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WESSGUARD[®]

Smart Tank Series



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GREENWOOD INDIANA



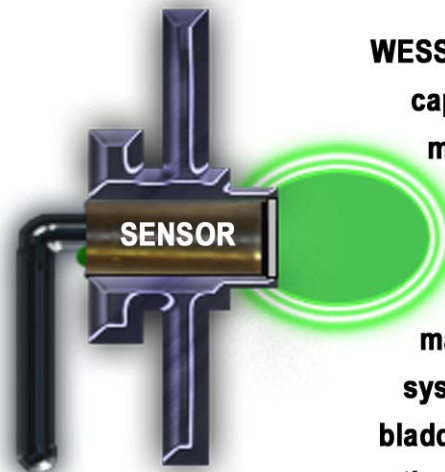
IS YOUR SYSTEM PROTECTED?

WESSGUARD[®]

Smart Tank Series

Wessels Company's Patent Pending WESSGUARD is industry's first and only sentry for critical mechanical system protection. Mechanical systems are expensive to install and potentially more costly to service or replace. WESSGUARD acts to protect the critical components of the mechanical system by monitoring the effectiveness of the system expansion tank. WESSGUARD can be installed in new installations, or retrofit to fit many of the vessels installed today.

Without WESSGUARD your mechanical system is at risk.



**EFFECTIVE PROTECTION
FROM CRITICAL PRESSURE
FLUCTUATIONS CREATED BY:**

- Improper Vessel Setup
and Insulation**
- Delinquent Tank Maintenance**
- Undersized Vessel**
- Vessel Malfunction**

WESSGUARD utilizes a uniquely designed capacitive sensor that is sensitive to any movement inside the tank. If the bladder extends beyond the normal movement, WESSGUARD will activate an audible alarm and LED light to notify maintenance personnel of a potential system issue. In the case of compromised bladder integrity, water level will rise and activate the alarm.

Boyle's Law dictates that under typical system pressures, a relatively small percentage of the total tank volume is used to store water.

For example:

- Fill pressure 12 psig, and max. pressure of 30 psig, equates to using 40% of the tank's total volume.
- Fill pressure 30 psig, and max. pressure of 75 psig, equates to using 50% of the tank's total volume.
- Fill pressure 60 psig, and max. pressure of 125 psig, equates to using 47% of the tank's total volume.

WESSGUARD PROTECTION

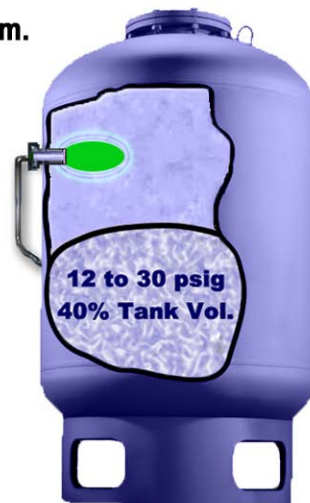
Bladder movement in the vessel is typically less than 50% of the total tank volume. Bladders are designed to fully contour to the tank, but if it extends to 75% and beyond, it is normally an indication of an internal malfunction (such as loss of air-charge, misapplied installation, bladder fatigue, etc.)

WESSGUARD is strategically positioned into the tank to monitor against these runaway conditions, and works to notify the maintenance staff of this potentially costly system condition.

Typical Specification

Furnish and install as shown on plans a Wessels Smart Tank with WESSGUARD tank alarm module or equal, as manufactured by Wessels Company, Greenwood, IN. Module shall have 2" npt sensor well and be completely factory assembled. The module shall be used to monitor internal tank potential excessive water level, or bladder movement. The module shall be designed with a visual LED and sonic warning system. Unit will operate on standard 24-Volt DC current.

Each module shall be Wessels model designation WESSGUARD or approved equal.



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Smart Tank Series – FXA with WessGuard

Smart Tank Series FXA-WG are ASME removable bladder type pre-charged hydro-pneumatic tanks with WessGuard bladder monitor. They are designed to accept water between two set pressures, typically controlled by a pump switch, in pressure booster, water well, shock & surge, or other commercial & industrial systems where water must be stored in a corrosion protected reservoir. If the system creates a condition to extend the bladder beyond the normal movement, WessGuard monitor will activate an audible and LED alarm to notify maintenance staff of a potential system issue. In the case of compromised bladder integrity, water level will rise to activate the alarm.



Model Number	Total Gal.	Accept. Volume	Dia. (in.)	Ht. (in.)	Syst. Conn. (in NPT)	Wt. (Lbs.)
FXA-35-WG	10	10	12	25	3/4	40
FXA-50-WG	13	13	14	25	3/4	50
FXA-85-WG	23	23	16	37	1	90
FXA-130-WG	35	35	20	37	1	125
FXA-200-WG	53	53	24	43	1 1/2	210
FXA-300-WG	79	79	24	55	1 1/2	225
FXA-400-WG	106	106	30	49	1 1/2	300
FXA-500-WG	132	132	30	57	2	335
FXA-600-WG	158	158	30	65	2	360
FXA-700-WG	185	185	30	80	1 1/2	401
FXA-800L-WG	211	211	32	76	2	475
FXA-1000-WG	264	264	36	74	3	710
FXA-1200-WG	317	317	36	86	3	720
FXA-1400-WG	370	370	36	99	3	875
FXA-1600-WG	422	422	48	72	3	1100
FXA-2000-WG	528	528	48	85	3	1280
FXA-2500-WG	660	660	48	102	4	1435
FXA-3000L-WG	792	792	48	122	4	1550
FXA-3000S-WG	792	792	60	80	4	2169
FXA-4000-WG	1056	1056	60	102	4	2638
FXA-5000-WG	1320	1320	60	125	4	3246
FXA-7500-WG	1980	1980	72	127	4	4005
FXA-10000-WG	2640	2640	72	159	4	4845
FXA-15000-WG	3963	3963	72	233	4	5925

Materials = Steel Shell, Heavy Duty Butyl Bladder; Maximum Pressure = 125 PSIG; Maximum Temperature = 240°F; Finish = Blue Urethane Exterior; Factory Precharge = 30 PSIG; Also available in 200 & 250 psi rated models

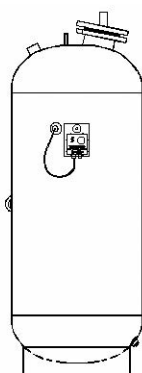
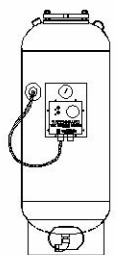
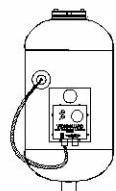


WESSGUARD[®] Smart Tank Series



Smart Tank Series – NLA with WessGuard

Smart Tank Series NLA-WG are ASME removable bladder type pre-charged expansion tanks with WessGuard bladder monitor. They are designed to absorb the expansion forces and control the pressure in heating/cooling systems. The system's expanded water (fully compatible with water/glycol mixtures) is contained in a heavy-duty bladder preventing tank corrosion and water logging problems. If the system creates a condition to extend the bladder beyond the normal movement, WessGuard monitor will activate an audible and LED alarm to notify maintenance staff of this potential system issue. In the case of compromised bladder integrity, water level will rise to activate the alarm.



Model Number	Total Gal.	Accept. Volume	Dia. (in.)	Ht. (in.)	Syst. Conn. (in NPT)	Wt. (Lbs.)
NLA-35-WG	10	10	12	25	3/4	40
NLA-50-WG	13	13	14	25	3/4	50
NLA-85-WG	23	23	16	37	1	90
NLA-130-WG	35	35	20	37	1	125
NLA-200-WG	53	53	24	43	1 1/2	210
NLA-300-WG	79	79	24	55	1 1/2	225
NLA-400-WG	106	106	30	49	1 1/2	300
NLA-500-WG	132	132	30	57	1 1/2	335
NLA-600-WG	158	158	30	65	1 1/2	360
NLA-800L-WG	211	211	32	76	1 1/2	475
NLA-1000-WG	264	264	36	74	1 1/2	710
NLA-1200-WG	317	317	36	86	1 1/2	720
NLA-1400-WG	370	370	36	99	1 1/2	875
NLA-1600-WG	422	422	48	72	1 1/2	1100
NLA-2000-WG	528	528	48	85	1 1/2	1280
NLA-2500-WG	660	660	48	102	2	1435
NLA-3000L-WG	792	792	48	122	2	1550
NLA-3000S-WG	792	792	60	80	2	2169
NLA-4000-WG	1056	1056	60	102	2	2638
NLA-5000-WG	1320	1320	60	125	2	3246
NLA-7500-WG	1980	1980	72	127	3	4005
NLA-10000-WG	2640	2640	72	159	3	4845
NLA-15000-WG	3963	3963	72	233	3	5925

Materials = Steel Shell, Heavy Duty Butyl Bladder; Maximum Pressure = 125 PSIG; Maximum Temperature = 240°F; Finish = Red Urethane Exterior; Factory Precharge = 30 PSIG; Also available in 200 & 250 psi rated models



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