

General description

The lift out profile is represented by the set of **positions and speeds** between the starting point and the End profile point

When you define a Liftout profile you have to consider that the first row of the profile is the position of immersion then the lift out profile to coat the parts begins with the second row.

The Fisa Liftout controls the speed starting from the second row of the profile and will increase or decrease the speed To reach the value indicated with the following point.

Example

Position 1 – speed 1mm/s

Position 2 – speed 5 mm/s

With this set of instruction the system will increase in a linear way the speed starting from 1mm/s in position 1 to Reach 5 mm/s in position 2

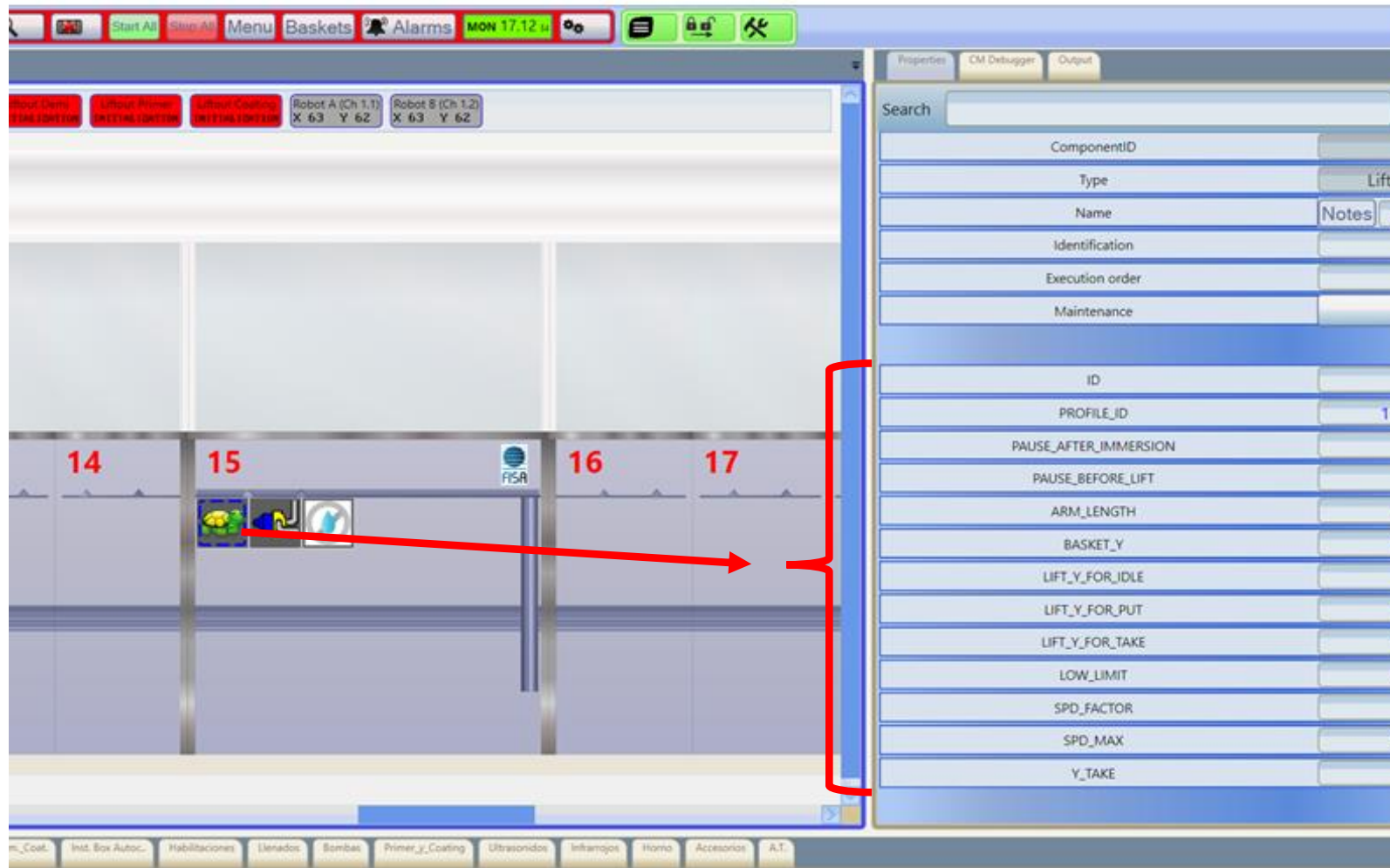
The speed indicated near each position is the speed that the system will reach when arriving at this position

The immersion point is the first point of the lift out table

It is possible to program a pause after reaching the immersion point, before to start with the profile

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Some of the fixed parameters of the lift out can be set in the property page , by clicking the corresponding icon on the machine display. Most of these parameters are set in the factory. Prior to change them contact Fisa and Refer to MCU manual MAN1444



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The immersion point is the first point of the lift out table

It is possible to program TWO pauses after reaching the immersion point, before to start with the profile

1- **PAUSE AFTER IMMERSION**: the parts are completely immersed and the pump is running

2- **PAUSE BEFORE LIFT**: the parts are completely immersed and the pump is stopped (or low speed)

IMMERSION POINT

PAUSE AFTER IMMERSION

PAUSE BEFORE LIFT

PROFILE

Step Number	Position Y	Speed (mm/s)	Comment
1	0	50	
2	28	3	
3	35	3	
4	40	3	
5	50	3	
6	55	3	
7	58	3	
8	65	3	
9	80	20	
10	130	50	

27/03/2017 Monday 10.05₄₅ Profile: 197 Transparent Close

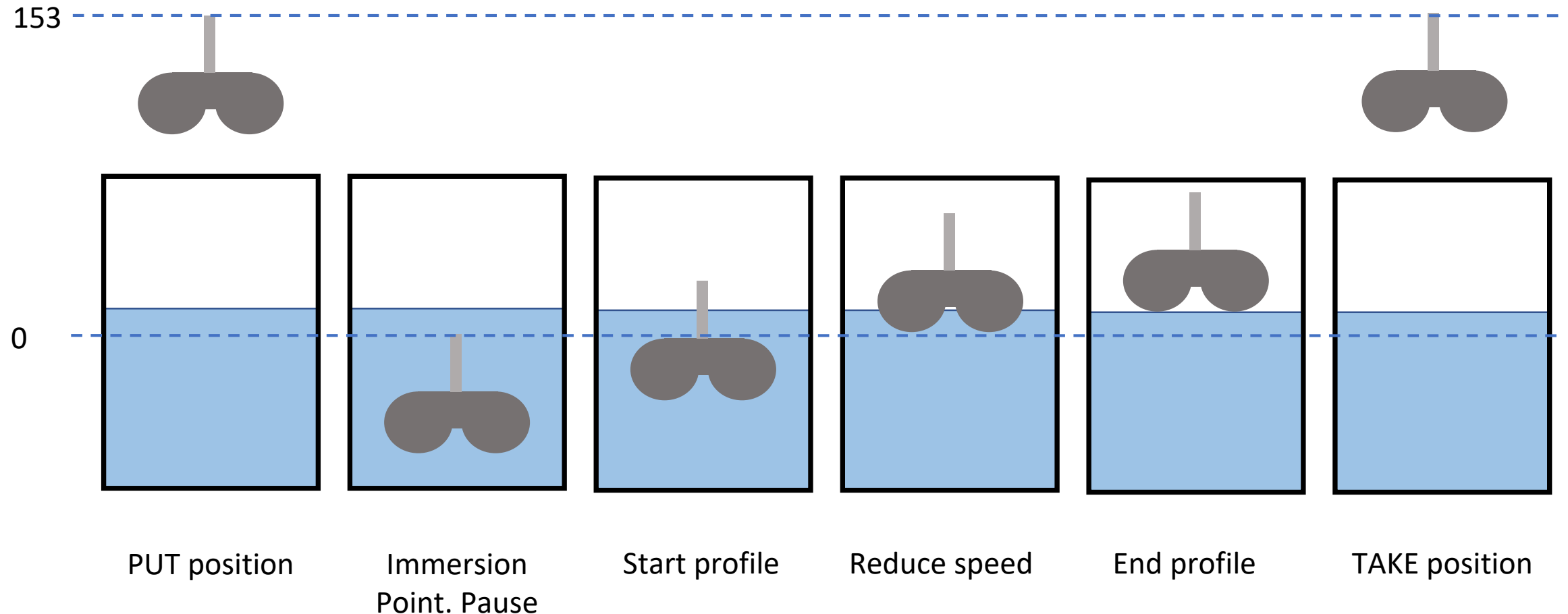
Add Insert Remove

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How to define the lift out parameters for the profile

Assemble the parts to be coated to the basket and fix them in the final position

Put the basket with parts on the lift out arm when it is in the highest position (PUT position)



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Operate the Lif Out Control Panel **LCP** by entering the MANUAL MODE

Take note of the position in mm of the arm when it is in the highest position (PUT position)

press the DOWN arrow until the lift out arm moves down to the lowest position (IMMERSION POINT). Take note of the position in mm of the arm when it is in the lowest position (IMMERSION POINT)

Press the UP arrow until the parts are positioned in the START PROFILE point
Take note of the position in mm

Follow the same procedure to define and take note of the other points where you need to change speed or to slow down to let the varnish drops flow away.

Take note of the END PROFILE position (where the parts are completely out of the varnish (10mm)

Go back to the highest position (PUT-TAKE position)

With the values you have noted you can now go to the MCU and create a lift out profile



Example of a possible table of values to generate a lift out profile

The values in mm are simply copied from the display of the LCP panel while defining the position of the parts
In the varnish

POSITION	mm	Note	
PUT position	153	Highest position	
Immersion point	0	Lowest position	
Start profile	55	The parts are still completely immersed	
Change speed	60	Adjust the speed to the angle of the surface	
.....	
Change Speed	90	Adjust the speed to the angle of the surface	
Minumum speed	115	Lowest speed to avoid drops or bubbles	
End profile	130	Parts are completely out of the varnish	
TAKE position	153	Highest position	

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Example of a possible set of values in the Lift out table based on the table before
Note that the highest value is not included in the lift out table but is defined in the properties of the object
Lift out by clicking on the corresponding icon
This value is normally set by the Factory

LIFT_Y_FOR_PUT 153 mm

← → 27/03/2017
Monday 12.22²⁹ P Transparent Close

	Step Number	Position Y	Speed (mm/s)	Comment
✖	1	0	50	
✖	2	55	20	
✖	3	60	0,5	
✖	4	90	10	
✖	5	115	20	
✖	6	130	50	

📄 Add Insert 🗑 Remove

LIFT_Y_FOR_TAKE 153 mm

Example 1

We have set a very little speed between pos 0 and pos 60

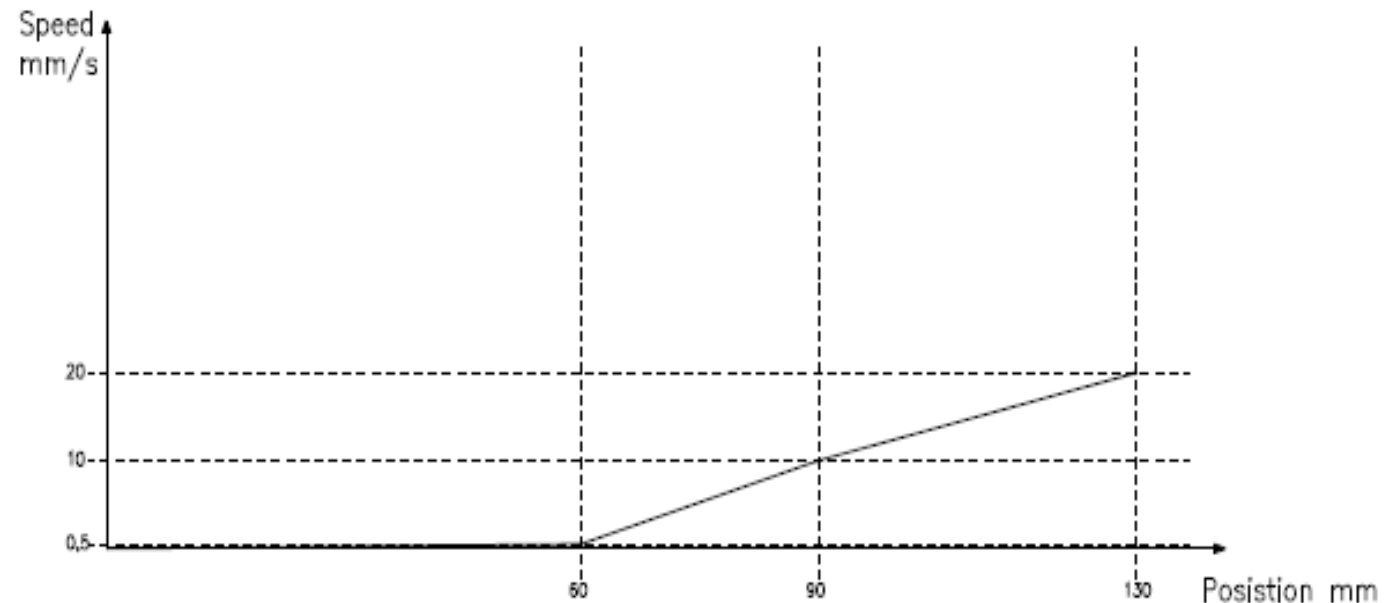
This means that the device will go from position 0 to 60 with a speed of 0,5 mm/sec

The time needed is of 120 seconds = 2 minutes

This time is normally too much: it is better here to use a higher speed (ex 20mm/s)



Step Number	Position Y	Speed (mm/s)	Comment
1	0	0,5	
2	60	0,5	
3	90	10	
4	130	20	



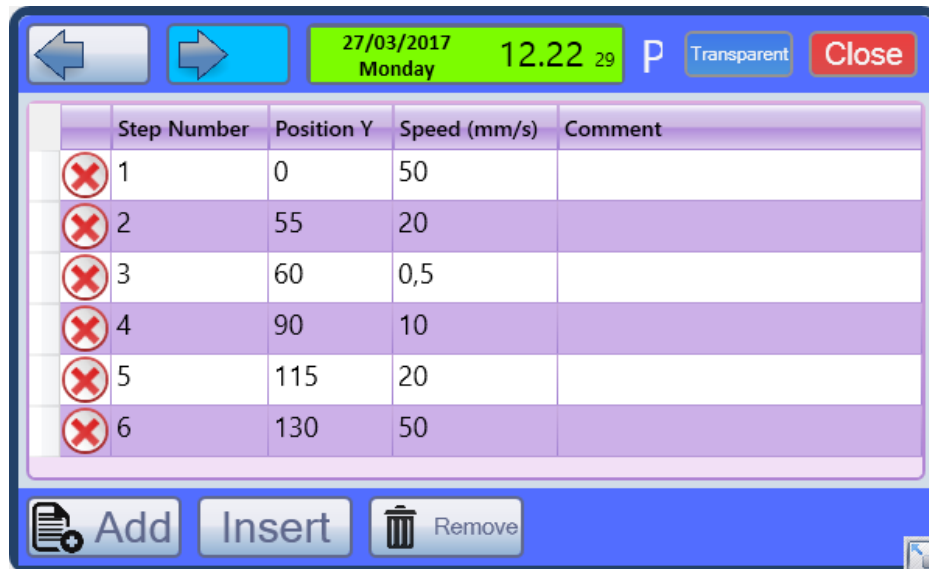
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Example 2

We have set a high speed (50 mm/sec) for the immersion

And a speed of 20mm/sec for reaching the starting point of the lift out

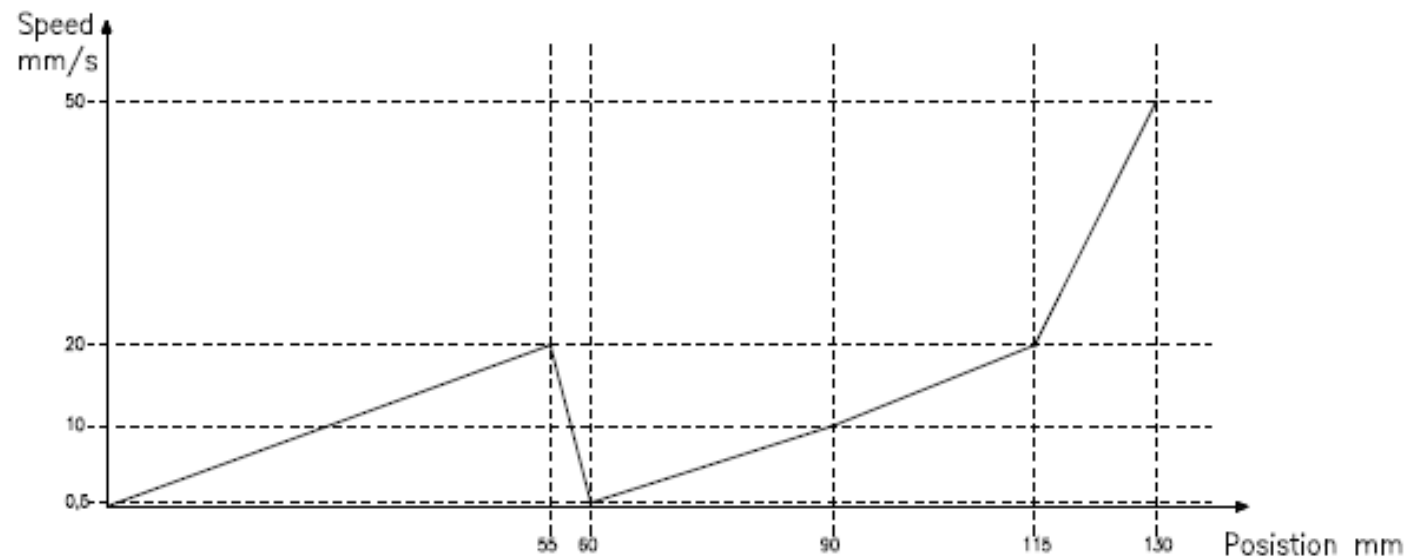
In this case the system will go quickly to the lift out starting point and then slow down and carry out the profile



The screenshot shows the FISALABS software interface. At the top, there are navigation arrows, a date and time display (27/03/2017 Monday 12.22 29), and buttons for 'Transparent' and 'Close'. Below this is a table with the following data:

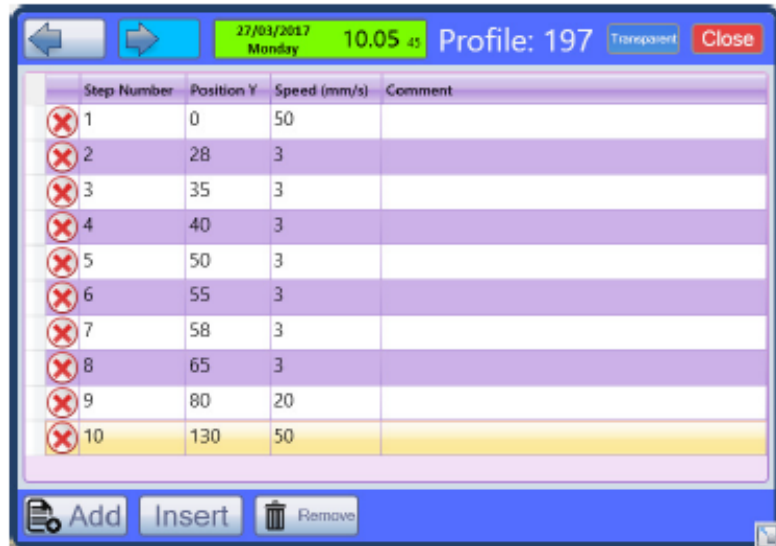
Step Number	Position Y	Speed (mm/s)	Comment
1	0	50	
2	55	20	
3	60	0,5	
4	90	10	
5	115	20	
6	130	50	

At the bottom of the interface, there are buttons for 'Add', 'Insert', and 'Remove'.

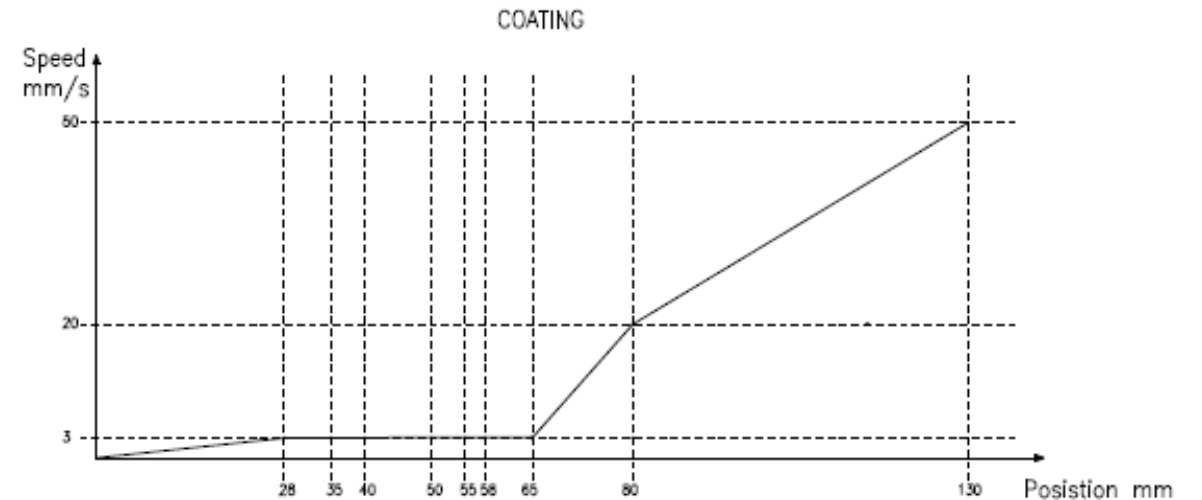


Example 3

In this case we have defined several intermediate points but the speed is always the same



Step Number	Position Y	Speed (mm/s)	Comment
1	0	50	
2	28	3	
3	35	3	
4	40	3	
5	50	3	
6	55	3	
7	58	3	
8	65	3	
9	80	20	
10	130	50	



Example 4

In this case we have obtained the same result as in example 3 but removing several intermediate points



Step Number	Position Y	Speed (mm/s)	Comment
1	0	50	
2	28	3	
3	65	3	
4	80	20	
5	130	50	

