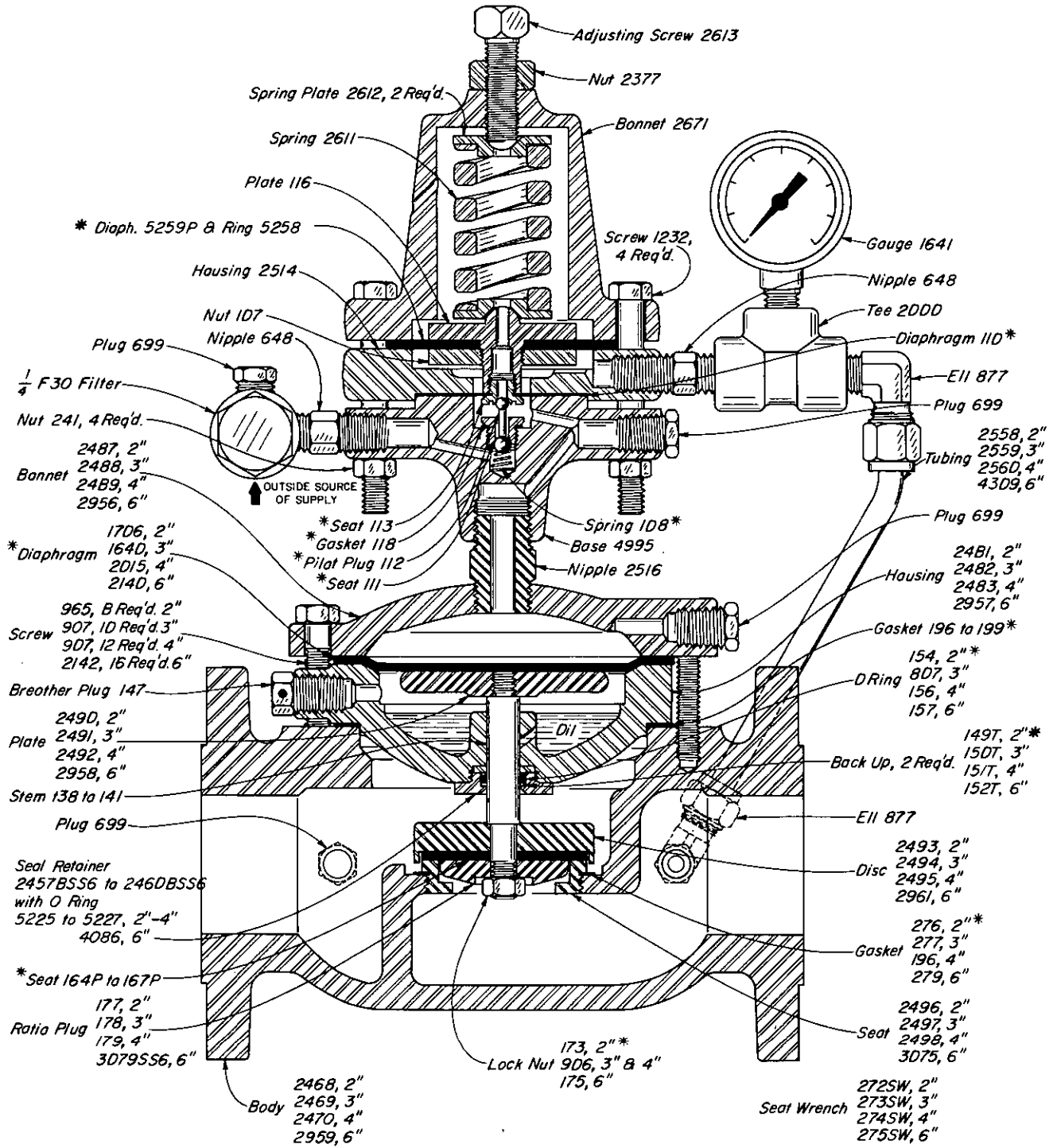
*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Seat 164P-2", 165P-3", 166P-4", 167P-6".

PRESSURE REGULATOR



LIQUID BACK PRESSURE STEEL



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AGW	2" FLGD.	227 FGT LBP-S	285	285	RAE
AGX	3" FLGD.	327 FGT LBP-S	285	285	RAF
AGY	4" FLGD.	427 FGT LBP-S	285	285	RAG
AGZ	6" FLGD.	627 FGT LBP-S	285	285	RAH

NOTES:

Dimensions, refer to Table of Contents.
 *These parts are recommended spare parts and are stocked as repair kits.
 The numbers of a series assigned to a part indicate different line sizes. For example: Gasket 196-2", 197-3", 198-4", 199-6".

APPLICATION:






For maintaining a constant pressure drop across meter systems.

PRESSURE RANGE:

Ductile Iron: 5 psig to 125 psig
 Ductile Iron: 10 psig to 300 psig
 Steel: 10 psig to 300 psig

CAPACITY:

Refer to Table of Contents.

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Downstream Pressure
-  Upstream Pressure
-  Motor Valve Diaphragm Pressure

OPERATION:

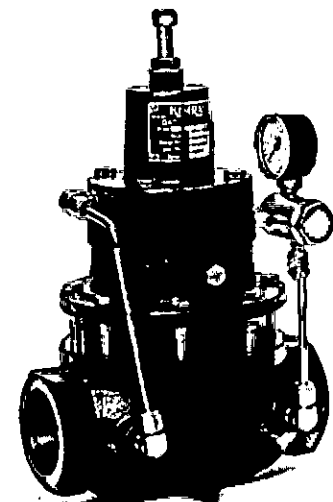
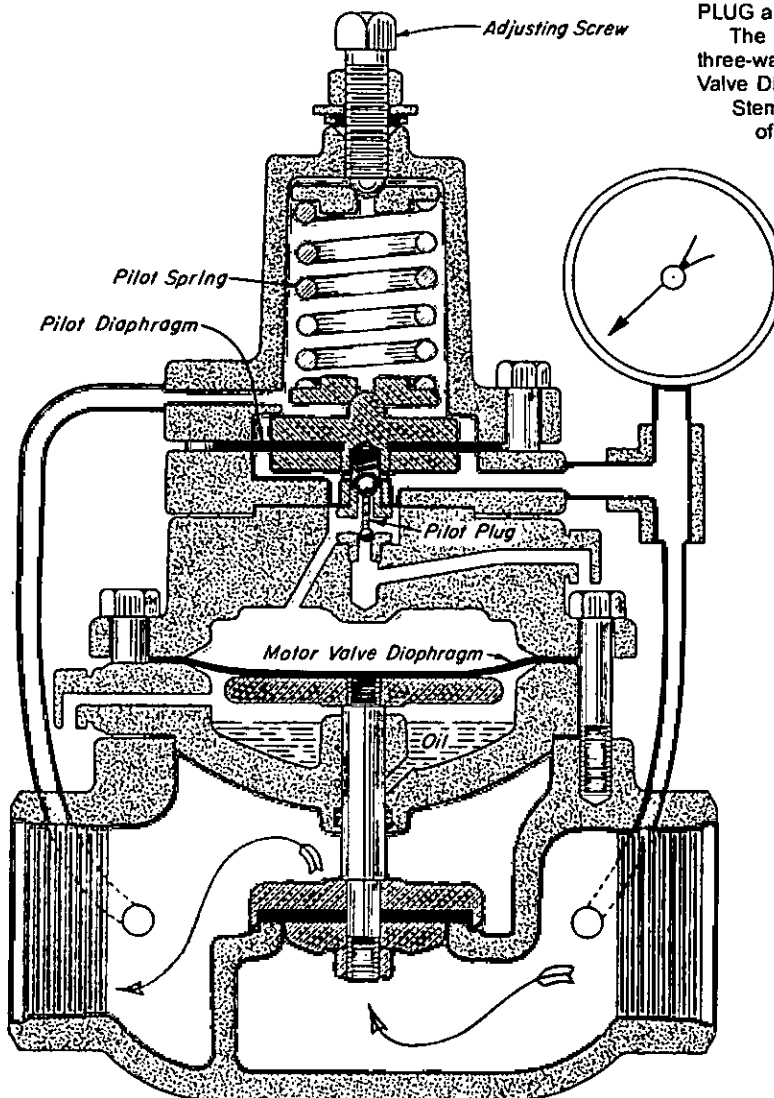
This regulator is designed to control a set difference between Upstream Pressure (Red) and Downstream Pressure (blue). The differential pressure is set by changing the PILOT SPRING load with the ADJUSTING SCREW.

Any change in Downstream Pressure (Blue) will position the Motor Valve Stem Assembly until a like change in Upstream Pressure (Red) has occurred to maintain the set differential pressure.

Assume the load produced by the PILOT SPRING and Downstream Pressure (Blue) acting on the Pilot Assembly has caused it to move downward. This opens the upper seat of the PILOT PLUG (Red to Yellow) and closes the lower seat (Yellow to Atmosphere) admitting full Upstream Pressure (Red) to the MOTOR VALVE DIAPHRAGM, closing the motor valve seat. The area of the MOTOR VALVE DIAPHRAGM is twice the area of the motor valve seat, assuring tight shut-off.

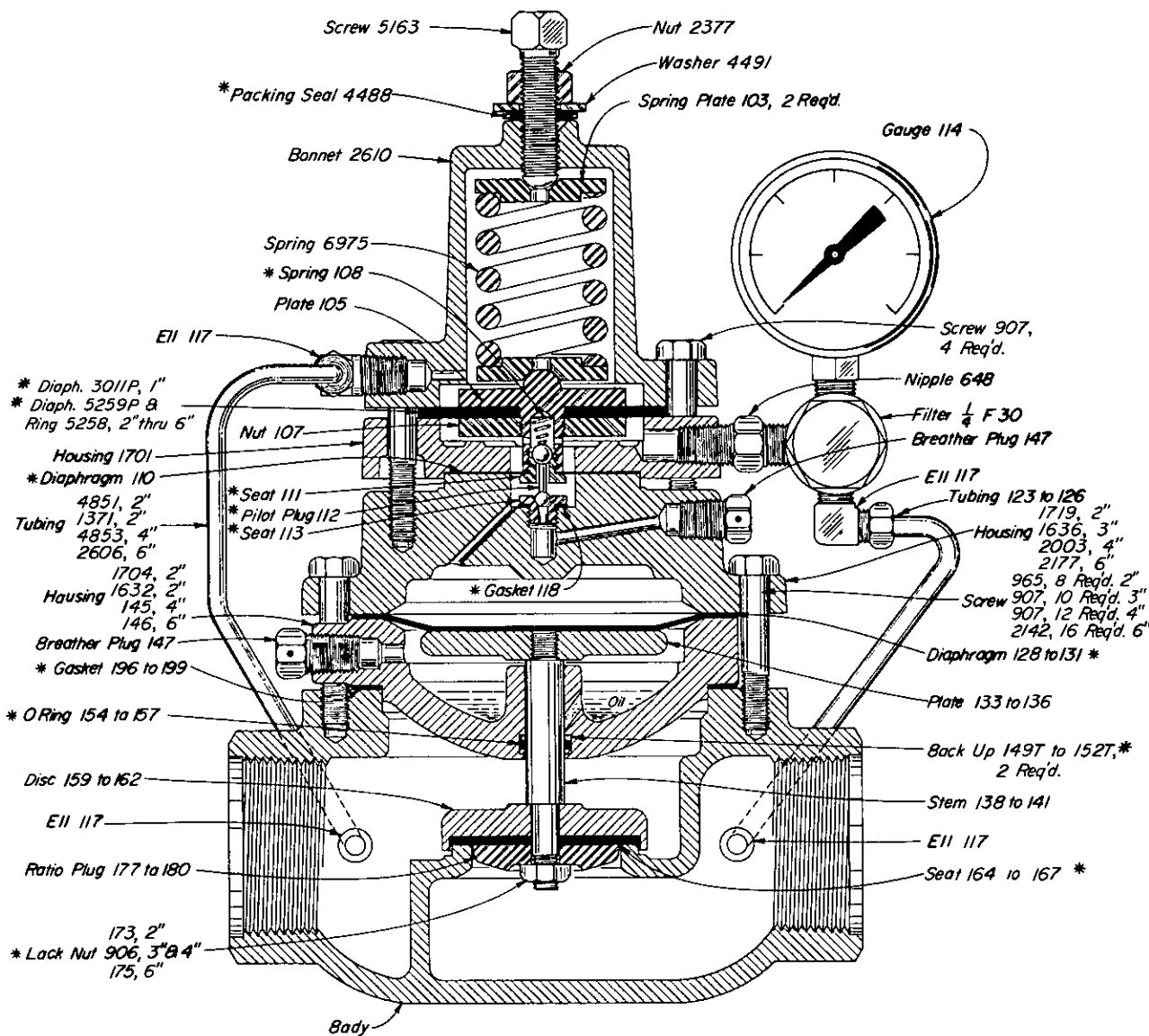
As the Upstream Pressure (Red) increases to the set differential pressure, the Pilot Assembly moves upward to first close the upper seat (Red to Yellow) and open the pressure vent (Yellow to Atmosphere). The resulting decrease in Motor Valve Diaphragm Pressure (Yellow) permits the increased Upstream Pressure (Red), acting under the motor valve seat, to open the valve. With the motor valve open, the Upstream Pressure (Red) will decrease until the differential pressure across the PILOT DIAPHRAGM reaches the set point at which time the Pilot Assembly assumes a position in which both seats of the PILOT PLUG are closed.

The rapid but stable repositioning, intermittent bleed pilot, three-way valve action of the PILOT PLUG adjust the Motor Valve Diaphragm Pressure (Yellow) to position the Motor Valve Stem Assembly and provide true throttling action for any rate of flow.



PRESSURE REGULATOR

GAS PRESSURE DIFFERENTIAL
DUCTILE IRON



Line Size	Screwed	Flanged	Grooved
1"	2033	---	---
2"	183	184	1500
3"	185	186	---
4"	187	188	---
6"	---	189	---

THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
ACK	2" SCRD.	212 SGT PD	125	175	RPO
ACL	2" FLGD.*	212 FGT PD	125	175	RPO
ACM	2" GRVD.	212 GGT PD	125	175	RPO
ACN	3" SCRD.	312 SGT PD	125	175	RPP
ACP	3" FLGD.*	312 FGT PD	125	175	RPP
ACR	4" SCRD.	412 SGT PD	125	175	RPQ
ACS	4" FLGD.*	412 FGT PD	125	175	RPQ
ACT	6" FLGD.*	612 FGT PD	125	175	RPR

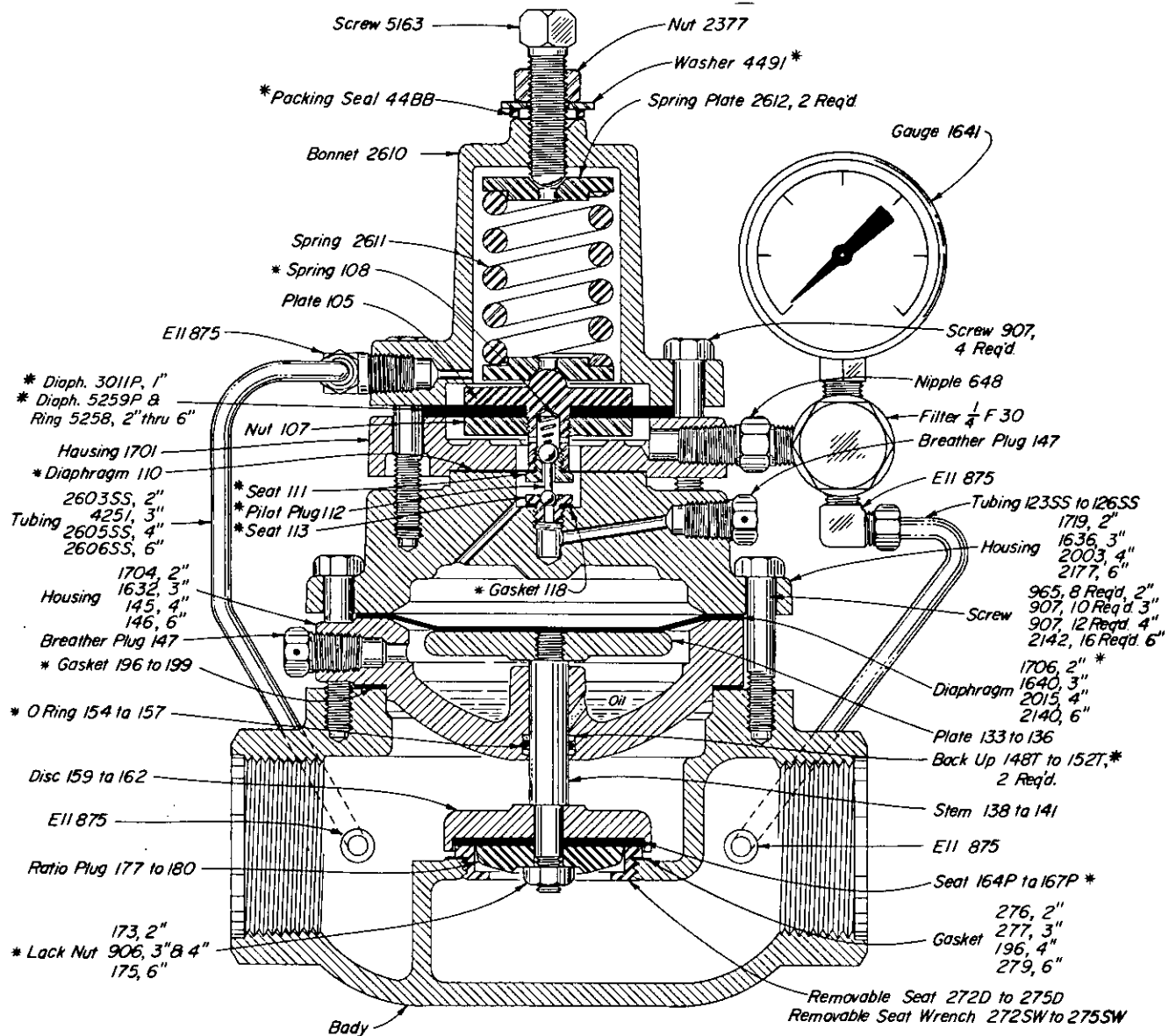
*Companion flanges, nuts, bolts and gaskets are furnished at extra cost. Refer to Section "Y" for ordering.

NOTES:

Dimensions, refer to Table of Contents.

*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Diaphragm 128-2", 129-3", 130-4", 131-6".



LINE SIZE	THRU	
	SCREWED	FLANGED
2"	1709	1913
3"	1634	1914
4"	2001	2002
6"	---	2466

THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
ACU	2" SCRD.	230 SGT PD-D	300	300	RPK
ACW	2" FLGD.	218 FGT PD-D	250	250	RPK
ACX	3" SCRD.	330 SGT PD-D	300	300	RPL
ACY	3" FLGD.	318 FGT PD-D	250	250	RPL
ADA	4" SCRD.	430 SGT PD-D	300	300	RPM
ADB	4" FLGD.	418 FGT PD-D	250	250	RPM
ADC	6" FLGD.	618 FGT PD-D	250	250	RPN

NOTES:

Dimensions, refer to Table of Contents.

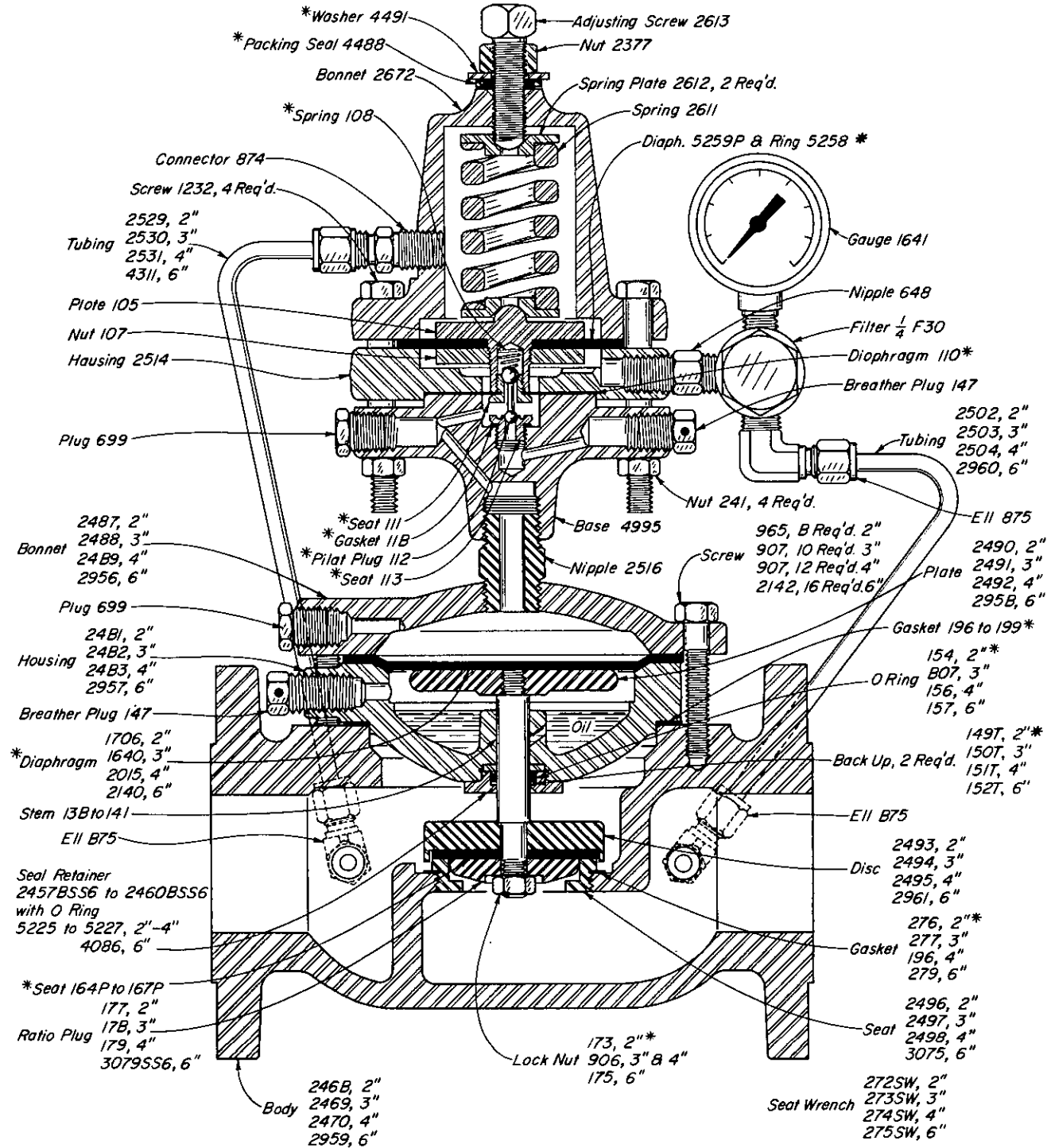
*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Stem 138-2", 139-3", 140-4", 141-6".

PRESSURE REGULATOR



GAS PRESSURE DIFFERENTIAL STEEL



THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AGL	2" FLGD.	227 FGT PD-S	285	285	RBV
AGM	3" FLGD.	327 FGT PD-S	285	285	RBZ
AGN	4" FLGD.	427 FGT PD-S	285	285	RCA
AGO	6" FLGD.	627 FGT PD-S	285	285	RBW

NOTES:

Dimensions, refer to Table of Contents.

*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Seat 164P-2", 165P-3", 166P-4", 167P-6".