

# PRODUCT DATA SHEET

## SCREW FOUNDATIONS: 60, 76, 89, AND 114 SERIES

### PRODUCT DESCRIPTION

Screw foundations are hot-dip galvanized steel foundations made of S355 steel that are driven directly into the ground using a controlled torque, without the need for excavation or concrete. They provide immediate load-bearing capacity, are removable, and are suitable for both temporary and permanent structures. With various diameters and lengths (60, 76, 89, and 114 series), they can be adapted to different soil conditions as well as load and wind loads. The anti-corrosion coating in accordance with DIN EN ISO 1461 ensures a long service life in outdoor applications.

### SPECIFICATIONS

- High corrosion resistance for outdoor use
- High dimensional stability under load
- No excavation or concrete required  
→ quick and clean installation
- Designed for various load and wind conditions
- High flexibility thanks to a variety of diameters and lengths (60–114 series)

### MATERIAL

- Made of S355 structural steel
- Hot-dip galvanized in accordance with DIN EN ISO 1461 for long-term corrosion protection
- Zinc coating thickness  $\geq 70 \mu\text{m}$

### MECHANICAL PROPERTIES (S355 STEEL):

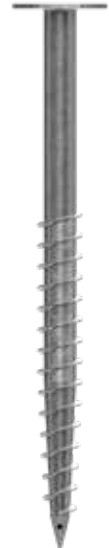
- Yield strength of steel: 355 MPa
- Tensile strength: 510–630 MPa
- Modulus of elasticity: 210.000 MPa

### APPLICATIONS

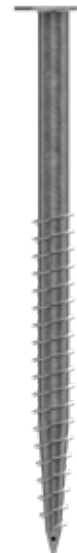
- Carports, tiny houses, patios, fences, play structures, ground-mounted solar systems



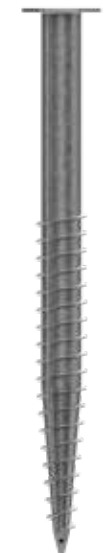
60 Series,  
available in the following lengths:  
600 mm, 800 mm, 1000 mm



76 Series,  
available in the following lengths:  
800 mm, 1000 mm, 1300 mm,  
1600 mm, 2100 mm



89 Series,  
available in the following lengths:  
1600 mm, 2100 mm

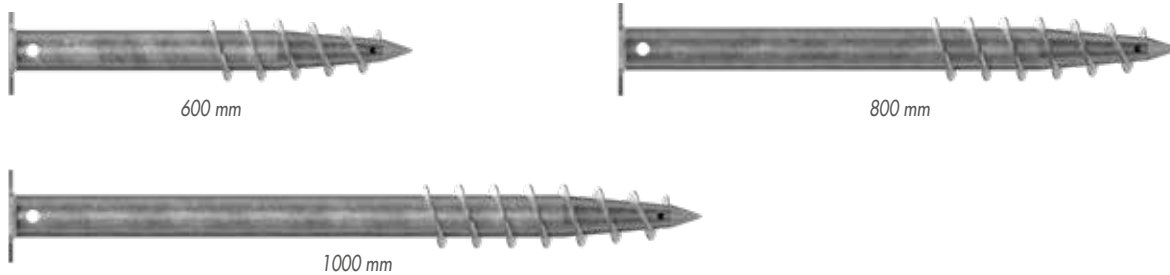


114 Series,  
available in the following lengths:  
1600 mm, 2100 mm

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## SCREW FOUNDATIONS: 60, 76, 89, AND 114 SERIES

### 60 SERIES



### BEARING CAPACITY OF THE SUBGRADE (CHARACTERISTIC VALUE)

Soil type	Tensile force [kN]		
	Ø 60 x 600 mm	Ø 60 x 800 mm	Ø 60 x 1000 mm
soft clay	0,3	0,4	0,5
medium-density clay	0,4	0,6	0,8
firm clay	0,7	1,0	1,2
Peat / organic soil	0,2	0,3	0,3
Fine sand (loose)	0,6	0,9	1,1
Fine sand (compacted)	1,1	1,6	2,0
Medium sand (loose)	0,9	1,3	1,6
Medium sand (dense)	1,6	2,3	2,8
Coarse sand (loose)	1,2	1,7	2,2
Coarse sand (dense)	2,3	3,3	4,1
Silt (soft)	0,4	0,5	0,7
Silt (compact)	0,6	0,8	1,0
Gravel (loose)	1,7	2,4	3,0
Gravel (compacted)	3,5	5,0	6,2
weathered rock / marl	3,4	4,8	5,9

All information is provided without warranty. The values listed apply to screw foundations that have been fully driven into the ground.

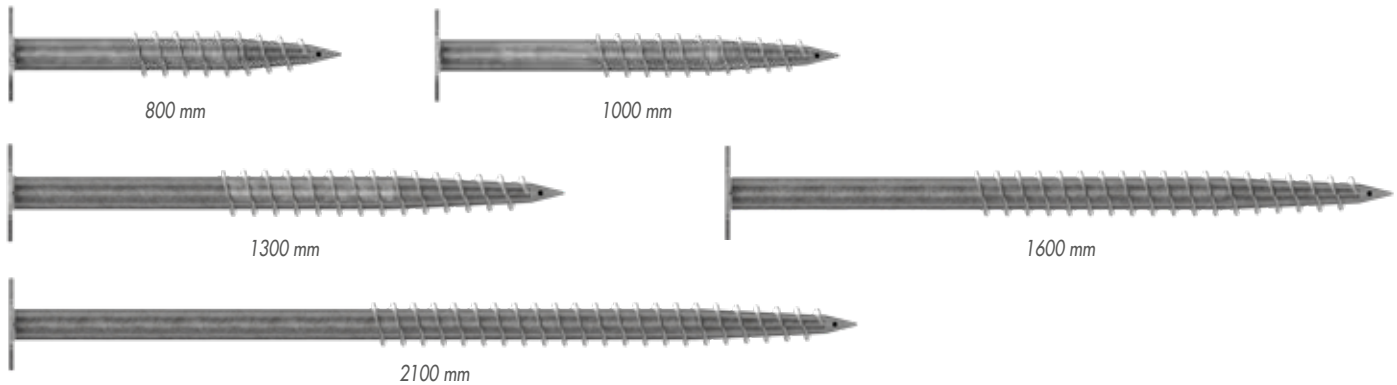
### PRODUCT TABLE

Art. no.	Pipe diameter [mm]	Nominal length [mm]	Internal thread	Building site	Windload	PU
100210	60	600	M12	medium soil	low	1
100211	60	800	M12	medium soil	low	1
100212	60	1000	M12	medium soil	low	1

# PRODUCT DATA SHEET

## SCREW FOUNDATIONS: 60, 76, 89, AND 114 SERIES

### 76 SERIES



### BEARING CAPACITY OF THE SUBGRADE (CHARACTERISTIC VALUE)

Soil type	Tensile force [kN]				
	Ø 76 x 800 mm	Ø 76 x 1000 mm	Ø 76 x 1300 mm	Ø 76 x 1600 mm	Ø 76 x 2100 mm
soft clay	0,5	0,6	0,8	1,0	1,5
medium-density clay	0,8	0,9	1,3	1,7	2,5
firm clay	1,2	1,4	2,1	2,6	3,8
Peat / organic soil	0,3	0,4	0,6	0,8	1,2
Fine sand (loose)	1,1	1,3	1,9	2,4	3,5
Fine sand (compacted)	2,0	2,4	3,4	4,3	6,1
Medium sand (loose)	1,6	1,9	2,8	3,5	5,1
Medium sand (dense)	2,8	3,4	4,8	6,0	8,5
Coarse sand (loose)	2,2	2,6	3,7	4,7	6,7
Coarse sand (dense)	4,1	4,9	6,9	8,6	12,1
Silt (soft)	0,7	0,8	1,2	1,6	2,3
Silt (compact)	1,0	1,2	1,8	2,3	3,4
Gravel (loose)	3,0	3,6	5,0	6,3	8,9
Gravel (compacted)	6,2	7,5	10,4	12,9	18,0
weathered rock / marl	5,9	7,1	9,9	12,2	17,1

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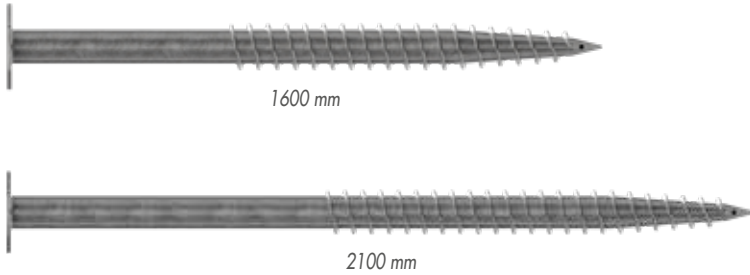
### PRODUCT TABLE

Art. no.	Pipe diameter [mm]	Nominal length [mm]	Internal thread	Building site	Windload*	PU
100213	76	800	M24	firm to medium soil	medium	1
100214	76	1000	M24	medium soil, no backfilling	medium	1
100215	76	1300	M24	normal load-bearing soil	medium-high	1
100216	76	1600	M24	normal load-bearing soil	high	1
100217	76	2100	M24	soft soil, deep load-bearing layer	high	1

# PRODUCT DATA SHEET

## SCREW FOUNDATIONS: 60, 76, 89, AND 114 SERIES

### 89 SERIES



### BEARING CAPACITY OF THE SUBGRADE (CHARACTERISTIC VALUE)

Soil type	Tensile force [kN]	
	Ø 89 x 1600 mm	Ø 89 x 2100 mm
soft clay	1,3	1,9
medium-density clay	2,1	3,1
firm clay	3,3	4,7
Peat / organic soil	1,0	1,5
Fine sand (loose)	3,0	4,4
Fine sand (compacted)	5,3	7,6
Medium sand (loose)	4,4	6,3
Medium sand (dense)	7,5	10,6
Coarse sand (loose)	5,8	8,3
Coarse sand (dense)	10,8	15,1
Silt (soft)	1,9	2,9
Silt (compact)	2,8	4,2
Gravel (loose)	7,9	11,1
Gravel (compacted)	16,2	22,6
weathered rock / marl	15,4	21,4

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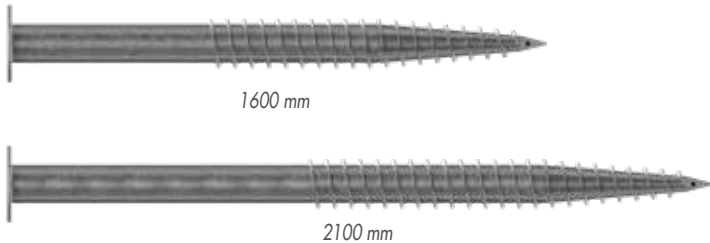
### PRODUCT TABLE

Art. no.	Pipe diameter [mm]	Nominal length [mm]	Internal thread	Building site	Windload*	PU
100218	89	1600	M24	soft ground, sand, fill material	high	1
100219	89	2100	M24	soft to yielding soil	high	1

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## SCREW FOUNDATIONS: 60, 76, 89, AND 114 SERIES

### 114 SERIES



### BEARING CAPACITY OF THE SUBGRADE (CHARACTERISTIC VALUE)

Soil type	Tensile force [kN]	
	Ø 114 x 1600 mm	Ø 114 x 2100 mm
soft clay	1,8	2,7
medium-density clay	3,1	4,5
firm clay	4,7	6,8
Peat / organic soil	1,4	2,1
Fine sand (loose)	4,3	6,2
Fine sand (compacted)	7,7	10,9
Medium sand (loose)	6,3	9,0
Medium sand (dense)	10,9	15,3
Coarse sand (loose)	8,4	11,9
Coarse sand (dense)	15,6	21,9
Silt (soft)	2,7	4,1
Silt (compact)	4,1	5,9
Gravel (loose)	11,4	16,0
Gravel (compacted)	23,6	32,8
weathered rock / marl	22,4	31,2

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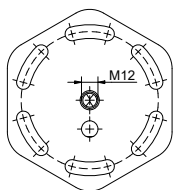
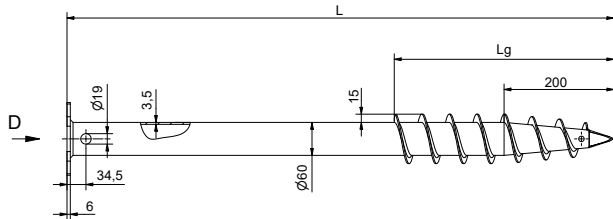
### PRODUCT TABLE

Art. no.	Pipe diameter [mm]	Nominal length [mm]	Internal thread	Building site	Windload*	PU
100220	114	1600	M24	soft, slightly cohesive soil	high	1
100221	114	2100	M24	soft ground, deep structure	very high	1

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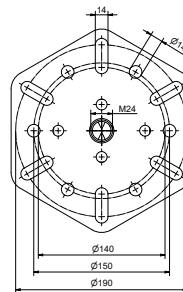
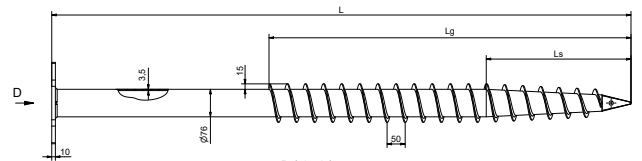
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### TECHNICAL INFORMATION



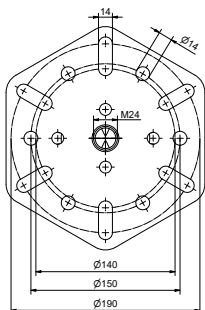
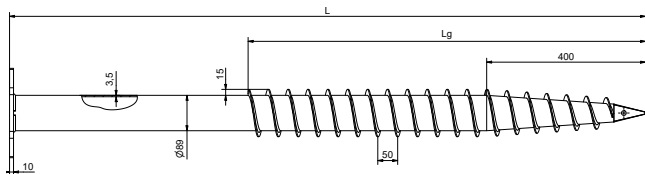
60 Series

Lengths: 60 Series		
L [mm]	L <sub>g</sub> [mm]	
600	300	
800	350	
1000	400	



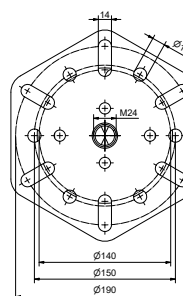
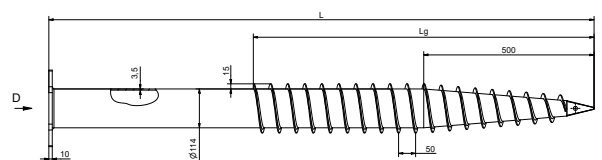
76 Series

Lengths: 76 Series		
L [mm]	L <sub>g</sub> [mm]	L <sub>s</sub> [mm]
800	500	250
1000	600	300
1300	800	400
1600	1000	400
2100	1200	400



89 Series

Lengths: 89 Series		
L [mm]	L <sub>g</sub> [mm]	
1600	1000	
2100	1200	



114 Series

Lengths: 114 Series		
L [mm]	L <sub>g</sub> [mm]	
1600	1000	
2100	1200	

If you are unfamiliar with the application of this product, particularly its intended use, please be sure to contact our Application Engineering department (technik@eurotec.team).