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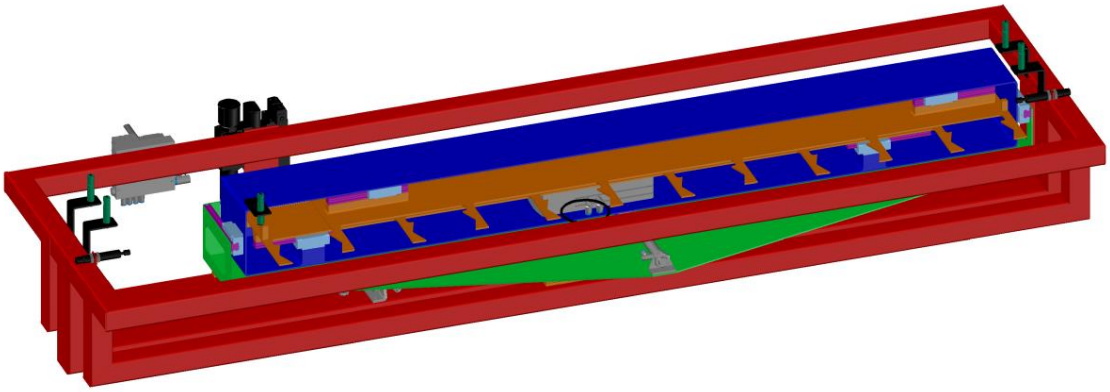
FIRST:

Making the 3d drawing with calculating all the required measurements and assembling all the part successfully



SECOND:

Making the 2d drawings with annotation all the measurements and showing the wielding and the fit clearance with specific positions

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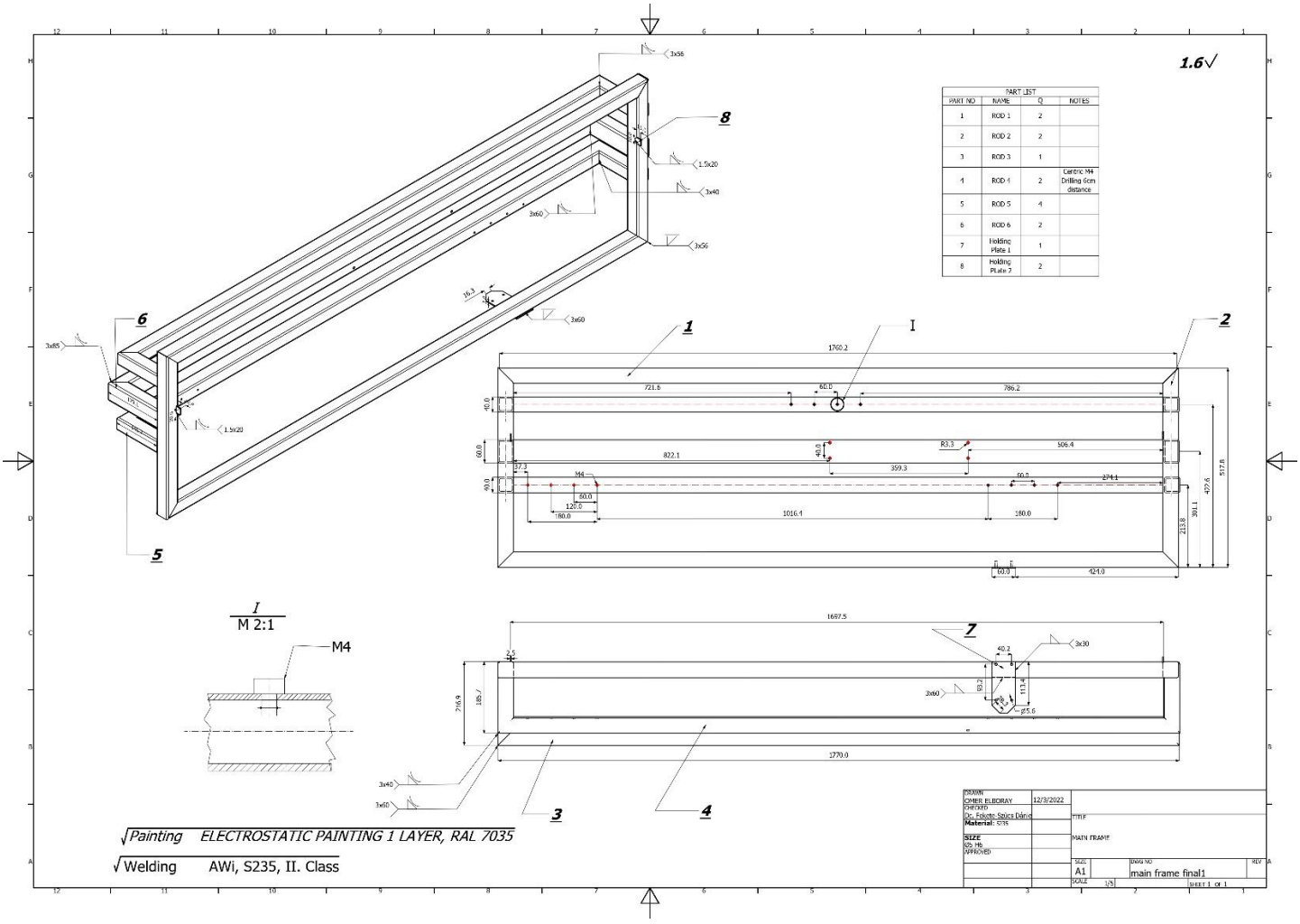
MAIN FRAME ASSEMBLY AND WEILDING 2D drawing



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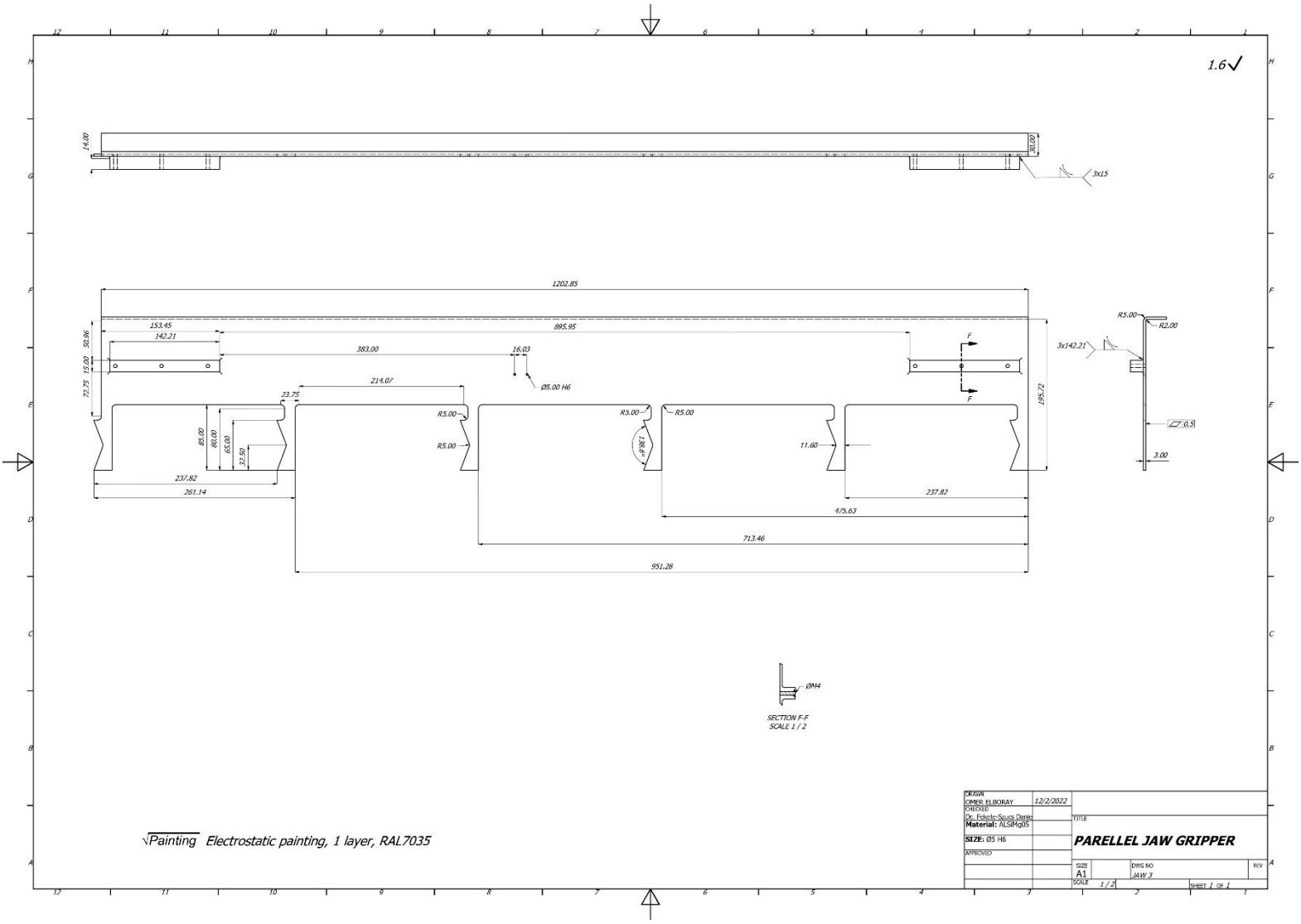
JAW 2D Drawing



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THIRD:
Now After finishing the drawings I made the Parts list using Inventor With calculating all the masses required

Item	Part Number	Material	part	Q.	weight	Comment
1	Holding block	AlSiMg05	1	2	8.7 g	
2	sensor	Normal	1	5	..	
3	upper jaw	AlSiMg05	1	1	1633 g	
4	lower jaw	AlSiMg05	1	1	1569 g	
5	HBN-20/25X2	C45	3	2	237 g	
6	GRLA-1/8-QS-8-D	Wrought aluminum alloy	1	6	22 g	
7	DSNU-20-250-PPV-A	High-alloy stainless steel	2	1	186.8 g	
8	SGS-M10X1,25	Steel, galvanized	2	1	88 g	
9	SME-8M-DS-24V-K-0,3-M8D	High-alloy stainless steel	8	2	8.9 g	
10	SMBR-8-25	Wrought aluminum alloy	4	2	..	
11	LBN-20/25	Steel	4	1	84 g	
12	valve terminal	NBR, HNBR	38	1	..	
13	HGPL-40-100-A-B	Wrought aluminum alloy	14	1	5340 g	
14	DSNU-16-100-PPV-A	High-alloy stainless steel	2	1	89.9 g	
15	MSB4 (Air valve)	Die-cast aluminum	8	1	1500 g	
16	sensor holder	S235	1	5	75 g	
17	Jaw box holder	AlSiMg05	1	1	3,039 g	
18	Jaw box	AlSiMg05	1	1	3884 g	
22	TRS-V	C45	1	9	234 g	
20	DYSW-10-17 holder	S235	1	2	7.3 g	
21	Linear rails	C45	1	9	186 g	
22	Rod 1	S235	1	2	6488 g	
23	Rod 2	S235	1	2	1804 g	
24	Rod 3	S235	1	1	7,411 g	
25	Rod 4	S235	1	2	6,494 g	
26	Rod 5	S235	1	4	603 g	
27	Rod 6	S235	1	2	840 g	
28	DYSW-10-17	High-alloy steel	1	2	67 g	
29	hexalobular M3	Stainless Steel A2	1	4		
30	Fillister Head Machine Screw M4	Stainless Steel A2	1	24		
31	SELF TAPPING SCREW 1/4	C45	1	24		
32	HEX BOİT M3	Stainless Steel A2	1	4		

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FINALLY

After finishing measuring and calculating the machine now simulating the Actors for checking the safety and considering the lifespan of the piece and reaching the quickest movement with the highest efficiency possible:

FESTO

Input values - system parameters

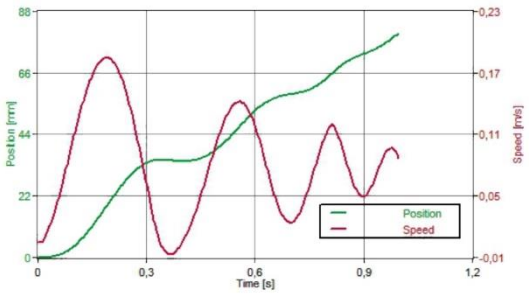
Required stroke	0.08 m	Direction of movement	Extend
Moving mass	13.3 kg	Air supply pressure	6 bar
Alignment angle	0 deg		

Bill of materials

Cylinder	DSNU-16-100-PPV-A	19232		
Flow control valve	GRLA-M5-QS-4-D	193138	Settings:	Flow rate 3.2 Revolutions open
Valve	VUVG-L10-M52-RT-M5-1P3	566457		
Silencer				
Tubing [Cyl. > Valve]	PUN-4x0,75-BL	159662	Tubing length	1 m
Fitting 1	QSM-M5-4	153304		
Tubing [air supply > valve]	PUN-4x0,75-BL	159662	Tubing length	1 m
Fitting 2	QSM-M5-4	153304		

Calculated results

Total positioning time	0.995 s	Impact speed	0.086 m/s
Average speed	0.080 m/s	Max. speed	0.186 m/s
Air Consumption per Cycle	0.291 l		
PPV settings	100 %		
Kinetic impact energy	0.050 J		



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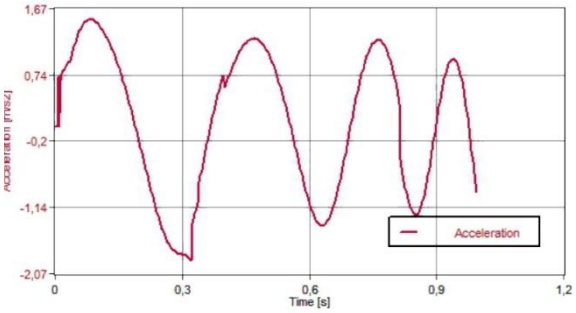

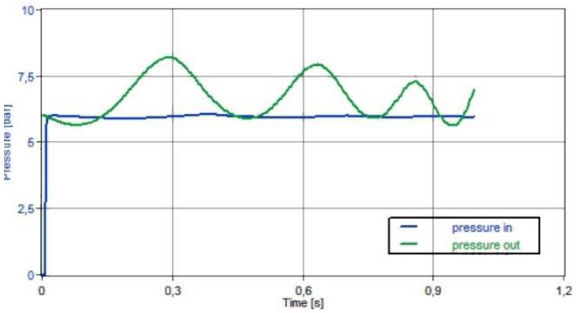

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ss that purpose has been fully explained to Festo.
is software should not be relied upon for the determination of any characteristics which can be otherwise
ly verified.

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FESTO

Input values - system parameters

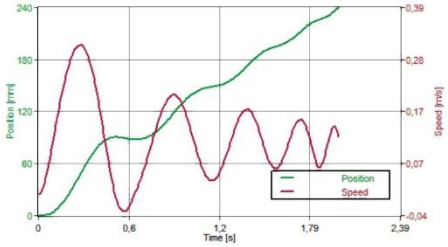
Required stroke	0.24 m	Direction of movement	Extend
Moving mass	17.8 kg	Air supply pressure	6 bar
Alignment angle	0 deg		

Bill of materials

Cylinder	DSNU-20-250-PPV-A	19243		
Flow control valve	GRLA-1/8-QS-8-D	193145	Settings:	Flow rate 2.7 Revolutions open
Valve	VUVG-L14-B52-ZT-G18-1P3	566509		
Silencer	U -1/8	2307		
Tubing [Cyl. > Valve]	PUN-8x1,25-BL	159666	Tubing length	1 m
Fitting 1	QS-1/8-8	153004		
Tubing [air supply > valve]	PUN-8x1,25-BL	159666	Tubing length	1 m
Fitting 2	QS-1/8-8	153004		

Calculated results

Total positioning time	1.984 s	Impact speed	0.122 m/s
Average speed	0.120 m/s	Max. speed	0.314 m/s
Air Consumption per Cycle	1.301 l		
PPV settings	100 %		
Kinetic impact energy	0.134 J		



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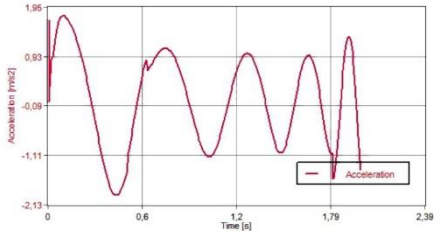

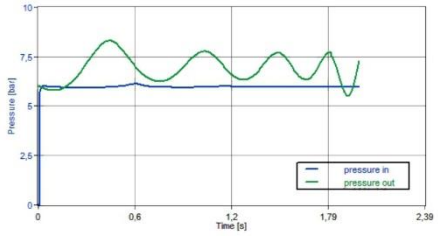

THANK YOU FOR THE CONSIDERATION