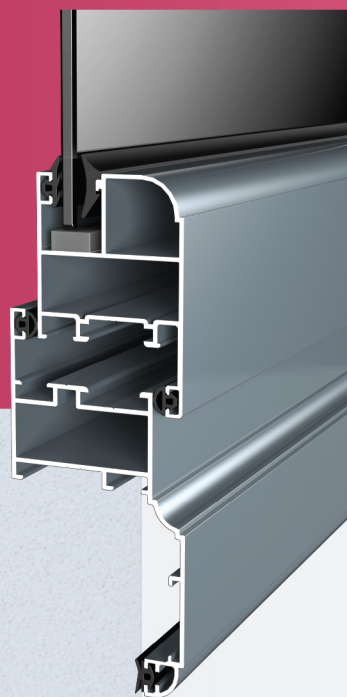




**Machines & Aluminium Center**  
مركز ماكينات ومستلزمات الألومنيوم

# VOLTA 40

Hinged System



**PROFILES 1:1**

**2026**  
**VER. 01**

## **MACHINES AND ALUMINUM CENTER**

Machines and Aluminum Center is an Egyptian based company established in the year 1981 and started its activity with aluminium applications in architectural and construction field.

They represent and cooperate with several leading European firms in field of aluminium business including aluminium fabrication machinery, accessories and hardware for architectural applications and different aluminium systems varying from windows and doors, up to facades and solar protection.

Our goal is to supply our clients with whatever is needed to apply our aluminium systems in the building construction. We are specialized in supplying all required machinery, equipments, dies, punches, hardware and fittings for our aluminium systems.

We offer a wide range of products to local market and neighbor countries. Our product range includes windows and doors, partition systems, different façade solutions and the related integrated accessories.

We partner with our customers with value added services which means that with the help of our specialized team of engineers, we provide our clients with technical support to assist them in improving their product's quality.

We are committed to innovative and creative product design to fulfill all architectural requirements. Our products can meet the most exacting engineering and technical standards while overcoming sophisticated design challenges.



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The profiles shown in this catalogue are patented.

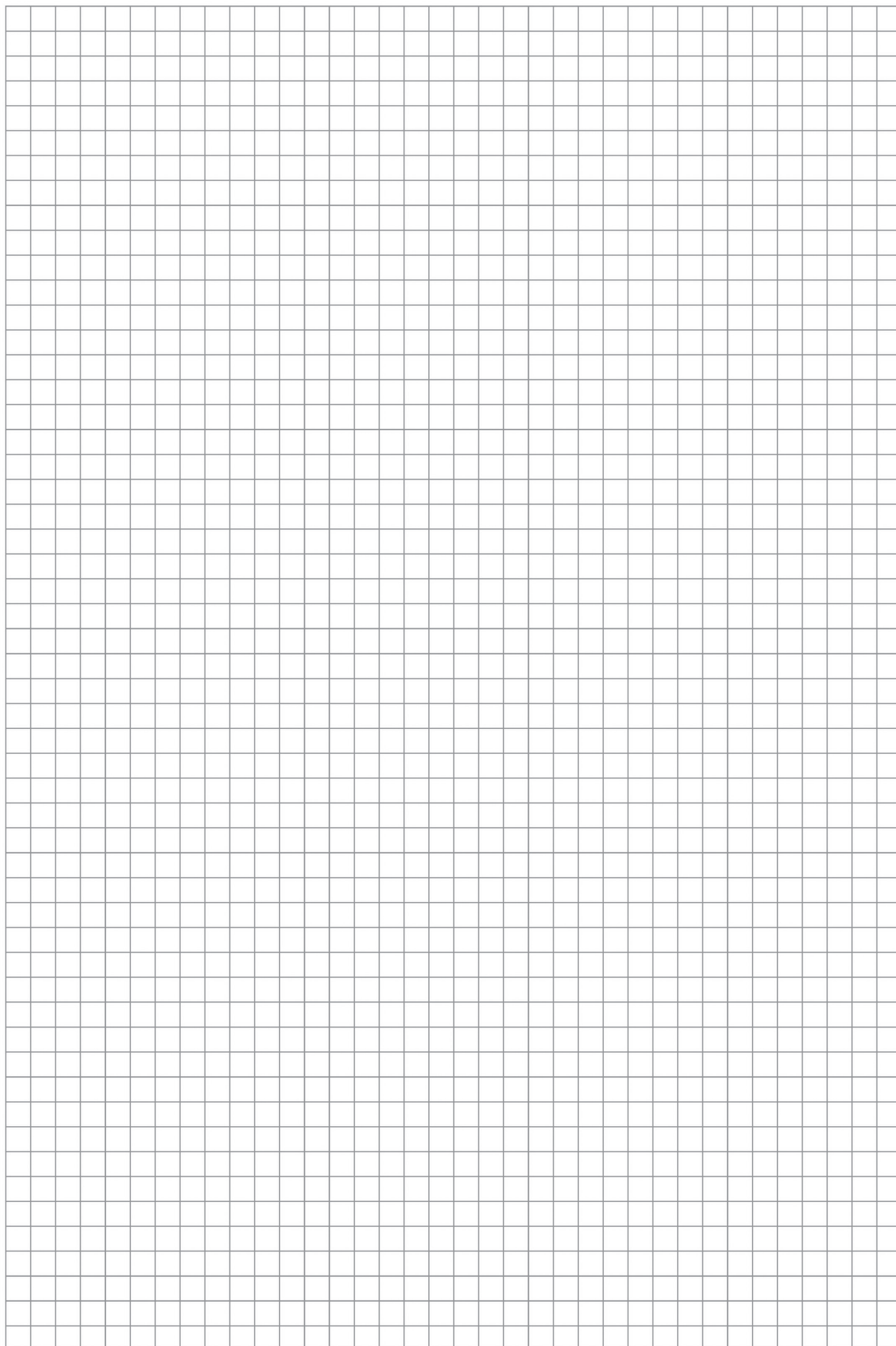
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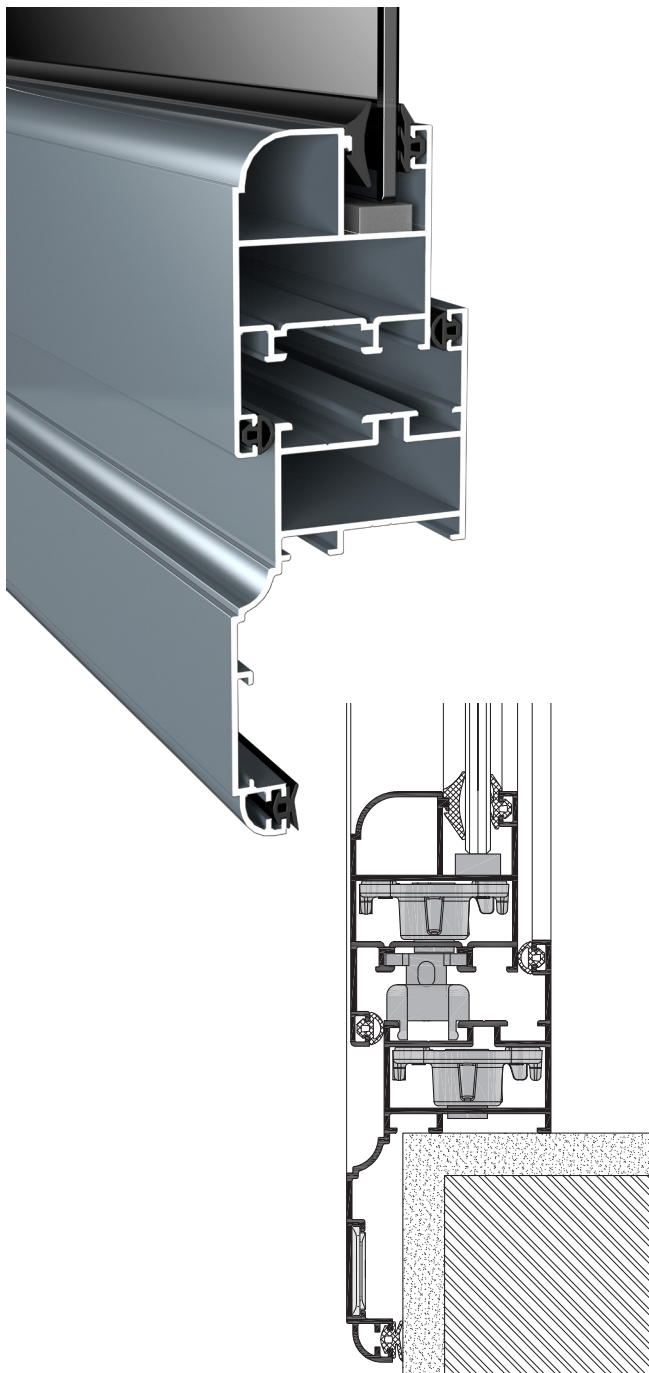
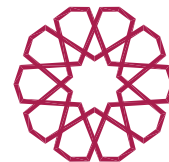
The manufacturer reserves the right to modify the items in this catalog without advanced notice.

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**Complies with European norm  
hEN 1435-1**

<b>Air Permeability</b>	(Class 4) up to 600 pa.
<b>Water Tightness</b>	(Class E1050) up to 1050 pa.
<b>Resistance to wind load</b>	(Class C4) up to 1600 pa.

- Ideal solution for small to medium openings for economic residential buildings.
- The system is available in inward and outward opening windows and doors.
- Same profile can be used as frame or sash (optional).
- Offers an extensive range of profiles for the construction of elegant and moderately priced aluminium frames in functional style.
- Allows the fabrication, production and easy assembly of windows and doors in less time.

## Technical Characteristics

### Frame depth

40 mm. to 64 mm.

### Frame Height

46 mm. to 110 mm.

### Sash Depth

40 mm. to 48 mm.

### Sash Height

65 mm. to 75 mm.

### Max Glass Thickness

Up to 18 mm.

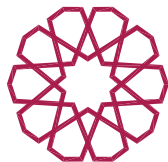
### Max Sash Weight

Up to 90 kg.

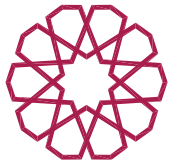
### Sealing type

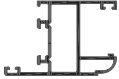

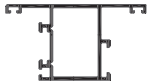





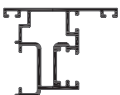
EPDM gasket



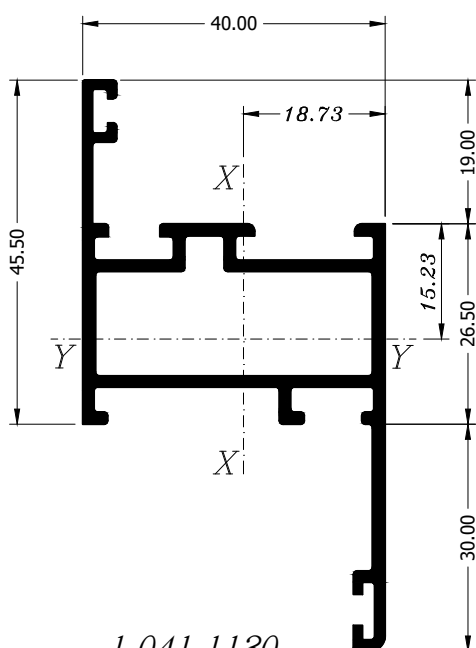
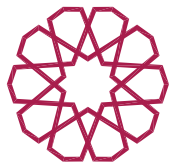


Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					I <sub>x</sub>	I <sub>y</sub>	
	10411130	Frame Profile	0.777	330	7.06	8.35	8
	10411150	Frame Profile	0.874	392	8.07	19.37	8
	10411153	Frame Profile	0.935	428	11.13	23.47	8
	10411200	Frame Profile	0.708	273	6.12	6.17	8
	10411250	Frame Profile	0.948	412	9.07	26.24	9
	10411421	Frame Profile	0.909	365	9.30	7.21	9
	10412051	Frame Profile	0.819	307	9.63	3.83	9
	10412061	Frame Profile	0.875	323	12.95	3.97	9
	10412071	Frame Profile	0.939	343	18.62	4.14	9
	10414110	Leaf Profile	0.720	320	5.51	6.34	10
	10414119	Leaf Profile	0.801	364	9.12	6.98	10
	10414120	Leaf Profile	0.771	340	7.11	9.18	10
	10414143	Leaf Profile	0.830	323	6.56	7.56	10

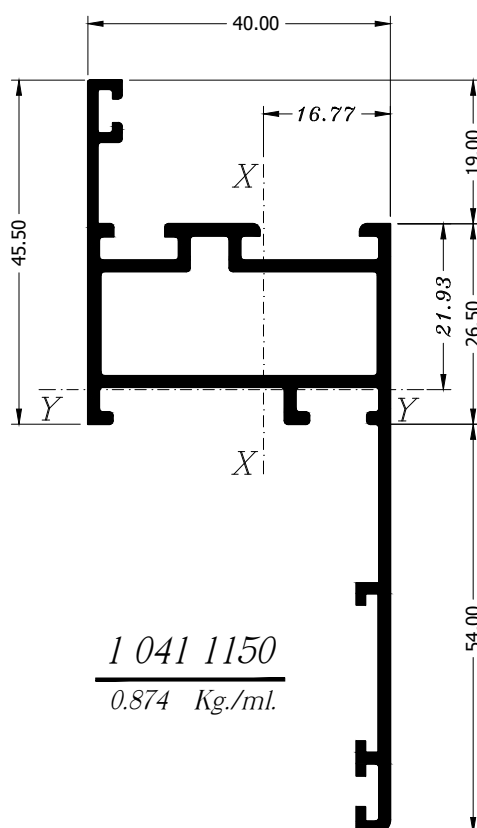


Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					I <sub>x</sub>	I <sub>y</sub>	
	10414153	Leaf Profile	0.797	324	6.73	6.76	10
	10414210	Leaf Profile	0.706	320	5.72	5.36	11
	10414220	Leaf Profile	0.771	340	6.66	9.18	11
	10415120	Transom Profile	0.905	343	7.36	13.54	11
	10415130	Transom Profile	1.360	471	13.67	92.43	12
	10415330	Bottom Profile	1.482	528	15.25	111.20	12
	10416120	Glass Beading Profile	0.263	172	0.68	0.54	12
	10416160	Glass Beading Profile	0.204	138	0.29	0.46	12
	10419610	Insert Profile	0.820	332	6.61	5.00	11

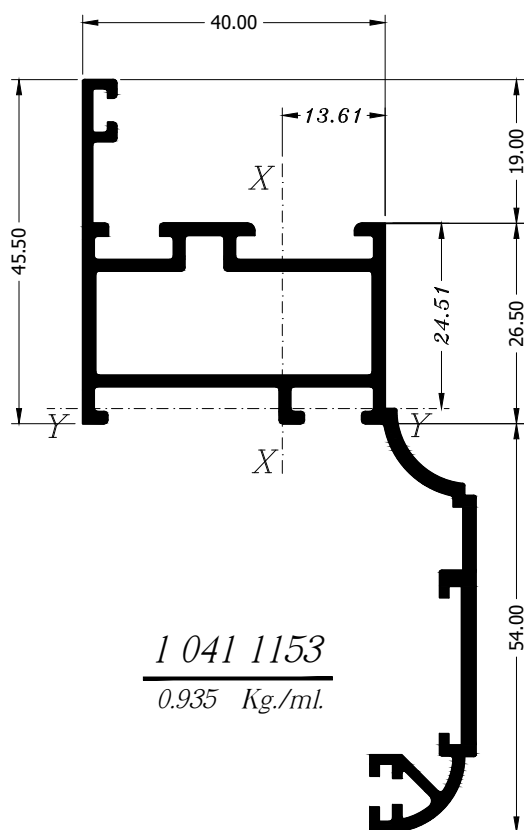




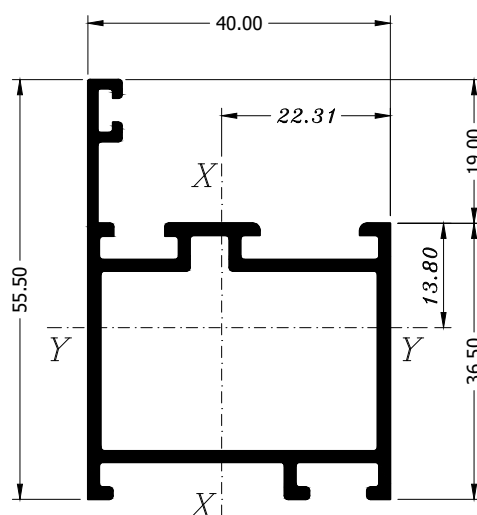
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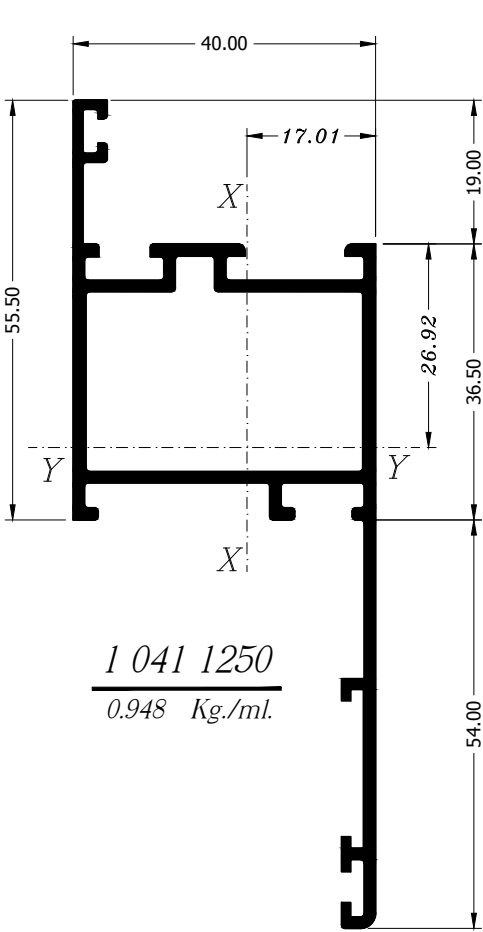
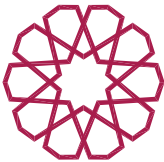
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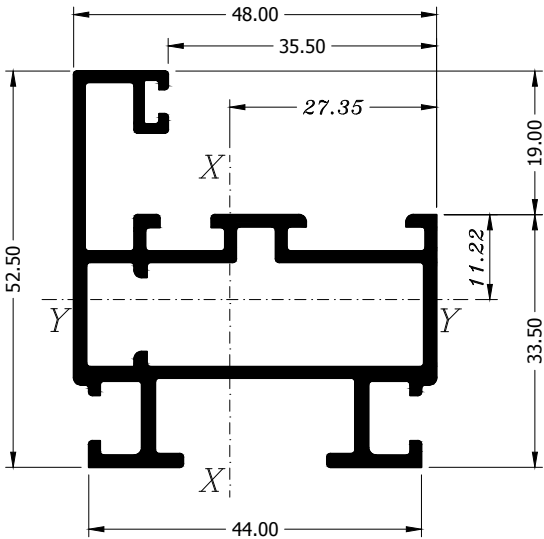
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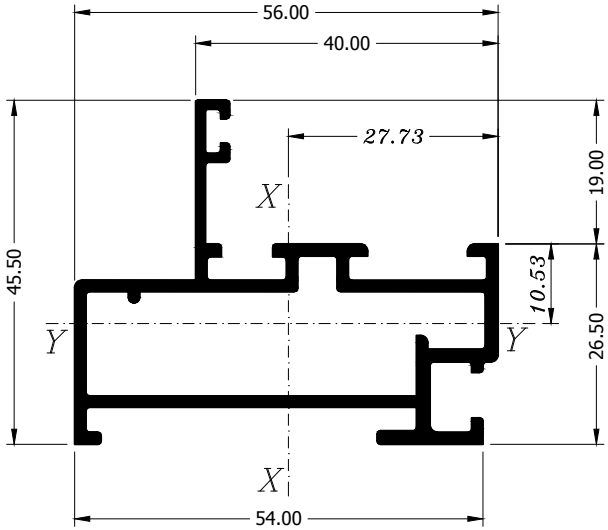


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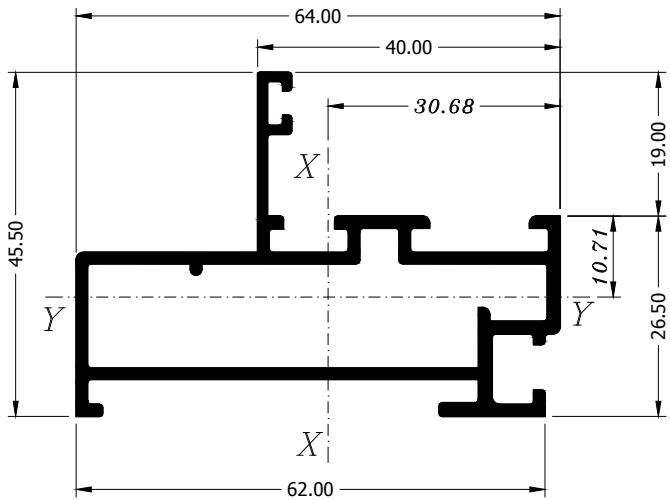


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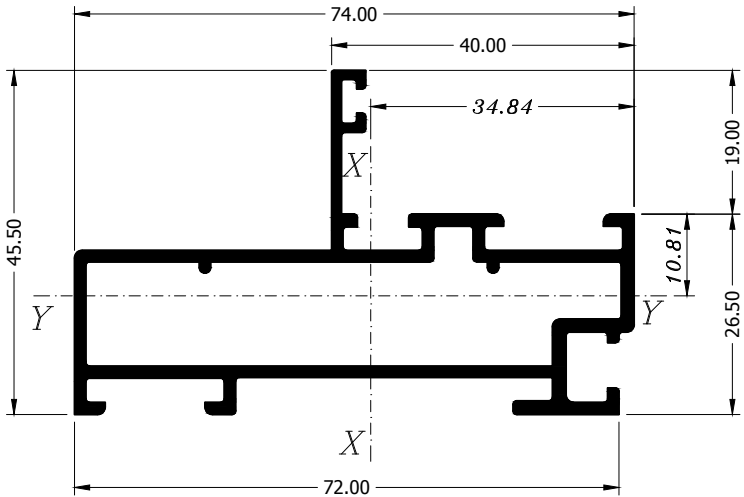
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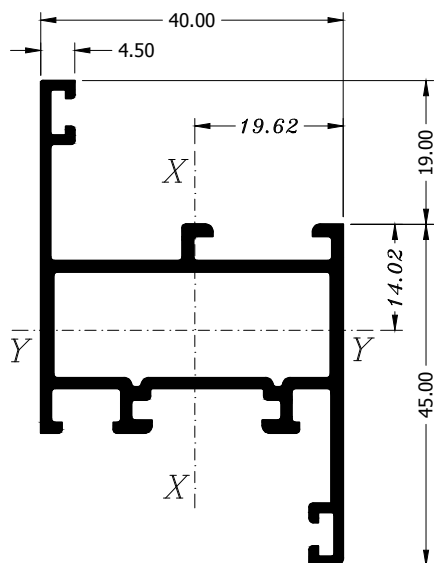
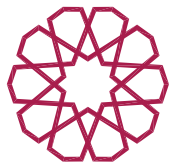


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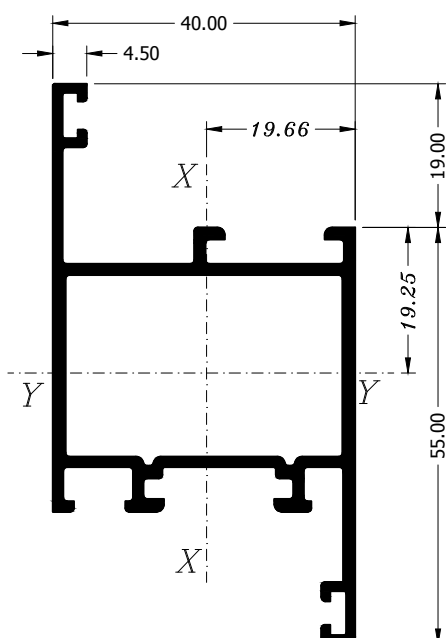


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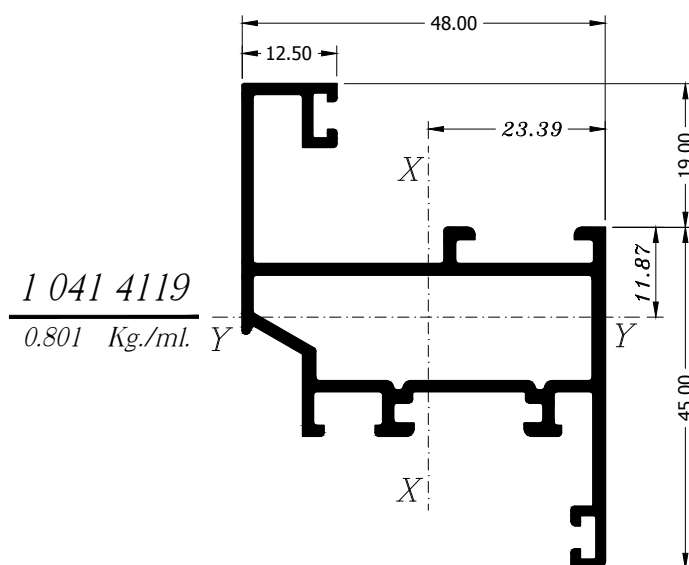




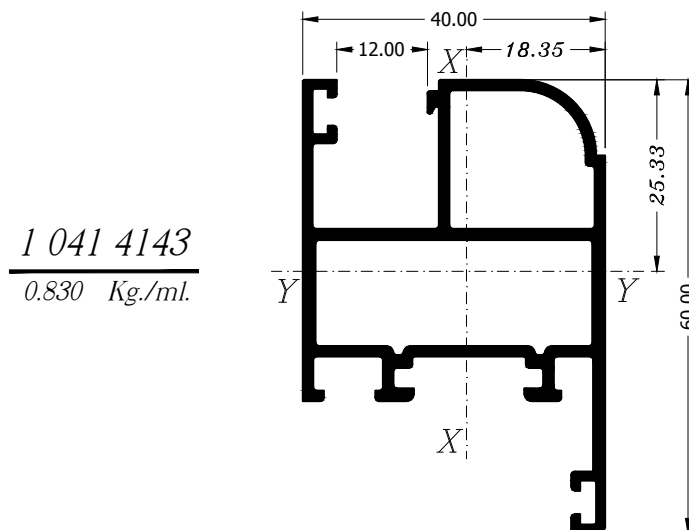
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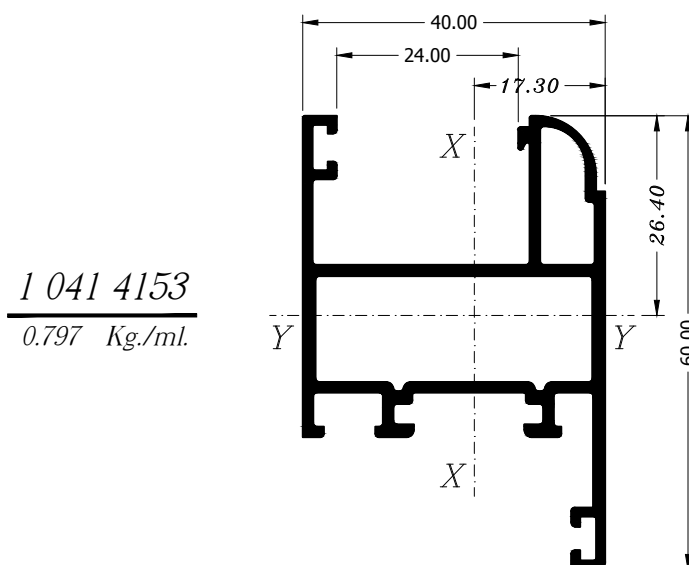
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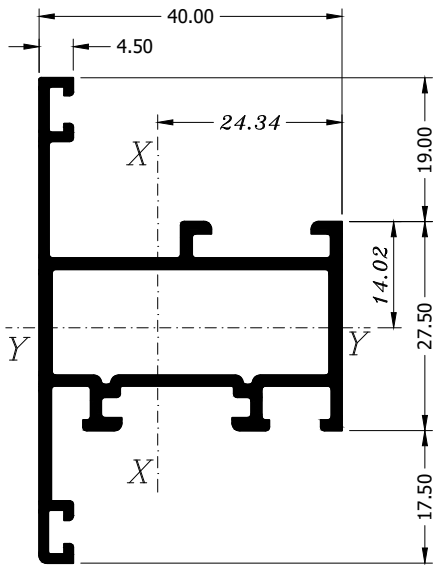
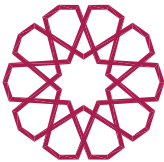
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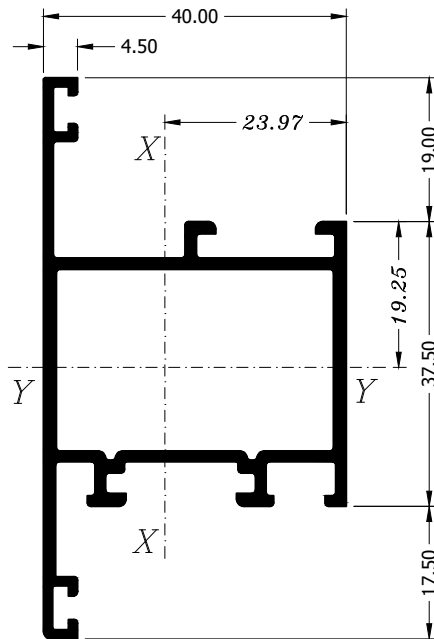
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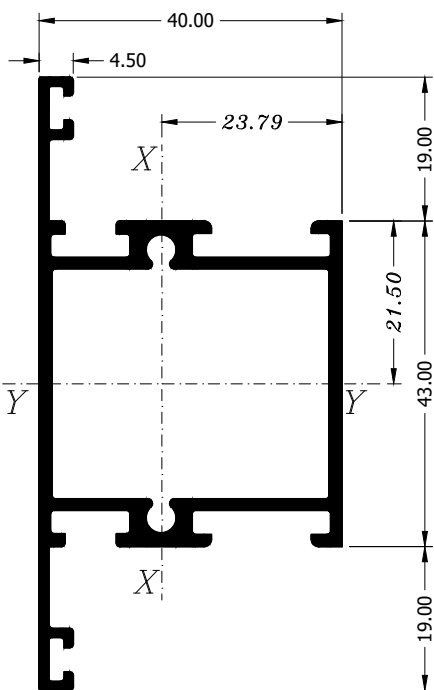
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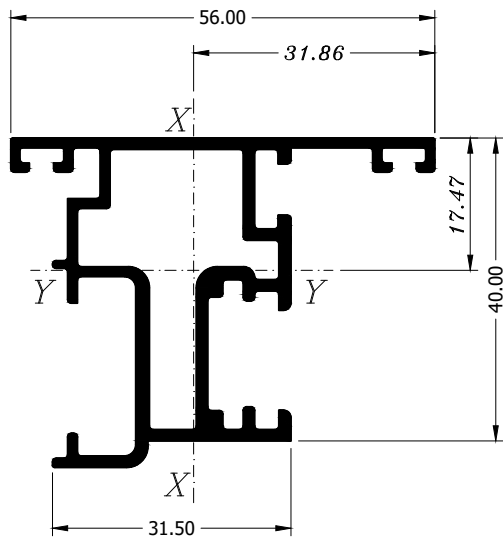
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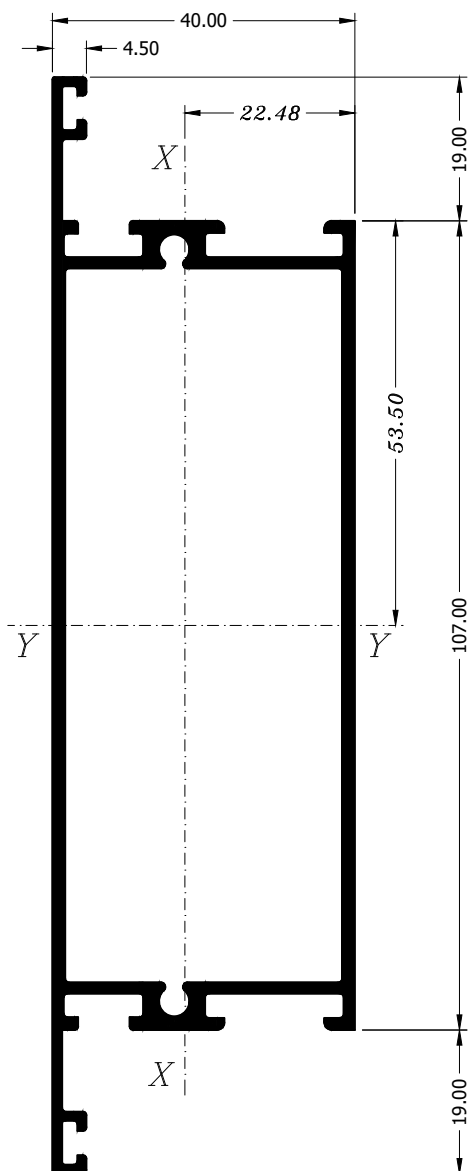
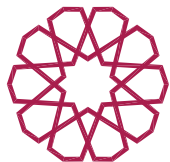
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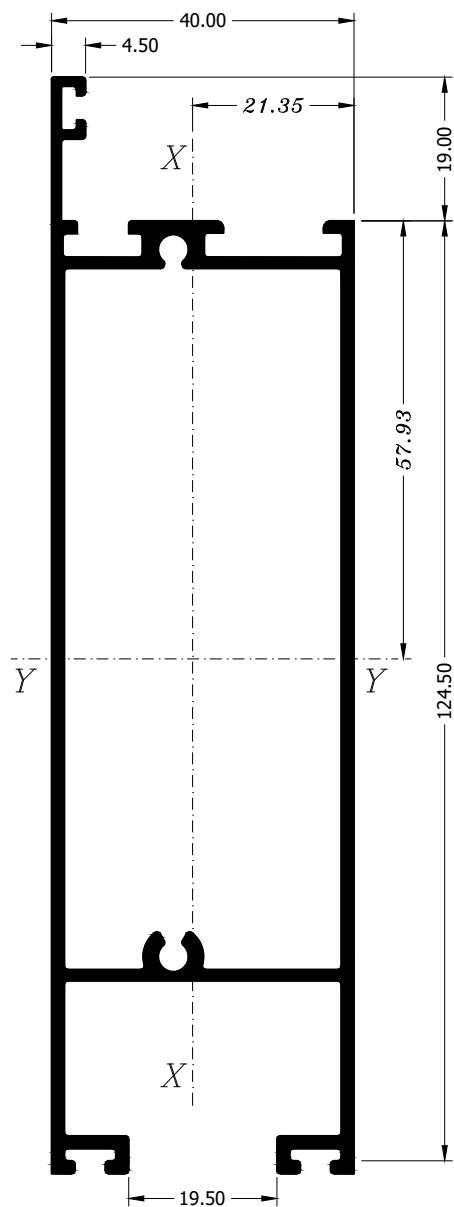
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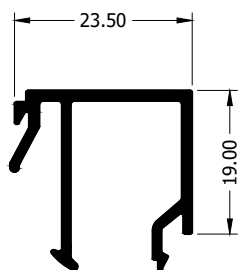
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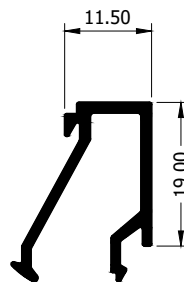
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1 041 5330  
1.482 Kg./ml.



1 041 6120  
0.263 Kg./ml.



1 041 6160  
0.204 Kg./ml.

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