



## *Medical Vacuum Systems: Claw*

### **GENERAL**

The Chemetron® medical vacuum system is designed to create a suction system to remove unwanted fluids or gases from hospital/laboratory working areas. The medical vacuum system package is compliant with the NFPA 99 requirements for medical vacuum. Note that larger systems are shipped on 2 or more skids and require connection of clearly labeled wiring and piping between skids once they are mounted on-site.

### **MEDICAL VACUUM SYSTEM**

The package shall include multiple vacuum pumps and associated equipment, one ASME tank and one medical control panel. Each pump is factory piped to a common intake manifold. The system shall be completely tested prior to shipment. Vibration isolation pads are included with the system.

### **CLAW VACUUM PUMP**

Each pump shall be a rotary claw type vacuum pump, and shall be direct-driven through a shaft coupling by a C-face, TEFC electric motor. Each vacuum pump shall be air cooled and shall be capable of operating at 28.4" Hg (sea level) continuous duty for 2-5 hp pumps, 27" Hg (sea level) continuous duty for 7.5 hp, 25.5" Hg (sea level) continuous duty for 10 hp, and 23.4" Hg (sea level) continuous duty for 15 hp pumps.

Each vacuum pump shall be dry-running, featuring two claw-type, non-contacting rotors and shall not require any sealing fluid in the pumping chamber, assuring virtually maintenance-free operation. Each vacuum pump shall include an internal relief valve, and a built-in anti-suck-back valve mounted at the pump inlet. Each pump within the system shall include a check valve, inlet and discharge flex connectors, an inlet filter and a pump isolation valve.

### **MOTOR**

The motor is continuous duty, NEMA rated, C-face, TEFC, suitable for 208-230, or 460V, 3 phase, 60 hertz electrical operation.

### **AIR RECEIVER**

The system shall include an ASME rated air receiver rated for 200 psi MAWP. The tank shall be equipped with a vacuum gauge, block and by-pass valves, and a manual drain.



### **CONTROL PANEL**

The system shall include a UL listed control panel in a NEMA 12 enclosure with the following accessories for each pump:

Externally operable disconnect, magnetic starter with 3-leg overload protection, Hand/Off/Auto lighted selector switch, minimum run timer to prevent short cycling of the pump, and hour meter.

Standard features shall also include a main power on light, timed lead/lag pump alternation, a reserve pump in-use alarm with visual and audible indications, and duplex control circuit transformers with fused primary and secondary protection. All alarms shall have dry contacts on a labeled terminal strip for remote alarm monitoring, and an acknowledge pushbutton for horn silencing. The lag vacuum pump shall be able to start automatically if the lead vacuum pump fails to operate.

### **AVAILABLE OPTIONS**

- ☐ High discharge air temperature shutdown alarm with visual and audible indicators and dry contacts
- ☐ Oxygen assured pump is prepared for use in WAGD systems
- ☐ Internal tank lining for corrosion resistance
- ☐ Tank sight gauge
- ☐ Variable speed drive control panel

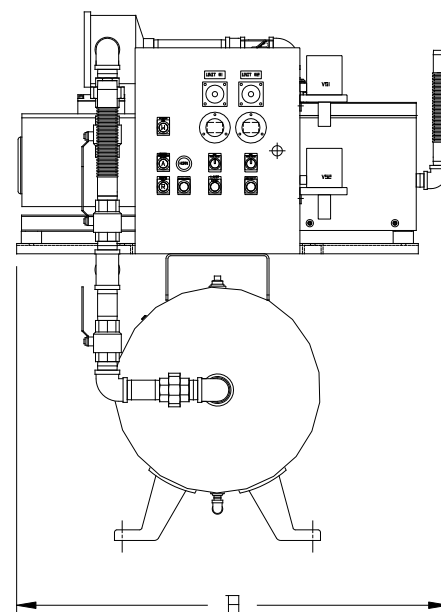
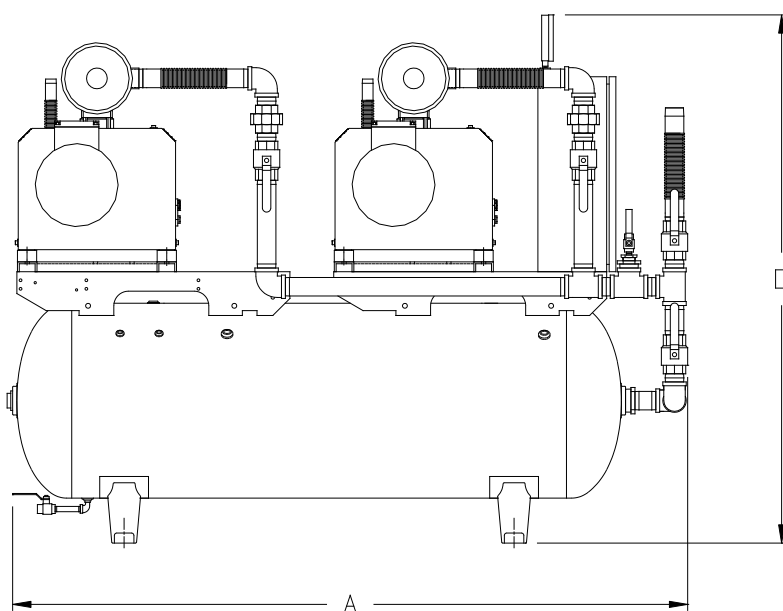
## Product Specification

### Medical Vacuum Systems: Claw



### Duplex Claw Vacuum Horizontal 2 - 5 hp

DIMENSIONS					
MODEL	DIM. A	DIM. B	DIM. C	Inlet x 1	Outlet x 2
DCV020-80T	70"	42"	48"	1-1/2"	1"
DCV030-120T	89"	44"	52"	1-1/2"	1"
DCV050-120T1	94"	45"	60"	2"	1"
DCV050-120T2	94"	45"	60"	2"	1"



Duplex Claw										
MODEL	HP <sup>1</sup>	SCFM @ 19" Hg Each	NFPA System Capacity <sup>1</sup>	TANK SIZE	BTU/HR <sup>2</sup>	dB(A) LEVEL <sup>3</sup>	SYSTEM F.L.A.			SYSTEM WEIGHT
							208V	230V	460V	
DCV020-80T	2	16	16	80	5,092	70	17	16	9	835
DCV030-120T	3	21	21	120	7,638	70	22	21	11	1,105
DCV050-120T1	5	29	29	120	12,730	79	29	26	14	1,165
DCV050-120T2	5	38	38	120	12,730	79	37	32	17	1,165

Notes:

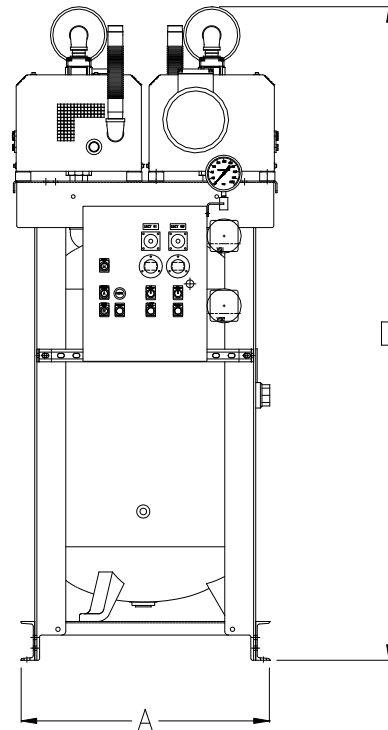
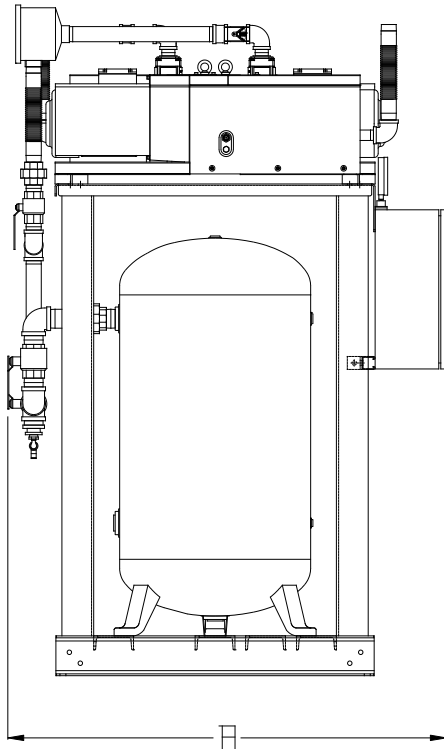
1 - HP and NFPA System Capacity are shown with one or more pumps in reserve per NFPA 99

2 - BTU/HR levels are shown with reserve pump(s) on standby

3 - dB(A) is shown with one pump in reserve per NFPA 99

DIMENSIONS					
MODEL	DIM. A	DIM. B	DIM. C	Inlet x 1	Outlet x 2
DCV020-80BV	34"	55"	84"	1-1/2"	1"
DCV030-120BV	34"	55"	84"	1-1/2"	1"
DCV050-120BV1	34"	55"	84"	2"	1"
DCV050-120BV2	34"	55"	84"	2"	1"

**Duplex Claw Vacuum  
Vertical  
2 - 5 hp**



Duplex Claw										
MODEL	HP <sup>1</sup>	SCFM @ 19" Hg Each	NFPA System Capacity <sup>1</sup>	TANK SIZE	BTU/HR <sup>2</sup>	dB(A) LEVEL <sup>3</sup>	SYSTEM F.L.A.			SYSTEM WEIGHT
							208V	230V	460V	
DCV020-80BV	2	16	16	80	5,092	70	17	16	9	835
DCV030-120BV	3	21	21	120	7,638	70	22	21	11	1,105
DCV050-120BV1	5	29	29	120	12,730	79	29	26	24	1,165
DCV050-120BV2	5	38	38	120	12,730	79	37	32	17	1,165

Notes:

1 - HP and NFPA System Capacity are shown with one or more pumps in reserve per NFPA 99

2 - BTU/HR levels are shown with reserve pump(s) on standby

3 - dB(A) is shown with one pump in reserve per NFPA 99

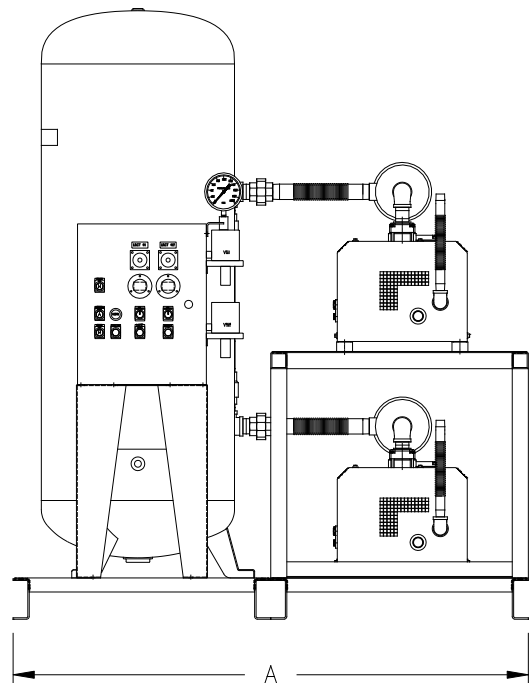
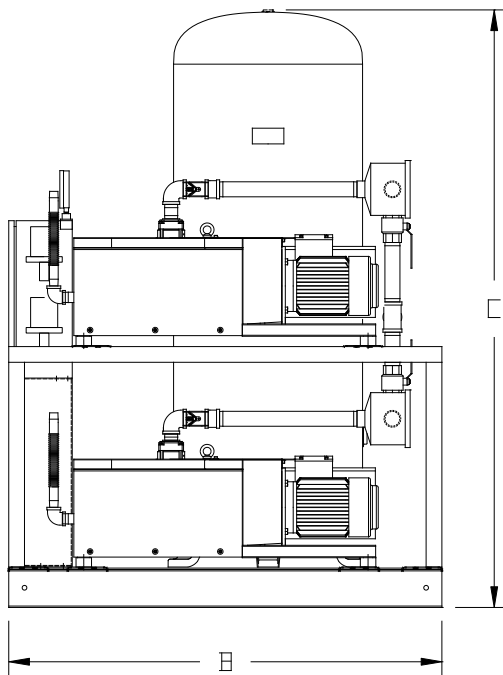
## Product Specification

### Medical Vacuum Systems: Claw



### Duplex Claw Vacuum Basemount 5 -15 hp

DIMENSIONS					
MODEL	DIM. A	DIM. B	DIM. C	Inlet x 1	Outlet x 2
DCV050-120B1	64"	55"	76"	2"	1"
DCV050-120B2	64"	55"	76"	2"	1"
DCV075-120B1	53"	52"	84"	2"	1"
DCV075-120B2	64"	55"	76"	2"	1"
DCV100-200B	64"	55"	83"	3"	1-1/2"
DCV150-200B	90"	71"	90"	3"	3"

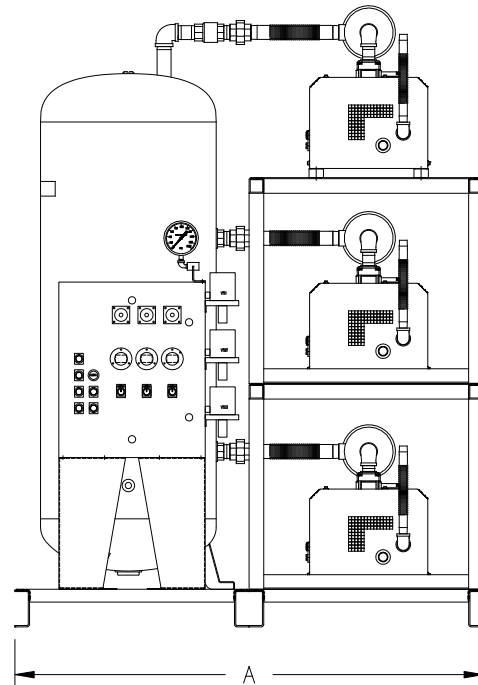
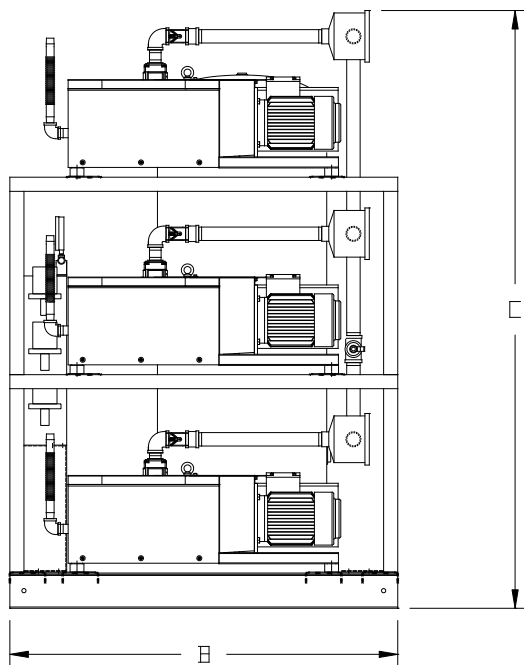


Duplex Claw										
MODEL	HP <sup>1</sup>	SCFM @ 19" Hg Each	NFPA System Capacity <sup>1</sup>	TANK SIZE	BTU/HR <sup>2</sup>	dB(A) LEVEL <sup>3</sup>	SYSTEM F.L.A.			SYSTEM WEIGHT
							208V	230V	460V	
DCV050-120B1	5	29	29	120	12,730	79	29	26	24	2,075
DCV050-120B2	5	38	38	120	12,730	79	37	32	17	2,075
DCV075-120B1	7 1/2	52	52	120	19,095	79	54	46	24	2,075
DCV075-120B2	7 1/2	65	65	120	19,095	79	54	46	24	2,575
DCV100-200B	10	84	84	200	25,460	82	60	53	28	2,925
DCV150-200B	15	129	129	200	38,190	85	79	72	37	3,275

- Notes:
- 1 - HP and NFPA System Capacity are shown with one or more pumps in reserve per NFPA 99
  - 2 - BTU/HR levels are shown with reserve pump(s) on standby
  - 3 - dB(A) is shown with one pump in reserve per NFPA 99

DIMENSIONS					
MODEL	DIM. A	DIM. B	DIM. C	Inlet x 1	Outlet x 3
TCV050-120B1	96"	55"	77"	1-1/2"	1"
TCV050-120B2	96"	55"	77"	1-1/2"	1"
TCV075-200B1	96"	55"	84"	2"	1"
TCV075-200B2	96"	55"	84"	2"	1"
TCV100-200B	96"	55"	84"	2"	1-1/2"

**Triplex Claw Vacuum  
Basemount  
5 -10 hp**



Triplex Claw										
MODEL	HP <sup>1</sup>	SCFM @ 19" Hg Each	NFPA System Capacity <sup>1</sup>	TANK SIZE	BTU/HR <sup>2</sup>	dB(A) LEVEL <sup>3</sup>	SYSTEM F.L.A.			SYSTEM WEIGHT
							208V	230V	460V	
TCV050-120B1	5	29	58	120	25,460	79	43	38	21	2,795
TCV050-120B2	5	38	76	120	25,460	79	54	47	25	3,430
TCV075-200B1	7-1/2	52	104	200	38,190	79	63	55	29	3,550
TCV075-200B2	7-1/2	65	130	200	38,190	79	79	68	35	3,750
TCV100-200B	10	84	168	200	50,920	82	89	78	41	4,050

Notes:

1 - HP and NFPA System Capacity are shown with one or more pumps in reserve per NFPA 99

2 - BTU/HR levels are shown with reserve pump(s) on standby

3 - dB(A) is shown with one pump in reserve per NFPA 99

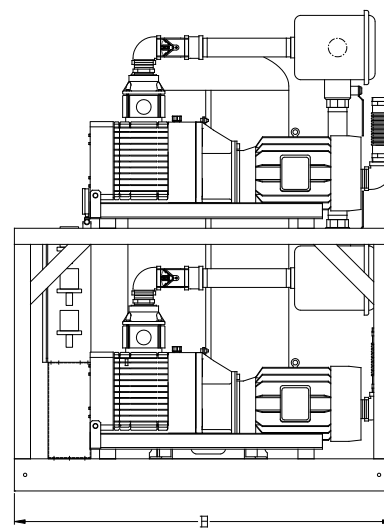
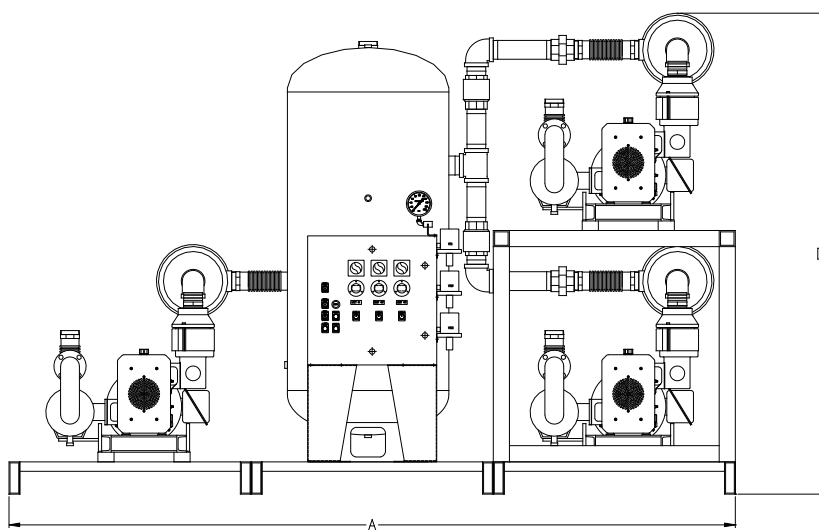
## Product Specification

### Medical Vacuum Systems: Claw



### Triplex Claw Vacuum Basemount 15 hp

DIMENSIONS					
MODEL	DIM. A	DIM. B	DIM. C	Inlet x 1	Outlet x 3
TCV150-200B	135"	70"	84"	3"	3"



Triplex Claw										
MODEL	HP <sup>1</sup>	SCFM @ 19" Hg Each	NFPA System Capacity <sup>1</sup>	TANK SIZE	BTU/HR <sup>2</sup>	dB(A) LEVEL <sup>3</sup>	SYSTEM F.L.A.			SYSTEM WEIGHT
							208V	230V	460V	
TCV150-200B	15	129	258	200	76,380	85	117	107	55	4,450

Notes:

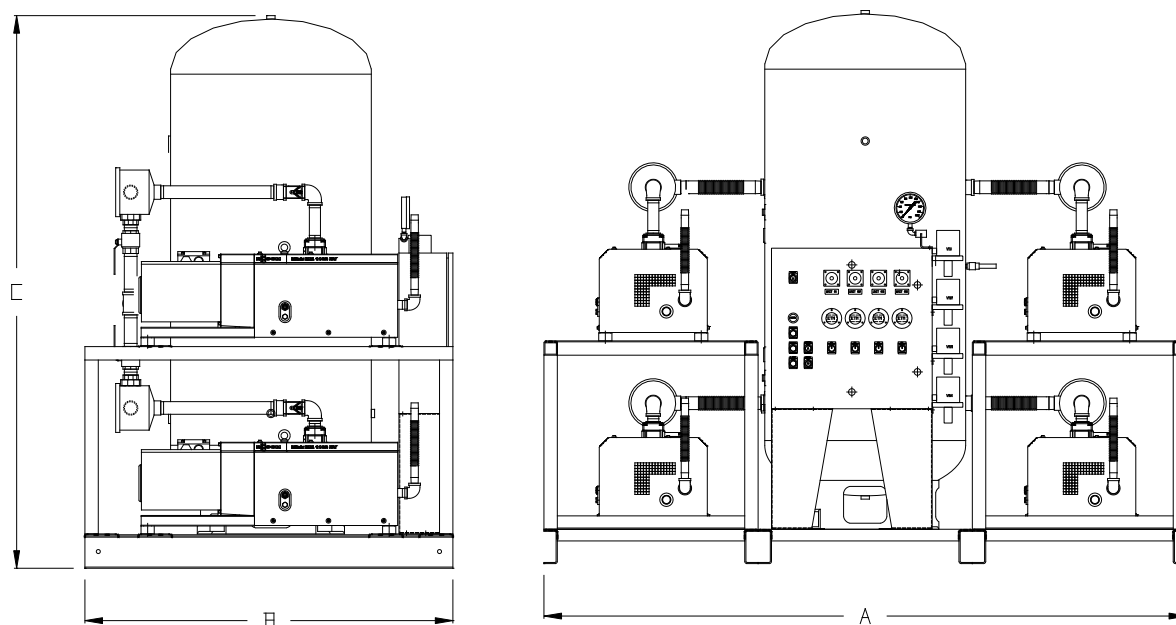
1- HP and NFPA System Capacity are shown with one or more pumps in reserve per NFPA 99

2 - BTU/HR levels are shown with reserve pump(s) on standby

3 - dB(A) is shown with one pump in reserve per NFPA 99

DIMENSIONS					
MODEL	DIM. A	DIM. B	DIM. C	Inlet x 1	Outlet x 4
QCV050-200B1	96"	55"	83"	3"	1"
QCV050-200B2	96"	55"	83"	3"	1"
QCV075-200B1	96"	55"	83"	3"	1"
QCV075-200B2	96"	55"	83"	3"	1"
QCV100-200B	96"	55"	83"	4"	1-1/2"
QCV150-200C	135"	71"	93"	4"	3"

**Quad Claw Vacuum  
Basemount  
5 - 15 hp**



Quad Claw										
MODEL	HP <sup>1</sup>	SCFM @ 19" Hg Each	NFPA System Capacity <sup>1</sup>	TANK SIZE	BTU/HR <sup>2</sup>	dB(A) LEVEL <sup>3</sup>	SYSTEM F.L.A.			SYSTEM WEIGHT
							208V	230V	460V	
QCV050-200B1	5	29	87	200	38,190	79	56	49	26	3,500
QCV050-200B2	5	38	114	200	38,190	79	72	62	32	3,500
QCV075-200B1	7-1/2	52	156	200	57,285	79	83	72	37	4,200
QCV075-200B2	7-1/2	65	195	200	57,285	79	104	89	46	4,200
QCV100-200B	10	84	252	200	76,380	82	118	104	53	4,725
QCV150-200B	15	129	258	200	114,570	85	155	142	72	5,300

Notes:

1 - HP and NFPA System Capacity are shown with one or more pumps in reserve per NFPA 99

2 - BTU/HR levels are shown with reserve pump(s) on standby

3 - dB(A) is shown with one pump in reserve per NFPA 99



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For over 60 years, Chemetron® has built its name on quality American-made medical gas delivery products with unmatched reliability and durability.

Today our commitment to quality products and expert service remains our top priority.

- ▶ **Chemetron products are still designed for longevity.**
- ▶ **Chemetron products are still manufactured using only the highest quality materials.**
- ▶ **Chemetron products are still manufactured in the USA.**

These values ensure that when you choose Chemetron for your medical gas delivery and monitoring needs, you are investing in quality products that will last a lifetime.

#### **Chemetron ... Your Source for Quality Medical Gas Delivery Products**

- |                              |                               |                       |
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| • Ball Valves & Check Valves | • Ceiling Columns & Pedestals | • Retrofit Upgrades   |
- 

All specifications are nominal and subject to change without notice.

Warranty: See Allied Statement of Warranties for details.

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#### **Construction Customer Service**

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**ISO 13485: 2003**

#### ***Product Specification***

Medical Vacuum Systems: Claw  
Form 62-00-3900 June 2009