



*Rowine*<sup>®</sup>  
by METALWORK

Supporting and trellising systems  
for vineyards and orchards culture

The *Rowine* system is proudly manufactured by Metal Work Industry and is intended for supporting and trellising vineyards and orchards culture. Due to its innovative design and the quality of materials (galvanized steel), the system behaves well during use, is compatible with soil, enduring in time and resistant to environmental factors. It can be assembled quickly and the replacement works regarding the damaged segments can be executed rapidly, easily and less costly.

The *Rowine* trellising system reinforces and stabilizes the vine plants throughout the year, even under unfavorable climate conditions, by properly supporting the plants, branches with leaves, flowers and fruits. By applying this method in growing the vines, which are nowadays cultivated in a large number of breeds and varieties, vine farmers work in an easy and controlled manner.

Installing this system provides to beneficiaries, the following these **advantages**:

- reducing the plantation maintenance costs;
- easy access for workers and field machinery;
- optimizing the performance of (manual and mechanical) vineyard works;
- reducing the repair works performed on damaged parts.

The **components** of the *Rowine* system are:

#### A. strength structure:

- ① Metal Anchor End Posts;
- ② Metal Line Poles;
- ③ Metal Tutors Poles;

#### B. stretching network:

- ④ Bearing Wires;
- ⑤ Middle Wires;
- ⑥ Upper Wires;
- ⑦ Anchor Wires.

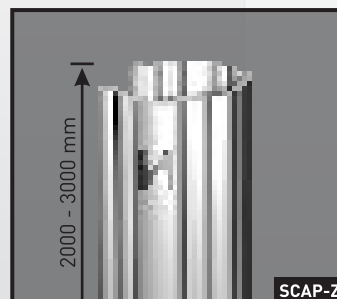
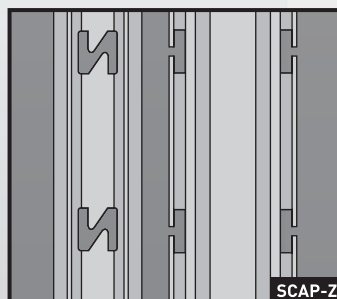
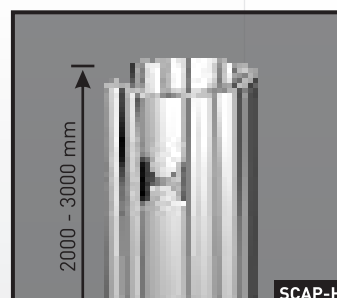
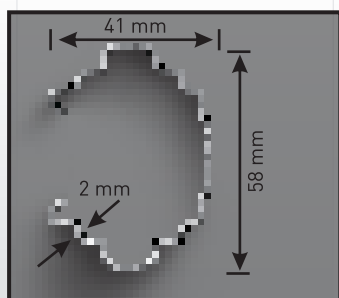
**A. The metal support poles form the strength structure** of the entire trellising system and provide the framework for accommodating the wire network, stretched on levels (horizontal and parallel), which supports the vines throughout its vegetation process.

The metal vineyard trellis poles of the RoWine system are made of galvanized steel sections DX 51 D (250-375 gZN/mp), i.e. between 17-20  $\mu\text{m}$ , are provided in each unit with passageways ("Autolock" type) for the wires and has the following special technical features:

- durability to corrosion and to the action of atmospheric agents and climatic factors;
- resistance to tension  $R_m$  (Mpa) = 270~500, 1MPa = 1 N/mm;
- +/- 3 mm tolerance in case of sections up to 2500 mm long;
- resistance to mechanical shocks (strong impact of hard bodies may cause local deformations);
- behavior and optimal durability throughout the duration of operation (approximately 30 years), due to the special galvanizing process.

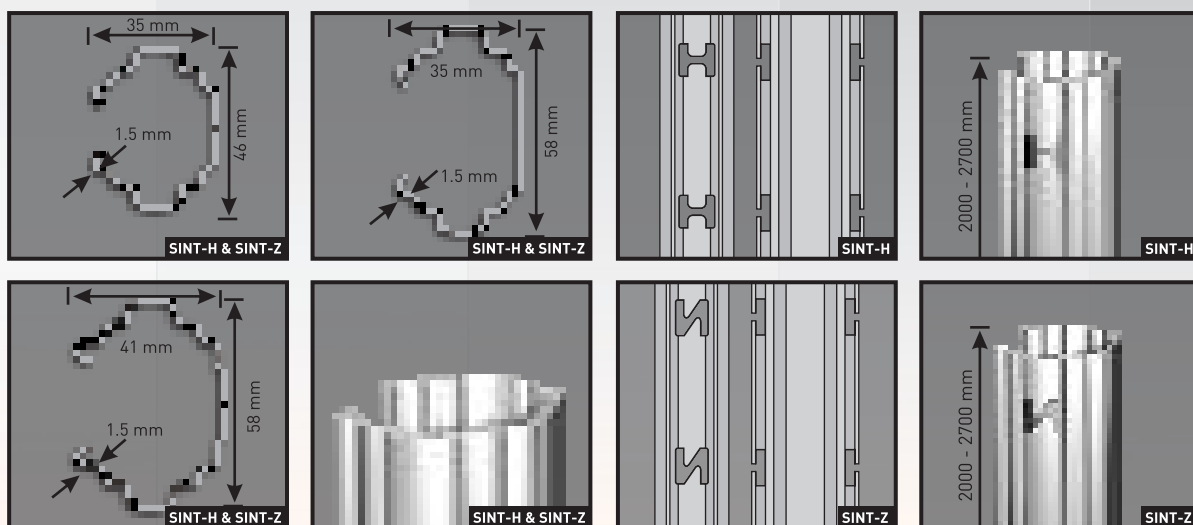
#### 1. Metal Anchor End Posts limit the vineyard rows and provide:

- the strength and stability of the vine row to a lateral breaking force,
- the possibility to arrange the wire network according to its optimum tensile capacity,
- reducing the maintenance interventions upon wires.

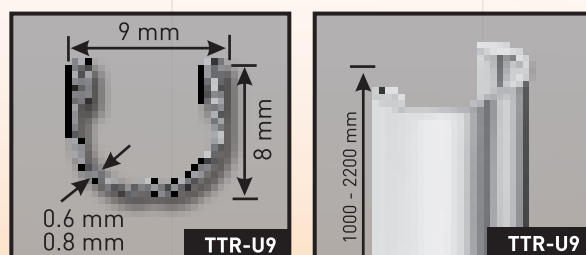


**2. Metal Line Poles** driven vertically into the ground and parallel to one another, at the distances provided initially by the project, define the direction of the rows and serve for:

- arranging the wire network,
- supporting the weight of the wires and vines,
- repairing the damages during the dormant season of the vine.

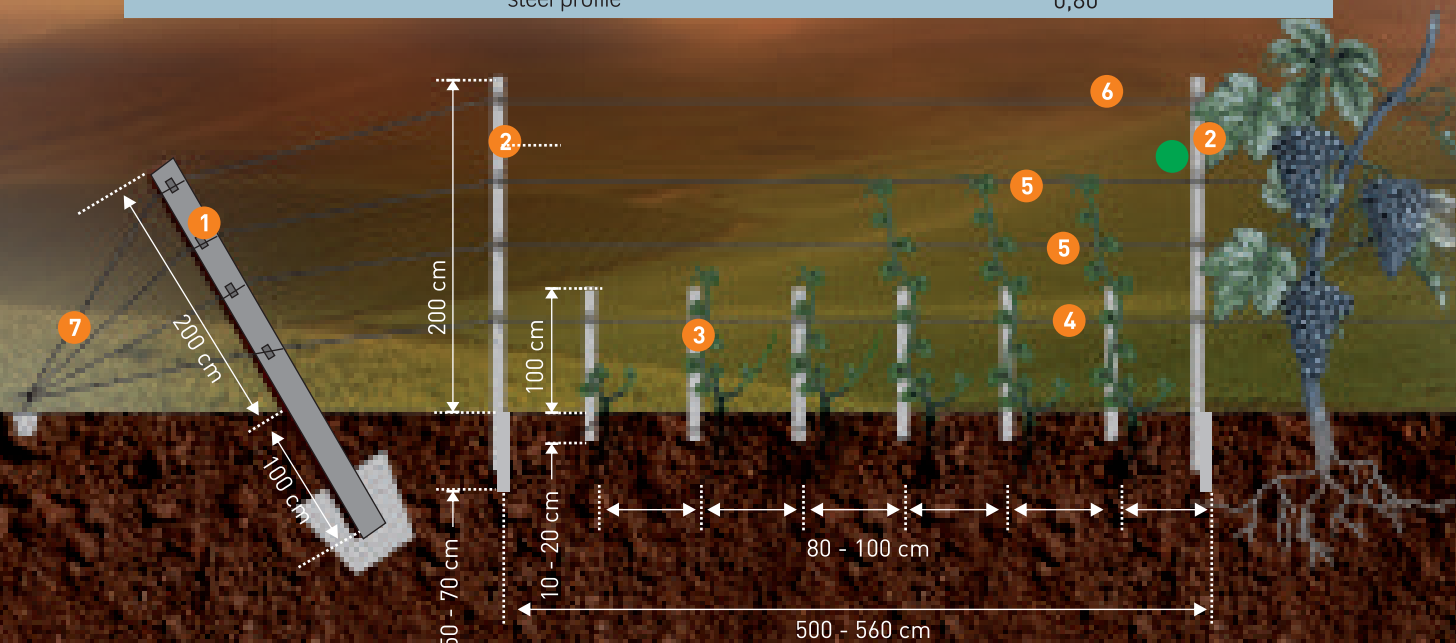


**3. Metal Tutors Poles** are elements of the guidance used for nursing the young plants during the growing period until the shoots are high enough to get attached to the line poles (intermediate).



Sizing and technical characteristics of the metal vineyard trellis poles:

Product type	Product code	Fabrication material	Driving depth* (mm)	Product height (mm)	Material thickness (mm)	Zinc coating thickness (µm)
End Posts (anchor)	SCAP - H	Galvanized steel sheet	1000	2000 - 3000	2	cca. 17-20
	SCAP - Z				2	cca. 17-20
Line Poles (intermediate)	SINT - H	Galvanized steel sheet	500 - 700	2000 - 2700	1,50	cca. 17-20
	SINT - Z				1,50	cca. 17-20
Tutors Poles	TTR - U9	Galvanized steel profile	100 - 200	1000 - 2200	0,60 0,80	cca. 17-20

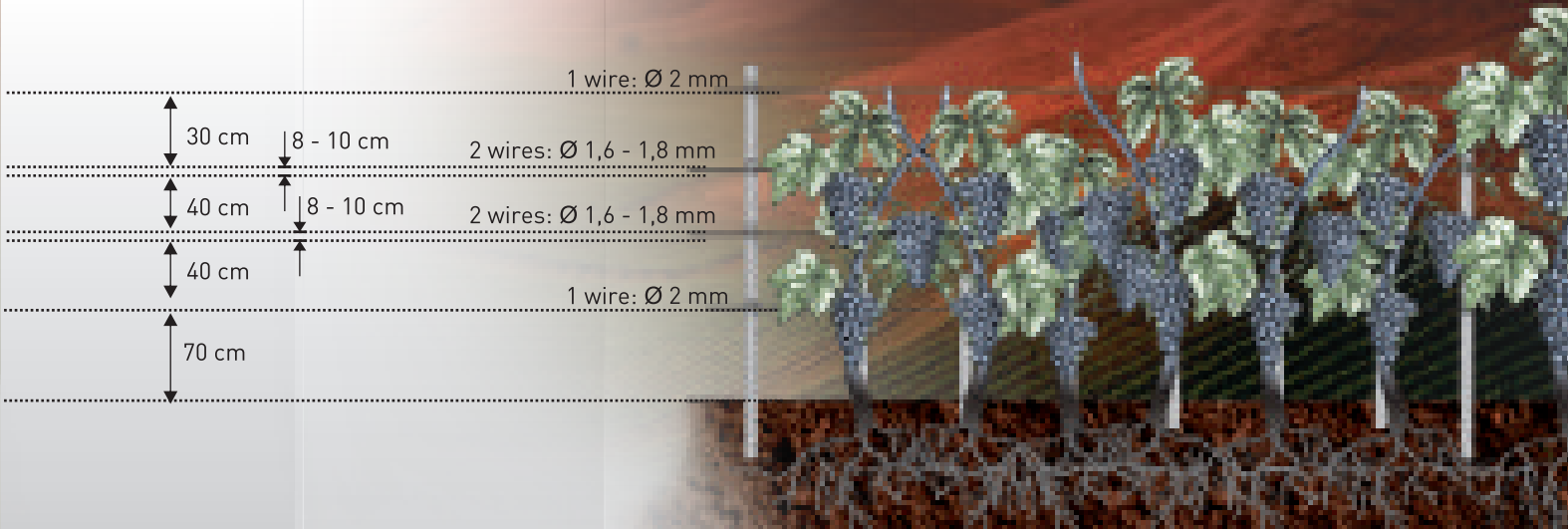
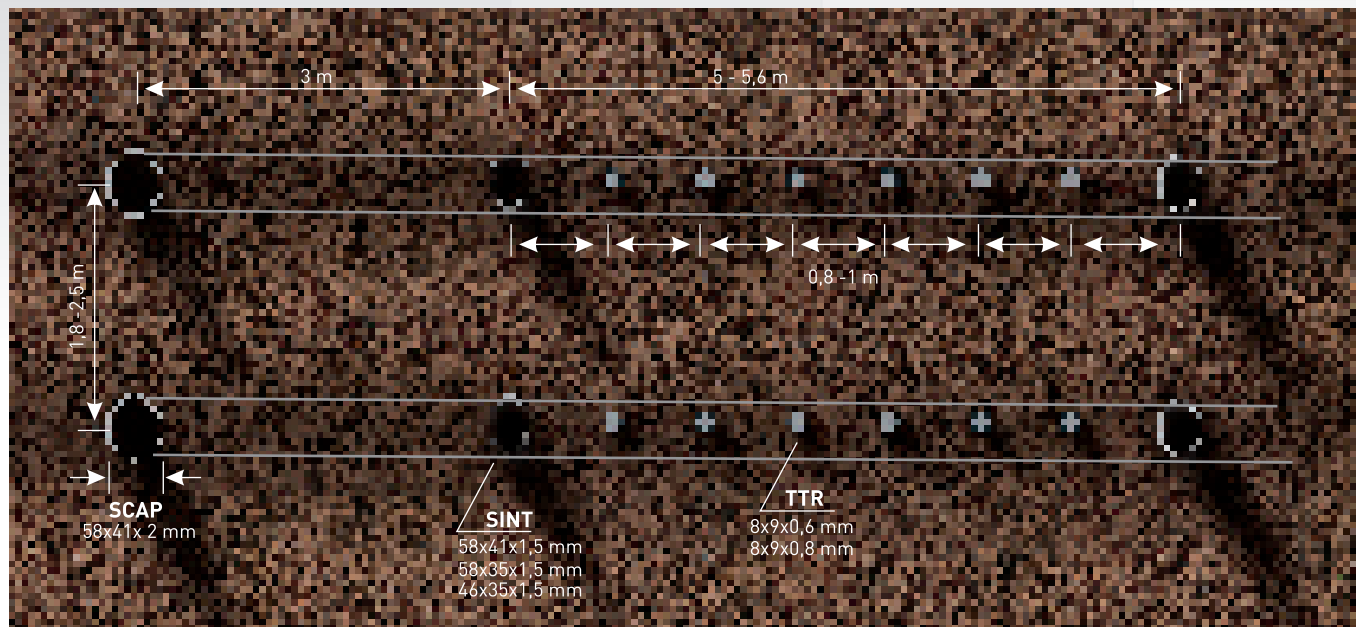


### Special models for metal vineyard trellis poles:

Upon request, other types of poles may be manufactured, only after the producer has approved the relevant technical characteristics. In case of special orders, the delivery term may be extended, in the circumstances when some technical changes are required. The poles will be delivered by piece or in pallet.

### The recommended installation distances are as follows:

- between the vine rows: 180 cm – 250 cm;
- between line poles: 500 cm – 560 cm;
- between tutors poles: 80 cm – 100 cm;
- between the end post and the first line pole of the vine row: 300 cm.





**B. The stretching network of the RoWine trellising system** is provided with two stretching versions, using zinc coated wire protected by galvanization for decades of life. GALVATEC (for bearing and middle wires) and GALVATEC T100 (for upper and anchor wires) are a high tensile wire adapted to vineyard operations with the proper strength and a coating layer for long lasting trellis applications. GALVATEC and GALVATEC T100 are available in rolls (full coils) of calibrated dimensions and preset weights and is sold in bound coils, wrapped on the outside by a recyclable polyethylene foil.

#### Dimensional and geometric characteristics of Galvatec:

Ø wire (mm)	Ø wire (JDP)	Weight/Coil (Kg)	Length (m)	Length/kg (m)	Strength/kg	Weight Zn-Al* (g/m <sup>2</sup> min)	Coating thickness (µm)	Tolerance Ø wire** (± mm)
1.60	11	25	1575	63	154	200	31	0.045
1.80	12	25	1250	50	194	220	34	0.050
2.00	13	25	1000	40	240	230	35	0.050
2.20	14	25	825	33	290	240	37	0.060
2.40	15	25	700	28	346	250	38	0.060
2.70	16	25	550	22	437	260	39	0.060
3.00	17	25	450	18	540	265	40	0.070
3.50	18	40	420	13	735	275	42	0.070
4.00	18	40	400	10	960	285	43	0.070
4.50	20	40	320	8	1215	290	44	0.080
5.00	21	40	260	6.5	1500	300	46	0.080

(\*) UNI - EN 10244-2 (\*\*) UNI - EN 10218-2

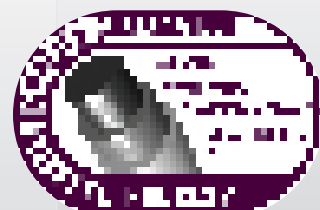
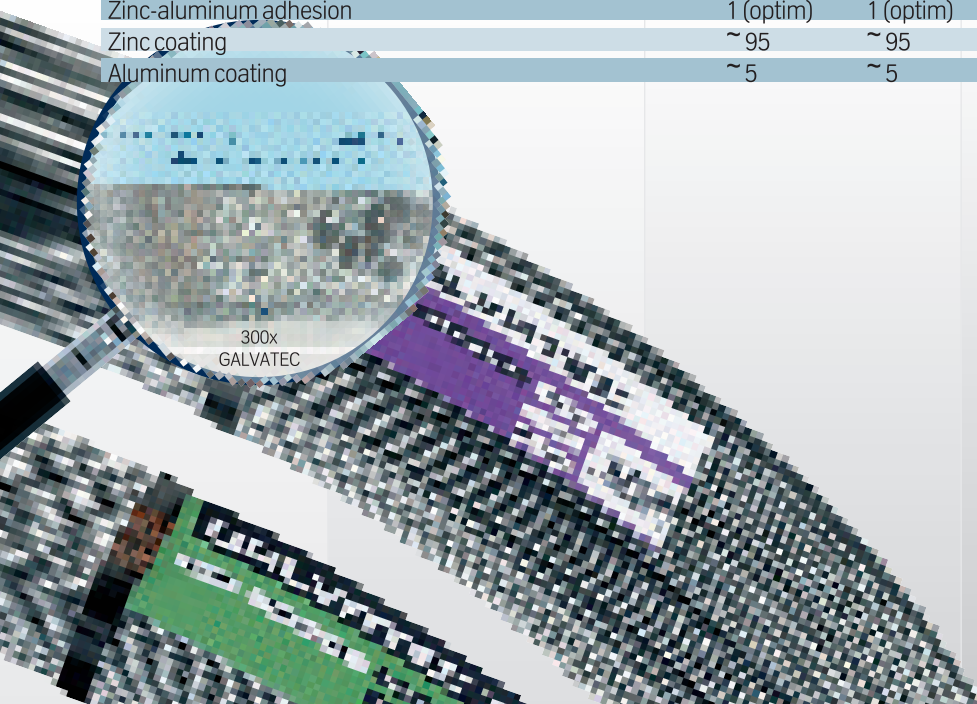
#### Dimensional and geometric characteristics of Galvatec T100:

Ø wire (mm)	Ø wire (JDP)	Weight/Coil (Kg)	Length (m)	Length/kg (m)	Strength/kg	Weight Zn-Al* (g/m <sup>2</sup> min)	Coating thickness (µm)	Tolerance Ø wire** (± mm)
1.60	11	25	1575	63	260	200	31	0.045
1.80	12	25	1250	50	330	220	34	0.050
2.00	13	25	1000	40	380	230	35	0.050
2.20	14	25	825	33	460	240	37	0.060
2.40	15	25	700	28	590	250	38	0.060
2.70	16	25	550	22	714	260	39	0.060
3.00	17	25	450	18	848	265	40	0.070
3.50	18	40	420	13	1165	275	42	0.070
4.00	19	40	400	10	1570	285	43	0.070

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#### Specific properties of Galvatec and Galvatec T100:

Features	Values		MU	Norms
	Galvatec	Galvatec T100		
Maximum extension	10%	5%	-	-
Breaking point of the wire	65/85	95/130	kg/mm <sup>2</sup>	-
Zinc-aluminum adhesion	1 (optim)	1 (optim)	-	UNI-EN 10244-2
Zinc coating	~ 95	~ 95	% p/p	-
Aluminum coating	~ 5	~ 5	% p/p	-





## REFERENCES:

- **"LA LUNA DEL CASALE"**, Lanuvio, Roma, Italia
- **MURFATLAR**, Constanta county, Romania
- **DRAGASANI**, Valcea county, Romania
- **VANJU MARE**, Mehedinti county, Romania
- **CETATE**, Dolj county, Romania
- **SEGARCEA**, Dolj county, Romania
- **VINC**, Dolj county, Romania
- **CRAMELE RECAS**, Timis county, Romania
- **SILAGIU**, Timis county, Romania
- **CRAMELE ODOBESTI**, Vrancea county, Romania
- **VINCON**, Vrancea county, Romania
- **PROWINE**, Cluj county, Romania
- **HETEI**, Satu Mare county, Romania
- **VALEA CALUGAREASCA**, Prahova county, Romania

Important southeast European producer of profiles, accessories and metal manufactures, Metal Work Industry (Bucharest, Romania, 1994) produces, distributes and sells a full line of posts for trellis and fencing projects.

Metal Work Industry specialists will provide information and answers about our products and advice to find the latest technological achievements.

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Address: Popești Leordeni, Șos. de Centură a Municipiului București, No. 103, Ilfov county, 077160, Romania

### Telephone:

(004) 021.5296.257  
(004) 021.5296.258  
(004) 021.5296.277  
(004) 021.3694.653

### Fax:

(004) 021.5296.257

### E-mail:

office@metalwork.ro  
comenzi@metalwork.ro

### GPS coordinates:

Longitude = 26°10'48" E  
Latitude = 44°20'53" N