

# T95H Regulator

- Large Capacity
- Working Media Include Air, Steam and Liquids
- All Vents are Tapped

The T95H is a direct operating pressure reducing regulator with large capacity. Ideally suited for uses in oil and gas, process gases, steam and liquids. Available in three spring ranges and metal or elastomer diaphragm and orifice seat materials.

## Applications

- Steam Injection
- In Line Gas and Liquid Control
- Chemical Boilers, Process Heaters



## T95H Part Matrix

T95H				0	0						
	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	Body Size
	04										1/2 NPT
	06										3/4 NPT
	08										1 NPT
											Spring Range
											PSIG      BAR
	030										15 - 30      1 - 2.1
	075										25 - 75      1.7 - 5.2
	150										70 - 150      9 - 10.3
											Options
		0									Standard
		A									150 RF*
		B									300 RF*
		C									600 RF*
		D									Socket Weld*
											* Steel Bodies Only
											Valve Plug / Orifice Material
			A								416 SS (Metal / Metal)
			C								416 SS / Neoprene
			G								Brass / Neoprene
											Diaphragm Material
				0							302 SS
				3							Neoprene
											Case / Body Material
					0						Iron / Iron
					1						Steel / Steel
					3						Iron / Steel

## Specifications

Maximum Inlet		
	250 PSIG	Iron / NPT
	300 PSIG	Steel / NPT
Pressure Ranges		
	15-30 PSIG	
	25-75 PSIG	
	70-150 PSIG	
Body Size		
	1/2 NPT	
	3/4 NPT	
	1 NPT	
Temp. Range		
	-40°F to 450°F	-40°C to 208°C
Weight Approximate		
1/2"	8 lb	3.6 kg
3/4"	19 lb	8.6 kg
1"	19 lb	8.6 kg

## Materials of Construction

Body, Bonnet, Diaphragm Case	
Options	Cast Iron
	Steel
Diaphragm	
Options	302SS
	Neoprene
Supply Valve Shutoff	
Options	Metal to Metal
	Metal to Elastomer

## T95H Flow Coefficients

Body Size, Inches	Wide Open Coefficients (For Relief Sizing)			C <sub>i</sub>	K <sub>m</sub>
	C <sub>v</sub>	C <sub>G</sub>	C <sub>S</sub>		
1/2	1.9	67	3.35	35	.71
3/4, 1	4.4	156	7.80	35	.67

## T95H Maximum Pressures

Nominal Body Size, Inches (DN)	Body and Spring Case Materials	End Connections	Max Inlet Pressure		Max Outlet Pressure	
			PSIG	BAR	PSIG	BAR
1/2, 3/4, 1	Cast Iron	NPT	250	17.2	150	10.3
	Steel	NPT	300	20.7	150	10.3
	Steel	15ORF	285	19.7	150	10.3
	Steel	30ORF	300	20.7	150	10.3

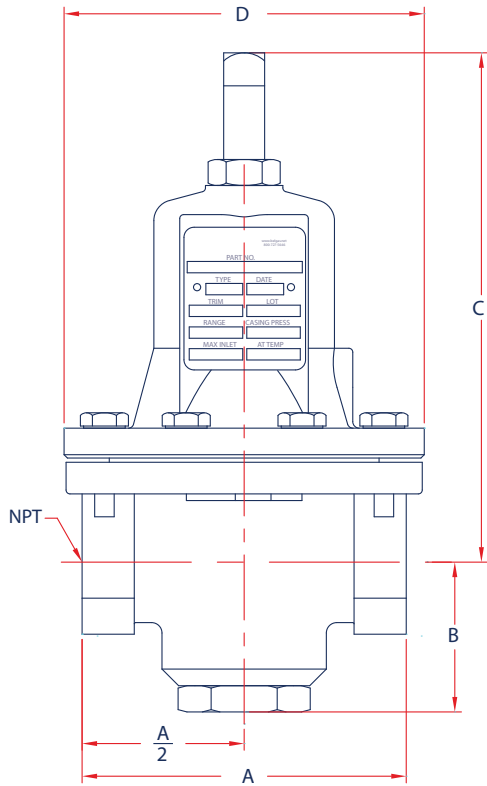
## Spring Range

Body Size	PSIG	BAR	Spring Color Code
1/2, 3/4 and 1 NPT	15 - 30	1 - 2.1	Yellow
	25 - 75	1.7 - 5.2	Green
	70 - 150	9 - 10.3	Red

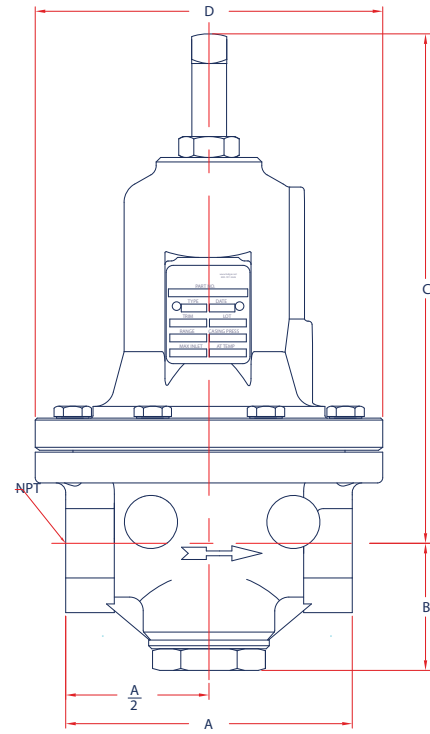
## T95H Dimension, Inches

Nominal Body Size, Inches	A	B	C	D
1/2	3.90	1.80	6.12	4.33
3/4, 1	5.13	2.2	9.1	6.22

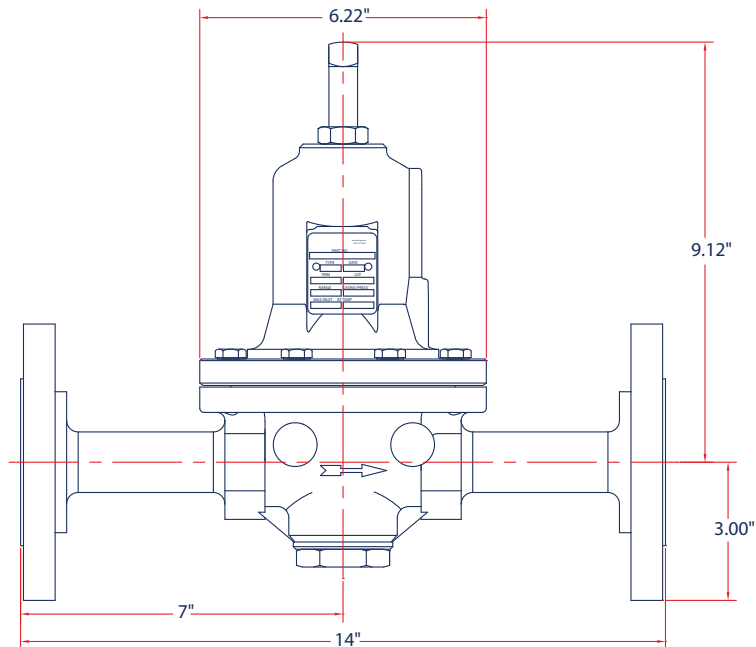
### 1/2 NPT



### 3/4 & 1 NPT



### Flanged 3/4 & 1 NPT



## T95H Regulator Rebuild Kits

	Kit Includes	Part Number
T95H 1/2" Repair Kits	302SS Diaphragms(2), Diaphragm Gasket, 416SS Orifice, 416SS/Neoprene Valve Plug, Valve Spring	971-P95-100
	302SS Diaphragms(2), Diaphragm Gasket, 416SS/M to M Orifice, 416SS/M to M Valve Plug, Valve Spring	971-P95-101
	Neoprene Diaphragm, 416SS Orifice, 416SS/Neoprene Valve Plug, Valve Spring	971-P95-102
	Neoprene Diaphragm, Brass Orifice, Brass/Neoprene Valve Plug, Valve Spring	971-P95-103
T95H 3/4" & 1" Repair Kits	302SS Diaphragms(2), Diaphragm Gasket, 416SS Orifice, 416SS/Neoprene Valve Plug, Valve Spring	971-P95-000
	302SS Diaphragms(2), Diaphragm Gasket, 416SS/M to M Orifice, 416SS/M to M Valve Plug, Valve Spring	971-P95-001
	Neoprene Diaphragm, 416SS Orifice, 416SS/Neoprene Valve Plug, Valve Spring	971-P95-002
	Neoprene Diaphragm, Brass Orifice, Brass/Neoprene Valve Plug, Valve Spring	971-P95-003

## T95H Steam Capacities<sup>1</sup> with Metal Diaphragm

Outlet Pressure Range	Outlet Pressure Setting		Inlet Pressure		1/2" Body Size			3/4" Body Size			1" Body Size				
	PSIG	BAR	PSIG	BAR	Offset			Offset			Offset				
					10%	20%	40%	10%	20%	40%	10%	20%	40%		
15 to 30 PSIG (1.0 to 2.1 BAR)	15	1.0	30	2.1	27	42	66	66	93	150	66	99	160		
			40	2.8	27	45	69	81	110	190	78	130	200		
			50	3.5	27	45	66	87	130	200	100	160	250		
			75	5.2	36	54	81	110	170	250	140	210	330		
			100	6.9	42	63	87	120	180	270	160	240	360		
			150	10.3	54	72	96	150	210	300	210	300	450		
			200	13.8	66	84	110	180	240	330	260	360	480		
	250	17.2	63	93	120	200	260	330	260	360	510				
	300	20.7	81	99	130	220	290	360	300	420	540				
	30	2.1	40	2.8	45	69	110	87	140	190	96	160	200		
			50	3.5	39	63	100	120	180	230	120	200	250		
			75	5.2	54	84	130	170	260	360	160	280	360		
			100	6.9	60	90	130	190	290	420	220	330	480		
			150	10.3	72	110	160	230	360	480	300	450	660		
200			13.8	93	130	170	280	360	510	360	540	780			
250			17.2	110	140	190	270	390	540	420	600	810			
300	20.7	120	150	200	300	420	570	450	630	840					
25 to 75 PSIG (1.7 to 5.2 BAR)	50	3.4	60	4.1	36	60	110	120	200	270	130	220	280		
			75	5.2	42	69	120	180	260	360	190	290	360		
			100	6.9	63	87	150	220	330	450	210	390	480		
			150	10.3	75	110	170	250	390	630	480	540	720		
			200	13.8	93	140	200	330	510	720	450	720	930		
			250	17.2	93	140	210	350	540	750	510	780	1100		
	300	20.7	110	150	220	360	540	780	570	810	1100				
	75	5.2	100	6.9	69	110	190	240	360	450	260	390	450		
			125	8.6	78	130	220	330	480	570	390	510	600		
			150	10.3	96	140	230	360	540	660	390	630	750		
			200	13.8	110	170	260	420	630	720	510	840	960		
			250	17.2	120	180	290	480	720	780	660	990	1100		
			300	20.7	140	210	300	480	750	840	690	1100	1400		
			70 to 150 PSIG (4.8 to 10.3 BAR)	100	6.9	125	8.6	100	170	260	260	420	540	330	480
150						10.3	120	200	330	360	540	660	420	600	690
175	12.0	140				230	360	390	630	780	480	750	840		
200	13.8	160				250	390	450	690	900	480	810	960		
250	17.2	130				270	420	450	750	1100	630	1000	1200		
300	20.7	240				330	450	570	870	1200	780	1100	1400		
125	8.6	150	10.3	160	250	330	360	540	630	390	600	690			
		175	12.0	150	270	390	390	630	750	450	690	810			
		200	13.8	170	280	420	480	750	870	510	840	930			
		225	15.5	200	330	480	510	840	990	570	900	1100			
		250	17.2	210	390	510	540	870	1100	600	1000	1200			
		300	20.7	210	390	570	630	960	1400	780	1200	1400			
150	10.3	175	12.0	170	290	360	420	600	870	480	660	780			
		200	13.8	200	330	420	480	720	870	600	780	900			
		225	15.5	210	360	480	600	870	990	660	900	1100			
		250	17.2	270	420	540	600	900	1100	780	1100	1200			
		300	20.7	260	450	600	690	1100	1400	930	1300	1400			

1. Capacities are based in Pounds of saturated steam per hour.

## T95H Pressure Ranges

Nominal Body Size, Inches	Outlet or Differential Pressure Range <sup>(1)</sup>		Spring Wire Diameter		Spring Part Number	Spring Color
	PSIG	BAR	Inches	mm		
1/2	15 to 30	1.0 to 2.1	.218	5.54	655-714-000	Yellow
	25 to 75	1.7 to 5.2	.235	5.97	655-690-000	Green
	70 to 150	4.8 to 10.3	.281	7.14	655-714-001	Red
3/4, 1	15 to 30	1.0 to 2.1	.306	7.77	655-712-000	Yellow
	25 to 75	1.7 to 5.2	.343	8.71	655-712-001	Green
	70 to 150	4.8 to 10.3	.406	10.31	655-712-002	Red

## T95H Air SCFH Capacities with Elastomer Diaphragm

Outlet Pressure Range	Outlet Pressure Setting		Inlet Pressure		1/2" Body Size			3/4" Body Size			1" Body Size		
	PSIG	BAR	PSIG	BAR	Offset			Offset			Offset		
					10%	20%	40%	10%	20%	40%	10%	20%	40%
15 to 30 PSIG (1.0 to 2.1 BAR)	15	1.0	30	2.1	900	1400	2200	2200	3100	4900	2200	3300	5400
			40	2.8	900	1500	2300	2700	3800	6200	2600	4200	6500
			50	3.5	900	1500	2200	2900	4300	6800	3400	5400	8200
			75	5.2	1200	1800	2700	3800	5500	8400	4800	7000	11,000
			100	6.9	1400	2100	2900	4000	6000	9000	5400	8000	12,000
			150	10.3	1800	2400	3200	5000	7000	10,000	7000	10,000	15,000
			200	13.8	2200	2800	3600	6000	8000	11,000	8700	11,700	16,000
			250	17.2	2100	3100	3900	6800	8700	11,000	8500	12,000	17,000
	300	20.7	2700	3300	4300	7400	9600	12,000	10,000	14,000	18,000		
	30	2.1	40	2.8	1500	2300	3500	2900	4500	6200	3200	5200	6600
			50	3.5	1300	2100	3400	4000	6000	7800	4000	6600	8300
			75	5.2	1800	2800	4200	5700	8500	12,000	5400	9300	12,000
			100	6.9	2000	3000	4400	6300	9800	14,000	7400	11,000	16,000
			150	10.3	2400	3800	5300	7700	12,000	16,000	10,000	15,000	22,000
200			13.8	3100	4300	5800	9200	12,000	17,000	12,000	18,000	26,000	
25 to 75 PSIG (1.7 to 5.2 BAR)	50	3.4	60	4.1	1200	2000	3800	4000	6700	9000	4400	7200	9200
			75	5.2	1400	2300	3900	6000	8600	12,000	6300	9600	12,000
			100	6.9	2100	2900	5000	7400	11,000	15,000	7000	13,000	16,000
			150	10.3	2500	3700	5700	8300	13,000	21,000	16,000	18,000	24,000
			200	13.8	3100	4600	6500	11,000	17,000	24,000	15,000	24,000	31,000
			250	17.2	3100	4500	6900	12,000	18,000	25,000	17,000	26,000	36,000
			300	20.7	3500	5100	7300	12,000	18,000	26,000	19,000	27,000	38,000
	75	5.2	100	6.9	2300	3700	6200	8000	12,000	15,000	8700	13,000	15,000
			125	8.6	2600	4300	7300	11,000	16,000	19,000	13,000	17,000	20,000
			150	10.3	3200	4700	7700	12,000	18,000	22,000	13,000	21,000	25,000
			200	13.8	3700	5500	8500	14,000	21,000	24,000	17,000	28,000	32,000
			250	17.2	4000	6100	9500	16,000	24,000	25,000	22,000	33,000	38,000
			300	20.7	4700	7100	10,000	16,000	25,000	28,000	23,000	35,000	45,000
			70 to 150 PSIG (4.8 to 10.3 BAR)	100	6.9	125	8.6	3400	5800	8800	8500	14,000	18,000
150	10.3	4000				6800	11,000	12,000	18,000	22,000	14,000	20,000	23,000
175	12.0	4800				7800	12,000	13,000	21,000	26,000	16,000	25,000	28,000
200	13.8	5200				8200	13,000	15,000	23,000	30,000	16,000	27,000	32,000
250	17.2	4300				8900	14,000	15,000	25,000	37,000	21,000	34,000	39,000
125	8.6	300		20.7	8000	11,000	15,000	19,000	29,000	41,000	26,000	38,000	46,000
		150		10.3	5200	8200	11,000	12,000	18,000	21,000	13,000	20,000	23,000
		175		12.0	5000	9000	13,000	13,000	21,000	25,000	15,000	23,000	27,000
		200		13.8	5500	9300	14,000	16,000	25,000	29,000	17,000	28,000	31,000
		225		15.5	6800	11,000	16,000	17,000	28,000	33,000	19,000	30,000	35,000
150	10.3	250		17.2	6900	13,000	17,000	18,000	29,000	37,000	20,000	34,000	39,000
		300		20.7	7000	13,000	19,000	21,000	32,000	45,000	26,000	41,000	46,000
		175		12.0	5600	9500	12,000	14,000	20,000	29,000	16,000	22,000	26,000
		200		13.8	6500	11,000	14,000	16,000	24,000	29,000	20,000	26,000	30,000
150	10.3	225	15.5	7100	12,000	16,000	20,000	29,000	33,000	22,000	30,000	35,000	
		250	17.2	9000	14,000	18,000	20,000	30,000	37,000	26,000	35,000	39,000	
		300	20.7	8700	15,000	20,000	23,000	37,000	45,000	31,000	44,000	46,000	

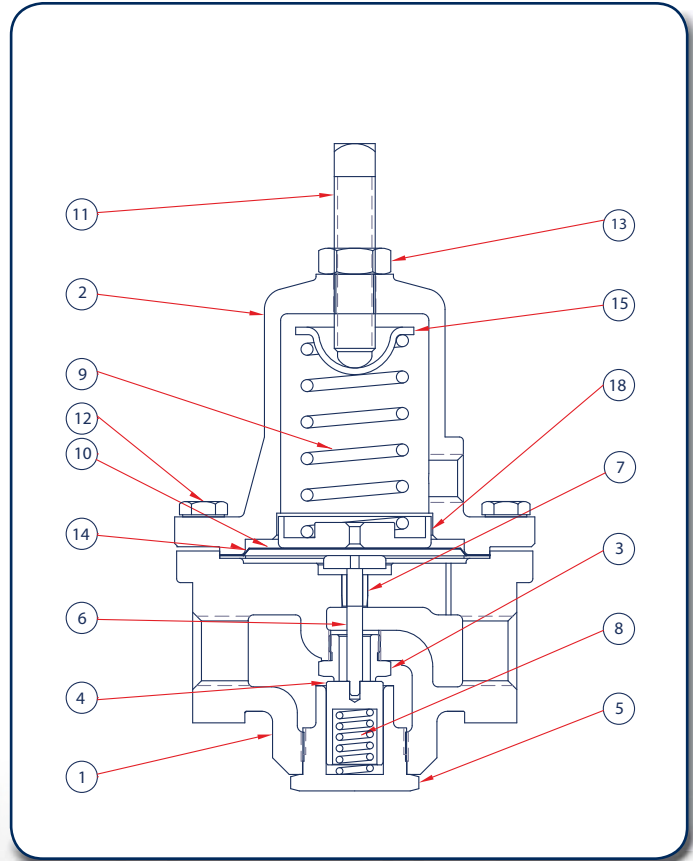
## T95H Water Capacities with Elastomer Diaphragm<sup>1</sup>

Outlet Pressure Range	Outlet Pressure Setting		Inlet Pressure		1/2" Body Size			3/4" Body Size			1" Body Size				
					Offset			Offset			Offset				
	PSIG	BAR	PSIG	BAR	10%	20%	40%	10%	20%	40%	10%	20%	40%		
15 to 30 PSIG (1.0 to 2.1 BAR)	15	1.0	30	2.1	2.0	3.2	6.8	7.0	10	15	8.0	11	16		
			40	2.8	3.0	5.0	7.0	8.0	12	18	8.0	13	20		
			50	3.5	4.0	5.5	7.2	9.0	14	20	8.5	15	23		
			75	5.2	5.0	6.5	7.4	12	18	26	13	21	29		
			100	6.9	5.0	6.5	7.6	13	19	28	19	26	34		
			150	10.3	5.0	6.5	7.8	15	22	31	25	36	42		
			200	13.8	5.1	6.5	8.0	19	25	35	32	37	44		
	250	17.2	5.1	6.6	8.5	20	27	37	33	37	46				
	300	20.7	5.2	6.6	9.0	20	28	40	34	38	48				
	30	2.1	40	2.8	2.8	4.9	9.5	9.0	13	17	8.5	14	17		
			50	3.5	3.5	5.7	10	11	16	21	11	18	22		
			75	5.2	4.0	5.9	13	15	21	28	16	25	29		
			100	6.9	5.0	6.1	14	17	24	33	19	31	34		
			150	10.3	6.0	6.5	14	21	30	40	30	39	42		
200			13.8	6.5	6.9	14	24	31	46	35	48	49			
250			17.2	6.5	7.0	14	25	35	49	36	53	55			
300	20.7	7.0	7.5	14	26	36	53	37	54	60					
25 to 75 PSIG (1.7 to 5.2 BAR)	50	3.4	60	4.1	4.0	6.5	12	9.0	14	20	12	17	23		
			75	5.2	5.0	8.6	12	12	20	25	14	21	27		
			100	6.9	5.5	9.0	13	15	24	31	16	26	34		
			150	10.3	6.0	9.5	13	23	32	40	20	36	42		
			200	13.8	6.5	10	14	24	34	47	30	42	49		
			250	17.2	7.0	11	14	26	39	51	33	49	55		
	300	20.7	7.3	11	15	25	40	55	40	55	60				
	75	5.2	100	6.9	9.5	12	15	16	23	28	16	24	30		
			125	8.6	10	14	18	20	29	33	21	31	36		
			150	10.3	11	15	21	23	33	39	24	37	42		
			200	13.8	11	15	23	28	41	47	29	46	49		
			250	17.2	11	15	23	32	43	52	37	50	55		
			300	20.7	11	15	23	33	49	56	39	56	60		
			70 to 150 PSIG (4.8 to 10.3 BAR)	100	6.9	125	8.6	7.0	11	16	15	24	30	30	24
150						10.3	8.0	14	19	17	27	35	35	30	38
175	12.0	9.0				15	21	24	28	40	40	33	43		
200	13.8	9.5				15	23	25	37	45	45	41	48		
250	17.2	10				16	24	29	42	52	52	42	54		
300	20.7	11		16	24	33	48	57	57	43	58				
125	8.6	125		8.7	7.8	12	18	19	25	32	17	27	35		
		150		10.3	9.0	15	20	23	32	37	22	33	40		
		175	12.0	9.5	16	23	27	36	42	24	25	47			
150	10.3	200	13.8	10	18	25	32	40	47	29	38	49			
		250	17.2	11	18	26	34	44	51	32	42	53			
		300	20.7	12	18	28	36	47	57	38	44	59			
150	10.3	175	12.0	8.7	14	19	21	28	34	34	26	37			
		200	13.8	10	17	22	24	33	40	40	34	42			
		225	15.5	12	19	24	29	37	45	45	39	48			
		250	17.2	13	20	26	30	41	50	50	45	52			
		300	20.7	13	20	28	35	49	55	55	53	59			

1. Capacities are based in gallons per minute of water.

## T95H Parts for 1/2" Body

Item		Description	Part Number
1	Body	Cast Iron, 1/2"	664-333-000
		Steel, 1/2"	664-334-000
2	Bonnet	Cast Iron, Tapped	604-251-000
		Steel, Tapped	604-250-000
3	Orifice	416 Stainless Steel (Metal)	688-025-000
		Brass (Composite)	688-031-000
		416 Stainless Steel (Composite)	688-029-000
4	Valve Plug Assemblies	Valve Plug Seat, 416 SS (Metal)	650-151-000
		416 Stainless Steel / Neoprene Seat	822-030-001
		Brass / Neoprene Seat	822-032-001
5	Valve Plug Guide	416 SS	639-109-000
		Brass	639-110-000
6	Stem Assembly, 416 SS		811-080-001
7	Stem Guide Bushing, 416 SS		608-079-000
8	Valve Plug Spring, SS		655-713-000
9	Range Springs	15-30 PSIG, Yellow	655-714-000
		25-75 PSIG, Green	655-690-000
		70-150 PSIG, Red	655-714-001
10	Diaphragm	Neoprene	618-087-000
		302 Stainless Steel (2 Required)	618-082-000
11	Adjusting Screw, Steel		648-487-000
12	Build Screws, Steel (8 Required)		648-463-009
13	Jam Nut, Steel		634-179-000
14	Diaphragm Gasket, Composition (Metal Diaphragms Only)		624-073-000
15	Spring Guide, Steel		626-079-000
18	Piston, Aluminum		637-323-000



## T95H Parts for 3/4" & 1" Bodies

Item		Description	Part Number
1	Body	Cast Iron, 3/4"	664-329-000
		Cast Iron, 1"	664-329-001
		Steel, 3/4"	664-330-000
		Steel, 1"	664-330-001
2	Bonnet	Cast Iron, Tapped	604-244-000
		Steel, Tapped	604-243-000
3	Orifice	416 Stainless Steel (Metal / Metal)	688-020-000
		Brass (Composite)	688-022-000
		416 Stainless Steel (Composite)	688-023-000
4	Valve Plug Assemblies	Valve Plug Seat, 416 SS (Metal)	650-145-000
		416 Stainless Steel / Neoprene Seat	822-026-001
		Brass / Neoprene Seat	822-028-001
5	Valve Plug Guide	416 SS	639-106-000
		Brass	639-107-000
6	Stem Assembly, 416 SS		811-079-001
7	Stem Guide Bushing, 416 SS		608-077-000
8	Valve Plug Spring, SS		655-710-000
9	Range Springs	15-30 PSIG, Yellow	655-712-000
		25-75 PSIG, Green	655-712-001
		70-150 PSIG, Red	655-712-002
10	Diaphragm	Neoprene	618-075-000
		302 Stainless Steel (2 Required)	618-077-000
11	Adjusting Screw, Steel		648-519-000
12	Build Screws, Steel (8 Required)		648-463-002
13	Jam Nut, Steel		634-181-000
14	Diaphragm Gasket, Composition (SS Diaphragms Only)		624-072-000
15	Spring Guide, Steel		626-100-000
18	Piston, Aluminum		637-321-000
20	Pitot Tube		660-064-000

