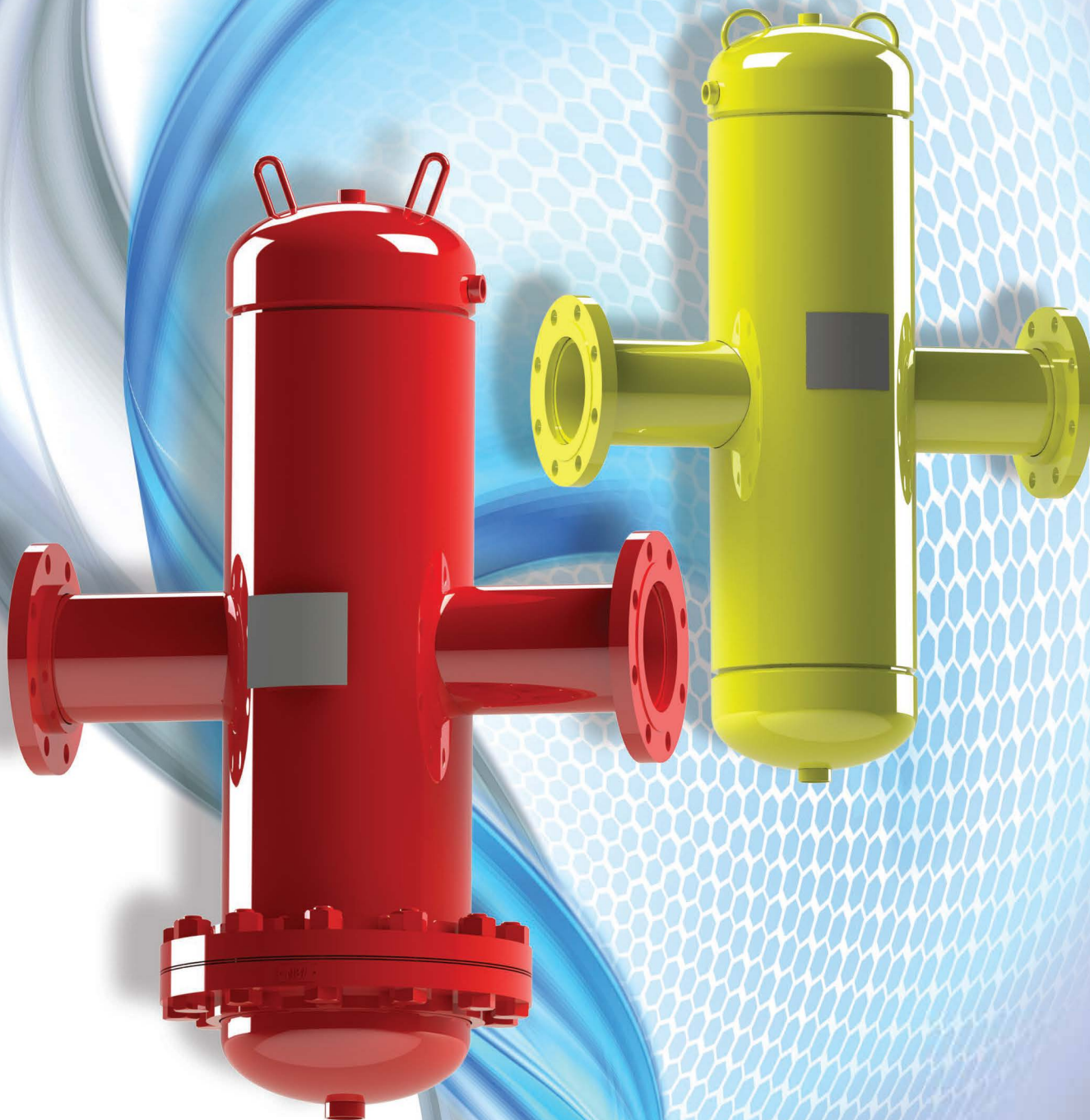


# WESS-VENT

AIR & DIRT SEPARATORS



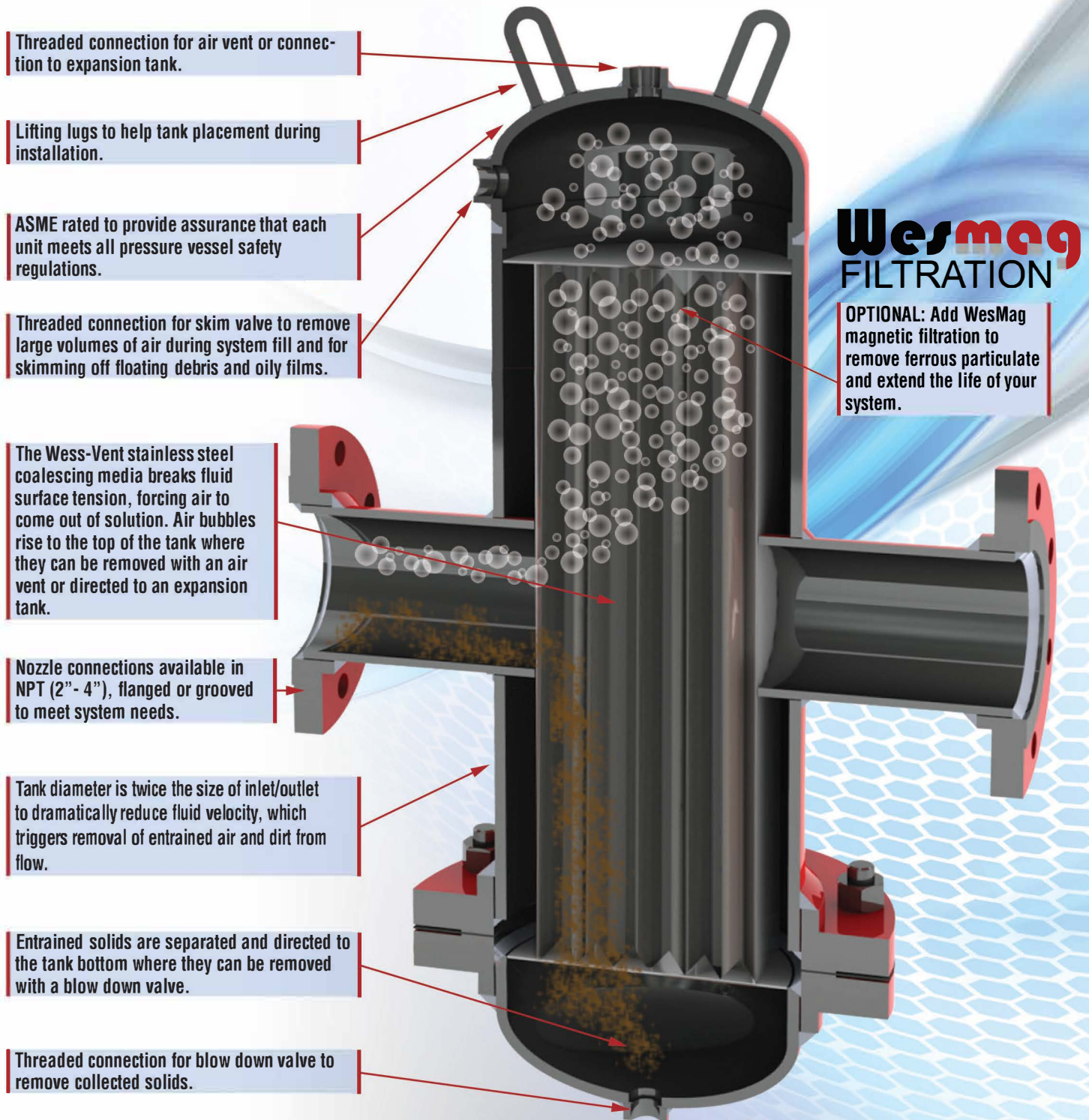
SINCE 1908  
**wessels**  
company

**Model WVA**  
US Patent No. 10,708,538



# WESS-VENT AIR & DIRT SEPARATOR

Wessels WVA Air & Dirt Separators are designed to eliminate entrained air and separate debris associated with start-up and continuous operation of any hydronic system. The design incorporates a removable end cover for access to the coalescing media, a skim valve (optional) used to eliminate floating debris, and an air vent (optional) to automatically release air from the separator. The design and construction is manufactured to conform to ASME Section VIII, Div 1. Non-ASME also available.



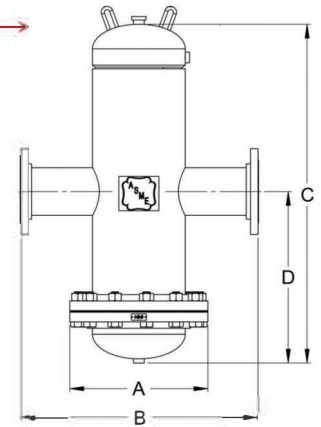
**STANDARD:** Carbon Steel | Coalescing Media: Stainless Steel | Maximum Design Temperature: 250°F | Maximum Design Pressure: 150 PSIG

**OPTIONAL:** Stainless Steel | Coalescing Media: Copper Mesh | Blow Down Valve: Bronze | Skim Valve: Bronze | Air Vent: Cast Iron | Wesmag: Filtration

# Choose High Velocity (WVA-HV) for Optimum Performance

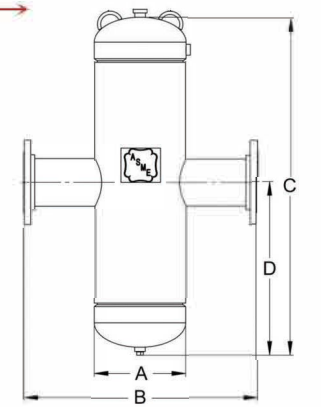
## Air and Dirt Separator (WVA)

MODEL	FLANGE SIZE	A (in.)	B (in.)	Standard Velocity (WVA)			High Velocity (WVA-HV)		
				C (in.)	D (in.)	FLOW GPM	C (in.)	D (in.)	FLOW GPM
WVA-2	2	9	15-1/4	23	11-1/2	69	33	16-1/2	105
WVA-2-NPT	2	9	9	23	11-1/2	69	33	16-1/2	105
WVA-2.5	2.5	10	15-3/4	23	11-1/2	108	33	16-1/2	155
WVA-2.5-NPT	2.5	10	10-1/2	23	11-1/2	108	33	16-1/2	155
WVA-3	3	11	20-1/4	29	14-1/2	144	42	21	225
WVA-3-NPT	3	11	12-3/4	29	14-1/2	144	42	21	225
WVA-4	4	13-1/2	20-5/8	29	14-1/2	255	42	21	405
WVA-5	5	16	4	39	19-1/2	398	59	29-1/2	630
WVA-6	6	19	27-3/4	39	19-1/2	570	59	29-1/2	910
WVA-8	8	23-1/2	33-5/8	49	24-1/2	945	75	37-1/2	1610
WVA-10	10	27-1/2	37-1/2	65	32-1/2	1440	92	46	2450
WVA-12	12	32	42-1/2	76	38	2100	110	55	3500



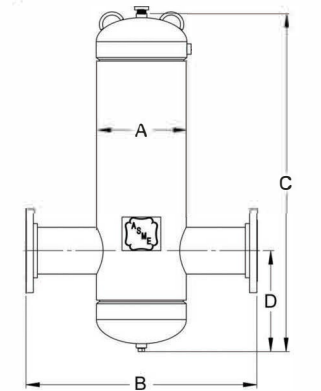
## Non-Removable (WVAN)

MODEL	FLANGE SIZE	A (in.)	B (in.)	Standard Velocity (WVA-N)			High Velocity (WVA-N-HV)		
				C (in.)	D (in.)	FLOW GPM	C (in.)	D (in.)	FLOW GPM
WVAN-2	2	4-1/2	15-1/4	23	11-1/2	69	33	16-1/2	105
WVAN-2-NPT	2	4-1/2	9	23	11-1/2	69	33	16-1/2	105
WVAN-2.5	2.5	5-1/2	15-3/4	23	11-1/2	108	33	16-1/2	155
WVAN-2.5-NPT	2.5	5-1/2	10-1/2	23	11-1/2	108	33	16-1/2	155
WVAN-3	3	6-1/2	20-1/4	29	14-1/2	144	42	21	225
WVAN-3-NPT	3	6-1/2	12-3/4	29	14-1/2	144	42	21	225
WVAN-4	4	8-1/2	20-5/8	29	14-1/2	255	42	21	405
WVAN-5	5	10	27-3/4	39	19-1/2	398	59	29-1/2	630
WVAN-6	6	12	27-3/4	39	19-1/2	570	59	29-1/2	910
WVAN-8	8	16	33-5/8	49	24-1/2	945	75	37-1/2	1610
WVAN-10	10	20	37-1/2	65	32-1/2	1440	92	46	2450
WVAN-12	12	24	42-1/2	76	38	2100	110	55	3500



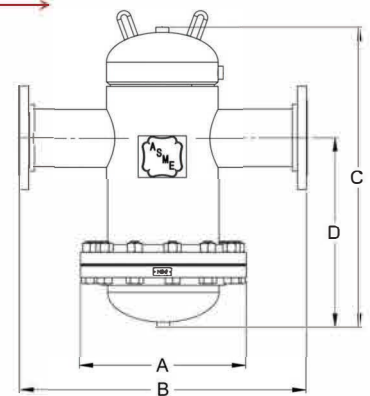
## Air Separator (WVAA)

MODEL	FLANGE SIZE	A (in.)	B (in.)	Standard Velocity (WVAA)			High Velocity (WVAA-HV)		
				C (in.)	D (in.)	FLOW GPM	C (in.)	D (in.)	FLOW GPM
WVAA-2	2	4-1/2	15-1/4	18-1/2	7	69	23	6-1/2	105
WVAA-2-NPT	2	4-1/2	9	18-1/2	7	69	23	6-1/2	105
WVAA-2.5	2.5	5-1/2	15-3/4	18-1/2	7	108	23	6-1/2	155
WVAA-2.5-NPT	2.5	5-1/2	10-1/2	18-1/2	7	108	23	6-1/2	155
WVAA-3	3	6-1/2	20-1/4	23	8-1/2	144	30	9	225
WVAA-3-NPT	3	6-1/2	12-3/4	23	8-1/2	144	30	9	225
WVAA-4	4	8-1/2	20-5/8	23	8-1/2	255	30	9	405
WVAA-5	5	10	27-3/4	31	11-1/2	398	41	11-1/2	630
WVAA-6	6	12	27-3/4	31	11-1/2	570	41	11-1/2	910
WVAA-8	8	16	33-5/8	36	11-1/2	945	49	11-1/2	1610
WVAA-10	10	20	37-1/2	46	13-1/2	1440	60	14	2450
WVAA-12	12	24	42-1/2	54	16	2100	71	16	3500



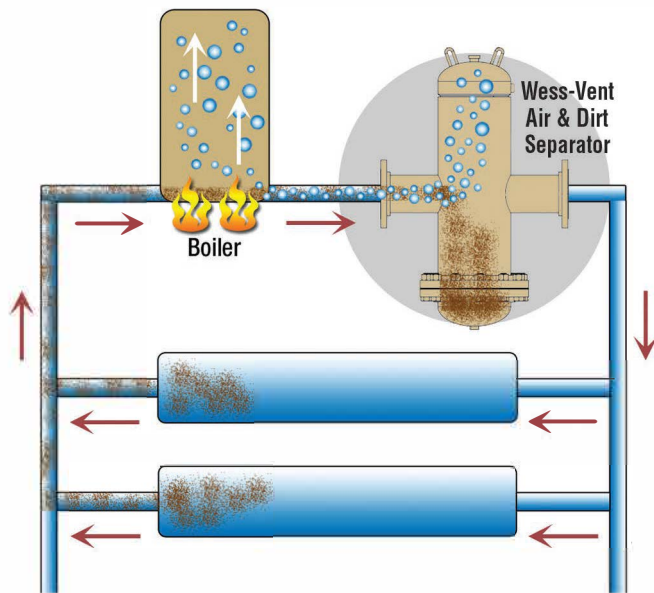
## Dirt Separator (WVAD)

MODEL	FLANGE SIZE	A (in.)	B (in.)	Standard Velocity (WVAD)			High Velocity (WVAD-HV)		
				C (in.)	D (in.)	FLOW GPM	C (in.)	D (in.)	FLOW GPM
WVAD-2	2	9	15-1/4	18-1/2	11-1/2	69	23	16-1/2	105
WVAD-2-NPT	2	9	9	18-1/2	11-1/2	69	23	16-1/2	105
WVAD-2.5	2.5	1	15-3/4	18-1/2	11-1/2	108	23	16-1/2	155
WVAD-2.5-NPT	2.5	1	10-1/2	18-1/2	11-1/2	108	23	16-1/2	155
WVAD-3	3	11	20-1/4	23	14-1/2	144	30	21	225
WVAD-3-NPT	3	11	12-3/4	23	14-1/2	144	30	21	225
WVAD-4	4	13-1/2	20-5/8	23	14-1/2	255	30	21	405
WVAD-5	5	16	27-3/4	31	19-1/2	398	41	29-1/2	630
WVAD-6	6	19	27-3/4	31	19-1/2	570	41	29-1/2	910
WVAD-8	8	23-1/2	33-5/8	36	24-1/2	945	49	37-1/2	1610
WVAD-10	10	27-1/2	37-1/2	46	32-1/2	1440	60	46	2450
WVAD-12	12	32	42-1/2	54	38	2100	71	55	3500

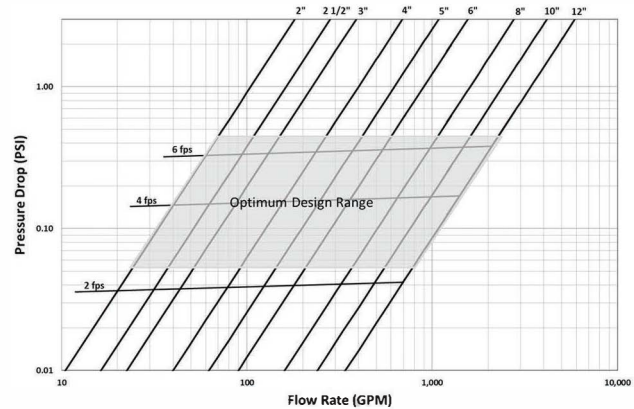




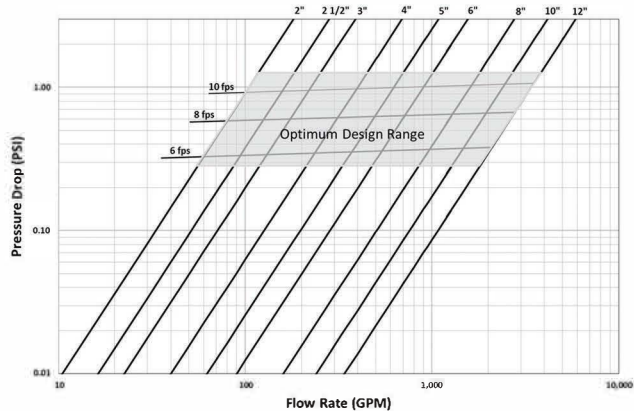
# PREMIUM PERFORMANCE



**WESS-VENT AIR & DIRT SEPARATOR**  
Performance Data for Standard Units



Performance Data for High Velocity Units



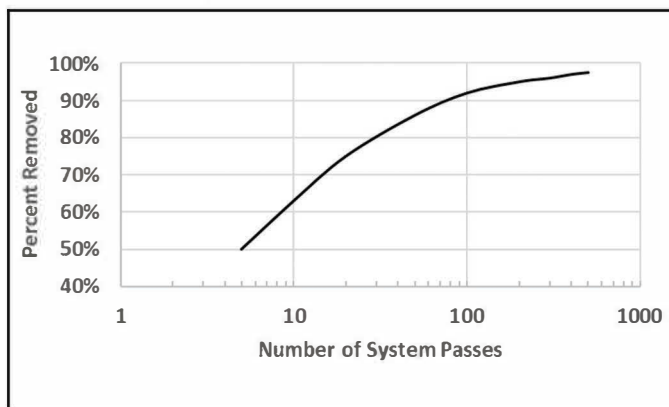
## AIR REMOVAL

Independent third party laboratory testing has concluded that Wessels WVA Air & Dirt separator will eliminate air to a level of greater than 99.5%. This testing was accomplished with measurements of dissolved oxygen and observation of bubbles over time. Results concluded that within 45 minutes, 50% of the dissolved oxygen was removed. With sufficient time (less than two hours), the dissolved oxygen level was reduced to less than 0.05%.

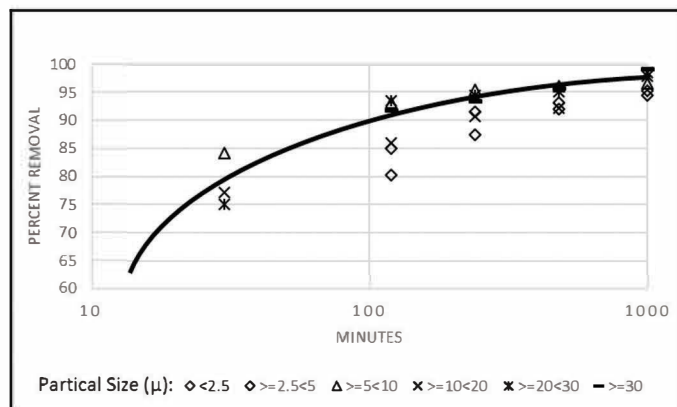
## DIRT REMOVAL

Dirt flowing with the system water is diverted to the WVA Air & Dirt Separator. As this flow enters the unit, dirt particle removal (dependent on system cycles) is measured according to particle size. Results from testing are revealed in Charts A and B below. From Chart A, 91% of dirt (in the 10 to 75 micron size) is separated and diverted to the bottom of the Wess-Vent. With continual system cycling, dirt removal will approach 99%. Chart B reveals the particle size removal percentage in 24 hours of operation. For example, more than 97% of particles in the 10 to 75 micron size range were separated within 24 hours.

**Chart A • Solids Removal**  
(15 to 75 micron particle mix)



**Chart B • Solids Removal**



*\*Performance verified by independent third party. Please contact for more information.*



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US Patent No. 10,708,538