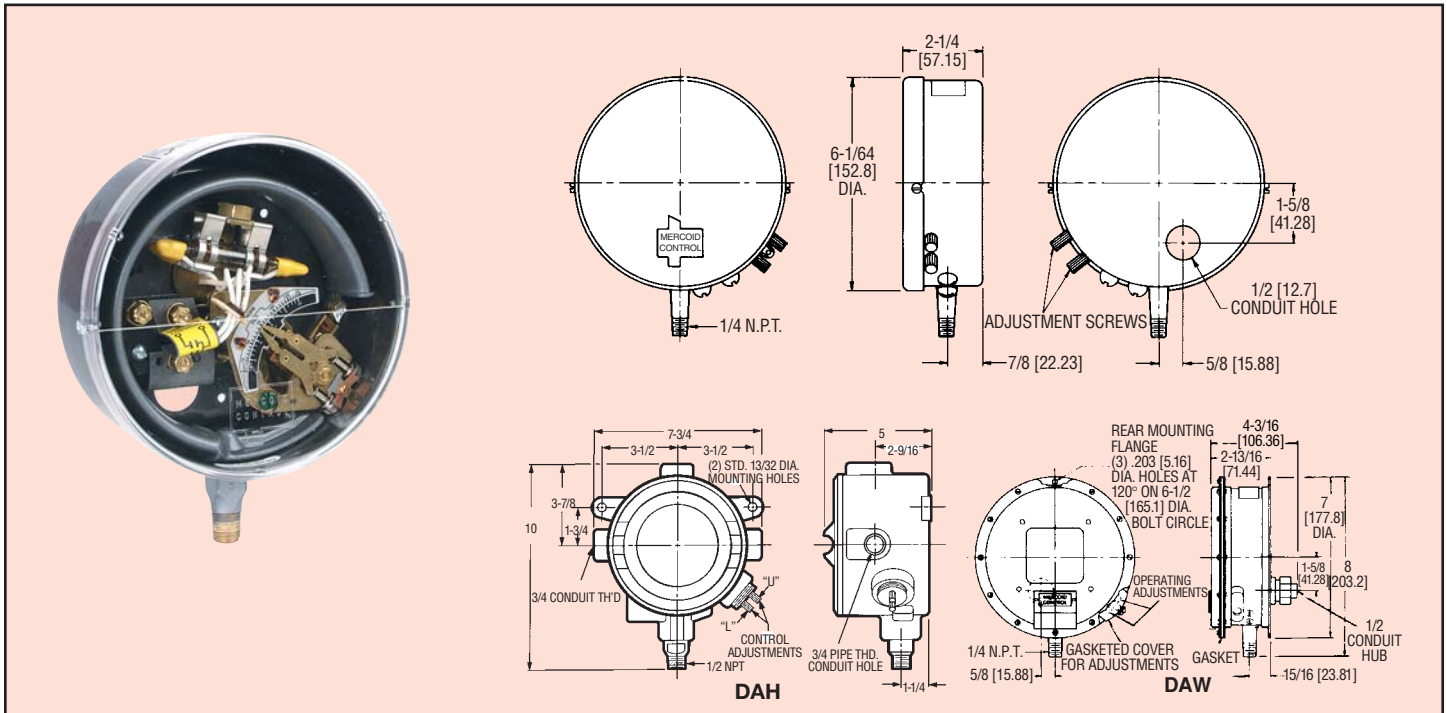




Series  
DA/DS

# Bourdon Tube Pressure Switches

Pressure Ranges to 8000 psi (551.6 bar)



Customers tell us that this is the best pressure switch made. The Mercoïd D Series is one of the world's broadest lines of pressure switches. Whatever your application might be, it is most probable it can be fully satisfied with a D Series pressure switch. The D Series has extremely high sensitivity and great repeatability. The DA Models are equipped with two external adjustments, one for setting high pressure operating point, the other for setting low pressure operating point. Deadband, the difference between high and low setpoints, is adjustable over the full scale. The DS Models are equipped with a single external adjustment for setting operating point only. The deadband is fixed at a factory setting and cannot be altered in the field. For switches choose between the snap action switch, hermetically sealed snap action switch and hermetically sealed mercury switch.

## Options

**Explosion-Proof Enclosure, Series DAH** – Suitable for Class I, Groups C and D; NEMA 7; Class II, Groups E, F, G; Class III NEMA 9 and 9A, Division 1. Add "H" to model number after DA or DS. Example: DAH-31-153-7

**FM Approved:** For general purpose and explosion-proof models listed above in agency approvals. Add "F" to model number after DA, DS, DAH or DSH.

Examples: DAF-31-153-7 or DAHF-31-153-7

**Other Options (Consult Factory):** DPDT switches or other switch types, fixed deadband mercury switch units for low deadband applications, manual reset operation, two-stage operation, Delrin® bushed movement for applications with high amounts of vibration and/or pulsation, fungus proofing, siphon, diaphragm seals, mounting flange and remote connection.

## FEATURES

- Visible calibrated dial.
- On/off indication (except hermetically sealed snap switch models).
- Adjustable or fixed deadband.
- SPDT snap-action, hermetically sealed snap action or hermetically sealed mercury switch.
- External switch setpoint adjustments.
- Minimum deadband is obtainable at any point in the range.
- Pressure ranges of full vacuum to 8000 psig.
- UL listed, CSA approved. Many models FM approved.
- General purpose, weatherproof or explosion-proof enclosures.

## SPECIFICATIONS

**Wetted Materials:** Brass, 403 SS, or 316 SS.

**Temperature Limit:** 180°F (82°C).

**Pressure Limit:** Maximum pressure of the operating range.

**Enclosure Rating:** General purpose, weatherproof or explosion-proof.

**Repeatability:** ±1% of full operating range, ±1.5% on DS-7300 models.

**Switch Type:** SPST mercury switch, SPDT mercury switch, SPDT snap switch, or SPDT hermetically sealed snap switch. Other circuit types available.

**Electrical Rating:** See model charts.

**Electrical Connections:** Screw terminal.

**Conduit Connection:** General purpose: 1/2" hole for conduit hub.

Weatherproof: 1/2" conduit hub. Explosion-proof: 3/4" female NPT.

**Process Connection:** General purpose and weatherproof: 1/4" male NPT, 1/2" male NPT on ranges 15S and 16S. Explosion-proof: 1/2" male NPT and 1/4" female NPT.

**Mounting Orientation:** Vertical.

**Set Point Adjustment:** Thumbscrew.

**Weight:** General purpose: 4 lb (1.8 kg), weatherproof: 6 lb (2.7 kg), explosion-proof: 8 lb (3.5 kg).

**Deadband:** See model chart.

**Agency Approvals:** CE, UL, CSA, FM.

**MODELS**

<b>D Series Pressure Switch with Mercury Switch and Weatherproof Enclosure</b>										
Bourdon Tube Material	Adjustable Operating Range (psig)	Adjustable Deadband								
		Minimum Dead-band (psig)	SPDT 4A @ 120 V 2A @ 240 V AC/DC	SPST Open on Increase 10A @ 120 V 5A @ 240 V AC/DC	SPST Close on Increase 10A @ 120 V 5A @ 240 V AC/DC		Minimum Dead-band (psig)	SPST Open on Increase 5A @ 120 VAC 2A @ 240 VAC 2.5A @ 120 VDC 1A @ 240 VDC	SPST Close on Increase 5A @ 120 VAC 2A @ 240 VAC 2.5A @ 120 VDC 1A @ 240 VDC	
Brass	0-30" Hg Vac	2" Hg	DAW-33-153-2	DAW-33-2-2	DAW-33-3-2		1" Hg	DAW-533-2-2	DAW-533-3-2	
	10" Hg Vac - 12	1	DAW-33-153-3	DAW-33-2-3	DAW-33-3-3		0.5	DAW-533-2-3	DAW-533-3-3	
	25" Hg Vac - 50	3.5	DAW-33-153-27	DAW-33-2-27	DAW-33-3-27		2	DAW-533-2-27	DAW-533-3-27	
	1/8 - 15	1	DAW-33-153-1	DAW-33-2-1	DAW-33-3-1		0.5	DAW-533-2-1	DAW-533-3-1	
	1/8 - 20	1	DAW-33-153-3A	DAW-33-2-3A	DAW-33-3-3A		0.5	DAW-533-2-3A	DAW-533-3-3A	
	1 - 35	1.75	DAW-33-153-4	DAW-33-2-4	DAW-33-3-4		0.75	DAW-533-2-4	DAW-533-3-4	
	2 - 60	3	DAW-33-153-5	DAW-33-2-5	DAW-33-3-5		1	DAW-533-2-5	DAW-533-3-5	
	5 - 100	3.75	DAW-33-153-6	DAW-33-2-6	DAW-33-3-6		2	DAW-533-2-6	DAW-533-3-6	
	5 - 150	6	DAW-33-153-7	DAW-33-2-7	DAW-33-3-7		3	DAW-533-2-7	DAW-533-3-7	
	10 - 200	8	DAW-33-153-8	DAW-33-2-8	DAW-33-3-8		3.5	DAW-533-2-8	DAW-533-3-8	
10 - 300	12	DAW-33-153-9	DAW-33-2-9	DAW-33-3-9		6	DAW-533-2-9	DAW-533-3-9		
403 Stainless Steel	30" Hg Vac - 60	6	DAW-23-153-25S	DAW-23-2-25S	DAW-23-3-25S		3	DAW-523-2-25S	DAW-523-3-25S	
	30" Hg Vac - 75	8	DAW-23-153-26S	DAW-23-2-26S	DAW-23-3-26S		4	DAW-523-2-26S	DAW-523-3-26S	
	2 - 60	4	DAW-23-153-5S	DAW-23-2-5S	DAW-23-3-5S		2.5	DAW-523-2-5S	DAW-523-3-5S	
	5 - 100	6	DAW-23-153-6S	DAW-23-2-6S	DAW-23-3-6S		3	DAW-523-2-6S	DAW-523-3-6S	
	10 - 200	8	DAW-23-153-8S	DAW-23-2-8S	DAW-23-3-8S		4	DAW-523-2-8S	DAW-523-3-8S	
	10 - 300	14	DAW-23-153-9S	DAW-23-2-9S	DAW-23-3-9S		7	DAW-523-2-9S	DAW-523-3-9S	
	40 - 350	14	DAW-23-153-9AS	DAW-23-2-9AS	DAW-23-3-9AS		7	DAW-523-2-9AS	DAW-523-3-9AS	
	25 - 600	25	DAW-23-153-10S	DAW-23-2-10S	DAW-23-3-10S		15	DAW-523-2-10S	DAW-523-3-10S	
	50 - 1000	60	DAW-23-153-11S	DAW-23-2-11S	DAW-23-3-11S		40	DAW-523-2-11S	DAW-523-3-11S	
	100 - 1500	90	DAW-23-153-12S	DAW-23-2-12S	DAW-23-3-12S		50	DAW-523-2-12S	DAW-523-3-12S	
300 - 2500	150	DAW-23-153-13S	DAW-23-2-13S	DAW-23-3-13S		100	DAW-523-2-13S	DAW-523-3-13S		
500 - 5000	450	DAW-23-153-15S	DAW-23-2-15S	DAW-23-3-15S		200	DAW-523-2-15S	DAW-523-3-15S		
800 - 8000	750	DAW-23-153-16S	DAW-23-2-16S	DAW-23-3-16S		400	DAW-523-2-16S	DAW-523-3-16S		
316 Stainless Steel	30" Hg Vac - 75	7	DAW-43-153-26E	DAW-43-2-26E	DAW-43-3-26E		3.5	DAW-543-2-26E	DAW-543-3-26E	
	5 - 75	3	DAW-43-153-23E	DAW-43-2-23E	DAW-43-3-23E		2	DAW-543-2-23E	DAW-543-3-23E	
	10 - 100	7	DAW-43-153-6E	DAW-43-2-6E	DAW-43-3-6E		3.5	DAW-543-2-6E	DAW-543-3-6E	
	10 - 150	6	DAW-43-153-24E	DAW-43-2-24E	DAW-43-3-24E		3	DAW-543-2-24E	DAW-543-3-24E	
	10 - 300	18	DAW-43-153-9E	DAW-43-2-9E	DAW-43-3-9E		5	DAW-543-2-9E	DAW-543-3-9E	
	30 - 400	30	DAW-43-153-21E	DAW-43-2-21E	DAW-43-3-21E		15	DAW-543-2-21E	DAW-543-3-21E	
	75 - 800	75	DAW-43-153-22E	DAW-43-2-22E	DAW-43-3-22E		35	DAW-543-2-22E	DAW-543-3-22E	
	100 - 1000	100	DAW-43-153-11E	DAW-43-2-11E	DAW-43-3-11E		45	DAW-543-2-11E	DAW-543-3-11E	
	200 - 2500	210	DAW-43-153-13E	DAW-43-2-13E	DAW-43-3-13E		110	DAW-543-2-13E	DAW-543-3-13E	

<b>D Series Pressure Switch with Snap Action Switch and Weatherproof Enclosure</b>											
Bourdon Tube Material	Adjustable Operating Range (psig)	Adjustable Deadband SPDT: 15A @ 120/240 VAC				Fixed Deadband SPDT: 15A @ 120/240 VAC			Hermetically Sealed, Fixed Deadband SPDT: 5A @ 120/240 VAC, 5A res.@30 VDC		
		Minimum Dead-band (psig)	Model Number			Fixed Deadband (psig)	Model Number		Fixed Deadband (psig)	Model Number	
Brass	0-30" Hg Vac	9" Hg	DAW-7033-153-2		3" Hg	DSW-7233-153-2		5" Hg	DSW-7333-153-2		
	10" Hg Vac - 12	4	DAW-7033-153-3		1.5	DSW-7233-153-3		3	DSW-7333-153-3		
	25" Hg Vac - 50	8	DAW-7033-153-27		2.5	DSW-7233-153-27		3.75	DSW-7333-153-27		
	1/8 - 15	4	DAW-7033-153-1		1.5	DSW-7233-153-1		3	DSW-7333-153-1		
	1/8 - 20	4	DAW-7033-153-3A		1.5	DSW-7233-153-3A		3	DSW-7333-153-3A		
	1 - 35	5	DAW-7033-153-4		1.5	DSW-7233-153-4		3	DSW-7333-153-4		
	2 - 60	6	DAW-7033-153-5		2	DSW-7233-153-5		3	DSW-7333-153-5		
	5 - 100	9	DAW-7033-153-6		2.5	DSW-7233-153-6		3.75	DSW-7333-153-6		
	5 - 150	16	DAW-7033-153-7		3	DSW-7233-153-7		5.25	DSW-7333-153-7		
	10 - 200	16	DAW-7033-153-8		4	DSW-7233-153-8		6.75	DSW-7333-153-8		
10 - 300	25	DAW-7033-153-9		5	DSW-7233-153-9		9	DSW-7333-153-9			
403 Stainless Steel	30" Hg Vac - 60	12	DAW-7023-153-25S		3.5	DSW-7223-153-25S		5.25	DSW-7323-153-25S		
	30" Hg Vac - 75	15	DAW-7023-153-26S		3.5	DSW-7223-153-26S		5.25	DSW-7323-153-26S		
	2 - 60	9	DAW-7023-153-5S		3	DSW-7223-153-5S		4.5	DSW-7323-153-5S		
	5 - 100	13	DAW-7023-153-6S		3.5	DSW-7223-153-6S		5.25	DSW-7323-153-6S		
	10 - 200	15	DAW-7023-153-8S		4	DSW-7223-153-8S		7.125	DSW-7323-153-8S		
	10 - 300	19	DAW-7023-153-9S		6	DSW-7223-153-9S		10.5	DSW-7323-153-9S		
	40 - 350	20	DAW-7023-153-9AS		6	DSW-7223-153-9AS		10.5	DSW-7323-153-9AS		
	25 - 600	45	DAW-7023-153-10S		10	DSW-7223-153-10S		18	DSW-7323-153-10S		
	50 - 1000	95	DAW-7023-153-11S		20	DSW-7223-153-11S		33	DSW-7323-153-11S		
	100 - 1500	130	DAW-7023-153-12S		30	DSW-7223-153-12S		52.5	DSW-7323-153-12S		
300 - 2500	260	DAW-7023-153-13S		60	DSW-7223-153-13S		90	DSW-7323-153-13S			
500 - 5000	900	DAW-7023-153-15S		200	DSW-7223-153-15S		300	DSW-7323-153-15S			
800 - 8000	1500	DAW-7023-153-16S		500	DSW-7223-153-16S						
316 Stainless Steel	30" Hg Vac - 75	10	DAW-7043-153-26E		3.5	DSW-7243-153-26E		5.25	DSW-7343-153-26E		
	5 - 75	8	DAW-7043-153-23E		4	DSW-7243-153-23E		6	DSW-7343-153-23E		
	10 - 100	10	DAW-7043-153-6E		3.5	DSW-7243-153-6E		5.25	DSW-7343-153-6E		
	10 - 150	11	DAW-7043-153-24E		4	DSW-7243-153-24E		6.75	DSW-7343-153-24E		
	10 - 300	28	DAW-7043-153-9E		8	DSW-7243-153-9E		12	DSW-7343-153-9E		
	30 - 400	52	DAW-7043-153-21E		10	DSW-7243-153-21E		18	DSW-7343-153-21E		
	75 - 800	120	DAW-7043-153-22E		25	DSW-7243-153-22E		37.5	DSW-7343-153-22E		
	100 - 1000	190	DAW-7043-153-11E		35	DSW-7243-153-11E		52.5	DSW-7343-153-11E		
	200 - 2500	400	DAW-7043-153-13E		75	DSW-7243-153-13E		112.5	DSW-7343-153-13E		

**MODELS**

<b>D Series Pressure Switch with Mercury Switch and General Purpose Enclosure</b>										
Bourdon Tube Material	Adjustable Operating Range (psig)	Adjustable Deadband								
		Minimum Deadband (psig)	SPDT 4A @ 120 V 2A @ 240 V AC/DC	SPST Open on Increase 10A @ 120 V 5A @ 240 V AC/DC	SPST Close on Increase 10A @ 120 V 5A @ 240 V AC/DC		Minimum Deadband (psig)	SPST Open on Increase 5A @ 120 VAC 2A @ 240 VDC 2.5A @ 120 VDC 1A @ 240 VDC	SPST Close on Increase 5A @ 120 VAC 2A @ 240 VDC 2.5A @ 120 VDC 1A @ 240 VDC	
Brass	0-30" Hg Vac	2" Hg	DA-31-153-2	DA-31-2-2	DA-31-3-2		1" Hg	DA-531-2-2	DA-531-3-2	
	10" Hg Vac - 12	1	DA-31-153-3	DA-31-2-3	DA-31-3-3		0.5	DA-531-2-3	DA-531-3-3	
	25" Hg Vac - 50	3.5	DA-31-153-27	DA-31-2-27	DA-31-3-27		2	DA-531-2-27	DA-531-3-27	
	1/8 - 15	1	DA-31-153-1	DA-31-2-1	DA-31-3-1		0.5	DA-531-2-1	DA-531-3-1	
	1/8 - 20	1	DA-31-153-3A	DA-31-2-3A	DA-31-3-3A		0.5	DA-531-2-3A	DA-531-3-3A	
	1 - 35	1.75	DA-31-153-4	DA-31-2-4	DA-31-3-4		0.75	DA-531-2-4	DA-531-3-4	
	2 - 60	3	DA-31-153-5	DA-31-2-5	DA-31-3-5		1	DA-531-2-5	DA-531-3-5	
	5 - 100	3.75	DA-31-153-6	DA-31-2-6	DA-31-3-6		2	DA-531-2-6	DA-531-3-6	
	5 - 150	6	DA-31-153-7	DA-31-2-7	DA-31-3-7		3	DA-531-2-7	DA-531-3-7	
	10 - 200	8	DA-31-153-8	DA-31-2-8	DA-31-3-8		3.5	DA-531-2-8	DA-531-3-8	
10 - 300	12	DA-31-153-9	DA-31-2-9	DA-31-3-9		6	DA-531-2-9	DA-531-3-9		
403 Stainless Steel	30" Hg Vac - 60	6	DA-21-153-25S	DA-21-2-25S	DA-21-3-25S		3	DA-521-2-25S	DA-521-3-25S	
	30" Hg Vac - 75	8	DA-21-153-26S	DA-21-2-26S	DA-21-3-26S		4	DA-521-2-26S	DA-521-3-26S	
	2 - 60	4	DA-21-153-5S	DA-21-2-5S	DA-21-3-5S		2.5	DA-521-2-5S	DA-521-3-5S	
	5 - 100	6	DA-21-153-6S	DA-21-2-6S	DA-21-3-6S		3	DA-521-2-6S	DA-521-3-6S	
	10 - 200	8	DA-21-153-8S	DA-21-2-8S	DA-21-3-8S		4	DA-521-2-8S	DA-521-3-8S	
	10 - 300	14	DA-21-153-9S	DA-21-2-9S	DA-21-3-9S		7	DA-521-2-9S	DA-521-3-9S	
	40 - 350	14	DA-21-153-9AS	DA-21-2-9AS	DA-21-3-9AS		7	DA-521-2-9AS	DA-521-3-9AS	
	25 - 600	25	DA-21-153-10S	DA-21-2-10S	DA-21-3-10S		15	DA-521-2-10S	DA-521-3-10S	
	50 - 1000	60	DA-21-153-11S	DA-21-2-11S	DA-21-3-11S		40	DA-521-2-11S	DA-521-3-11S	
	100 - 1500	90	DA-21-153-12S	DA-21-2-12S	DA-21-3-12S		50	DA-521-2-12S	DA-521-3-12S	
300 - 2500	150	DA-21-153-13S	DA-21-2-13S	DA-21-3-13S		100	DA-521-2-13S	DA-521-3-13S		
500 - 5000	450	DA-21-153-15S	DA-21-2-15S	DA-21-3-15S		200	DA-521-2-15S	DA-521-3-15S		
800 - 8000	750	DA-21-153-16S	DA-21-2-16S	DA-21-3-16S		400	DA-521-2-16S	DA-521-3-16S		
316 Stainless Steel	30" Hg Vac - 75	7	DA-41-153-26E	DA-41-2-26E	DA-41-3-26E		3.5	DA-541-2-26E	DA-541-3-26E	
	5 - 75	3	DA-41-153-23E	DA-41-2-23E	DA-41-3-23E		2	DA-541-2-23E	DA-541-3-23E	
	10 - 100	7	DA-41-153-6E	DA-41-2-6E	DA-41-3-6E		3.5	DA-541-2-6E	DA-541-3-6E	
	10 - 150	6	DA-41-153-24E	DA-41-2-24E	DA-41-3-24E		3	DA-541-2-24E	DA-541-3-24E	
	10 - 300	18	DA-41-153-9E	DA-41-2-9E	DA-41-3-9E		5	DA-541-2-9E	DA-541-3-9E	
	30 - 400	30	DA-41-153-21E	DA-41-2-21E	DA-41-3-21E		15	DA-541-2-21E	DA-541-3-21E	
	75 - 800	75	DA-41-153-22E	DA-41-2-22E	DA-41-3-22E		35	DA-541-2-22E	DA-541-3-22E	
	100 - 1000	100	DA-41-153-11E	DA-41-2-11E	DA-41-3-11E		45	DA-541-2-11E	DA-541-3-11E	
	200 - 2500	210	DA-41-153-13E	DA-41-2-13E	DA-41-3-13E		110	DA-541-2-13E	DA-541-3-13E	

<b>D Series Pressure Switch with Snap Action Switch and General Purpose Enclosure</b>										
Bourdon Tube Material	Adjustable Operating Range (psig)	Adjustable Deadband SPDT: 15A @ 120/240 VAC			Fixed Deadband SPDT: 15A @ 120/240 AC			Hermetically Sealed, Fixed Deadband SPDT: 5A @ 120/240 VAC, 5A res. @ 30 VDC		
		Minimum Deadband (psig)	Model Number		Fixed Deadband (psig)	Model Number		Fixed Deadband (psig)	Model Number	
Brass	0-30" Hg Vac	9" Hg	DA-7031-153-2		3" Hg	DS-7231-153-2		5" Hg	DS-7331-153-2	
	10" Hg Vac - 12	4	DA-7031-153-3		1.5	DS-7231-153-3		3	DS-7331-153-3	
	25" Hg Vac - 50	8	DA-7031-153-27		2.5	DS-7231-153-27		3.75	DS-7331-153-27	
	1/8 - 15	4	DA-7031-153-1		1.5	DS-7231-153-1		3	DS-7331-153-1	
	1/8 - 20	4	DA-7031-153-3A		1.5	DS-7231-153-3A		3	DS-7331-153-3A	
	1 - 35	5	DA-7031-153-4		1.5	DS-7231-153-4		3	DS-7331-153-4	
	2 - 60	6	DA-7031-153-5		2	DS-7231-153-5		3	DS-7331-153-5	
	5 - 100	9	DA-7031-153-6		2.5	DS-7231-153-6		3.75	DS-7331-153-6	
	5 - 150	16	DA-7031-153-7		3	DS-7231-153-7		5.25	DS-7331-153-7	
	10 - 200	16	DA-7031-153-8		4	DS-7231-153-8		6.75	DS-7331-153-8	
10 - 300	25	DA-7031-153-9		5	DS-7231-153-9		9	DS-7331-153-9		
403 Stainless Steel	30" Hg Vac - 60	12	DA-7021-153-25S		3.5	DS-7221-153-25S		5.25	DS-7321-153-25S	
	30" Hg Vac - 75	15	DA-7021-153-26S		3.5	DS-7221-153-26S		5.25	DS-7321-153-26S	
	2 - 60	9	DA-7021-153-5S		3	DS-7221-153-5S		4.5	DS-7321-153-5S	
	5 - 100	13	DA-7021-153-6S		3.5	DS-7221-153-6S		5.25	DS-7321-153-6S	
	10 - 200	15	DA-7021-153-8S		4	DS-7221-153-8S		7.125	DS-7321-153-8S	
	10 - 300	19	DA-7021-153-9S		6	DS-7221-153-9S		10.5	DS-7321-153-9S	
	40 - 350	20	DA-7021-153-9AS		6	DS-7221-153-9AS		10.5	DS-7321-153-9AS	
	25 - 600	45	DA-7021-153-10S		10	DS-7221-153-10S		18	DS-7321-153-10S	
	50 - 1000	95	DA-7021-153-11S		20	DS-7221-153-11S		33	DS-7321-153-11S	
	100 - 1500	130	DA-7021-153-12S		30	DS-7221-153-12S		52.5	DS-7321-153-12S	
300 - 2500	260	DA-7021-153-13S		60	DS-7221-153-13S		90	DS-7321-153-13S		
500 - 5000	900	DA-7021-153-15S		200	DS-7221-153-15S		300	DS-7321-153-15S		
800 - 8000	1500	DA-7021-153-16S		500	DS-7221-153-16S					
316 Stainless Steel	30" Hg Vac - 75	10	DA-7041-153-26E		3.5	DS-7241-153-26E		5.25	DS-7341-153-26E	
	5 - 75	8	DA-7041-153-23E		4	DS-7241-153-23E		6	DS-7341-153-23E	
	10 - 100	10	DA-7041-153-6E		3.5	DS-7241-153-6E		5.25	DS-7341-153-6E	
	10 - 150	11	DA-7041-153-24E		4	DS-7241-153-24E		6.75	DS-7341-153-24E	
	10 - 300	28	DA-7041-153-9E		8	DS-7241-153-9E		12	DS-7341-153-9E	
	30 - 400	52	DA-7041-153-21E		10	DS-7241-153-21E		18	DS-7341-153-21E	
	75 - 800	120	DA-7041-153-22E		25	DS-7241-153-22E		37.5	DS-7341-153-22E	
	100 - 1000	190	DA-7041-153-11E		35	DS-7241-153-11E		52.5	DS-7341-153-11E	
	200 - 2500	400	DA-7041-153-13E		75	DS-7241-153-13E		112.5	DS-7341-153-13E	