

## ShopFloorConnect Rates (and how to set them)

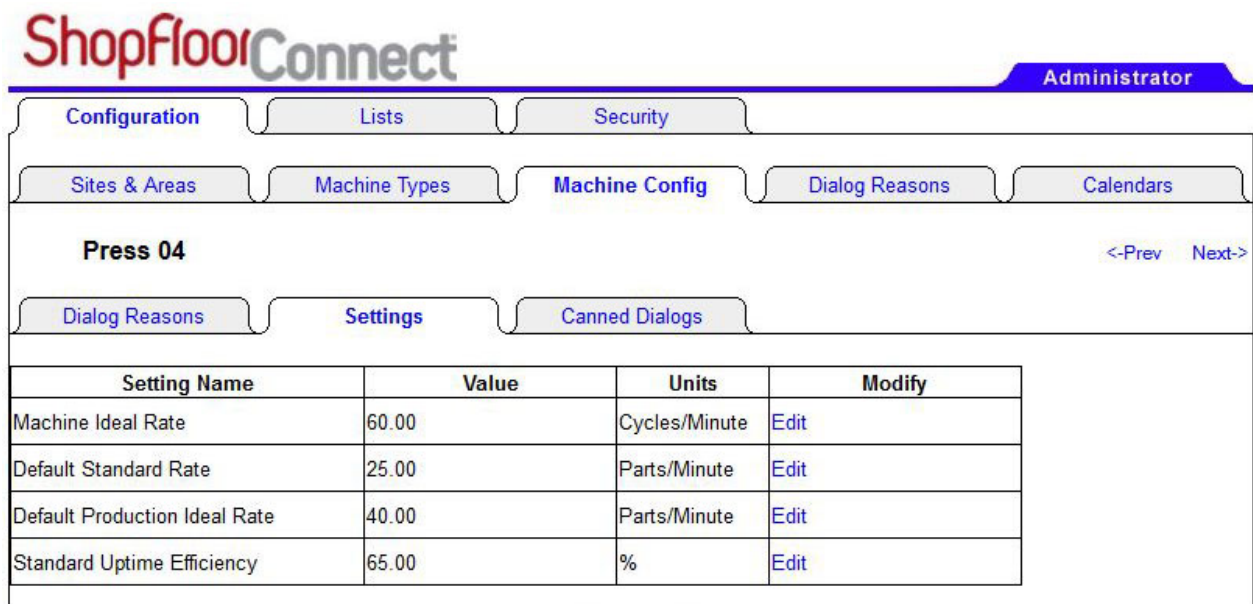
To explain the different rates used in ShopFloorConnect, let's examine the following example of a production process:

You have a machine that - when it's cranked up to its maximum speed - is capable of producing 300 parts per minute. Let's say you're running a job in the machine that is only possible to run at a speed not exceeding 240 parts per minute (although some operators prefer to run it a little slower). While you run this job, the machine is stopped for an average of 15 minutes per hour while the operator replenishes raw material, checks part dimensions, and clears scrap. In addition, the machine is stopped during the operator's ½ hour lunch, and two 15-minute breaks. Over time, you have come to expect the machine to produce an average of 64,800 parts during an 8 hour shift, or about 135 parts per minute. You have been quoting this job at that rate, but lately you suspect that the machine is taking slightly longer to complete the jobs than it had been in the past.

If you were going to track this machine and job in ShopFloorConnect, you would set the following rates:

### ***The Machine Ideal Rate = 300 parts per minute***

The Machine Ideal Rate is the maximum rate at which the machine is capable of running (in parts/hour or parts/minute). This rate is set once for each machine in the ShopFloorConnect Administrator under Configuration/Machine Config/*Machine Name*/Settings.



The screenshot shows the ShopFloorConnect Administrator interface. The top navigation bar includes 'Configuration', 'Lists', and 'Security'. The 'Configuration' section is expanded, showing 'Sites & Areas', 'Machine Types', 'Machine Config' (selected), 'Dialog Reasons', and 'Calendars'. Under 'Machine Config', the 'Settings' tab is selected for 'Press 04'. The interface displays a table with the following data:

Setting Name	Value	Units	Modify
Machine Ideal Rate	60.00	Cycles/Minute	<a href="#">Edit</a>
Default Standard Rate	25.00	Parts/Minute	<a href="#">Edit</a>
Default Production Ideal Rate	40.00	Parts/Minute	<a href="#">Edit</a>
Standard Uptime Efficiency	65.00	%	<a href="#">Edit</a>

*Machine Settings tab in Administrator showing the Machine Ideal Rate setting*

***The Production (or Primary) Ideal rate = 240 parts per minute***

The Production (also known as the “Primary”) Ideal Rate is a user-specified value that indicates the fastest possible production rate for each primary item (part or job) that can run in each machine. It differs from the Machine Ideal rate because it is set for each individual part or job. The Production Ideal Rate is set under the “Rates” tab in the machine’s equipment detail. This Rates tab has a table with all of the jobs that can run in the machine, and provides places where you can enter and/or edit the Production Ideal Rates for each job. Set this value equal to the maximum possible run rate for the part in the machine. Keep in mind that this is a theoretical maximum; the machine should not be capable of producing parts at a higher rate than the Production Ideal Rate.

***The Standard Rate = 135 parts per minute***

The Standard Rate is the expected “normal” run rate for a particular primary item (job or part) in a particular machine. Some users refer to this as the “quoted rate”. The Standard Rate is the rate at which you would normally expect the machine/primary combination to run. It’s the historical, expected AVERAGE number of parts per minute (or per hour) that the machine will run when it runs normally. Like the Production Ideal Rate, the Standard Rate is set under the “Rates” tab in the machine’s equipment detail. This Rates tab has a table with all of the jobs that can run in the machine, and provides places where you can enter and/or edit the Standard Rates for each job.

ShopFloorConnect has a provision in the Administrator to allow Production Ideal and Standard rates to be imported in “bulk” from an Excel or comma separated value (.CSV) file.

Tool Number	Part Number	Standard Rate	Ideal Rate	Avg Meas Rate	Units
345934	W11-667-6375 B-12345-L B-12345-R	30.0	40.0	30.08	Parts/Minute
554800	L8-44400011	20.0	25.0	19.61	Parts/Minute
554801	L8-44400011	3.0	6.0	1.95	Parts/Minute
700500	Q19-800101-Y Q19-800101-Z Q19-800101-X Q19-800101-W	20.0	30.0	20.51	Parts/Minute
775001	P14-0008-01A	40.0	120.0	37.43	Parts/Minute
812012	9110-2399T	30.0	50.0	29.30	Parts/Minute
P14-0008-01A		38.0	60.0	37.43	Parts/Minute

*The Rates Table – Showing the Production Ideal, Standard, and Average Measured Rates for all jobs that can be run in the machine*

### ***The Average Measured Rate***

The Average Measured Rate is a value that is calculated by ShopFloorConnect. It is an average – in parts/minute or parts/hour - of the *actual* production rate over the last “X” times the job has run in the machine – with “X” being a user-specified number of job runs. ShopFloorConnect uses the Average Measured Rate to calculate job completion times and dates and other calculations.

The Average Measured Rate is displayed under the “Rates” tab as a reference for users to compare to their Standard Rates –the idea being that the Standard Rate should reflect the actual production rate. By displaying both, users can see which Standard rates need to be upgraded when productivity improvement efforts yield positive results.