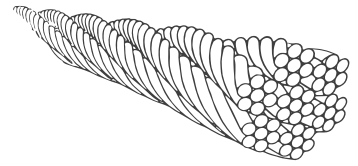
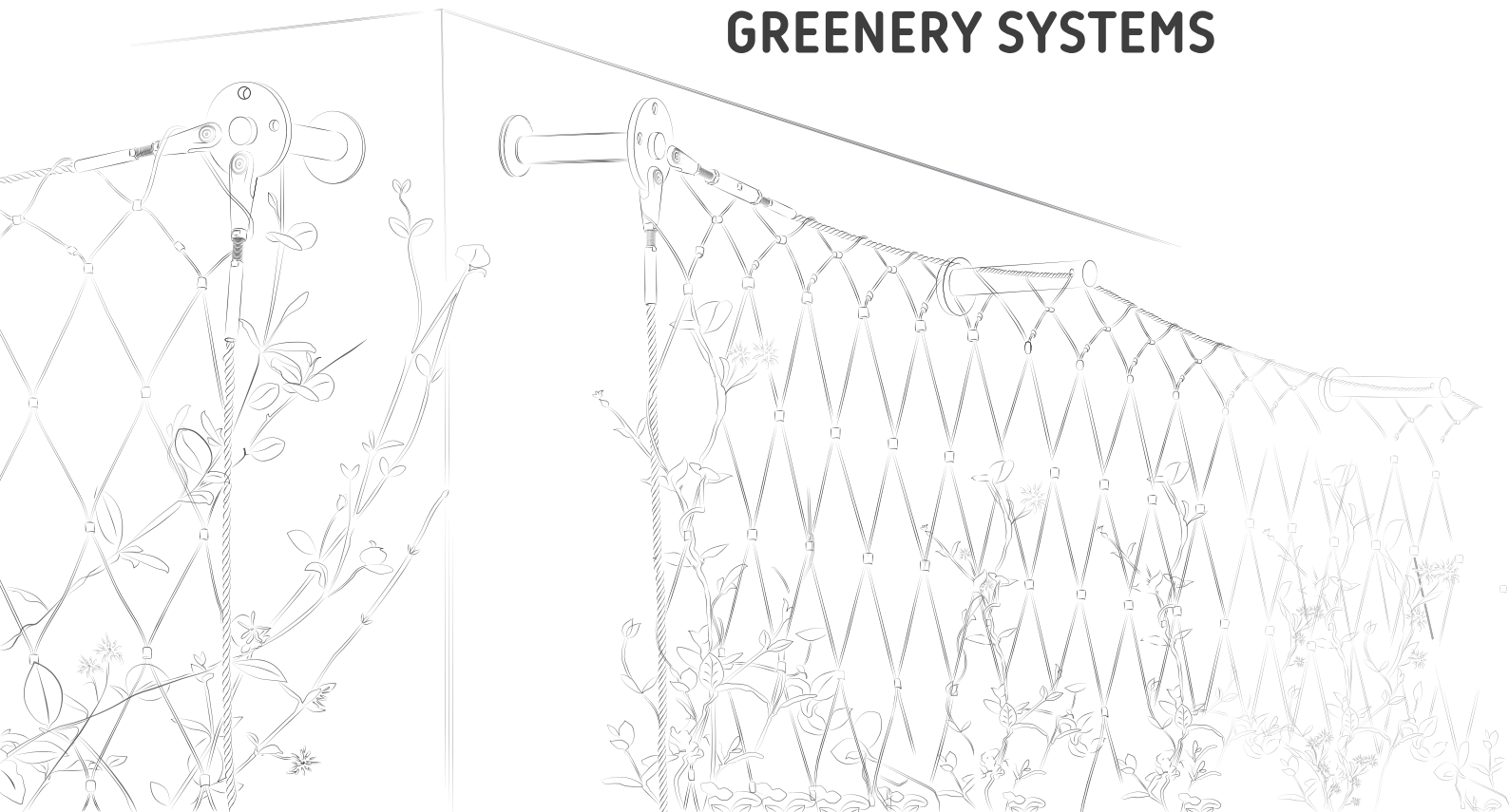
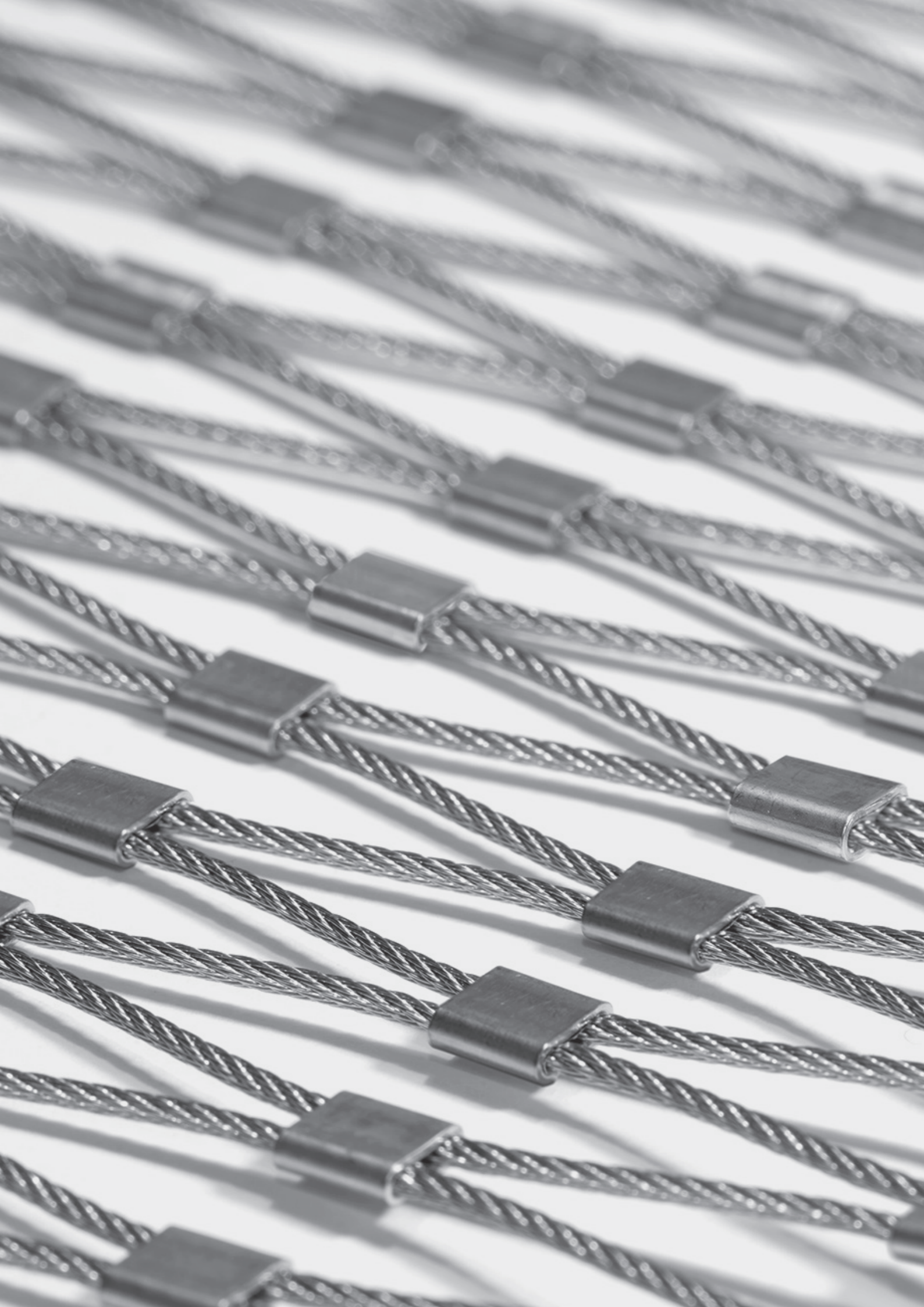


**inoxnet**



## **STAINLESS STEEL GREENERY SYSTEMS**





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- **Who we are ?**

inoxnet® is a young and dynamic company specializing in architectural stainless steel net and rope systems. Our mission is to deliver innovative, cost-effective, eco-friendly, and durable products of the highest quality. Stainless Steel Net and Rope Systems offer versatile solutions for a wide range of architectural projects, thanks to their flexibility, durability, high quality, and lightweight properties.

At inoxnet®, we are committed to being your solution partner, whether for small-scale individual projects or large, complex projects worldwide.

### **Our Company**

inoxnet® has extensive experience in architectural applications of stainless steel net and rope systems. We offer solutions and services for a variety of architectural projects, including balustrades, safety nets, facades, greenery systems, decorative installations, and zoo enclosures.



## What we do ?

inoxnet® offers comprehensive, end-to-end services-including consulting, design, planning, structural calculations, production, and installation-to clients worldwide who seek to transform their innovative ideas into reality.

### Consulting

We provide consultancy to architects, design studios, and contractors, supporting them in achieving their design goals and meeting project requirements. Our consulting process begins with the initial architectural concept and continues through the planning stages to final implementation. We are always pleased to share our insights, whether through phone, email, or in person at our offices.

### Planning & Design

The inoxnet® planning process includes:

- **Design and System Development**
- **Planning Support**
- **Administrative Planning**
- **Project Application for Ropes, Nets, and Steel Works**
- **Installation Planning**

inoxnet® services are always customer focused, with our specialists involved at every stage of the process, from start to finish. In addition to our standard products, we also offer custom-designed stainless steel net and rope solutions, tailored to meet the unique requirements of each project.



### Static Calculations

inoxnet® provides structural static calculations for all types of stainless steel net and rope projects when required.

Our static analysis services include:

- **System Development**
- **Shaping of Stainless Steel Nets and Net Structures**
- **Sizing of Net and Rope Loads**
- **Calculation of Additional Costs**
- **Verifiable Structural Static Calculations**

### Production

Once the production drawings are approved, they are forwarded to the production department, where manufacturing begins immediately according to these plans. Each net component is meticulously crafted to meet the specified dimensions, diamond orientation, and net ending features. I-ROPE® systems are also produced with precise attention to pin-to-pin measurements and pre-tension loads, as defined by the structural calculations.



## Installation

- Self-Assembly by the customer,
- Installation training,
- Installation support,
- Installation supervision,
- Turn-key installation by inoxnet®.

Depending on customer preference, inoxnet® Stainless Steel Ropes and Net Systems can be installed on site by our experienced installation team.

**Stainless, Ageless, Elegant, Durable, Solid & Transparent.**

*Istanbul 3.rd Airport I-ROPE® Installation*

BEHIND EVERY INNOVATIVE PRODUCT

THERE IS A CREATIVE SOLUTION.

GREENERY SYSTEMS



## GREENERY SYSTEMS

In recent years vertical greenery systems have become more popular and increased their presence in building design.

Providing better air quality, noise damping, increasing thermal insulation, and visual enhancement of the building profile are some of the benefits which make the green wall systems a great choice.

Stainless steel rope and net systems are the most long-life and low maintenance systems offering flexibility to suit a variety of plant species and wind loads. Stainless Steel Net Systems provide additional options, with closer weaves than horizontal and vertical cabling.

I-NET® and I-ROPE® greenery systems are very flexible, cost effective and environmentally friendly systems with easy planning and installation abilities. There are many factors to consider about choosing the correct greenery system such as, plant growth, load, grid structure, distance from wall and height.

**Grid Structure:** The type and growth size of the plant determines the grid structure.

**Height:** It is important that plant growth height does not exceed the height of the greenery system.

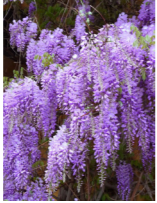








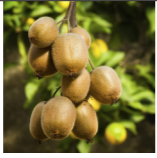

















**Distance From Wall:** The distance from the wall depends on the growth density and root style of the plant.

**Load:** Depends on the climate factors such as rain, snow, wind loads and the plant factors such as wood and fruit weight.

**Plant Growth:** The type of plant, plant root style and growth rate are important to choose the right system.

**DESIGN AND PLANNING OF THE GREENERY SYSTEMS SHOULD BE DONE BY CONSIDERING THE IMPORTANT FACTORS WITH AN EXPERT.**

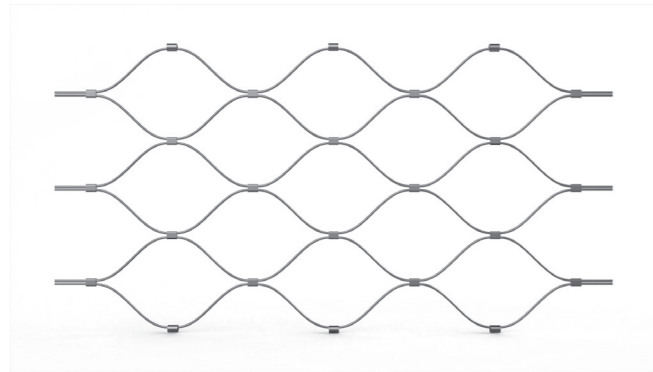
# GREENERY SYSTEM DESIGNING AND PLANING

Plant type	Plant name	Plant picture	Growing height (m)	Systems	Sytems's width & heights (mm)	Distance from wall(mm)
Vines (Twinning plants)	Wisteria		3-10	      	<p>System 1 Width: max.1500 Height: max.2000</p> <p>System 2 Width: max.1500 Height: max.2000</p> <p>System 3/ 4 / 6 / 7 / 8 Width: min.300 - max.800 Height: min.300 - max.2000</p>	90-150
	Lonicera (honeysuckles)		3-8			
	Actinida (kiwi)		4-9			
	Fallopia		2-12			
	Five leaf akebia		4-12			
Climbers	Ampelopsis		3-8	   	<p>System 3 / 4 / 7 / 8 Width: min.300 - max.800 Height: min.300 - max.2000</p>	90-150
	Passiflora (Passion flower)		3-10			
	Clematis		3-10			
	Clematis vitalba (Travelers joy)		3-10			
	Grape vine (vitis vinifera)		3-30			
Scrambling Plants	Jasminum		2-8	  	<p>System 3 / 4 Width: min.300 - max.800 Height: min.300 - max.2000</p> <p>System 5 Width: min.300 - max.2000</p>	90-150
	Rose		2-4			
	Rubus		2-4			



# I-NET® GREENERY SYSTEMS

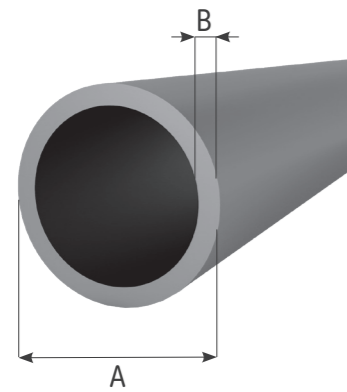
## I-NET® GREENERY SYSTEM WITH FRAME



I-NET®

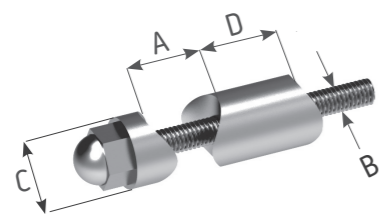
Part Number	Rope	Dimensions in mm	
	Ø mm	NW	NH
IN-110-150-120	1,5	120	208
IN-110-150-180	1,5	180	312

Material AISI 316 L  
 "NW" net width  
 "NH" net height



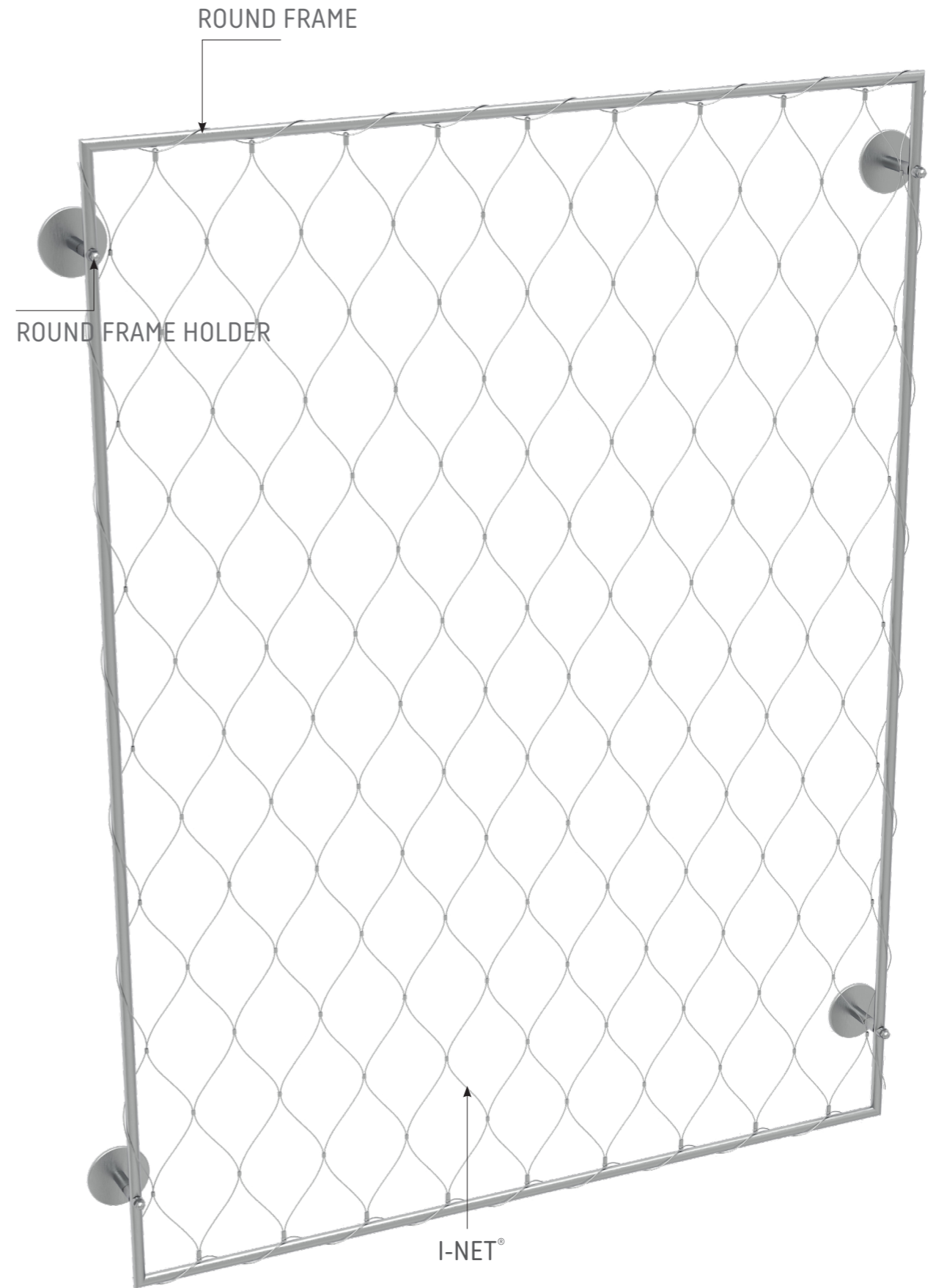
ROUND FRAME

Part Number	Dimensions in mm	
	A	B
IN-F-0021-020	21,3	2
IN-F-0026-020	26,9	2
IN-F-0033-026	33,7	2,6
IN-F-0042-026	42,4	2,6

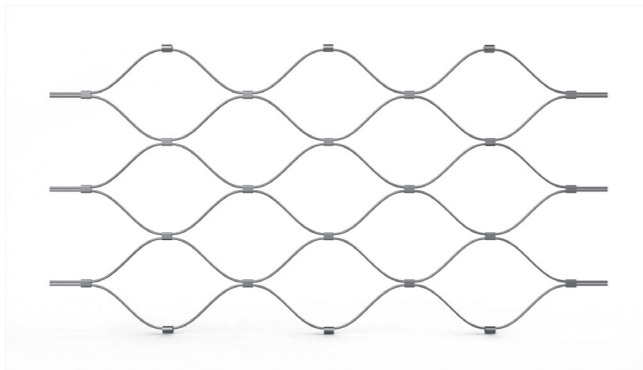


ROUND FRAME HOLDER

Part Number	Dimensions in mm			
	A	B	C	D
IN-FH1-0021-000-01	21,3	M6	16	25
IN-FH1-0026-000-01	26,9	M6	16	25
IN-FH1-0033-000-01	33,7	M8	20	25
IN-FH1-0042-000-01	42,4	M8	20	25



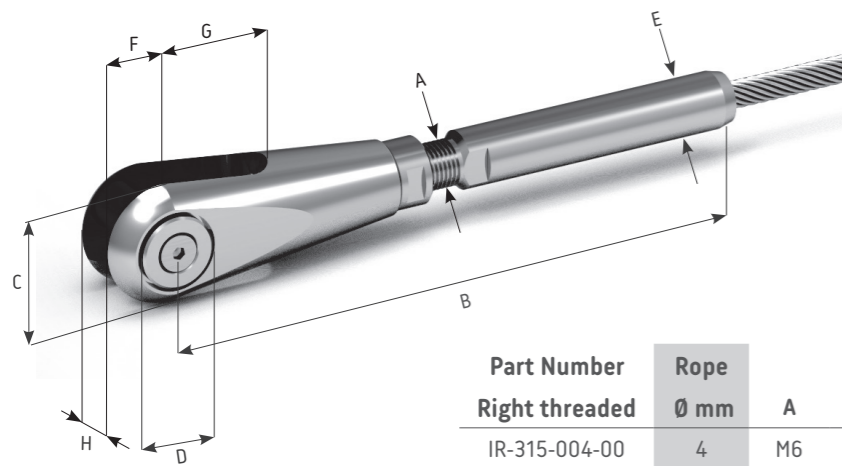
I-NET® GREENERY SYSTEM WITH I-ROPE®



I-NET®

Part Number	Rope	Dimensions in mm	
	Ø mm	NW	NH
IN-110-150-120	1,5	120	208
IN-110-150-180	1,5	180	312

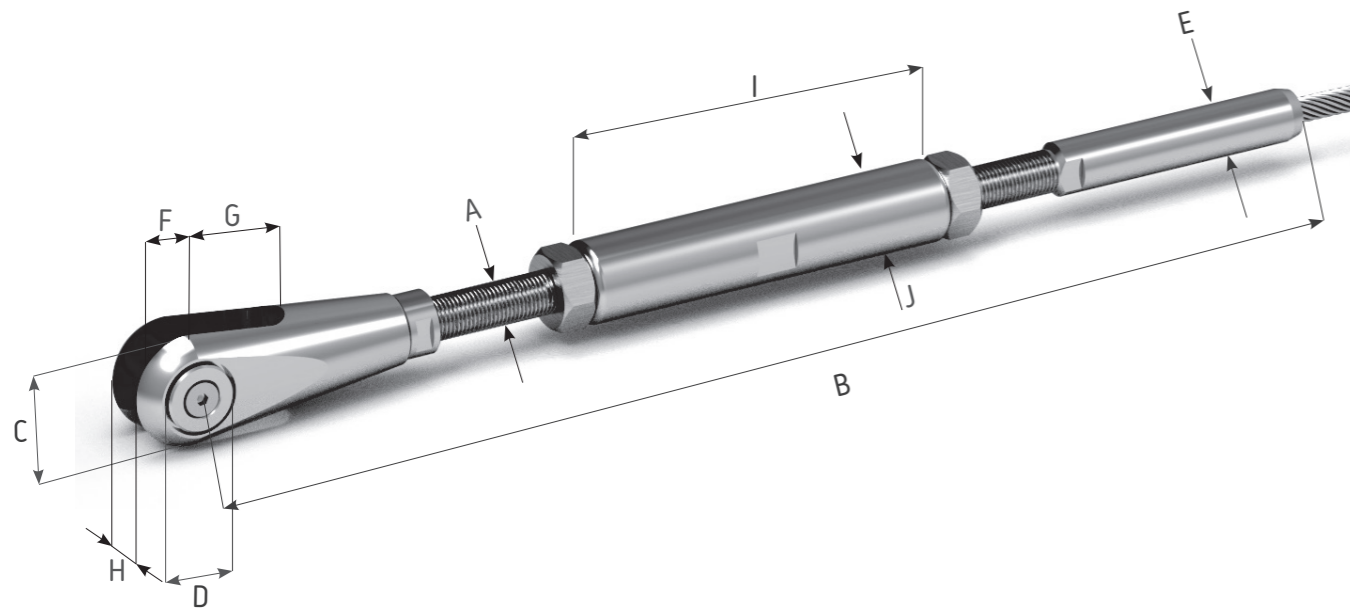
Material AISI 316 L  
 "NW" net width  
 "NH" net height



FORK WITH SWAGED FITTING

Part Number	Rope Ø mm	Dimensions in mm							
		A	B	C	D	E	F	G	H
IR-315-004-00	4	M6	89.2	15.5	6	7.5	8	11.5	6.6
IR-315-006-01	6	M8	107	20.6	8	12.5	11.2	14.8	8.8

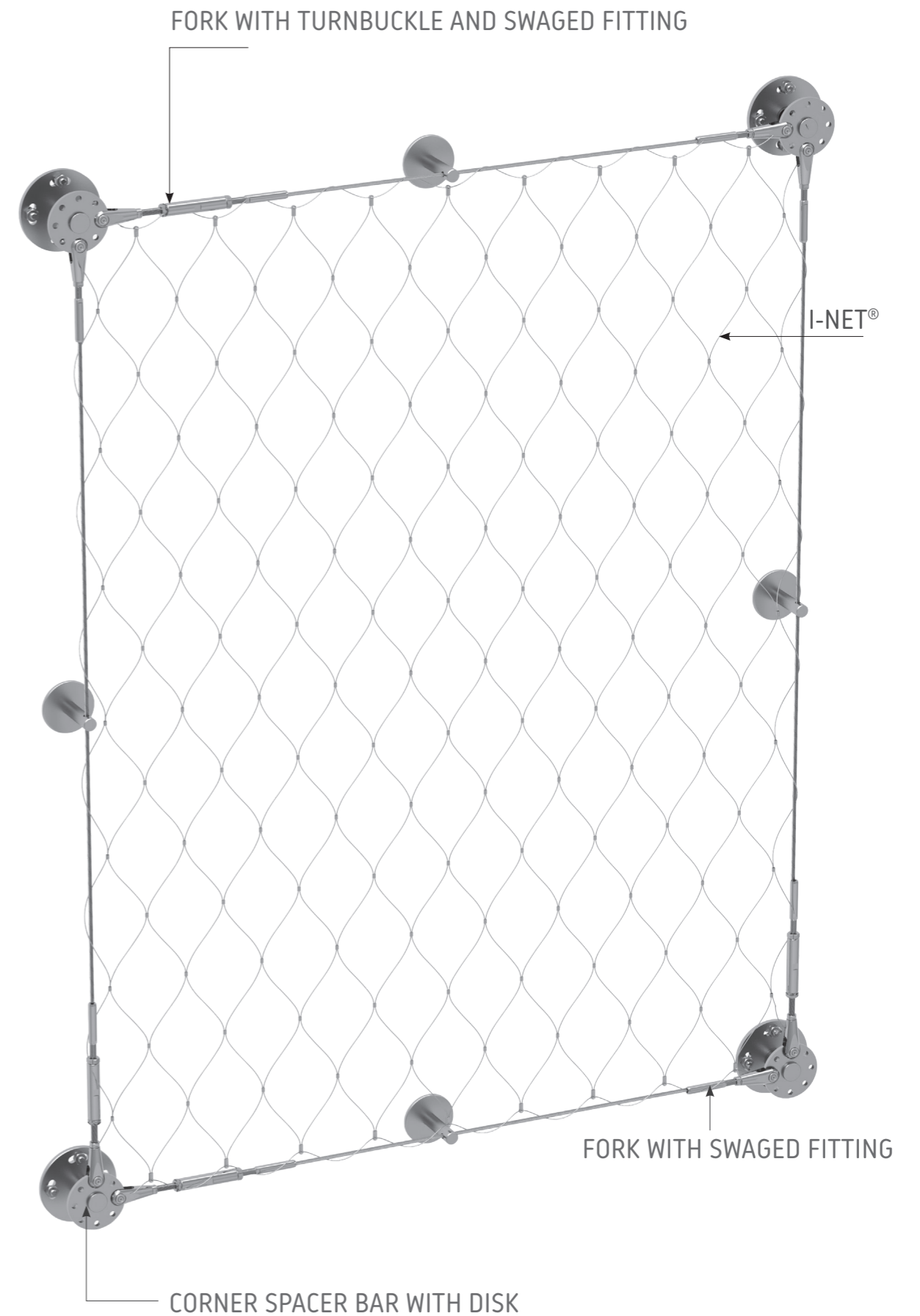
Material AISI 316 / 1.4462 Duplex



FORK WITH TURNBUCKLE AND SWAGED FITTING

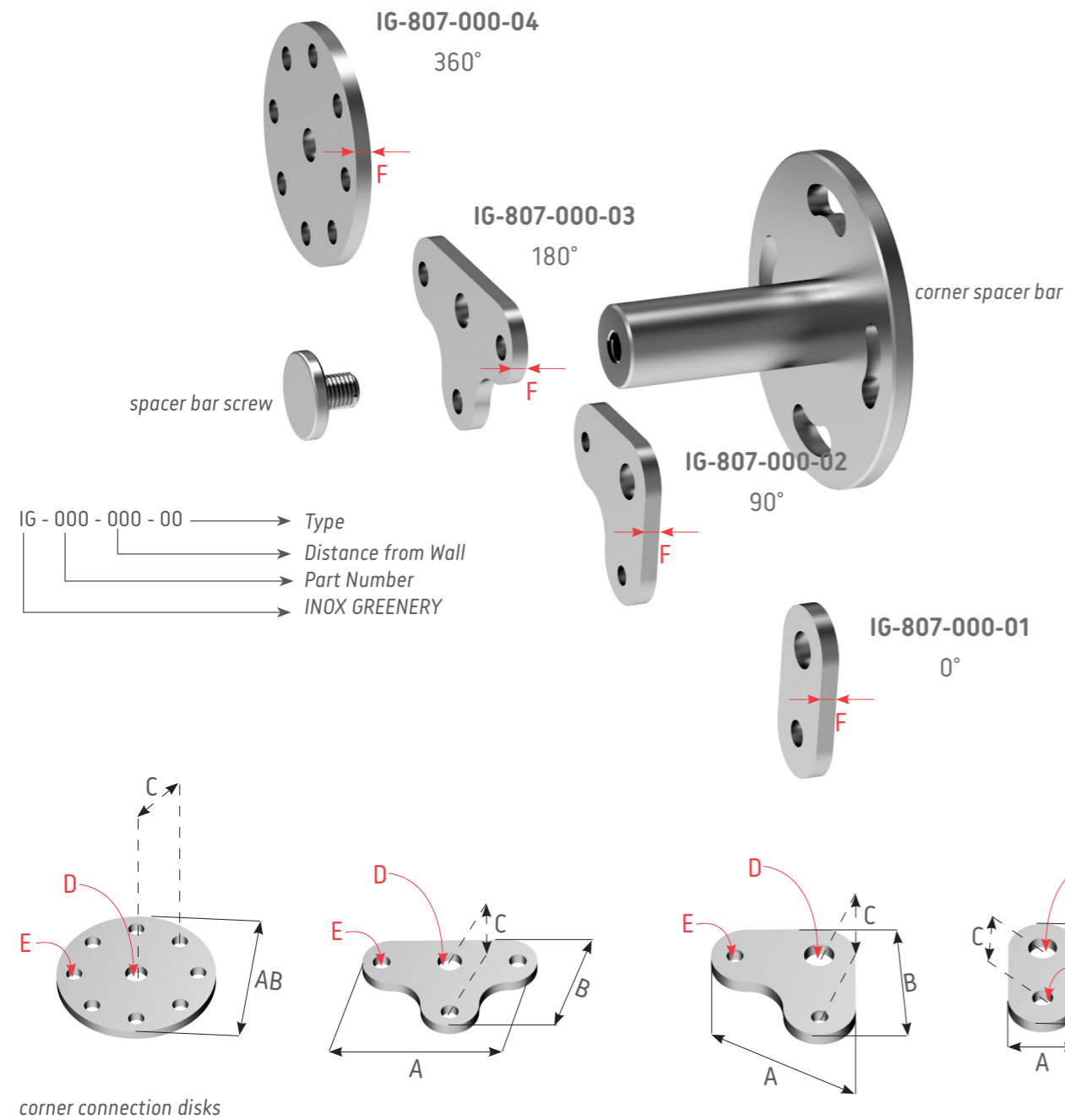
Part Number	Rope Ø mm	Dimensions in mm											
		A	B	B <sub>max</sub>	B <sub>min</sub>	C	D	E	F	G	H	I	J
IR-325-004-00	4	M6	185	195	153	15.5	6	7.5	8	11.5	6.6	65	10
IR-325-006-01	6	M8	224	287	186	20.6	8	12.5	11.2	14.8	8.8	70	16

Material AISI 316 / 1.4462 Duplex



I-NET® GREENERY SYSTEM WITH I-ROPE®

CORNER CONNECTION DISC TYPES



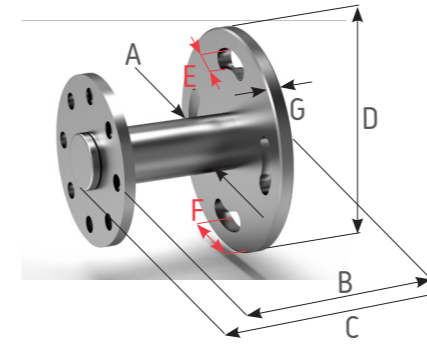
CORNER CONNECTION DISC

Part Number	Angle	Rope Ø mm	Dimensions in mm					
			A	B	C	D	E	F
IG-807-000-01	0°	*4 - 6	30	60	35	9	7	6
IG-807-000-02	90°	*4 - 6	60	60	35	9	7	6
IG-807-000-03	180°	*4 - 6	90	60	35	9	7	6
IG-807-000-04	360°	*4 - 6	90	90	35	9	7	6

Material AISI 316L

\*For only Ø4mm and Ø6mm ropes

CORNER SPACER BAR WITH DISC

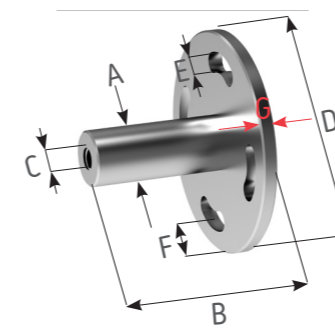


Part Number	Rope Ø mm	Distance from Wall	Dimensions in mm						
			A	B	C	D	E	F	G
IG-807-090-04	*4 - 6	90	30	90	98	120	M10	15	8
IG-807-120-04	*4 - 6	120	30	120	128	120	M10	15	8
IG-807-150-04	*4 - 6	150	30	150	158	120	M10	15	8

Material AISI 316L

\*For only Ø4mm and Ø6mm ropes

CORNER SPACER BAR

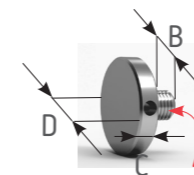


Part Number	Rope Ø mm	Distance from Wall	Dimensions in mm						
			A	B	C	D	E	F	G
IG-807-090-00	*4 - 6	90	30	87	M8	120	M10	15	8
IG-807-120-00	*4 - 6	120	30	117	M8	120	M10	15	8
IG-807-150-00	*4 - 6	150	30	147	M8	120	M10	15	8

Material AISI 316L

\*For only Ø4mm and Ø6mm ropes

SPACER BAR SCREW

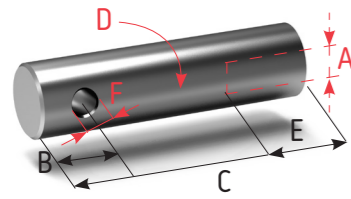


Part Number	Dimensions in mm			
	A	B	C	D
IG-804-020-01	M8	16	5	20
IG-804-025-01	M8	16	5	25
IG-804-030-01	M8	16	5	30
IG-804-030-02	M10	10	5	30
IG-804-020-02	M12	15	5	20
IG-804-025-02	M12	15	5	25
IG-804-030-03	M16	15	5	30

Material AISI 316L



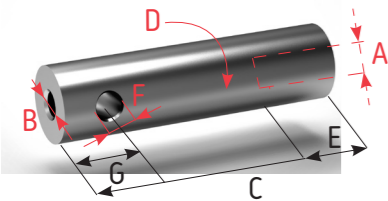
### SPACER BAR



Part Number	Rope	Distance from Wall	Dimensions in mm					
	Ø mm		A	B	C	D	E	F
IG-817-090-00	*4 - 6	90	M8	15	100	20	20	8.5
IG-817-120-00	*4 - 6	120	M10	15	130	25	30	8.5
IG-817-150-00	*4 - 6	150	M10	15	160	25	30	8.5

Material AISI 316L

### SPACER BAR WITH THREAD

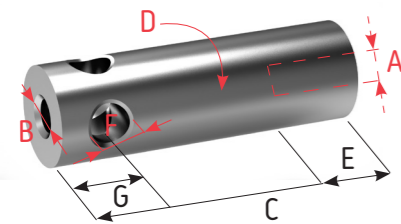


Part Number	Rope	Distance from Wall	Dimensions in mm						
	Ø mm		A	B	C	D	E	F	G
IG-801-090-00	*4 - 6	90	M8	M8	100	20	20	8.5	15
IG-801-120-00	*4 - 6	120	M10	M8	130	25	30	8.5	15
IG-801-150-00	*4 - 6	150	M10	M8	160	25	30	8.5	15

Material AISI 316L

\*For only Ø4mm and Ø6mm ropes

### CROSS SPACER BAR

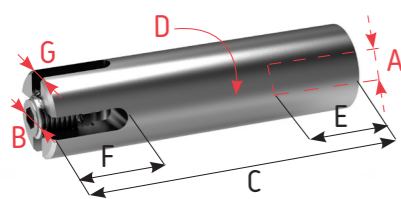


Part Number	Rope	Distance from Wall	Dimensions in mm						
	Ø mm		A	B	C	D	E	F	G
IG-802-090-00	*4 - 6	90	M12	M10	100	30	30	12	10
IG-802-120-00	*4 - 6	120	M12	M10	130	30	30	12	10
IG-802-150-00	*4 - 6	150	M12	M10	160	30	30	12	10

Material AISI 316L

\*For only Ø4mm and Ø6mm ropes

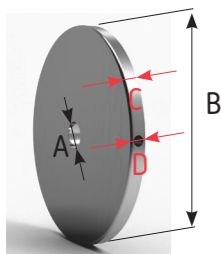
### CROSS CLAMP SPACER BAR



Part Number	Rope	Distance from Wall	Dimensions in mm						
	Ø mm		A	B	C	D	E	F	G
IG-803-090-01	4 - 6	90	M8	M12	105	20	20	22	6.5
IG-803-120-01	4 - 6	120	M10	M12	135	25	30	22	6.5
IG-803-150-01	4 - 6	150	M10	M12	165	25	30	22	6.5
IG-803-120-02	6 - 8	120	M12	M16	141	30	30	30	8.5
IG-803-150-02	6 - 8	150	M12	M16	171	30	30	30	8.5

Material AISI 316L

### COVER DISC WITH INTERNAL THREAD

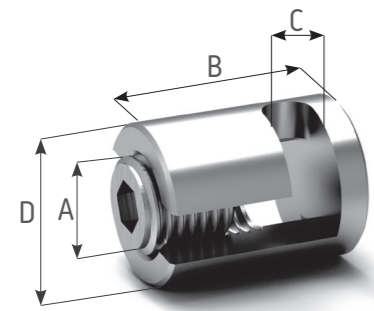


Part Number	Thread	Dimensions in mm			
	A	B	C	D	
IG-805-080-01	M8	80	5	3.5	
IG-805-080-02	M10	80	5	3.5	
IG-805-080-03	M12	80	5	3.5	

Material AISI 316L



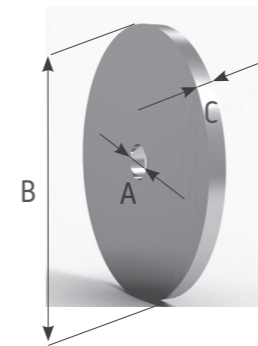
GREENERY ACCESSORIES



CROSS CLAMP ADJUSTABLE

Part Number	Rope Ø mm	Dimensions in mm			
		A	B	C	D
IG-808-004-00	4	M12	22	4,5	20
IG-808-006-00	6	M12	26	6,5	20
IG-808-008-00	8	M12	32	8,5	20

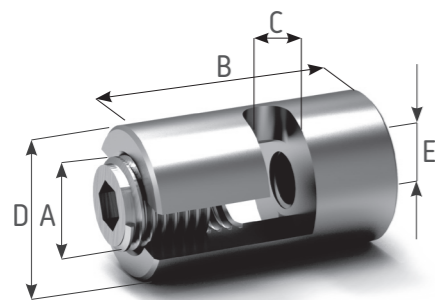
Material AISI 316 L



COVER DISC

Part Number	Dimensions in mm		
	A	B	C
IG-806-060-01	10,5	60	5
IG-806-060-02	12,5	60	5
IG-806-080-01	10,5	80	5
IG-806-080-02	12,5	80	5

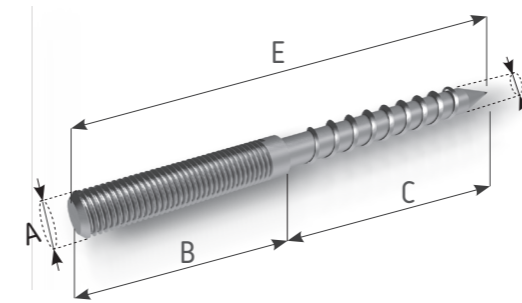
Material AISI 316 L



CROSS CLAMP WITH INTERNAL THREAD ADJUSTABLE

Part Number	Rope Ø mm	Dimensions in mm				
		A	B	C	D	E
IG-809-004-00	4	M12	30	4,5	20	M8
IG-809-006-00	6	M12	34	6,5	20	M8
IG-809-008-00	8	M12	40	8,5	20	M8

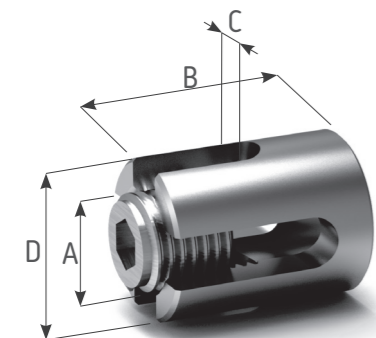
Material AISI 316 L



DUAL THREAD SCREW

Part Number Right threaded	Part Number Left threaded	Thread A	Dimensions in mm			
			B	C	D	E
917-008-00	918-008-00	M8	40	60	6,9	100
917-010-00	-	M10	30	40	8,9	70

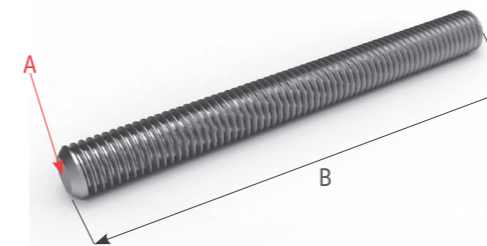
Material AISI 316



CROSS CLAMP 90°

Part Number	Rope Ø mm	Dimensions in mm			
		A	B	C	D
IG-810-004-00	4	M12	22	4,5	20
IG-810-006-00	6	M12	26	6,5	20
IG-810-008-00	8	M16	27	8,5	30

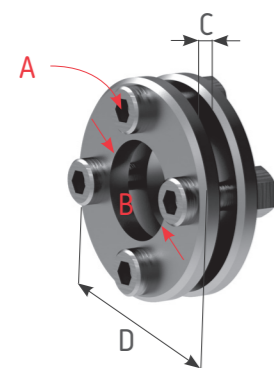
Material AISI 316 L



THREADED ROD

Part Number Right threaded	Part Number Left threaded	Thread A	Dimensions in mm	
			B	
919-008-0100-00	919-008-0100-01	M8	100	
919-008-0200-00	919-008-0200-01	M8	200	
919-010-0100-00	919-010-0100-01	M10	100	
919-010-0200-00	919-010-0200-01	M10	200	
919-012-0100-00	919-012-0100-01	M12	100	
919-012-0200-00	919-012-0200-01	M12	200	

Material AISI 316

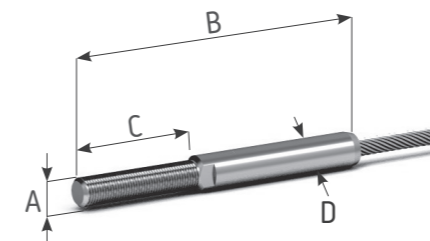


CROSS CLAMP 0-180°

Part Number	Rope Ø mm	Dimensions in mm			
		A	B	C	D
IG-811-040-00	*4 - 6	M5	18	4	40

Material AISI 316 L

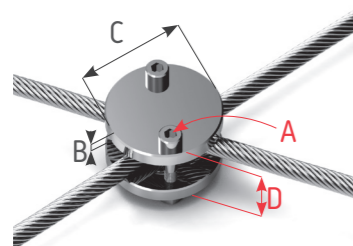
\*For only Ø4mm and Ø6mm ropes



EXTERNAL THREAD ROLL SWAGED FITTING

Part Number Right threaded	Part Number Left threaded	Set Number	Rope Ø mm	Dimensions in mm			
				A	B	C	D
IRG-150-004-00	IRG-150-004-01	IRS-120-004-00	4	M6	75	35	7,5
IRG-150-006-00	IRG-150-006-01	IRS-120-006-00	6	M8	109	45	12,5
IRG-150-008-00	IRG-150-008-01	IRS-120-008-00	8	M12	144	60	16

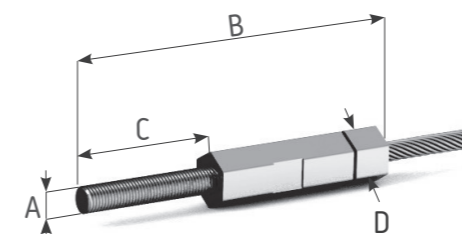
Material AISI 316 L



CROSS CLAMP

Part Number	Rope Ø mm	Dimensions in mm			
		A	B	C	D
IR-530-004-06	4-6	M4	5	35	18/22
IR-530-008-12	8-12	M6	8	45	32/40

Material AISI 316



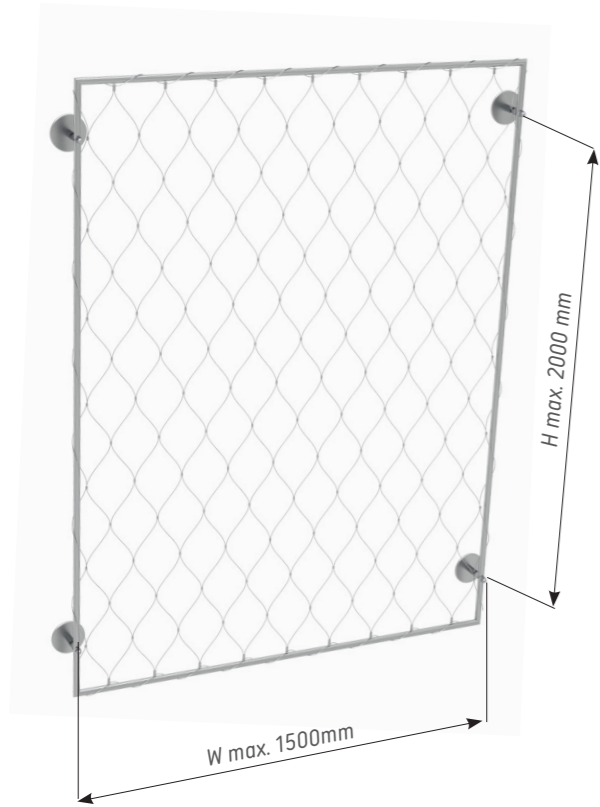
EXTERNAL THREAD SWAGELESS CONNECTION

Part Number Right threaded	Part Number Left threaded	Set Number	Rope Ø mm	Dimensions in mm			
				A	B	C	D
IR-170-004-00	IR-170-004-01	IRS-140-004-00	4	M6	110	60	13
IR-170-006-00	IR-170-006-01	IRS-140-006-00	6	M8	115	60	15
IR-170-008-00	IR-170-008-01	IRS-140-008-00	8	M10	160	80	19

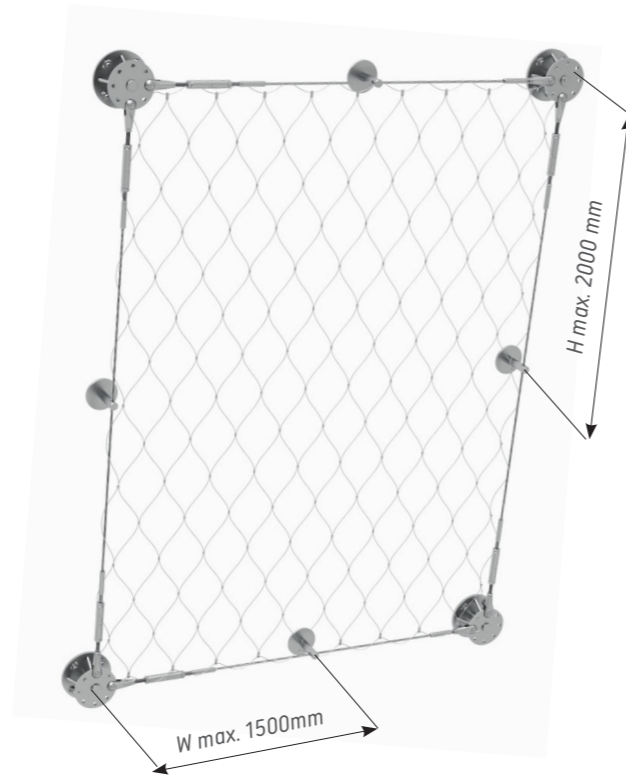
Material AISI 316 L

# GREENERY SYSTEM INSTALLATION EXAMPLES

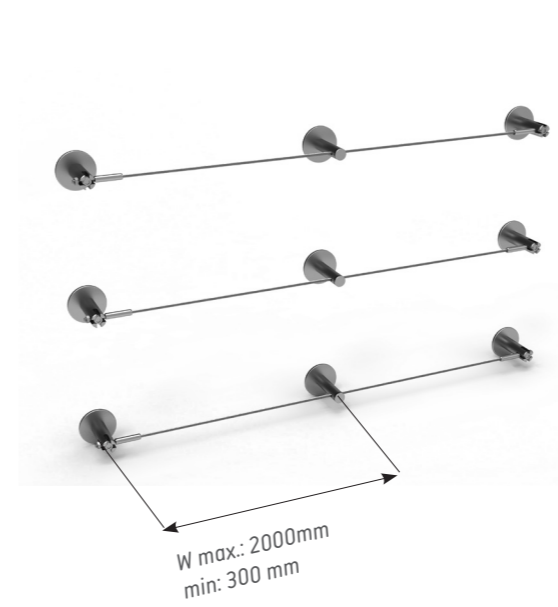
System 1  
I-NET Frame System



System 2  
I-NET Frame System with I-ROPE



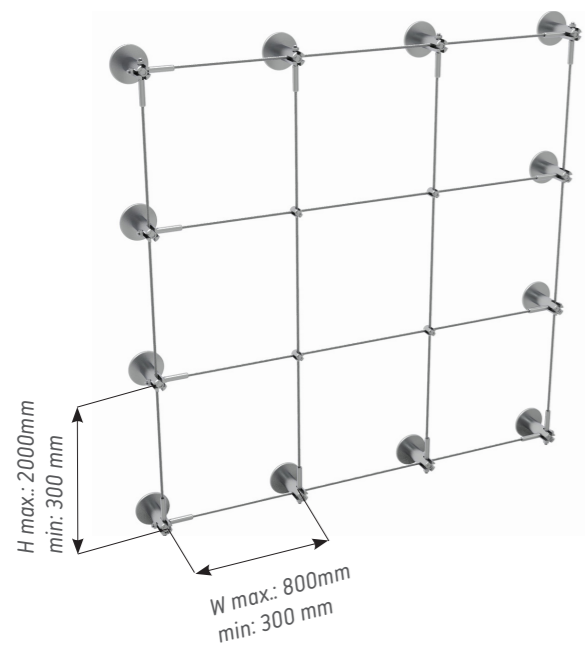
System 5  
I-ROPE Horizontal System



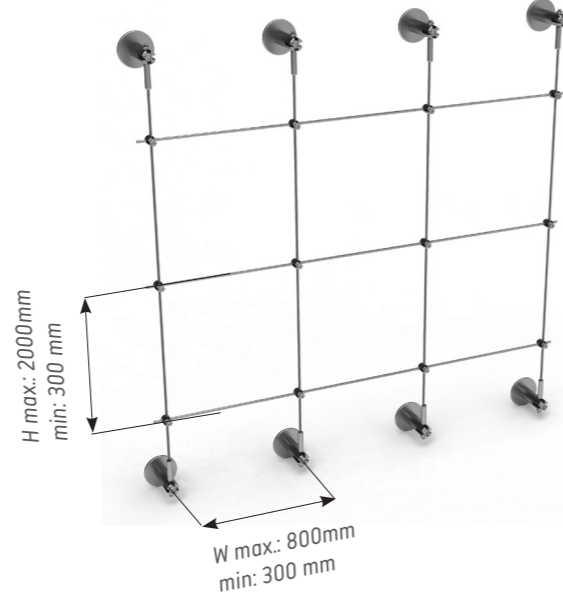
System 6  
I-ROPE Vertical System



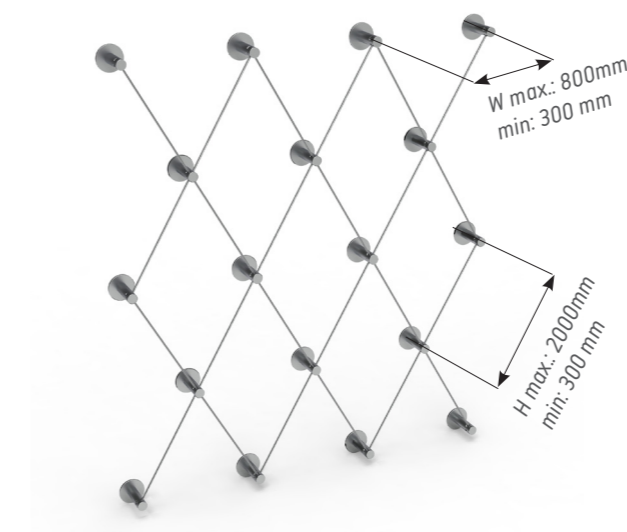
System 3  
I-ROPE Grid System 1



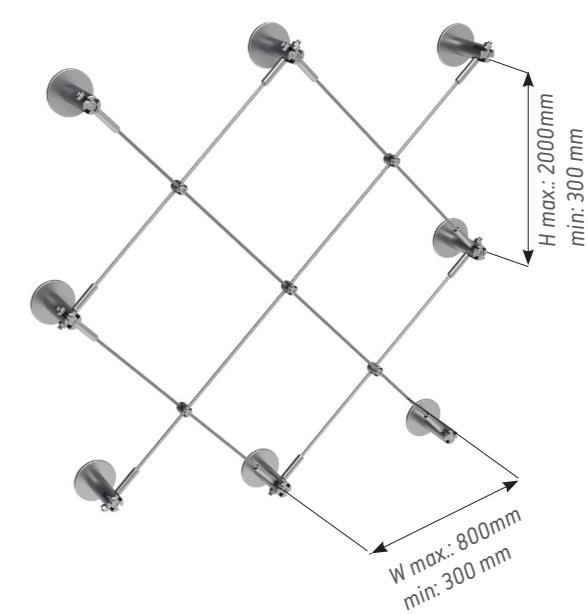
System 4  
I-ROPE Grid System 2



System 7  
I-ROPE Diagonal System 1



System 8  
I-ROPE Diagonal System 2



# INSTALLATION ACCESSORIES AND EQUIPMENTS

## Fixing components

### CONCRETE ANCHOR



Part Number	Thread	Length (mm)
922-006-00	M6	65
922-008-00	M8	70
922-010-00	M10	83
922-012-00	M12	100

Material AISI 316

### AERATED CONCRETE ANCHOR



Part Number	Thread	Length (mm)
923-006-00	M6	70
923-008-00	M8	70
923-010-00	M10	70

Material AISI 316

### ANCHOR SYSTEM FOR CONCRETE



Part Number	Dimension	Length (mm)	Description
921-006-00	M6	60	including M6 threaded rod, hexagon nut and washer
921-008-00	M8	80	including M8 threaded rod, hexagon nut and washer
921-010-00	M10	100	including M10 threaded rod, hexagon nut and washer
921-012-00	M12	120	including M12 threaded rod, hexagon nut and washer
951-100-01	300ml		HIT-1 / HIT-1 CE / Adhesive anchor injection mortar
952-170-01	330ml		HIT- HY 170 / Adhesive anchor injection mortar

### ANCHOR SYSTEM FOR MASONRY



Part Number	Dimension	Description
924-016-50	16 x 50	HIT-SC / 16 x 50mm mesh sleeve
924-016-85	16 x 85	HIT-SC / 16 x 85mm mesh sleeve
953-270-00	330ml	HIT- HY 270 / Adhesive anchor injection mortar for masonry
950-000-01		HDM / Manual Dispenser gun
950-000-02		HR-RE / Mixing nozzle



### THERMO ANCHOR WITH PERFORATED SLEEVE



Part Number	Dimensions in mm				
	A	B	C	D	E
925-010-330	M10	330	150	170	15
925-012-330	M12	330	150	170	15
925-010-370	M10	370	150	210	15
925-012-370	M12	370	150	210	15



Part Number	Description
954-330-00	HIT-MM Plus 330/2 Adhesive anchor injection mortar
955-275-00	HFX 275/2 Adhesive anchor injection mortar



### THREAD LOCK FLUID

Part Number	Dimension	Description
956-243-10	10ml	Loctite 243 for locking and sealing the thread fasteners service temperature -55°C to 150 °C
956-243-50	50ml	

### SCREW FOR WOOD



Part Number	Thread	Length (mm)
916-006-00	M6	25
916-008-00	M8	30
916-010-00	M10	40

### PLASTIC TIES



Part Number	Dimensions (mm)
INT-601-160	4,5x160
INT-601-300	4,5x300

### PLASTIC ENDCAP



Part Number	Rope Dia (mm)
INT-602-004	4
INT-602-006	6

## Tools and Equipments



### PLIER WRENCH

Part Number	Rope Dia (in mm)	Dimensions (mm)	Weight (in gr)
INT-080-250	1,5, 2, 3	250 x 75 x 28	525



### CABLE CUTTER

Part Number	Rope Dia (in mm)	Dimensions (mm)	Weight (in gr)
INT-740-012	1 to 4	200 x 47 x 15	263



### CABLE CUTTER

Part Number	Rope Dia (in mm)	Dimensions (mm)	Weight (in gr)
INT-760-012	4 to 12	-	1500



### DREMEL

Part Number	Rope Dia (in mm)	Dimensions (mm)	Weight (in gr)
INT-300-225	All	191 x 64 x 51	2070



### MANUAL CRIMPING TOOL

Part Number	Rope Dia (in mm)	Dimensions (mm)	Weight (in gr)
INT-975-206	1,5 and 2	250 x 70 x 25	565



### MANUAL CRIMPING TOOL DIES

Part Number	Rope Dia (in mm)	Dimensions (mm)	Weight (in gr)
INT-975-015-00	1,5	30 x 14 x 9	17
INT-975-020-00	2	30 x 14 x 9	17



### HYDROLIC CRIMPING TOOL

Part Number	Rope Dia (in mm)	Dimensions (mm)	Weight (in gr)
INT-976-175	1,5, 2, 3	-	3000

### HYDROLIC CRIMPING DIES

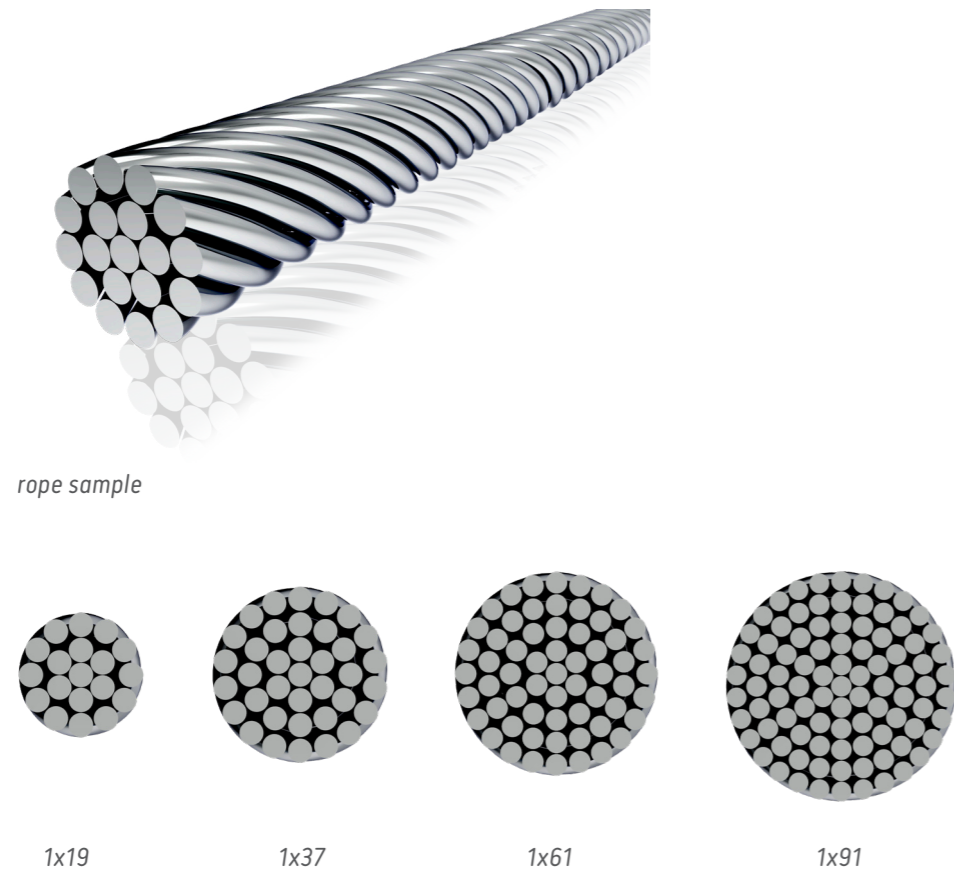
Part Number	Rope Dia (in mm)	Description	Dimensions (mm)	Weight (in gr)
INT-976-015-01	1,5	for I-NET ferrules	42 x 22	235
INT-976-020-01	2	for I-NET ferrules	42 x 22	235
INT-976-030-01	3	for I-NET ferrules	42 x 22	235
INT-976-015-02	1,5	for I-NET eyelets	42 x 22	235
INT-976-020-02	2	for I-NET eyelets	42 x 22	235
INT-976-030-02	3	for I-NET eyelets	42 x 22	235
INT-976-040-03	4	for I-ROPE fittings	42 x 22	235
INT-976-060-03	6	for I-ROPE fittings	42 x 22	235
INT-976-080-03	8	for I-ROPE fittings	42 x 22	235



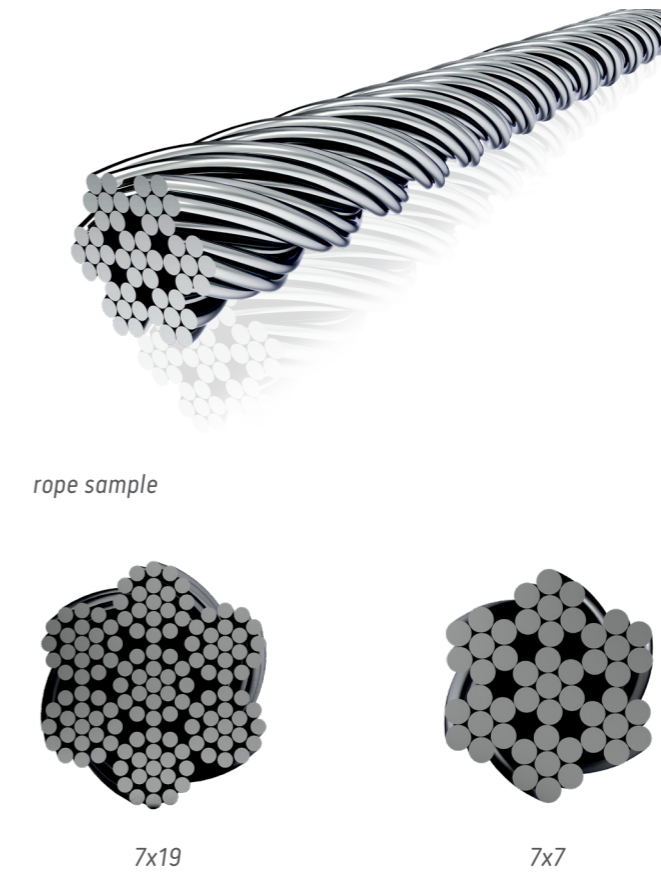


## CHARACTERISTICS OF WIRE ROPES

### Explanation and Application of Wire Ropes



Type of Wire Rope	Explanation
Spiral Ropes	Consist of several layers of individual round wires. They are manufactured from stainless steel wire. If an open spiral rope forms part of a strand rope, it is called "strand". The designation of the various types of wire rope constructions depends on the number of wires in the rope cross section.
Type of Wire Rope	Applications
Spiral Ropes	Carrier cables for lightweight membran structures, Carrier/tensioning cables in cable nets, Carrier cables for light suspension bridges, Hanger cables for suspension bridges, Balustrade cables for suspension bridges, Bottom flange cables for load-bearing structures.



Type of Wire Rope	Explanation
Strand Ropes	Wire ropes consist of a number of strands twisted together. This construction makes them very flexible. The code for this type of wire depends on the number of strands and the number of wires per strand.
Type of Wire Rope	Applications
Strand Ropes	Tensioning cables for lightweight membran structures, Hanger cables for suspension bridges, Balustrade cables for bridges, Bottom flange cables for load-bearing structures, Cross-bracing structures.

## Technical Information About Wire Ropes

**SPIRAL / STRAND ROPE** DIN EN 12385-10

**Material** : Stainless steel wire 1.4401 (AISI 316) to DIN EN 10264-4

**Modulus of Elasticity** : 130 kN/mm<sup>2</sup> ± 10 kN/mm<sup>2</sup>

**Tolerance on Diameter** : 0% / +3%

**Socketing** : D= 4-40mm Swaging

Rope Ø mm	Minimum Breaking Force F <sub>min</sub> [kN]	Charact. Breaking Force F <sub>uk</sub> (1) [kN]	Tension Strength FRd (2) [kN]	Metallic Cross Section A [mm <sup>2</sup> ]	Stiffness EA [MN]	Weight [kg/m]
4	13	11.8	7.2	10	1.28	0.1
6	27	24.3	14.7	22	2.86	0.2
8	49	44.1	26.7	39	5.07	0.3
10	76	68.4	41.5	60.7	7.9	0.5
12	110	99	60	88	11.4	0.7
14	149	134.1	81.3	120	15.5	1
16	206	185.4	112.4	154	20.1	1.3
18	261	234.9	142.4	197	25.6	1.6
20	322	289.8	175.6	244	31.7	2
22	389	350.1	212.2	293	38.1	2.4
24	463	416.7	252.5	350	45.5	2.9
26	544	489.6	296.7	410	53.3	3.4
28	629	566.1	343.1	474	61.6	3.9
30	724	651.6	394.9	545	70.8	4.5
32	824	741.6	449.5	618	80.4	5.1
34	929	836.1	506.7	701	91.1	5.8
36	1042	937.8	568.4	784	102	6.5
38	1086	977.4	592.4	838	109	6.9
40	1198	1078.2	653.5	929	121	7.7

*F<sub>min</sub>*: Minimum Breaking Force.

*F<sub>uk</sub>*: Breaking Strength of Wire Ropes Inc. End Connectors.

*FRd*: Limit Tension Resistance of the Wire Ropes Inc. End Connectors.

*ke*: Loss Factor.

$$F_{uk} = F_{min} \times k_e$$

$$FRd = (F_{min} \times k_e) / 1,65$$

$$k_e = 0,9 \text{ (swaged fitting)}$$



## OVERVIEW OF STAINLESS STEEL

### Material

Stainless steel is an iron-based alloy which contains 10,5% chromium. This element keeps it self stain proof by creating a chromium-oxide layer on the surface of the material.

316 is a type of austenitic stainless steel which is a popular grade as 304 with a higher corrosion resistance.

Different to 304 it contains Molybdenum and higher Nickel as well as Chromium contents. Since inox-net® products are used widely in outer weather conditions, inox-net® prefers 316 grade because of its better resistance to chemicals and chlorides (like salt). 316L has a better corrosion resistance and welding behaviour containing less Carbon. 316Ti has a better corrosion resistance compared to 316L with its Titanium content and higher friction resistance.

On the other hand Duplex stainless steel has both better corrosion and mechanical properties than 316L and 316Ti. This inox-net® prefers duplex stainless steel for the individual properties requested by special projects.

### MATERIAL GROUPS

	EN 10088-3		AISI	Cmax.	Cr	Ni	Div	Type
AISI 316 group	1.4401	X5CrNiMo17-12-2	316	0.07	18	10		Austenitic
	1.4404	X2CrNiMo17-12-2	316L	0.03	17	11	Mo	Austenitic
	1.4408	GXCrNiMo19-11-2		0.07	19	10		Austenitic
	1.4435	X2CrNiMo18-14-3	316L	0.03	18	12		Austenitic
	1.4571	X6CrNiMoTi17-12-2	316Ti	0.1	18	10	Ti	Austenitic
Duplex group	1.4462	X2CrNiMoN22-5-3	2205	0.03	21-23	4,5-6,5	Mo	Austenitic-Ferritic
	1.4410	X2CrNiMoN25-7-4	2507	0.03	24-26	6-8	Mo	Austenitic-Ferritic
Designation	European		USA	Carbon	Chromium	Nickel	Ti = Titanium	
	Standard		Standard				Mo = Molybdenum	

### CRITERIA OF DIFFERENTIATION AISI 316 / DUPLEX

	AISI 316		Duplex
Material Number	1.4401	1.4404	1.4462
	1.4408	1.4435	1.4410
	1.4436	1.4571	
Properties	weather-proof		weather-proof
	highly acid-resistant	highly acid and corrosion resistant highly resistant to aqueous environment and seawater higher mechanical properties	



## Corrosion

Although stainless steel is resistant to corrosion by its self-passivation mechanism rust may occur in some situations.

Some reasons of rust;

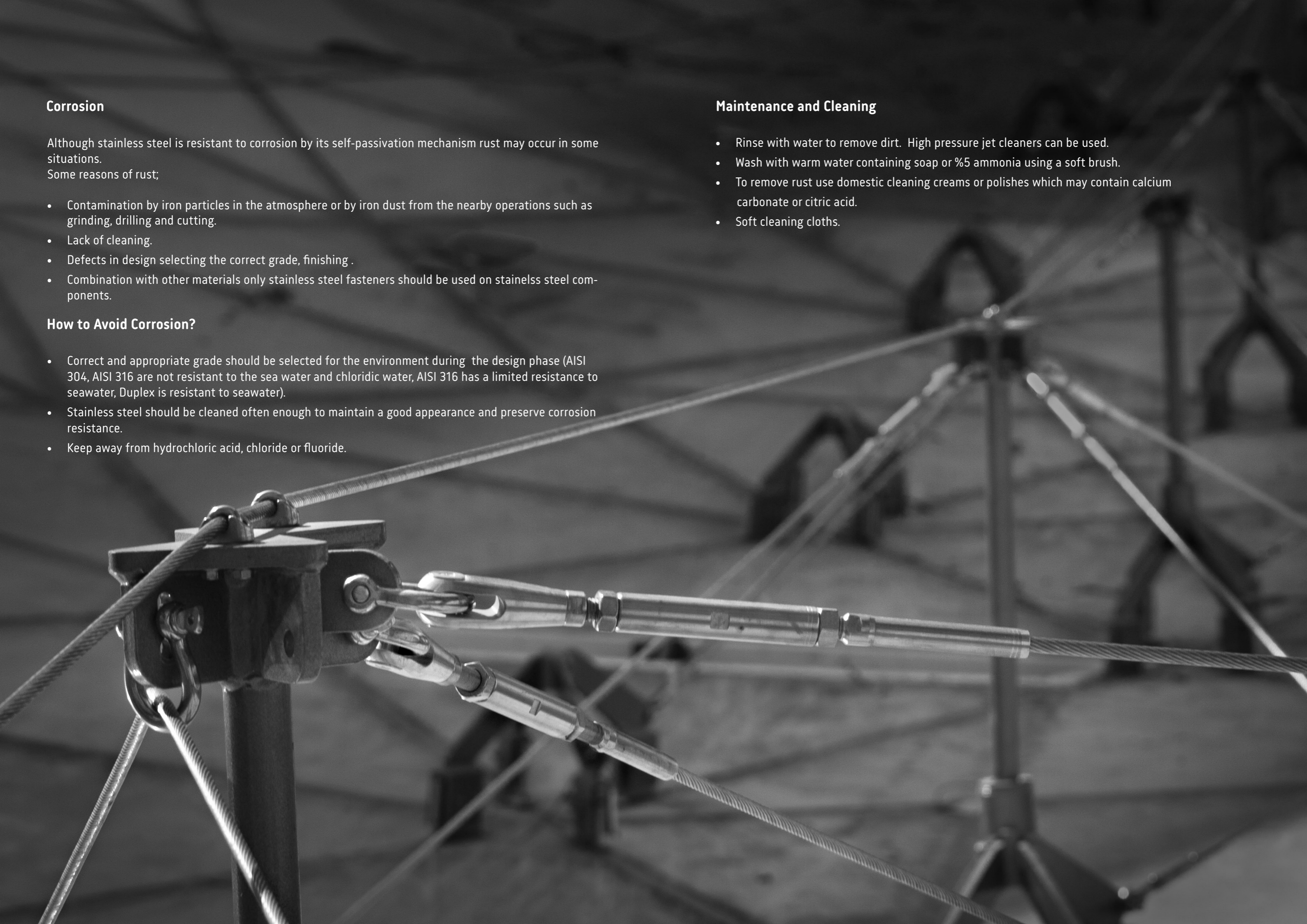
- Contamination by iron particles in the atmosphere or by iron dust from the nearby operations such as grinding, drilling and cutting.
- Lack of cleaning.
- Defects in design selecting the correct grade, finishing .
- Combination with other materials only stainless steel fasteners should be used on stainless steel components.

## How to Avoid Corrosion?

- Correct and appropriate grade should be selected for the environment during the design phase (AISI 304, AISI 316 are not resistant to the sea water and chloridic water, AISI 316 has a limited resistance to seawater, Duplex is resistant to seawater).
- Stainless steel should be cleaned often enough to maintain a good appearance and preserve corrosion resistance.
- Keep away from hydrochloric acid, chloride or fluoride.

## Maintenance and Cleaning

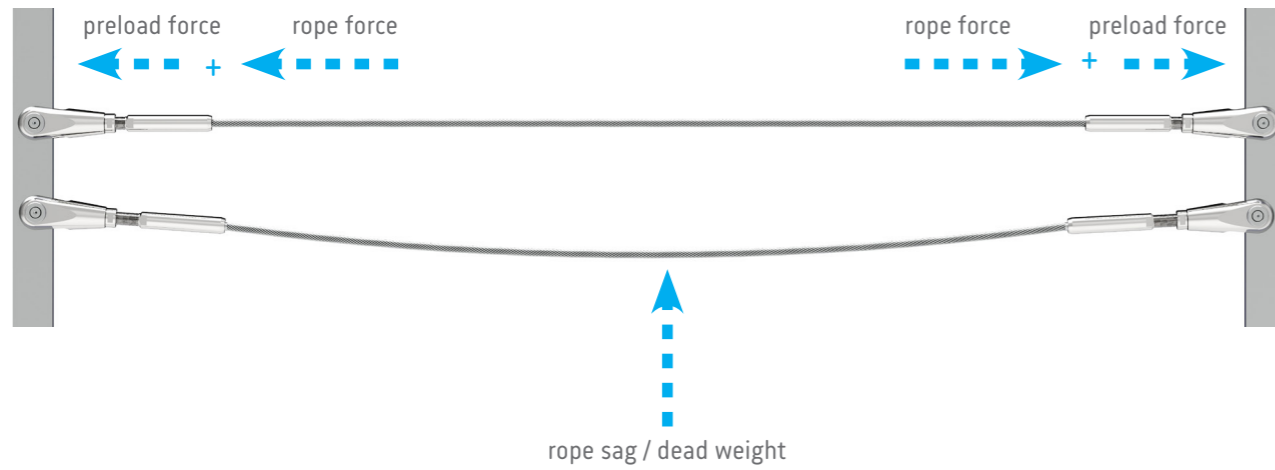
- Rinse with water to remove dirt. High pressure jet cleaners can be used.
- Wash with warm water containing soap or %5 ammonia using a soft brush.
- To remove rust use domestic cleaning creams or polishes which may contain calcium carbonate or citric acid.
- Soft cleaning cloths.



## TECHNICAL TIPS

### Rope Forces and Tensioning

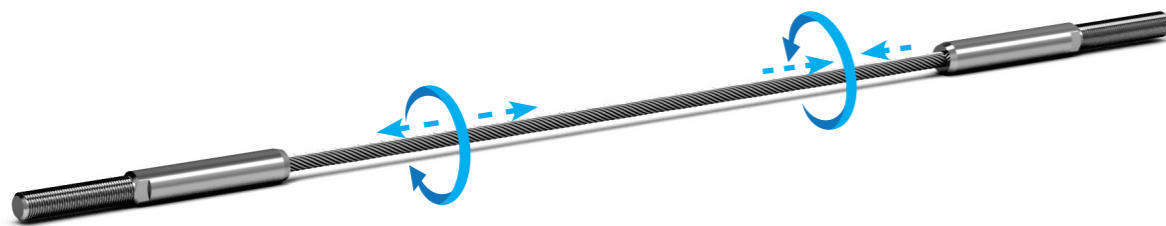
To make up an effective total, rope force and preload force should be applied as a combination. The ropes are held by means of fittings such as end stops and nuts. The length of the rope can be adjusted by the help of this joints.



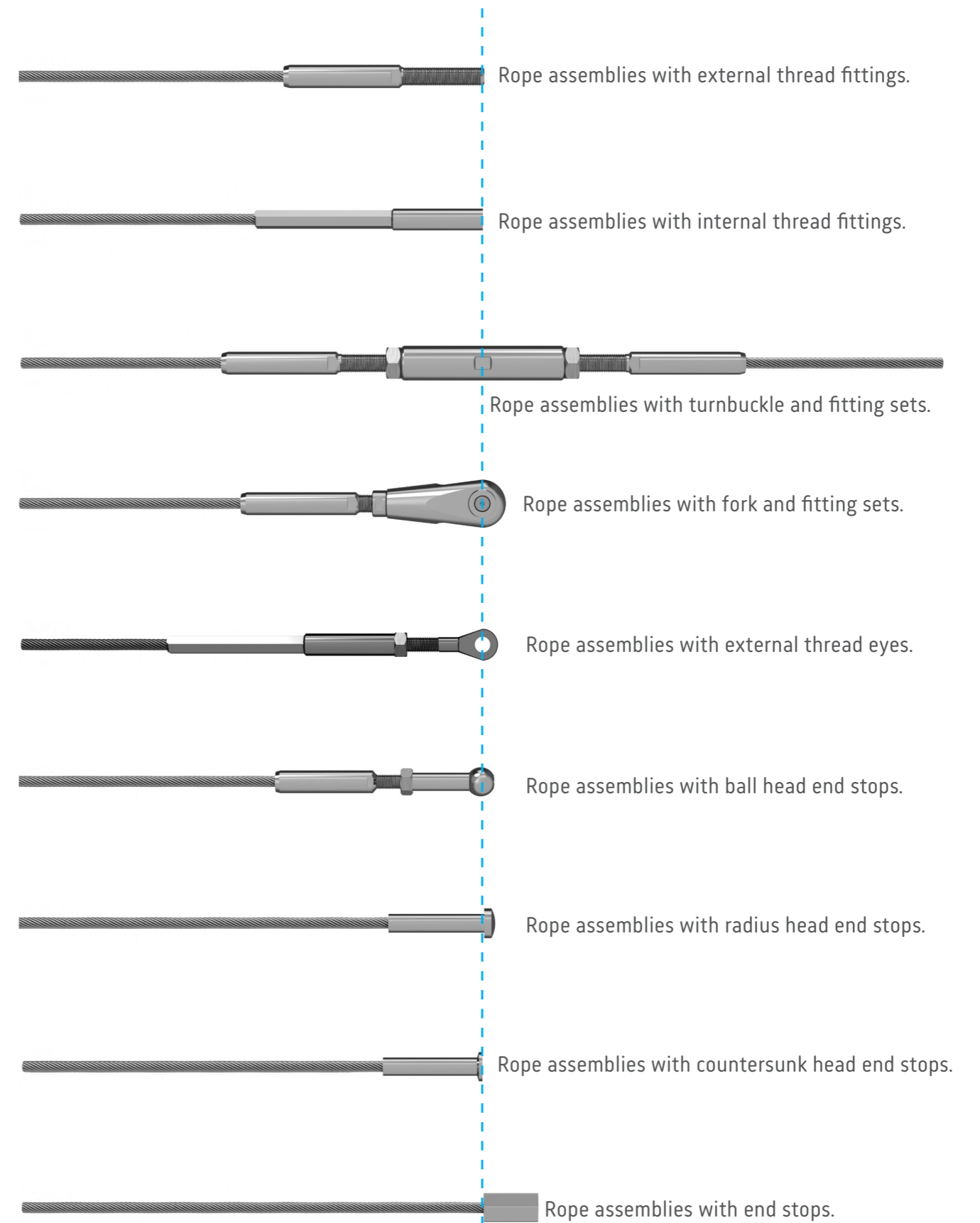
### Tightening and Loosening Description of Rope System

#### Right Hand / Left Hand Thread

Where it is not possible to tension the rope from outside then a rope configuration with right hand /left hand thread should be used. The tensioning and releasing is effected by turning the entire rope. Both side right or both side left hand thread is used where the rope can be tensioned from outside.



## ASSEMBLY LENGTHS



\*reference line for production dimension

## QUALITY CERTIFICATES AND PERFORMANCE TESTS

We are committed of the critical importance of material, system, and management quality in every stage of production. To ensure the highest standards, we carry out all necessary tests and procedures, systematically completing each step to guarantee the safety, durability, and performance of our products. Our commitment to continuous improvement ensures that every product we offer meets rigorous quality requirements, providing reliability in both architectural and industrial applications.

### Currently hold certificates;

ISO 9001:2015

ISO 14001:2015

ISO 45001:2018

EN 1090-1:2009+A1:2011 system 2+

### Our products undergo extensive performance testing, including,

Drop Tests, for Safety Nets, according to EN 1263-1:2002-07

Pendulum tests, for balustrade infills, according to EN 12600:2003-04

Tensile strength tests, for wire ropes, according to EN 12385-1:2009-01 / EN 10264-4:2002-11

Corrosion tests according to EN ISO 12944-2-1998-07 / EN ISO 12944-6-1998-07



## OUR GOALS

As inoxnet® we have recently begun establishing new services in Turkey, however our factory and office goals are:

- Our goals as a company is to introduce our products within Turkey and the world. To provide our best services putting our product quality in the forefront while always ensuring customer satisfaction.
- Being the preferred company due to its professional management, which delivers absolute quality both at home and abroad,
- Being the first choice company by creating a working environment where employees are happily working as a member of the inoxnet® family.
- To demonstrate our quality all over the world, to increase our reputation and to expand our core competencies and competitiveness while competing,
- To continuously improve our research and development activities for a portfolio containing economic, high-quality and innovative products.

**INOKSNET YAPI SİSTEMLERİ SAN. DIŞ. TİC. A.Ş.**

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