

ELECTRIC WARNING CONTACTS

The electric contact feature is a switching mechanism actuated by the indicating pointer. Switch points are adjustable and can be set throughout the 270° arc. Contacts are used to activate alarms and relays. (Not recommended for continuous switching). The Weksler electric contact is an ideal accessory to turn on a signal light, sound an alarm, or operate a pump or valve. The contacts can easily be set so that a circuit can be closed or opened at a desired pressure or temperature. Settings can be easily made in the field without removing the instrument from service. Contact adjustment is made externally with a removable key to make the instrument virtually tamper proof. Contacts are equipped with adjustable magnets to eliminate chatter caused by vibration. A plug-in connector with five feet of electrical cable is standard.

STANDARD FEATURES

- High impact polycarbonate enclosure for ambient temperature up to 150°F
- Full scale contact adjustment from front of enclosure
- Available on ranges 30 psi and up
- Magnetically assisted, silver alloy contact
- Accuracy $\pm 2\%$ of scale arc (add to instrument accuracy)
- Rated for 1/4 amp. 110 volt AC non-inductive load
- Available in: 4 1/2" case styles #2*, #4, #6, "A" 6" case styles #2, #4, #6, "A"

Model	Code	Contact arrangements
2265	XED	High and low contact
	XEE	Double high contact
	XEF	Double low contact
	XEG	"OFF" at low and high, and "ON" in between

* Style case #2 with lower connect comes with DIN Connection. No cable, mating connector available at extra charge.



Indicating accuracy of Royal Gauge, above 300 psi with contact: Pointer not carrying contact – 1.0%. Pointer carrying contact – 1.5%. For ranges below 30 psi, add an additional 1/2% to indicating accuracies.

TEST GAUGE CARRYING CASE

This rugged blow-molded high-density polyethylene carrying case accommodates the standard 4 1/2", 6 & 8 1/2" Regal analog test gauges. It accepts both lower and back connect gauges. A foam insert protects the gauge when not in use. Type No. 2505.



TOOLS

Hand Jack Set – gauge pointer remover and a pointer set to secure pointer to the shaft. Type No. 3220.

Ring Removal – For the 3 1/2" Regal gauges. Includes 2 1/2" and 3 1/2" wrench and nest. Type No. 1206T.

Small Tools – For the 3 1/2" Regal gauges. Includes pointer puller, span adjust wrench, slotted screw driver for pointer adjustment, pointer staker and pinion backup. Type No. 1205.

Gauge Tool Kit – A complete kit for gauge maintenance. Includes hand jack set, screw driver, five reamers, pin vise holder, wiggler and tweezer all packed in a neat carrying case. Ideal for a gauge maintenance shop. Type No. 1105T.



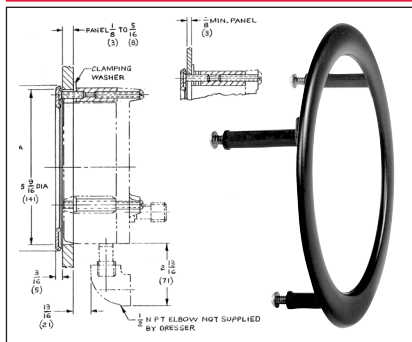
ROYAL AND REGAL GAUGE OPTIONS

CODE	DESCRIPTION
XNN	Paper Tag on Gauge
XNH	SS Tag Wired to Gauge
XMN	SS Tag Wired to Gauge
XOS ⁽¹⁾	Overload Stop
XVS ⁽¹⁾	Underload Stop
XTS	Throttle Screw
XDM	Dial Markings
X6B	Cleaned for Oxygen Service
XGV	Silicone Filled
XSH	Red Set Hand
XSJ	Dual Red Set Hands
XEP*	Max. Indicating Hand
XEQ*	Min. Indicating Hand
XSG	Safety Glass
XPD	Plastic Window
XC1	Certificate of Conformance
XC4	Calibration Certificate

* Not available in 3½" Regal

(1) Standard for 3½"

TYPE 1278M FLUSH MOUNTING RING



Gauge Size (inches)	Ring O.D. (inches)	A Dia. (inches)	"B"-Three Screws
			Size
4½	6.000	5.625	#10-24 x 1½"
67.765	7.25	¼-20 x 1½"	

Used to flush-mount 4½" and 6" Royal and bellows type gauges. Standard finish is black; polished stainless steel finish is available at an extra charge, 4½" and 6".

FLUSH MOUNTING RING

CODE	DESCRIPTION	TYPE	MOUNTING MATERIAL
56	Flush Mounting Rings	1278M	Black
57		1278MC	Polished SS

*For 4½" and 6" Royal / Regal gauges manufactured after 10/1/04

TYPE A-1285

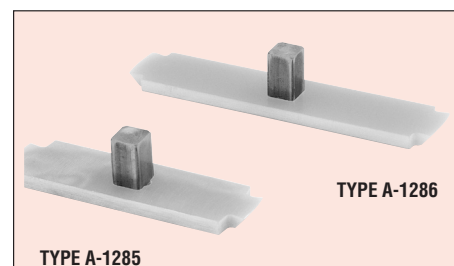
Ring Wrench – 4½"

(For installing front threaded rings in 4½" #2, #4 safety cases)

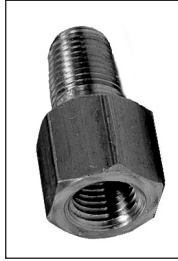
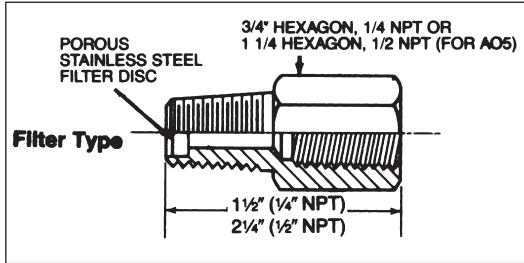
TYPE A-1286

Ring Wrench – 6"

(For installing front threaded rings in 6" #4 aluminum safety cases)



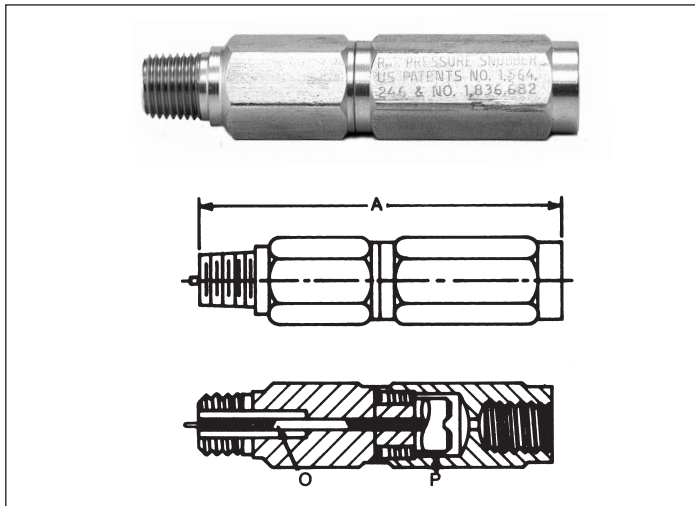
FILTER TYPE



Filter Type: Snubbing element consists of a $\frac{3}{8}$ " diameter x $\frac{1}{8}$ " thick Micro Metallic stainless steel filter. When placed in the line just before the pressure gauge, the gauge pointer moves across the scale at a rate which is proportional to the pressure differential across the snubber element.

TYPE NUMBER	GAS OR LIQUID IN PIPE LINE	PRESSURE RANGE	CONNECTION	MATERIAL
BW 41 BW 42 BW 43	Air Water-Light Oil Heavy Oil	1,500 psi	$\frac{1}{4}$ NPT	Brass
SW 41 SW 42 SW 43	Air Water-Light Oil Heavy Oil	5,000 psi	$\frac{1}{4}$ NPT	SS
A05D A05E A05G	Heavy Oil Water Light Oil Air	20,000 psi	$\frac{1}{2}$ NPT	SS

PISTON TYPE



Piston Type: Shocks and pulsations are absorbed in the doughnut-shaped orifice (O) formed by the piston (P) in the tube. As the piston moves up and down with the pulsation, it automatically clears away any sediment or pipe scale that would clog a simple orifice or needle valve.

Each snubber is furnished with three pistons. The snubbing may be changed to suit individual installations by changing pistons. By using the proper piston, any of the listed snubbers can be made to operate satisfactorily from vacuum to its maximum rated pressure on any fluid compatible with the body material. These snubbers may be installed vertically, horizontally, inverted, or at any angle.

TYPE NUMBER	GAS OR LIQUID IN PIPE LINE	PRESSURE RANGE LBS.	PIPE SIZE AND LENGTH	MATERIAL
RS1	Air, water, steam, etc.	0-3000	1/4 NPT	Brass
RS7	Thin corrosive liquid, gases	0-5,000	A = 3 1/2"	SS
RS8	Thick corrosive liquids		1/2 NPT	Brass
RS6	Oil, water, etc.			SS
RS9	Thin or thick corrosive	0-10,000	A = 3 3/8"	

ADJUSTABLE SNUBBER



MODEL	MAX. WORKING PRESS.	BODY MATERIAL	LENGTH O.A.	THREAD LENGTH	THREAD SIZE
MSB4	3,000	Brass	1.60	.50	$\frac{1}{4}$ NPT
MSB2	3,000	Brass	2.28	.80	$\frac{1}{2}$ NPT
MSS4	5,000	316SS	1.60	.50	$\frac{1}{4}$ NPT
MSS2	10,000	316SS	2.28	.80	$\frac{1}{2}$ NPT

NOTE: The adjusting screw, ball and ball retainer are Stainless Steel, Buna N Seals are standard. Teflon, Viton and Butyl Seals are available.

Adjustable Snubber

The Universal Adjustable Snubber has a ball check cut-off to block line surges, shock waves and fluid hammer; and an adjustable fine thread choke valve to tune out line pulsations. The combination of the ball cut-off and a tunable choke valve makes it an all-purpose, universal Snubber that is used on low displacement instruments such as bourdon tube gauges which require heavy dampening; and with high displacement instruments such as diaphragm, piston and bellows operated gauges, recorders and controllers, which require moderate to heavy dampening.

The adjustable choke valve is also used as a positive shut-off valve, to isolate the gauge or instrument, for servicing or replacement.

The operation of the Adjustable Snubber cut-off ball and the choke valve is shown in the chart. The cut-off ball blocks and clamps off shock and hammer transients in the line, which are above the normal pressure level in the system. The choke valve throttles and dampens out pulsations and cyclic pressure waves, and may be adjusted to dampen out to any level desired to prevent pointer oscillation on gauges, chart painting on recorders, instability in controllers or, damage to instruments, generally.

Gauge Cocks Needle Values Siphons

BRASS GAUGE COCKS

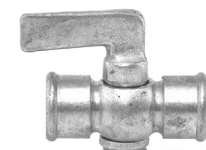
TYPE NO.	TYPE	CONNECTIONS	MAXIMUM PRESSURE
A10	Tee Handle - Brass	¼" Female	125 psi
A10C	Tee Handle - Chrome Plated	¼" Female	125 psi
A10E	Heavy Duty Tee Handle	¼" Female	200 psi
A11	Lever Handle - Brass	¼" Male and Female	200 psi
A12	Lever Handle - Brass	¼" Female	200 psi
A20	Tee Handle - Brass	½" Female	200 psi



**TEE HANDLE
COCK (A10)**



**HEAVY DUTY
TEE HANDLE
(A10E)**



**LEVER HANDLE
COCK (A12)**

BAR STOCK NEEDLE VALVES

These valves are used primarily to closely regulate fine flow. However, they may be used as a throttling device on lines where rapid and excessively pulsating pressures would tend to effect the gauge performance or mechanism.

TYPE NO.	SIZE	MATERIAL	PRESSURE & TEMP. RATING
BBV4	¼ NPT	Brass: For oil, water, gas, etc.	600 psi @ 300°F
SSV4	¼ NPT	303 Stainless Steel: For oil, water, gas, etc.	5000 psi @ 500°F
AV34	¼ NPT	Bronze: For oil, water, gas, etc.	500 psi @ 150°F
AV32	½ NPT		
AV44	¼ NPT	Carbon Steel: Parkerized and Parcolaced, for resistance to corrosion.	475 psi @ 1,000°F 550 psi @ 900°F 600 psi @ 850°F 10,000 psi @ 150°F
AV42	½ NPT		
AV74	¼ NPT	316 Stainless Steel provides greatest overall resistance to corrosion; very good for sub-zero service.	4,000 psi @ 150°F
AV72	½ NPT		



**BAR
STOCK
NEEDLE
VALVE
(Brass)
(BBV4)**



**BAR
STOCK
NEEDLE
VALVE
(AV34)**

SIPHONS

When a gauge is to be used for steam pressures, a siphon filled with water is recommended between the line and gauge to prevent high temperature steam from entering the gauge bourdon tube.

TYPE NO.	SIZE	SIPHON MATERIAL	CAPACITY
A03I	¼ NPT	Iron (Schedule 40)	500 psi and 400°F
A03B		Brass	250 psi and 400°F
CPS4		Seamless Steel, extra heavy (Schedule 80)	1,000 psi and 850°F
CPSS4		Seamless Stainless Steel XH (Schedule 80)	2,000 psi and 1000°F
CPS2	½ NPT	Steel (Schedule 80)	1,000 psi and 850°F
CPSS2		Seamless Stainless Steel XH (Schedule 80)	2,000 psi and 1000°F



SIPHON

GAUGE TOOLS — Hand Jack: for removing pointer. Specify Type A01. **Hand Set:** for installing pointer. Specify Type A02