

# Burling Valve A Proportion-Air Brand



# **IN-LINE MAINTENANCE • FAST DELIVERY • LARGE CVs**



# **About Burling Valves**

Burling Valve brand industrial process regulators offer pressure solutions perfect for challenging environments. This versatile line includes pressure reducing regulators, back pressure regulators and differential regulators for applications controlling the pressure of most gases and fluids. Direct-acting (spring-loaded), dome-loaded or piloted with electronic or manual control options are available.

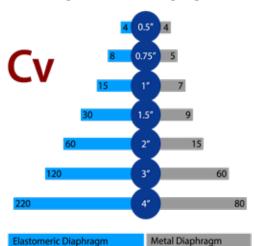
All Burling Valve regulators are made in the USA. With free application support, fast quotes, great lead times and custom engineered solutions, this line offers robust products to meet your exact needs.

# Large CVs

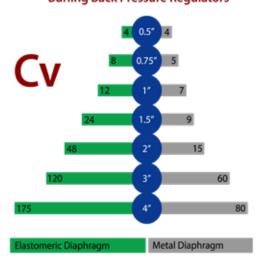
# Fast Delivery

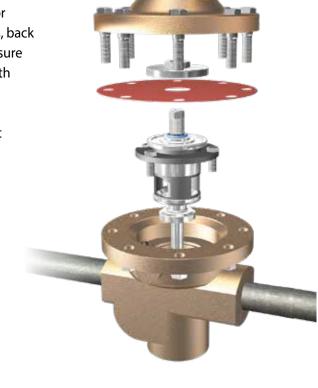
#### In-line Maintenance

#### **Burling Pressure Reducing Regulators**



#### **Burling Back Pressure Regulators**







- Body
  - · Cast Iron Hamburg, PA
  - Stainless Steel Monett, MO
     Carbon Steel Monett, MO
  - Bronze Whitehall, PA
- 2 Spring Chamber
- · made in New .
- Spring
  Made in Pennsylvania
- Cylinders
  - Made in New Jersey or Florida
- 5 Stem
  - Made in New Jersey
- U-Cup
- . . .
- Made in Texas
- made iii rexa:
- 6 Flanges
   Made in Illinois

#### **Markets**

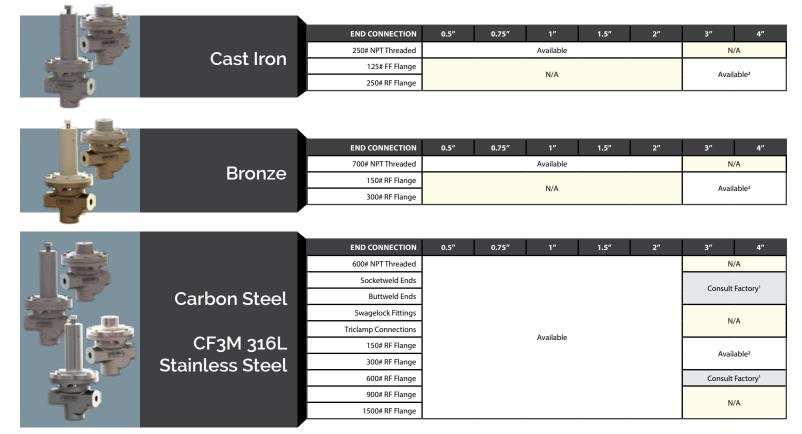
- Chemical
- Petrochemical
- Refineries
- Food
- Pharmaceutical
- Power Generation
- Energy
- HVAC
- Environmental
- Semiconductor

- Cryogenic
  - Medical
  - OEM
  - Marine
  - Automotive
  - Architectural Fountains
  - Atmospheric Bulk Gas
  - Natural Gas
  - Boilers
  - Paper

# **SPECIFICATIONS & MATERIALS**

Body Sizes Body Materials	Cast Iron, Carbon Steel,	Actuators	Elastomeric diaphragm, metal diaphragm or piston actuator
Trim Materials	Bronze, Stainless Steel, Hastelloy*, Alloy 20*17-4 PH or 316L S.S., Monel, others	Temperature Range End Connections	425°F - 450°F
Diaphragm Materials	6-ply special composition (PTFE,	Turn-Down Ratio	
	Viton) PTFE, Viton, Neoprene, Buna-N, EPDM, Beryilium	Dynamic Response	
	Copper, Stainless Steel, Alloy 20*	Inlet Sensitivity Effect	design. Outlet pressure
Seats	Viton, others		changes by 3 to 8 psig for every 100 psig variation in inlet pressure, either
Cv Rating Set Points		Sensing	
Max Inlet Pressure	•	Ratio-Loaded Configuration	Available for controlling set point when control signal is too low
Max Outlet Pressure	1000 psig @ 100°F (material specific)		*Consult factory

A stainless steel spring chamber (top material) can be substituted for carbon steel or bronze 4" body can be assembled to 6" or 8" flanges if larger than 4" regulator is needed

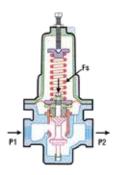


 $<sup>^{\</sup>rm 1}$  Consult factory for special connections. Consult factory for SAE end connections.

<sup>&</sup>lt;sup>2</sup> Consult factory for availability.

# DIRECT ACTING PRESSURE REGULATORS | BS Series

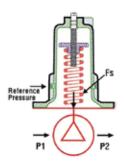
#### **Pressure Reducing**



**BS1** (*Pressure Reducing*)
Simplest regulator design

- Chemical and all simple process applications and industries
- Most fluids and medias

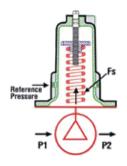




BS2 (Pressure Reducing, Differential)

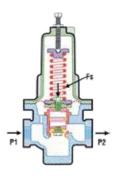
Using a sealed differential chamber instead of simple BS1 chamber produces a differential PRV

- Seal pressurization applications
- Spring atomization applications
- Spray tower applications



**BS2–3** (Negative Bias Differential)
By placing spring in tension rather than compression produces a negative bias relative to the reference pressure or a negative differential regulator.

#### **Back Pressure**

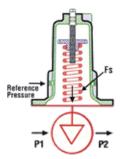


#### BS5 (Back Pressure)

Replacing trim with back pressure trim produces simplest back pressure regulator

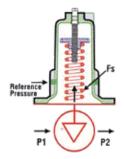
- Pump discharge applications
- Filter applications
- Relief valve





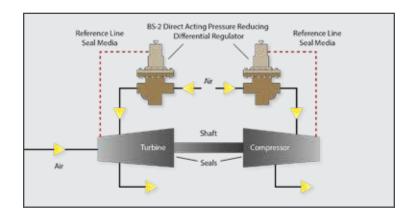
BS8 (Positive Differential Back Pressure)

By using a positive bias on spring in compression with back pressure trim produces a positive differential back pressure regulator.



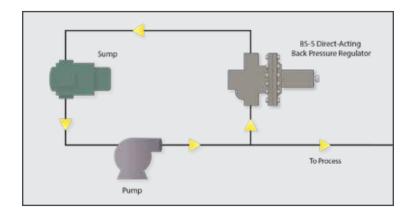
**BS8-3** (Negative Differential Back Pressure) Similarly, by utilizing the spring in a negative or tension mode along with back pressure trim creates a negative differential back pressure regulator.

# DIRECT ACTING PRESSURE REGULATORS | BS Series



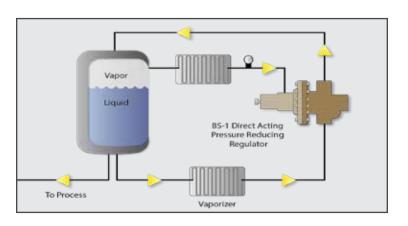
#### **SEAL PRESSURIZATION**

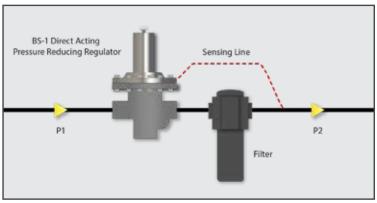
Spring loaded differential pressure regulators maintain lubrication or seal media on rotating or reciprocating equipment. The differential is maintained relative to internally sensed turbine or compressor pressures.



#### **CONSTANT PUMP DISCHARGE PRESSURE**

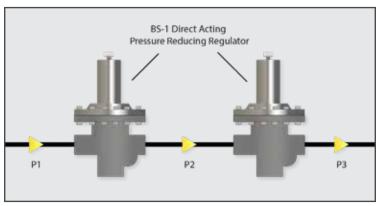
By using a simple spring loaded back pressure regulator, constant pump discharge pressure can be generated regardless of demand.





#### **CONSTANT FILTER DISCHARGE**

By using a spring loaded regulator with remote sensing, constant discharge pressure after a filter can be achieved regardless of cake buildup.



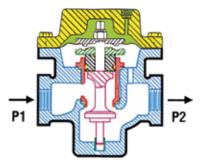
#### PRESSURE REDUCTION

Placing two or more spring loaded regulators in series for Pressure let-down will provide excellent accuracy, if flows are relatively constant. Valves are designed to fail-open position and minimization of "supply-line" effect.

#### **CRYOGENIC PRESSURE BUILD**

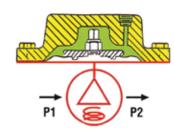
Pressure building regulators used to maintain pressure in vapor space above cryogenic liquid in Dewar vessels. By using a light spring with low "droop" assisted by gas pressure, a highly accurate pressure of 275 psig or more is attained. Set-point is capable of accuracies of  $\pm 2$  psig.

# DOME LOADED PRESSURE REGULATORS | BD Series



#### BD3 Pressure Reducing

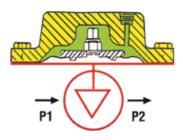
Simplest dome-loaded regulator or 1:1 "mimic" valve. Loading signal essentially equals P2.



#### BD4

#### Pressure Reducing with Return Spring

Same as BD3 except with a bottom return spring for proportional band control. Used when a "closed loop" or feedback to regulator, is generated.



#### BD6 Back Pressure

By using back pressure trim instead of standard trim, a dome loaded back pressure valve is created.



# BD7 Pressure Reducing with Steam Pilot

The BD7 is our dome-loaded regulator with a Spence steam pilot, ideal for steam control. It is offered with our BD3 (simple) or BD4 (spring return) internals.



#### BD9 Pressure Reducing Steam Regulator

The BD9 is employed when temperature is an issue. The BD9 has a diaphragm for better response and/or more precise pressure or vacuum control than piston type regulator.

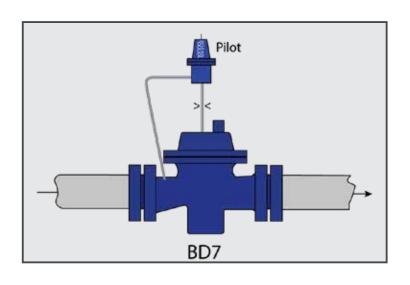


Typical steam pilot actuated dome loaded regulator for regulator accuracies of ± 1- 2 psig.

#### DOME LOADED REGULATORS WITH PILOTS

# Accuracy of $\pm$ 1-2 psig is achievable with dome loaded regulators.

If greater accuracy is required, pilot operated dome loaded regulators are used if possible. Since pilots are narrow band proportional controllers, accuracies of 0.5 psig or better are possible.

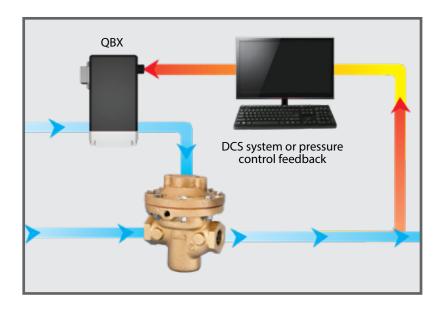


#### DOME LOADED REGULATORS AS CONTROL VALVES

With the selection of the sensing element such as a transducer, pH meter, level control or other, coupled with a controller and I/P (extended range, if necessary) the functionality of a control valve is accomplished.

#### **Advantages Over Control Valves**

- Quicker dynamic response (10 cycles per second)
- More compact design (over 30% smaller)
- · No fugitive emissions
- Higher turndown ratio 1000:1
- Generally less expensive than control valves in both cryogenics and industrial applications (approximately 30% less expensive)

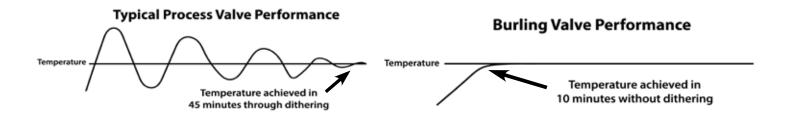


# SATURATED STEAM CONTROL | BD Series

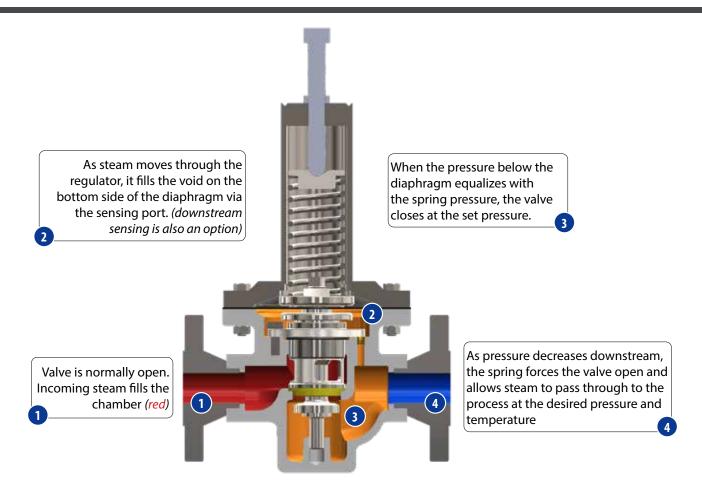
- Closed loop device with 4-20 mA command, analog, Modbus, or serial (electronic pilot)
- Works with standard industrial air, no instrument air required (electronic pilot)
- Available in single or dual loop configuration (electronic pilot)
- Fails closed at loss of power to maintain pressure (electronic pilot)
- · No dithering of the command is required
- Automatically maintains correct pressure (temperature) at all times
- · No dithering extends diaphragm life even further
- · Carbon steel, flange mount body



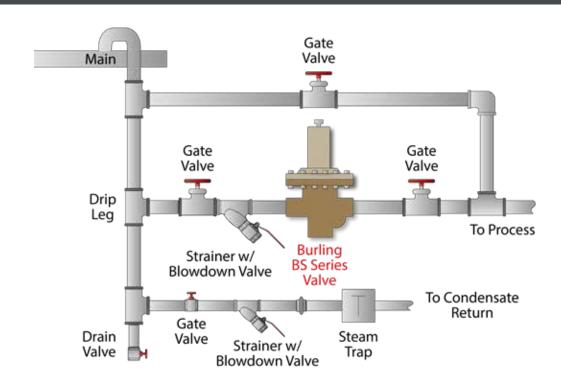
BD4 + QBX + DST



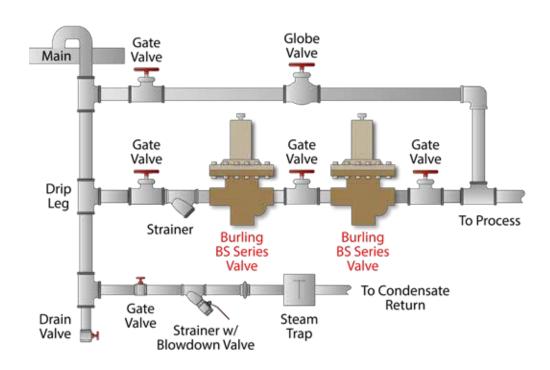
# STANDARD OPERATING CYCLE OF THE BURLING STEAM REGULATOR



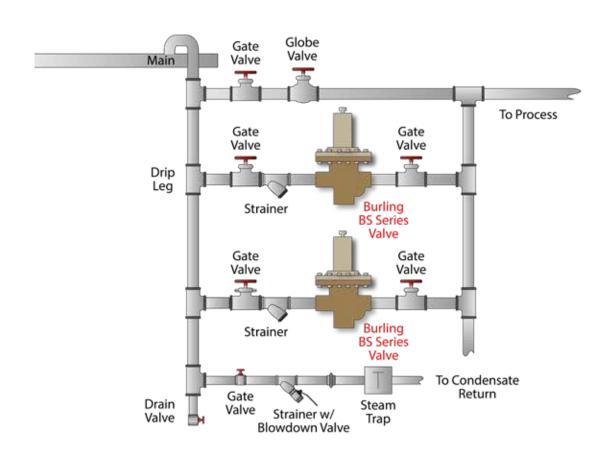
#### PRESSURE REDUCING VALVE STATION



# PRESSURE REDUCING TWO STAGES (SERIES)



# PARALLEL REDUCING STATION



# **BURLING VALVE HOW TO ORDER**

_			10			Jo	-m		ڃ	<u>e</u>	ė l	_		_ ≅	e.								
	<u>=</u>	None	1/4" NPT Body Taps	Negative Differential	Oxygen Cleaned	Tamper-proof Cap	Handwheel	Gauge	6"Flange on 4" Body	Low Pressure	Special Face- to-Face	1/2"NPT Dome Tap	8"Flange on 4" Body	High Pressure	options in alphanumeric order				Ta	ıble A: Top	Spring	s Rating (psi)	
	Special	ž	1/4 Bod	Neg Diffe	G Q	ampe C	Hanc	ß	6"Fla 4" E	Low P	Specia to-	1/2 Dom	8"Fla 4" E	ligh F	s in umer					Standard	l Sprin	g Ranges	,
		0	-	e e	4	9	7	- ∞	6	<	В	U	٥	ш	aption Iphar		#	0.5, .75	& 1.0	1.5		2.0	3.0 & 4.0
				(*)	7	Ü	15	w	- 01	`	ш	Ŭ			0 8		1	1 to	10	1 to 1	0	1 to 5	1 to 10
	3	Normal	Reverse														2	2 to	20	5 to 2	0	4 to 15	5 to 20
	Flow	_															3	10 to		15 to 4		10 to 30	10 to 40
		-	7	<u> </u>													4	20 to		10 to 7		15 to 50	10 to 70
	61	*Non- Sensing	Internal	External	Ratio	Only											5	30 to	_	40 to 1		30 to 90	40 to 125
	Sensing	Ser *	<u>II</u>	Ext	R	*9 Type Only											6	70 to		70 to 2		50 to 150	100 to 50
		0		2		.6*														70 10 2	00	30 (0 130	100 to 30
	٠	60 60															7	100 to					
	Trim Variation	See Table i															В	.5 to	5 5				
	. Va	#	i															Ноза	ov Spring	Pangos (In	cludos	Heavy Spring C	hambor)
		a	<u>~</u>	Σ	ISc												#					2.0	
	Return Spring	None	1-3 PSI	2-7 PSI	3-15 PSI													0.5, .75		1.5			3.0 & 4.0
	Re	0	1	2	3												8	200 to	650	100 to 4	100	80 to 300	
							1													Negative R	ias Snr	ring Ranges	
	Seal	Buna-N	Viton	Micone	EPDM	PTFE											#	0.5, .75	_	1.5	-	2.0	3.0 & 4.0
	Static Seal	_																					3.0 & 4.0
		2	'n	4	5	9		_	1								9	-1 to	20	-2 to 2	20	-1 to 15	
	<u>-</u>	d D	d D	nane P	Cup	Çnb	Zα	dn									A	-20 to	o 50	-20 to 5	50	-20 to 50	-20 to 40
	Dynamic Seal	PTFE U-Cup	RTFE U-Cup	Polyurethane U-Cup	Viton U-Cup	EP DM U-Cup	Buna-N U-Cup	TFM U-Cup															
	Jynar	Ы	FR	Pol	Vit	EPI		⊭															
		1	2	3	4	5	9	7	İ														
				>			55)			p	- e	D.	p. a	7)	(n;	ced (s		(lət	>	>			
	ane	None	Neoprene	PTFE 6-Ply	Viton	EPDM	Metal (316 SS)	Siles.	Buna-N	PTFE-Faced Viton	PTFE-Face Buna-N	PTFE-Faced EPDM	PTFE-Faced Neoprene	Metal (17-7)	Metal (BeCu)	Viton (reduced thickness)	M99A°	Metal (Monel)	PTFE 5-Ply	TFM 6-Ply			
	Membrane	z	Neo	PTF	>	ш	etal	<b>=</b>	B	PTE	PTFI Bu	E H	PTFE	Meta	Meta	iton (	Ž	/letal	F	TFN			
	(1)															>							
i	Me																						
	Me	0	-	2		4	2 M	9	7	<	В	U	О	ш	ш	ט	Ι	-	٦	¥			
	Me						2	9			В	U	Q	ш	ш	ט	Ι	-	_	×			
							2			<	В	U	Q	ш	ш	ט	Ξ	-	_	포			
	Seat Mei	Polyurethane 0	PTFE 1	RTFE 2	Kel-F			Viton 6	Buna-N 7		В	U	Ω	Е	ш	ט	Ι	-	<u> </u>	포			
						5 70 Durometer 4 Polyurethane	2			<	В	U	Q	Ш	L	ט	Ξ	-			riation	as & Cv Selection	
_	Seat	1 Polyurethane	2 PTFE	RTFE	Kel-F	70 Durometer Polyurethane	EPDM 5	Viton	Buna-N	TFM A	Ω	U	Q	ш	н	ט		Elasto	Table omer Men	e B: Trim Va	lastom	er Membrane	Metal Membra
_	Seat	1 Polyurethane	2 PTFE	RTFE	Kel-F	70 Durometer Polyurethane	EPDM 5	Viton	Buna-N	TFM A	۵	U	Q	Е	ш	ט	I Size	Elasto Pres	Table omer Men sure Red	e B: Trim Va nbrane El ucing	lastom Bacl	er Membrane kpressure	Metal Membra All Types
_	Seat	None 1 Polyurethane	See 2 PTFE	RTFE	Kel-F	70 Durometer Polyurethane	EPDM 5	Viton	Buna-N	TFM A	8	U	Q	Е	ш	g		Elasto	Table omer Men	e B: Trim Va	lastom Bacl	er Membrane kpressure	Metal Membra
_		1 Polyurethane	2 PTFE	RTFE	Kel-F	70 Durometer Polyurethane	EPDM 5	Viton	Buna-N	TFM A		V	Q	E	ш	b		Elasto Pres # 1 2	Table omer Men sure Red Cv 4.0	B: Trim Vanbrane Elucing #	lastom Back	kpressure Cv 4.0	Metal Membra All Types # Cv 1 4.0 2 3.27
_	Seat	0 None 1 Polyurethane	See 2 PTFE Table A	3 RTFE	nel 4 Kel-F	70 Durometer Polyurethane	6 EPDM S	Viton	Buna-N	TFM A	ler than	V	Q	E	ш	ט	Size	Elasto Pres #	Table omer Men sure Red Cv 4.0	e B: Trim Va nbrane El ucing #	lastom Back	kpressure Cv 4.0 3.0 2.0	Metal Membra All Types # Cv 1 4.0
_	Top Spring Seat Range	0 None 1 Polyurethane	See 2 PTFE Table A	3 RTFE	nel 4 Kel-F	70 Durometer Polyurethane	6 EPDM S	Viton	Buna-N	TFM A	ler than	V	D	E	u.	U		Elasto Pres # 1 2	Table omer Men sure Red Cv 4.0 3.0 2.4	B:Trim Vanbrane Elucing # 1 1 2 2 3 3 4 4	lastom Back	kpressure  Cv 4.0 3.0 2.0 1.0	Metal Membra All Types # Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4
_	Seat	None 1 Polyurethane	See 2 PTFE	RTFE	nel 4 Kel-F	70 Durometer Polyurethane	6 EPDM 5	Viton	Buna-N	TFM A	ler than	V	D	ш	ŭ.	U	Size	Elasto Pres # 1 2 3 4	Table omer Men sure Red Cv 4.0 3.0 2.4 1.5	B:Trim Vanbrane Elucing # 1 1 2 2 3 3 4 4	lastom Back	kpressure  Cv 4.0 3.0 2.0 1.0	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12
_	Top Spring Seat Range	17-4 PH SS 0 None 1 Polyurethane	316LSS # See 2 PTFE	Monel 3 RTFE	Hypug Conel 4 Kel-F	Alloy 20 TO Durometer Stands teel Stands teel	Hastelloy 6 EPDM 5	Viton	Buna-N	TFM A	ler than	V	Q	ш	L.	U	Size	Elasto Pres # 1 2 3 4	Table omer Men sure Red Cv 4.0 3.0 2.4 1.5	B:Trim Vanbrane Elucing # 1 1 2 2 3 3 4 4	lastom Back	kpressure Cv 4.0 3.0 2.0 1.0	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28
_	Trim Top Spring Seat Range Seat	0 None 1 Polyurethane	See 2 PTFE Table A	3 RTFE	4 Hyprogram 4 Kel-F	70 Durometer Polyurethane	6 Hastelloy 6 EPDM 5	7 Viton	Buna-N	TFM A	ler than	V	Q	ш	4	U	Size	Elasto Pres # 1 2 3 4 5	Table mer Men sure Red 4.0 3.0 2.4 1.5 0.60	e B: Trim Va nbrane El ucing # 1 2 3 3 4	lastom Back	ter Membrane kpressure Cv 4.0 3.0 2.0 1.0	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0
_	Trim Top Spring Seat Range Seat	1 17-4 PH SS 0 None 1 Polyurethane	2 316LSS # See 2 PTFE	3 Monel 3 RTFE	4 Hyprogram 4 Kel-F	Stangage teel 5 70 Durometer Polyurethane	6 Hastelloy 6 EPDM 5	7 Viton	N-Buna-N	9 TFM A	ler than	V	Q	ш	4	U	Size	Elasto Pres # 1 2 3 4 5	Table omer Men sure Red Cv 4.0 3.0 2.4 1.5 0.60	B:Trim Value B: Trim Value B:	Back	er Membrane kpressure Cv 4.0 3.0 2.0 1.0	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28
_	Trim Top Spring Seat Range Seat	17-4 PH SS 0 None 1 Polyurethane	316LSS # See 2 PTFE	Monel 3 RTFE	Hypug Conel 4 Kel-F	Alloy 20 TO Durometer Stands teel Stands teel	Hastelloy 6 EPDM 5	Viton	Buna-N	TFM A	ler than	V	Q	ш	4	9	Size	Elasto Pres # 1 2 3 4 5 1 1 2 1 3 4 4 5 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Table omer Men sure Red Cv 4.0 3.0 2.4 1.5 0.60 8.0 7.01 5.66 4.25	B:Trim Vanbrane Elucing # 1 2 3 4 4	lastom Back	er Membrane kpressure Cv 4.0 3.0 2.0 1.0	# Cv 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98
_	Trim Top Spring Seat Range Seat	NPT 1 17-4 PH SS 0 None 1 Polyurethane	Flange 2 316L.SS # TableA 2 PTFE	Tube End 3 Monel 3 RTFE	Butt Weld 4 Hyny Gonel 4 Kel-F	Socket Alloy 20 70 Durometer Weld Stands Stands Evel	Swagelok 6 Hastelloy 6 EPDM S	"Tri-Clamp 7 Viton	SAE 8 Buna-N	BSPP 9	ler than	U	Q	ш	4	U	Size	# 1 2 3 4 5 5 5 6 6 6	Table Omer Men Sure Reddi Cv 4.0 3.0 2.4 1.5 0.60 8.0 7.01	B:Trim Vanbrane Elucing # 1 2 3 4	lastom Back	er Membrane kpressure Cv 4.0 3.0 2.0 1.0	# Cv 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 0.28 1 5.0 2 3.27 3 1.46 6 1.12
_	Top Spring Seat Range	1 NPT 1 174 PH SS 0 None 1 Polyurethane	2 Flange 2 316LSS # See 2 PTFE	3 Tube End 3 Monel 3 RIFE	4 But Weld 4 HyMd/Ronel 4 KeHF	Socket Stallow 20 Stallow 20 No Northane	6 Swagelok 6 Hastelloy 6 EPDM 5	8 "Tr-Clamp 7 Viton	9 SAE 8 Buna-N	9 TFM A		U	a	ш	4	U	Size	Elasto Pres # 1 2 3 4 5 1 2 3 4 7	Tablifum Menager Menag	B: Trim Vanbrane Elucing # 1 2 3 4 4	lastom Back	er Membrane kpressure CV 4.0 3.0 2.0 1.0 8.0 4.0 3.0 2.0 1.0	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70
	End Connection Trim Top Spring Seat Range	NPT 1 17-4 PH SS 0 None 1 Polyurethane	Flange 2 316L.SS # TableA 2 PTFE	Tube End 3 Monel 3 RTFE	Butt Weld 4 Hyny Gonel 4 Kel-F	Socket Alloy 20 70 Durometer Weld Stands Stands Evel	Swagelok 6 Hastelloy 6 EPDM S	"Tri-Clamp 7 Viton	SAE 8 Buna-N	BSPP 9	ler than	U	a	ш	4	U	Size	Elasto Pres # 1 2 3 4 5 5 6 6 6 7 7 8 8	Table 1 Table 2 Table	e B: Trim Vanbrane Electric El	Back	er Membrane kpressure Cv 4.0 3.0 2.0 1.0	# Cv 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 0.28 1 5.0 2 3.27 3 1.46 6 1.12
_	Trim Top Spring Seat Range Seat	1 NPT 1 174 PH SS 0 None 1 Polyurethane	2 Flange 2 316LSS # See 2 PTFE	3 Tube End 3 Monel 3 RIFE	4 But Weld 4 HyMd/Ronel 4 KeHF	Socket Stallow 20 Stallow 20 No Northane	6 Swagelok 6 Hastelloy 6 EPDM 5	8 "Tr-Clamp 7 Viton	9 SAE 8 Buna-N	BSPP 9	ler than	U	Q	ш	4	U	Size	Elasto Pres # 1 2 3 4 5 1 1 2 3 4 5 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1	Table Men Men Men Men Men Men Men Men Men Me	B: Trim Vanbrane Elucing # 1 2 2 3 4 4 5 5	Back	er Membrane kpressure  Cv 4.0 3.0 2.0 1.0  8.0 4.0 3.0 2.0 1.0  1.0  1.0  1.0  1.0  1.0	# Cv 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 8 0.28
_	End Connection Trim Top Spring Seat Range	1 125 1 NPT 1 17-4 PH SS 0 None 1 Polywethane	2 150 2 Flange 2 316LSS # See 2 PITE	3 250 3 Tube End 3 Monel 3 RTFE	4 300 4 But Weld 4 Hypergraph 4 KeHF	s 600 s Socket s StallyActeel s Polyurethane	6 700 6 Swagelolk 6 Hastelloy 6 EPDM 5	7 1500 8 "Tri-Clamp 7 Viton	900 9 SAE Buna-N	BSPP 9	ler than	U	q	ш	4	U	Size	Elasto Pres # 1 2 3 4 5 6 7 8 8 1 1 2 3 3 3 4 4 5 6 7 7 8 8 8 1 2 2 3 3 3 3 5 6 6 7 7 8 8 8 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Table 1 Table 2 Table	B: Trim Vanbrane Elucing # 1 2 3 3 4 4 5 5	Back	er Membrane kpressure Cv 4.0 3.0 2.0 1.0 8.0 4.0 3.0 2.0 1.0	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 2 3.27 3 2.64 4 1.98 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 7.0 8 0.28 1 7.0 2 5.52 3 3.27
_	Rating End Connection Trim Top Spring Seat (ANS)	1 125 1 NPT 1 17-4 PH SS 0 None 1 Polywethane	2 150 2 Flange 2 316LSS # See 2 PITE	3 250 3 Tube End 3 Monel 3 RTFE	4 300 4 But Weld 4 Hypergraph 4 KeHF	s 600 s Socket s StallyActeel s Polyurethane	6 700 6 Swagelolk 6 Hastelloy 6 EPDM 5	7 1500 8 "Tri-Clamp 7 Viton	8 900 9 SAE 8 Buna-N	BSPP 9	ler than	U	q	ш	4	U	Size	Elasto Pres # 1 2 3 4 5 6 7 8 1 1 2 3 4 5 6 7 8 1 1 2 3 4 5 6 7 8 8 1 7 8 8 1 7 8 8 8 8 8 8 8 8 8 8 8	Table	# 1 2 3 3 4 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Back	Rer Membrane kpressure	# Cv 4.0 1.98 1.98 1.94 1.92 1.92 1.92 1.92 1.92 1.92 1.92 1.92
_	Rating End Connection Trim Top Spring Seat (ANS)	125 1 NPT 1 174 PH SS 0 None 1 Polyurethane	150 2 Flange 2 316LSS # See 2 PITE	250 3 Tube End 3 Monel 3 RTFE	300 4 ButtWeld 4 HvMV onel 4 Kel-F	600 5 Socket 5 Standarkeel 5 Duometer Polyurethane	700 6 Swagelok 6 Hastelloy 6 EPDM S	1500 8 *Tri-Clamp	8 900 9 SAE 8 Buna-N	BSPP 9	ler than	U	q	ш	4	U	0.5 .75	Elasto Pres # 1 2 3 4 4 5 6 1 2 3 4 5 6 6 6 6	Table Men Men Men Men Men Men Men Men Men Me	# 1 2 3 3 4 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Back	8.0 4.0 3.0 2.0 1.0 8.0 4.0 3.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 1 7.0 1 7.0 2 5.52 3 3.27 4 2.64 5 1.98
_	End Connection Trim Top Spring Seat Range	1 125 1 NPT 1 17-4 PH SS 0 None 1 Polywethane	2 150 2 Flange 2 316LSS # See 2 PITE	3 250 3 Tube End 3 Monel 3 RTFE	4 300 4 But Weld 4 Hypergraph 4 KeHF	s 600 s Socket s StallyActeel s Polyurethane	6 700 6 Swagelolk 6 Hastelloy 6 EPDM 5	7 1500 8 "Tri-Clamp 7 Viton	900 9 SAE Buna-N	BSPP 9	ler than	U	q	ш	4	U	0.5 .75	# 1 2 3 4 5 6 7 7 8 8 8 1	Table 1 Table 2 Table	# 1 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 5 5 1 1 2 2 3 3 4 5 5 1 1 2 2 3 3 4 5 5 1 1 2 2 3 3 4 5 5 1 1 2 2 3 3 3 4 5 5 1 1 2 2 3 3 3 4 5 5 1 1 2 2 3 3 3 4 5 5 1 1 1 2 2 3 3 3 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Back	8.0 4.0 3.0 2.0 1.0  8.0 4.0 3.0 2.0 1.0  1.0  1.0  1.0  1.0  1.0  1.0	# Cv 4.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 2 5.52 3 3.27 4 2.64 5 1.98 6 1.4 7 1.12 8 0.70
	Top Material Rating End Connection Trim Top Spring Seat	A Aluminum 1 125 1 NPT 1 17-4PHSS 0 None 1 Polyurethane	i *Castiron 2 150 2 Flange 2 316LSS # Table A 2 PTFE	B *Bronze 3 250 3 Tube End 3 Monel 3 RITE	Carbon 4 300 4 ButtWeld 4 Hyptomonel 4 Kel-F	S Stainless 5 600 5 Weld 5 Staffled 5 Polyurethane	H HNGAQ 6 700 6 Swagelok 6 Hastelloy 6 EPDM 5	1 NA/A 7 1500 8 "Tri-Clamp 7 Viton	8 900 9 SAE 8 Buna-N	BSPP 9	ler than	V	Q	ш	4	U	0.5 .75	Elasto Pres # 1	Table Men Men Men Men Men Men Men Men Men Me	B: Trim Vanbrane Elucing # 1 2 2 3 4 4 5 5 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 3 4 4 5 5 1 1 1 2 2 3 3 3 4 4 5 5 1 1 1 2 2 3 3 3 4 4 5 5 1 1 1 2 2 3 3 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Back	Rer Membrane kpressure  CV  4.0  3.0  2.0  1.0  8.0  4.0  3.0  2.0  1.0  12.0  4.0  3.0  2.0  1.0	# Cv 4.0 1.12 7 0.70 8 0.28 1 1.4 6 1.12 7 0.70 8 0.28 1 1.4 6 1.12 7 0.70 2 3.27 3 2.64 4 1.98 8 0.28 1 7.0 0.70 2 5.52 3 3.27 4 2.64 4 1.96 5 1.4 6 1.12 7 0.70 8 0.28 1 7.0 0.70 8 0.28 1 7.0 0.70 8 0.28 1 7.0 0.70 9 0.28
	Top Material Rating End Connection Trim Top Spring Seat	A Aluminum 1 125 1 NPT 1 17-4PHSS 0 None 1 Polyurethane	i *Castiron 2 150 2 Flange 2 316LSS # Table A 2 PTFE	B *Bronze 3 250 3 Tube End 3 Monel 3 RITE	Carbon 4 300 4 ButtWeld 4 Hyptomonel 4 Kel-F	S Stainless 5 600 5 Weld 5 Staffled 5 Polyurethane	H HNGAQ 6 700 6 Swagelok 6 Hastelloy 6 EPDM 5	1 NA/A 7 1500 8 "Tri-Clamp 7 Viton	8 900 9 SAE 8 Buna-N	BSPP 9	ler than	V	Q	ш	4	U	0.5 .75	Elasto Pres # 1 2 3 4 5 6 1 2 2 3 4 5 6 7 8 6 7 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Table 1 Table 2 Table	B: Trim Vanbrane Elucing # 1 2 3 4 4 5 5	Back	8.0 4.0 3.0 2.0 1.0  8.0 4.0 3.0 2.0 1.0  1.0  2.0 1.0	# Cv 4.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 2 5.52 1 7.0 2 5.52 3 3.27 4 2.64 5 1.98 6 1.4 7 1.12 8 0.70
	Top Material Rating End Connection Trim Top Spring Seat	A Aluminum 1 125 1 NPT 1 17-4PHSS 0 None 1 Polyurethane	*Castiron 2 150 2 Flange 2 316LSS # See 2 PIFE	*Bronze 3 250 3 Tube End 3 Monel 3 RTFE	Carbon 4 300 4 Butt Weld 4 HVNV (Carbonel Steel 4 Kel-F	Stainless S 600 S Socket S Standarked S Polyurethane	HNI∳AN 6 700 6 Swagelok 6 Hastelloy 6 EPDM S	NASA 7 1500 8 "Tri-Clamp 7 Viton	8 900 9 SAE 8 Buna-N	BSPP 9	ler than	V	Q	ш	4	U	0.5 .75	Elasto Pres # 1 2 3 4 5 1 1 2 3 4 5 6 7 8 1 1 2 3 4 5 6 7 8 9 1 1 2 3 3 4 7 8 8 9 1 1 2 3 1 4 7 8 8 9 1 1 2 3 1 4 8 9 1 1 2 3 4 8 9 1 1 2 3 4 8 9 1 1 2 3 4 8 9 1 1 2 3 1 4 8 9 1 1 2 3 1 4 8 9 1 1 2 3 1 4 8 9 1 1 2 3 3 4 8 9 1 1 2 3 3 4 8 9 1 1 2 3 3 4 8 9 1 1 2 3 3 4 8 9 1 1 2 3 3 4 8 9 1 1 2 3 3 4 8 9 1 1 2 3 3 4 8 9 1 1 2 3 3 4 8 9 1 1 2 3 3 8 9 1 1 2 3 3 8 9 1 1 2 2 3 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 9 1 1 2 2 3 3 8 8 9 1 1 2 2 3 3 8 8 9 1 1 2 8 8 9 1 1 2 8 8 9 1 8 9 1 8 8 9 1 8 9 1 8 8 9 1 8 8 9 1 8 8 9 1 8 8 9 1 8 8 9 1 8 8 8 9 8 9	Table	# B: Trim Va	Back	8.0 4.0 3.0 2.0 1.0  8.0 4.0 3.0 2.0 1.0  1.0  2.0 1.0  2.0 1.0  2.0 1.0	# Cv 4.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 2 5.52 3 3.27 3 2.64 4 1.98 6 1.12 7 0.70 9 0.28 1 9.0 9 0.28 1 9.0 9 0.28 1 9.0
	Rating End Connection Trim Top Spring Seat (ANS)	Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH SS 0 None 1 Polywethane	Cast Iron 1 *Cast Iron 2 150 2 Flange 2 316LSS # 5ee 2 PITE	Bronze B 'Bronze 3 250 3 Tube End 3 Monel 3 RTFE	Carbon C Steel 4 300 4 Butt Weld 4 Hypud (Ronel 4 KeHF	Stainless S Stainless S 600 S Socket Stainless S Socket Polyuretrane	Morale H Haselloy 6 700 6 Swagelok 6 Hastelloy 6 EPDM 5	NoAP L NAM 7 1500 8 "Tri-Clamp 7 Viton	8 900 9 SAE 8 Buna-N	BSPP 9	ler than	V	0				0.5 .75	Elasto Pres # 1 2 3 4 5 5 6 7 8 1 2 2 3 4 1 5 6 7 8 1 1 2 3 4 4 4 4 4 4	Table Men Men Men Men Men Men Men Men Men Me	# B: Trim Va	Back	8.0 4.0 3.0 2.0 1.0 12.0 4.0 3.0 2.0 1.0 12.0 4.0 3.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 2 3.27 3 2.64 4 1.98 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 2 5.52 3 3.27 4 2.64 5 1.98 6 1.4 7 1.12 8 0.70 6 1.4 7 1.12 8 0.70 1 9.0 2 4.5 3 3.6 4 2.7
	Top Material Rating End Connection Trim Top Spring Seat	A Aluminum A Aluminum 1 125 1 NPT 1 17-4PHSS 0 None 1 Polyurethane	i *Castiron 2 150 2 Flange 2 316LSS # Table A 2 PTFE	B *Bronze 3 250 3 Tube End 3 Monel 3 RITE	Carbon 4 300 4 ButtWeld 4 Hyptomonel 4 Kel-F	s Stainless s Stainless s 600 s Socket s Stainless s Polyurethane	H NAVIOR 6 700 6 Swagelok 6 Hastelloy 6 EPDM S	1 NA/A 7 1500 8 "Tri-Clamp 7 Viton	**BD only 8 900 9 SAE	A BSPP A	*Trt-Clamp uses a body one size smaller than chosen (ex., BS2.0 will use 1.5° body)	V				o	0.5 .75	# 1 2 3 4 5 6 6 7 7 8 8 9 1 1 2 3 4 4 5 5 1 6 6 1 7 7 8 8 1 9 1 1 2 1 3 1 4 4 5 5 1 6 6 1 7 7 8 8 1 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Table Men Men Men Men Men Men Men Men Men Me	2 B: Trim Vanbrane Elucing # # # # # # # # # # # # # # # # # # #	Back	8.0 4.0 3.0 2.0 1.0 8.0 4.0 3.0 2.0 1.0 1.0 2.0 1.0 2.0 1.0 2.0 1.0 4.0 3.0 2.0 1.0 4.0 3.0 2.0 4.0 3.0 2.0 4.0 3.0 4.0 3.0 2.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 4.0 3.0 4.0 4.0 4.0 3.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	# Cv 4.0 1.98 8 0.28 1 5.0 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 7.0 2 5.52 3 3.27 4 2.64 5 1.98 6 1.4 5 1.98 6 1.4 7 1.12 8 0.70 9 0.28 1 9.0 2 4.5 3 3.6 4 2.7 5 1.8
_	Top Material Rating End Connection Trim Top Spring Seat	A Aluminum A Aluminum 1 125 1 NPT 1 17-4PHSS 0 None 1 Polyurethane	1 Cast fron   *Cast fron   *C	B Bronze B *Bronze 3 Z50 3 Tube End 3 Monel 3 RTFE	C Steel C Carbon 4 300 4 Butt Weld 4 Hyper Control 4 Kel-F	s Stainless s Stainless s 600 s Socket s Stainless s Polyurethane	H NAVIOR 6 700 6 Swagelok 6 Hastelloy 6 EPDM S	L MésAp L NASAP 7 1500 8 "Tri-Clamp" 7 Viton	**BD only 8 900 9 SAE	A BSPP A	*Trt-Clamp uses a body one size smaller than chosen (ex., BS2.0 will use 1.5° body)					U		Elasto Pres # 1 2 3 4 5 6 7 8 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 8 1 2 3 4 5 6 7 8 8 1 2 1 2 3 4 5 6 7 8 8 1 2 3 4 6 7 8 8 1 2 3 4 6 7 8 8 1 2 1 2 1 2 1 2 1 2 1 2 1 2 2 3 4 4 5 6 7 8 8 1 2 2 3 4 6 7 8 8 1 2 2 3 4 6 7 8 8 1 2 1 2 2 3 4 6 7 8 8 1 2 2 3 4 6 7 8 8 1 2 2 3 4 8 8 8 1 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Table Men Men Men Men Men Men Men Men Men Me	B: Trim Vanbrane Elucing # 1 2 2 3 4 4 5 5 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 1 2 2 1 2 1 2 1 2 1 2 1 2 1 1 1 1	Back	8.0 4.0 3.0 2.0 1.0 8.0 4.0 3.0 2.0 1.0  1.0  2.0 1.0  1.0  2.0 1.0  4.0 3.0 2.0 1.0  4.0 3.0 2.0 1.0	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 1.9 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 7 0.70 8 0.28 1 1.12 8 0.70 9 0.28 1 9.0 2 4.5 3 3.6 4 2.7 5 1.8 1 15 2 11.75
	Body Material Top Material Rating End Connection Trim Top Spring Seat	A Aluminum A Aluminum 1 125 1 NPT 1 17-4PHSS 0 None 1 Polyurethane	1 Cast fron   *Cast fron   *C	Bronze B 'Bronze 3 250 3 Tube End 3 Monel 3 RTFE	C Steel C Carbon 4 300 4 Butt Weld 4 Hyper Control 4 Kel-F	s Stainless s Stainless s 600 s Socket s Stainless s Polyurethane	H NAVIOR 6 700 6 Swagelok 6 Hastelloy 6 EPDM S	L MésAp L NASAP 7 1500 8 "Tri-Clamp" 7 Viton	**BD only 8 900 9 SAE	A BSPP A	*Trt-Clamp uses a body one size smaller than chosen (ex., BS2.0 will use 1.5° body)	О				0	0.5 .75	# 1 2 3 4 5 6 7 7 8 8 9 1 1 2 3 3 4 4 5 5 6 6 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 8 7 7 7 7 8 7 7 7 7 8 7 7 7 7 8 7 7 7 7 8 7 7 7 7 8 7 7 7 7 8 7 7 7 7 7 8 7	Table Men Men Men Men Men Men Men Men Men Me	# B: Trim Va	Back	Ref Membrane kpressure	# Cv 4.0 4.0 1.98 8 0.28 1 5.0 7.0 7.0 8 0.28 1 7.0 7.0 8 0.28 1 7.0 7.0 8 0.28 1 7.0 2 2 5.52 2 5.52 4 2.64 5 1.98 6 1.4 6 1.12 7 0.70 8 0.28 1 7.0 2 5.52 2 5.52 2 1.1.75 3 3.6 4 2.7 1 1.12 8 0.70 9 0.28 1 9.0 2 4.5 3 3.6 4 2.7 5 1.8 1 15 1 15 2 11.75 3 7.5
_	Top Material Rating End Connection Trim Top Spring Seat	Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH SS 0 None 1 Polywethane	Cast Iron 1 *Cast Iron 2 150 2 Flange 2 316LSS # 5ee 2 PITE	B Bronze B *Bronze 3 Z50 3 Tube End 3 Monel 3 RTFE	Carbon C Steel 4 300 4 Butt Weld 4 Hypud (Ronel 4 KeHF	Stainless S Stainless S 600 S Socket Stainless S Socket Polyuretrane	Morale H Haselloy 6 700 6 Swagelok 6 Hastelloy 6 EPDM 5	NoAP L NAM 7 1500 8 "Tri-Clamp 7 Viton	8 900 9 SAE 8 Buna-N	BSPP 9	*Trt-Clamp uses a body one size smaller than chosen (ex., BS2.0 will use 1.5° body)					U		Elasto Pres # 1	Table	B: Trim Vanbrane Elucing # 1 2 3 3 4 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Back	8.0 4.0 3.0 2.0 1.0  12.0 4.0 3.0 2.0 1.0  24.0 4.0 3.0 2.0 1.0  4.0 3.0 2.0 1.0  4.0 3.0 2.0 1.0  4.0 3.0 2.0 4.0 3.0 2.0 4.0 3.0 2.0 4.0 3.0 2.0 4.0 3.0 4.0 3.0 2.0 4.0 3.0 4.0 3.0 2.0 4.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 3.0 4.0 4.0 4.0 3.0 4.0 4.0 4.0 3.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	# Cv 4.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 2 5.52 3 .27 4 2.64 5 1.98 6 1.4 7 1.12 8 0.70 9 0.28 1 9.0 1 9.0 2 4.5 3 3.6 4 2.7 5 1.8 1 15 2 11.75 3 7.5 5 1.8
	Body Material Top Material Rating End Connection Trim Top Spring Seat	A Aluminum A Aluminum 1 125 1 NPT 1 17-4PHSS 0 None 1 Polyurethane	1 Cast fron   *Cast fron   *C	B Bronze B *Bronze 3 Z50 3 Tube End 3 Monel 3 RTFE	C Steel C Carbon 4 300 4 Butt Weld 4 Hyper Control 4 Kel-F	s Stainless s Stainless s 600 s Socket s Stainless s Polyurethane	H NAVIOR 6 700 6 Swagelok 6 Hastelloy 6 EPDM S	L MésAp L NASAP 7 1500 8 "Tri-Clamp" 7 Viton	**BD only 8 900 9 SAE	A BSPP A	ler than		Requires Adder Fee	Consult Factory for Pricing and Availability	Low Pressure. Consult Factory	U		Elasto Pres # 1 2 3 4 5 5 6 7 8 1 2 3 4 5 6 7 8 1 1 2 3 4 5 1 2 3 4 5 1 1 2 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Table Men Men Men Men Men Men Men Men Men Me	B: Trim Vanbrane Elucing # 1 2 3 3 4 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Back	8.0 4.0 3.0 2.0 1.0 12.0 4.0 3.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 7.0 2 5.52 3 3.27 4 2.64 5 1.8 1 7.0 2 5.52 3 3.27 4 2.64 5 1.98 6 1.14 7 1.12 8 0.70 9 0.28 1 9.0 2 4.5 3 3.6 4 2.7 5 1.8 1 15 5 1.8 1 15 5 1.8 1 5.0 5 3.75 4 5.0 5 3.75
_	Body Material Top Material Rating End Connection Trim Top Spring Seat	1 Direct Acting A Aluminum A Aluminum 1 125 1 NPT 1 174 PH SS 0 None 1 Polyurethane	2 Differential 1 Cast fron 1 *Cast fron 2 150 2 Flange 2 316LSS # See 7able A 2 PIFE	3 Dome B Bronze B *Bronze 3 250 3 Tube End 3 Monel 3 RTFE	Dome/ A Return C Steel C Carbon 4 300 4 Butt Weld 4 HVNN Greel 4 Kel-F	s Back Pressure s Stainless s Stainless s 600 s Socket s Stainless s Polyurethane	6 Back Pressure H NAGAV H HNGGAV 6 700 6 Swagelok 6 Hastelloy 6 EPDM S	7 Pilot L NASAB L NASAB 7 1500 8 "Tri-Clamp 7 Viton	Back Pressure Differential  18 only 8 900 9 SAE 8 Buna-N	*Dome/Small Piston	*Trt-Clamp uses a body one size smaller than chosen (ex., BS2.0 will use 1.5° body)					U		Elasto Pres # 1	Table  Cv 4.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	B: Trim Vanbrane Elucing # 1 2 3 3 4 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Back	8.0 4.0 3.0 2.0 1.0 12.0 4.0 3.0 2.0 1.0 12.0 4.0 3.0 2.0 1.0 12.0 4.0 3.0 2.0 1.0 12.0 4.0 4.0 3.0 2.0 1.0 12.0 4.0 4.0 3.0 2.0 1.0 12.0 4.0 4.0 3.0 2.0 1.0 12.0 4.0 4.0 3.0 2.0 1.0 12.0 4.0 4.0 4.0 3.0 2.0 1.0 12.0 4.0 4.0 4.0 3.0 2.0 1.0 12.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	# Cv 4.0 4.0 1.98 8 .0.28 1 5.0 7.0 7.0 2 3.27 3 2.64 4 1.98 8 .0.28 1 5.0 2.3 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 7.0 2 5.52 3 3.27 4 2.64 5 1.98 6 1.4 6 1.12 8 0.70 9 0.28 1 7.0 2 4.5 3 3.6 4 2.7 5 1.8 1 15 2 11.75 3 7.5 1 60 5 3.75 1 60 5 2.25 3 2.0
_	Body Material Top Material Rating End Connection Trim Top Spring Seat	1/2" 1 Direct Acting A Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH SS 0 None 1 Polyurethane	3/4" 2 Differential I Cast fron 1 *Cast fron 2 150 2 Flange 2 316LSS # Table A 2 PITE	1" 3 Dome B Bronze B *Bronze 3 250 3 Tube End 3 Monel 3 RTFE	1.5" 4 Return Steel C Steel 4 300 4 Butt Weld 4 HVM (	2" s Back Pressure S Stainless S Stainless S 600 S Weld S Stainless Spring	3" 6 Back Pressure H NASAN H HNIGHW 6 700 6 Swagelok 6 Hastelloy 6 EPDM 5	4" 7 Pilot L NA/Ap L NA/Ap 7 1500 8 "Tri-Clamp 7 Viton	Back Pressure Differential  18 only 8 900 9 SAE 8 Buna-N	*Dome/Small Piston	*Trt-Clamp uses a body one size smaller than chosen (ex., BS2.0 will use 1.5° body)						0.5 .75 .75 .2.0	Elasto Pres # 1 2 3 4 4 5 6 7 8 1 2 3 4 5 6 7 8 1 1 2 3 4 5 1 2 3 4 5 1 1 2 3 4 5 1 1 2 3 4 4 5 1 2 3 4 4 5 1 2 3 4 4 5 4 5 6 7 8 8 1 1 2 3 4 4 5 6 7 8 8 1 1 2 3 4 4 5 6 7 8 8 1 1 2 3 4 4 5 6 7 8 8 1 4 7 8 8 8 1 1 2 3 4 4 5 6 7 8 8 8 1 1 2 3 4 4 5 6 7 8 8 8 1 1 2 3 4 4 8 5 8 1 4 8 8 8 1 8 1 8 8 1 8 1 8 8 1 8 1 8	Table Men Men Men Men Men Men Men Men Men Me	B: Trim Vanbrane Elucing # 1 2 3 3 4 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Back	8.0 4.0 3.0 2.0 1.0  8.0 4.0 3.0 2.0 1.0  1.0  24.0  4.0 3.0 2.0 1.0  12.0 4.0 3.0 2.0 1.0  12.0 4.0 3.0 2.0 1.0	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 7.0 8 0.28 1 7.0 7 0.70 8 0.28 1 7.0 8 0.28 1 7.0 1 1.12 8 0.28 1 7.0 2 5.52 3 3.27 4 2.64 5 1.98 6 1.4 7 1.12 8 0.70 8 0.70 8 0.70 1 1.98 1 1.98 6 1.4 7 1.12 8 0.70 1 1.9 8 0.
_	Type Body Material Top Material Rating End Connection Trim Top Spring Seat	1 Direct Acting A Aluminum A Aluminum 1 125 1 NPT 1 174 PH SS 0 None 1 Polyurethane	2 Differential 1 Cast fron 1 *Cast fron 2 150 2 Flange 2 316LSS # See 7able A 2 PIFE	3 Dome B Bronze B *Bronze 3 250 3 Tube End 3 Monel 3 RTFE	Dome/ A Return C Steel C Carbon 4 300 4 Butt Weld 4 HVNN Greel 4 Kel-F	s Back Pressure s Stainless s Stainless s 600 s Socket s Stainless s Polyurethane	6 Back Pressure H NAGAV H HNGGAV 6 700 6 Swagelok 6 Hastelloy 6 EPDM S	7 Pilot L NASAB L NASAB 7 1500 8 "Tri-Clamp 7 Viton	Back Pressure Differential  18 only 8 900 9 SAE 8 Buna-N	*Dome/Small Piston	*Trt-Clamp uses a body one size smaller than chosen (ex., BS2.0 will use 1.5° body)						0.5 .75 .75 .2.0	Elasto Pres #	Table Men Men Men Men Men Men Men Men Men Me	B: Trim Vanbrane Elucing # 1 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Back	8.0 4.0 3.0 2.0 1.0  1.0  1.0  1.0  1.0  1.0  1.0	# Cv 4.0 4.0 2 3.27 3 2.64 4 1.98 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 7.0 2 5.52 2 3.27 4 2.64 5 1.98 6 1.4 7 1.12 8 0.70 9 0.28 1 9.0 2 4.5 3 3.6 4 2.7 5 1.8 1 15 2 11.75 5 1.8 1 15 2 11.75 5 3.75 4 5.0 2 25 3 3.75 1 60 2 25 3 20 4 115
_	Size Type Body Material Top Material (ANS)) End Connection Trim Top Spring Seat	0.5 1/2" 1 Direct Acting A Aluminum A Aluminum 1 125 1 NPT 1 174 PH SS 0 None 1 Polyurethane	.75 3/4" 2 Differential 1 Cast fron 1 "Cast fron 2 150 2 Flange 2 316LSS # See Table A 2 PITE	1" 3 Dome B Bronze B *Bronze 3 250 3 Tube End 3 Monel 3 RTFE	1.5" 4 Return Steel C Steel 4 300 4 Butt Weld 4 HVM (	2" s Back Pressure S Stainless S Stainless S 600 S Weld S Stainless Spring	3" 6 Back Pressure H NASAN H HNIGHW 6 700 6 Swagelok 6 Hastelloy 6 EPDM 5	4" 7 Pilot L NA/Ap L NA/Ap 7 1500 8 "Tri-Clamp 7 Viton	Back Pressure Differential  18 only 8 900 9 SAE 8 Buna-N	*Dome/Small Piston	*Trt-Clamp uses a body one size smaller than chosen (ex., BS2.0 will use 1.5° body)						0.5	Elasto Pres # 1 2 3 4 5 5 6 6 7 8 8 1 2 2 3 4 5 5 6 6 7 8 9 1 1 2 3 3 4 5 5 1 1 2 3 3 4 5 5 1 1 2 3 3 4 5 5 1 1 2 3 3 4 5 5 1 1 2 3 3 4 5 5 1 1 2 3 3 4 5 5 1 1	Table Men Men Men Men Men Men Men Men Men Me	B: Trim Vanbrane Elucing # 1 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Back	er Membrane kpressure	# Cv 1 4.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 5.0 2 3.27 3 2.64 4 1.98 5 1.4 6 1.12 7 0.70 8 0.28 1 1.98 6 1.14 7 1.12 8 0.70 8 0.28 1 7.0 1 7.0 2 5.52 3 3.27 4 2.64 5 1.98 6 1.4 7 1.12 8 0.70 9 0.28 1 9.0 2 4.5 5 1.8 1 15 2 11.75 3 7.5 4 5.0 5 3.75 1 60 2 25 3 20 4 15 5 10 8 00 2 18.18
	Type Body Material Top Material Rating End Connection Trim Top Spring Seat	1/2" 1 Direct Acting A Aluminum A Aluminum 1 125 1 NPT 1 17-4 PH SS 0 None 1 Polyurethane	3/4" 2 Differential I Cast fron 1 *Cast fron 2 150 2 Flange 2 316LSS # Table A 2 PITE	1" 3 Dome B Bronze B *Bronze 3 250 3 Tube End 3 Monel 3 RTFE	1.5" 4 Return Steel C Steel 4 300 4 Butt Weld 4 HVM (	2" s Back Pressure S Stainless S Stainless S 600 S Weld S Stainless Spring	3" 6 Back Pressure H NASAN H HNIGHW 6 700 6 Swagelok 6 Hastelloy 6 EPDM 5	4" 7 Pilot L NA/Ap L NA/Ap 7 1500 8 "Tri-Clamp 7 Viton	Back Pressure Differential  18 only 8 900 9 SAE 8 Buna-N	*Dome/Small Piston	*Trt-Clamp uses a body one size smaller than chosen (ex., BS2.0 will use 1.5° body)						0.5 .75 .75 .2.0	Elasto Pres #	Table Men Men Men Men Men Men Men Men Men Me	B: Trim Vanbrane Elucing # 1 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 2 2 3 3 4 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Back	80 4.0 3.0 2.0 1.0 12.0 4.0 3.0 2.0 1.0 12.0 4.0 3.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	# Cv 4.1.179es # Cv 2.3.27 3.2.64 4.1.98 8.0.28 1.5.0 2.3.27 3.2.64 4.1.98 5.1.4 6.1.12 7.0.70 8.0.28 1.7.0 2.2.55 2.3.27 4.2.64 5.1.98 6.1.14 7.0.70 8.0.28 1.7.0 2.2.55 2.2.64 2.64 5.1.12 8.0.70 9.0.28 1.0.10 1.

# **Sizing a Regulator Correctly**

The following data is required for proper regulator sizing

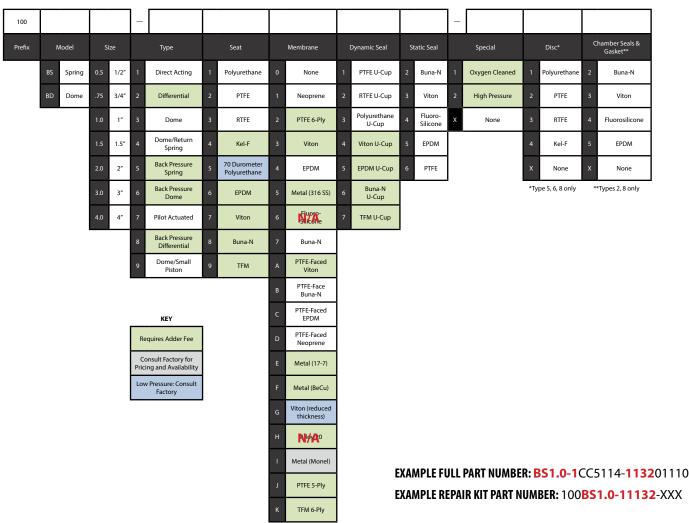
	Company				Name		
	Email			Phone	e Number		
Flui	d (media)			Specifi	c Gravity <sup>1</sup>		
Temperature (	min-max)				Viscosity <sup>1</sup>		
Fur	nction (Pres	sure Reduc	ing, Back Pressure, Diff	erential or Other - plea	se specify)		
Flow (min) <sup>2</sup>			Flow (norm)		F	low (max) <sup>2</sup>	
P1 (min) <sup>2</sup>			P1 (norm)			P1 (max) <sup>2</sup>	
P2 (min) <sup>2</sup>			P2 (norm)			P2 (max) <sup>2</sup>	
			Additional (help	ful) Information			
Application Descri	otion						
Regulation Accu	uracy			In/Out Pipe Size   Schd			Schd
Auxiliary Air Avai	lable			Pipe N	/laterial		
Body Materia	ıl   Cv		Cv	Trim N	/laterial		

<sup>&</sup>lt;sup>1</sup>This information is only required if we do not have information available on the fluid specified (please contact factory)

**Soft Goods Materials** 

#### **BURLING VALVE REPAIR KITS**

**End Connection** 



<sup>&</sup>lt;sup>2</sup>If regulator will always be operating at normal conditions, min and max values can be omitted.

# PROPORTION





Custom Engineered Solutions
Live support, M-F 8 a.m. - 6 p.m. ET.
info@proportionair.com
proportionair.com
317-335-2602





Proportion-Air products are warranted to the original purchaser only against defects in material or workmanship for eighteen (18) months from the date of manufacture. The extent of Proportion-Air's liability under this warranty is limited to repair or replacement of the defective unit at Proportion-Air's option. Proportion-Air shall have no liability under this warranty where improper installation or filtration occurred.

All specifications are subject to change without notice. THIS WARRANTY IS GIVEN IN LIEU OF, AND BUYER HEREBY EXPRESSLY WAIVES, WARRANTIES OR LIABILITIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY OBLIGATION OF PROPORTION-AIR WITH REGARD TO CONSEQUENTIAL DAMAGES, WARRANTIES OF MERCHANTABILITY, DESCRIPTION, WARNING: Instannia Firness FOR APARTICULAR BURROSS the supervision and control of properly qualified personnel in order to avoid the risk of injury or death.