



SUBJECT: T300 vs T3 Productivity and Coverage Area

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TO: Tennant Sales Reps

FROM: Mark Pominville

The new T300, T300e and SS300 line of walk-behind scrubbers provides floor cleaning professionals with new cleaning solutions that provide effective performance on the floor while reducing operating costs. Tennant has developed a number of selling tools and a new set of information to support the launch of this new line of scrubbers. Collectively, the materials we have developed provides our customers with the information they need to select the right product for their unique application. The purpose of this communication is to inform you of changes made to calculate the productivity of the T300 machines and provide you with a new set of data highlighting the improvements in coverage area of the T300 family of machines.

T300/T3 Productivity Comparison

You may have noticed the T300 spec sheets are showing new productivity numbers when compared to the current T3 and SS3. Over the years we have changed the assumptions used to calculate the theoretical max and practical productivity numbers. This resulted in some inconsistencies in the data we reported over time. We have reworked the formulas to more accurately calculate scrub speed for theoretical max calculations and by factoring in water flow rates and adjusting dump and fill assumptions for calculating practical productivity. We are now taking into account these factors for the T300 family of machines to better reflect the productivity our customers will experience. Below is a table that points out the T3 productivity numbers we are communicating in various T3 spec sheets available on our internet site compared to the T300 data. Here you find that the theoretical max numbers have decreased and the practical productivity has mixed results.

			Productivity Improvement				Productivity Reduction				Incorrectly Converted in Spec Sheet - Should be 1,686							
Category	Machine	Source*	17" (430 mm) Single Disk Pad Assist		17" (430 mm) Single Disk Self-Propel		20" (500 MM) Single Disk Pad Assist		20" (500 MM) Single Disk Self-Propel		24" (600 mm) Dual Disk Self-Propel		20" (500 MM) Orbital Self-Propel		20" (500 MM) Dual Cylindrical Self-Propel			
			ft²	M²	ft²	M²	ft²	M²	ft²	M²	ft²	M²	ft²	M²	ft²	M²		
Theoretical Max	T3	T3/T3+ Drive Spec Sheet							23,800	2,210	28,560	2,650						
	T3	T3 Spec Sheet	20,230	1,880			23,800	2,210	23,800	2,210								
	T3	T3 Spec Sheet (with ec-H2O)	20,230	1,880			23,800	2,210	23,800	2,210								
	T3	T3 Pad Assist Spec Sheet	20,230	1,880			23,800	2,210										
	T3	Orbital Sell Sheet											23,400	2,174				
	T300	T300 Coverage Spec Calculation	17,000	1,579	17,000	1,579	20,000	1,858	20,000	1,858	24,000	2,230	20,000	1,858	20,000	1,858		
Practical: Conventional	T3	T3/T3+ Drive Spec Sheet							13,500	1,250								
	T3	T3 Spec Sheet	8,440	785			10,125	940	16,065	1,490								
	T3	T3 Spec Sheet (with ec-H2O)	8,440	785			10,125	940	16,065	1,490								
	T3	T3 Pad Assist Spec Sheet	8,440	785			10,125	940										
	T3	Orbital Sell Sheet											12,600	1,171				
	T300	T300 Coverage Spec Calculation	9,340	868	12,453	1,157	11,208	1,041	14,943	1,388	18,264	1,697	14,943	1,388	14,943	1,388		
Practical: ec-H2O	T3	T3/T3+ Drive Spec Sheet							15,300	1,420	18,150	1,160						
	T3	T3 Spec Sheet (with ec-H2O)	11,250	1,045			13,500	1,255	21,420	1,990								
	T3	T3 Pad Assist Spec Sheet	11,250	1,045			13,500	1,255										
	T3	Orbital Sell Sheet											14,667	1,363				
	T300	T300 Coverage Spec Calculation	9,668	898	12,891	1,198	11,602	1,078	15,469	1,437	18,906	1,756	15,469	1,437	15,469	1,437		

T300 Coverage Area per Full Solution Tank

Using the new practical productivity calculation, we can determine the coverage area improvements of T300 machines with a full solution tank.

- **Table 1** - A T300 ec-H2O NanoClean machine with a water flow rate of 0.12 gpm covers over 200% more floor space as compared to a T300 conventional machine with a water flow rate of 0.4 gpm (The dual cylindrical improved coverage is lower because the maximum water flow is 0.35 gpm).
- **Table 2** - Even with the T300 conventional flow rate set at its lowest setting of 0.15 gpm, ec-H2O NanoClean machines covers 25% more floor space than a T300 conventional unit.
- **Tables 3 and 4** - The T300 machine covers 5% more floor space when the solution tank is full as compared to the T3 machine. This improvement is driven by the increased size of the solution tank for the T300 (11 gallons/42 liters) vs the T3 (10.5 gallons/40 liters).

The end result is productivity gains due to the reduced need to dump and fill tanks.

Table 1 - T300 Productivity per Full Solution Tank (Conventional Flow Rate at 0.4 gpm Vs. ec-H2O NanoClean at 0.12 gpm)

Category		17" (430 mm) Single Disk Pad Assist		17" (430 mm) Single Disk Self-Propel		20" (500 MM) Single Disk Pad Assist		20" (500 MM) Single Disk Self-Propel		24" (600 mm) Dual Disk Self-Propel		20" (500 MM) Orbital Self-Propel		20" (500 MM) Dual Cylindrical Self-Propel	
		ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²
		5,156	479	6,875	639	6,188	575	8,250	766	10,083	937	8,250	766	9,429	876
Practical:	Conventional, Water Flow - 0.4 gpm	17,188	1,597	22,917	2,129	20,625	1,916	27,500	2,555	33,611	3,122	27,500	2,555	27,500	2,555
Coverage Area	ec-H2O NanoClean, Water Flow - 0.12 gpm	12,032	1,118	16,042	1,490	14,437	1,341	19,250	1,788	23,528	2,186	19,250	1,788	18,071	1,679
with Full	Increased Coverage Area /	233%	233%	233%	233%	233%	233%	233%	233%	233%	233%	233%	233%	192%	192%
Solution Tank	Full Solution Tank														

Table 2 - T300 Productivity per Full Solution Tank (Conventional Flow Rate at 0.15 gpm Vs. ec-H2O NanoClean at 0.12 gpm)

Category		17" (430 mm) Single Disk Pad Assist		17" (430 mm) Single Disk Self-Propel		20" (500 MM) Single Disk Pad Assist		20" (500 MM) Single Disk Self-Propel		24" (600 mm) Dual Disk Self-Propel		20" (500 MM) Orbital Self-Propel		20" (500 MM) Dual Cylindrical Self-Propel	
		ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²
		13,750	1,277	18,333	1,703	16,500	1,533	22,000	2,044	26,889	2,498	22,000	2,044	22,000	2,044
Practical:	Conventional, Water Flow - 0.15 gpm	17,188	1,597	22,917	2,129	20,625	1,916	27,500	2,555	33,611	3,122	27,500	2,555	27,500	2,555
Coverage Area	ec-H2O NanoClean, Water Flow - 0.12 gpm	3,438	319	4,584	426	4,125	383	5,500	511	6,722	624	5,500	511	5,500	511
with Full	Increased Coverage Area /	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Solution Tank	Full Solution Tank														

Table 3 - T300 Vs. T3 Conventional Coverage Area per Full Solution Tank

Category		17" (430 mm) Single Disk Pad Assist		17" (430 mm) Single Disk Self-Propel		20" (500 MM) Single Disk Pad Assist		20" (500 MM) Single Disk Self-Propel		24" (600 mm) Dual Disk Self-Propel		20" (500 MM) Orbital Self-Propel		20" (500 MM) Dual Cylindrical Self-Propel	
		ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²
		13,750	1,277	18,333	1,703	16,500	1,533	22,000	2,044	26,889	2,498	22,000	2,044	22,000	2,044
Practical:	T300 Conventional	13,125	1,219	17,500	1,626	15,750	1,463	21,000	1,951	25,667	2,384	21,000	1,951	21,000	1,951
Coverage Area	T3 Conventional	625	58	833	77	750	70	1,000	93	1,222	114	1,000	93	1,000	93
with Full	Increased Coverage Area /	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Solution Tank	Full Solution Tank														

Table 4 - T300 Vs. T3 ec-H2O Coverage Area per Full Solution Tank

Category		17" (430 mm) Single Disk Pad Assist		17" (430 mm) Single Disk Self-Propel		20" (500 MM) Single Disk Pad Assist		20" (500 MM) Single Disk Self-Propel		24" (600 mm) Dual Disk Self-Propel		20" (500 MM) Orbital Self-Propel		20" (500 MM) Dual Cylindrical Self-Propel	
		ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²	ft ²	M ²
		17,188	1,597	22,917	2,129	20,625	1,916	27,500	2,555	33,611	3,122	27,500	2,555	27,500	2,555
Practical:	T300 ec-H2O NanoClean Technology	16,406	1,524	21,875	2,032	19,688	1,829	26,250	2,439	32,083	2,981	26,250	2,439	26,250	2,439
Coverage Area	T3 ec-H2O	782	73	1,042	97	937	87	1,250	116	1,528	142	1,250	116	1,250	116
with Full	Increased Coverage Area /	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Solution Tank	Full Solution Tank														

If you have questions or comments, please contact Mark Pominville at 763-513-1926 or by e-mail at mark.pominville@tenantco.com.