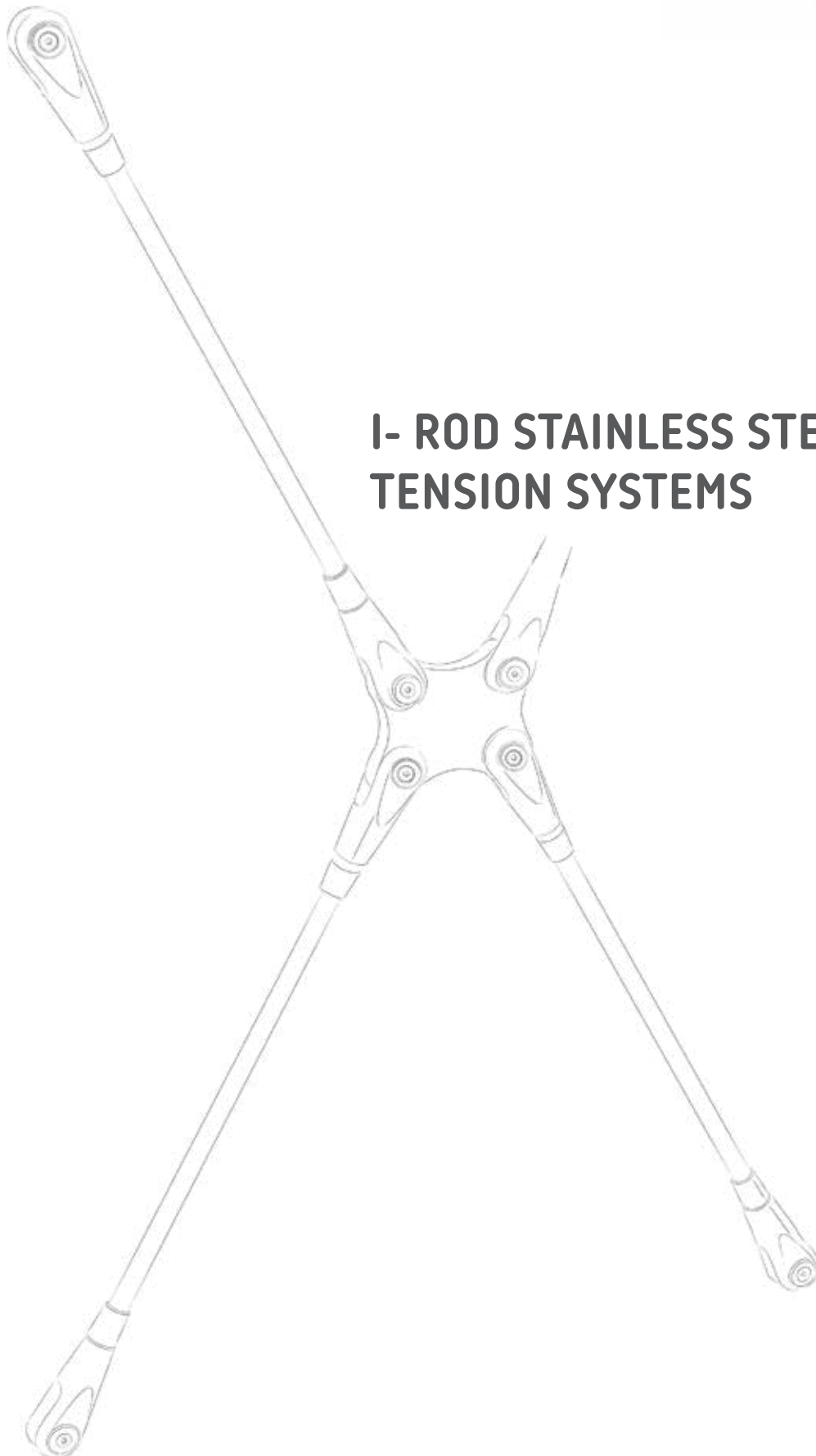


**I- ROD STAINLESS STEEL
TENSION SYSTEMS**





CONTENT

PAGE

• Who we are ?	
Our Company	-4-
• What we do ?	
Consulting	-5-
Planning & Design	-6-
Static Calculations	-7-
Production	-7-
Installation	-8/9-
• I-ROD Tension Systems	-11-
Technical Details	
Fork	-12-
Both Side Fork Set	-12-
Turnbuckle	-13-
Both Side Fork with Turnbuckle Set	-13-
• Overview of Stainless Steel	
Material	-14-
Corrosion	-16-
Maintenance & Cleaning	-17-
• Our Goals	-19-



- **Who we are ?**

INOX-NET is a young and dynamic company specializing in architectural stainless steel net and rope systems. Our aim is to provide innovative, cost-effective, environmentally friendly, and long-lasting products with excellent quality. Stainless Steel Net and Rope Systems provide suitable solutions for many types of architectural projects by their features such as flexibility, durability, high quality, and lightweight.

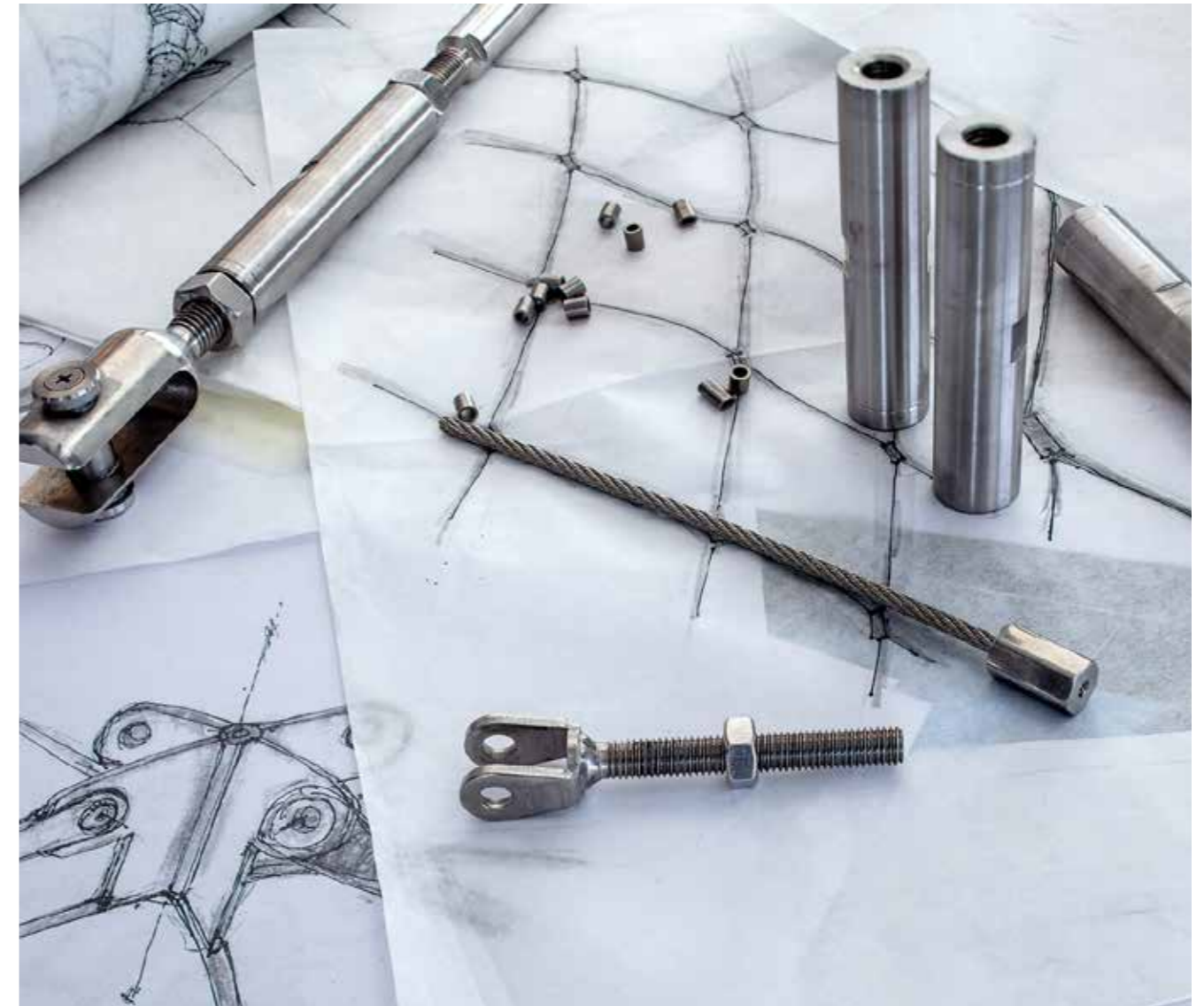
INOX-NET is interested to be your solution partner from the smallest volume individual projects to the most unique and challenging projects from all over the world.

Our Company ;

INOX-NET is experienced in architectural applications involving stainless steel net and rope systems. We provide services and solutions in many architectural projects ranging from balustrades, safety nets, facades, greenery, decoration and zoo enclosures.

- **What we do ?**

INOX-NET provides A to Z services from consulting, design and planning, static calculations to production and installation for customers all over the world who want to give life to their innovative ideas and imaginations.



Consulting ;

We provide consultancy services to architects, architectural design offices and contractors to fulfill their needs and guide their imagination. The consulting service we provide begins from the first idea of the architectural design project and lasts through the planning stage to the realization stage. We are always happy to share our ideas with you whether through phone, via email, or if you like face to face in our offices.

Planning & Design

The INOX-NET planning process includes:

- **DESIGN AND SYSTEM DEVELOPMENT,**
- **PLANNING SUPPORT,**
- **ADMINISTRATIVE PLANNING,**
- **PROJECT APPLICATION FOR ROPES, NETS AND STEEL WORKS,**
- **INSTALLATION PLANNING.**

INOX-NET services are always customer focused and our specialists are actively involved in the whole process from the beginning. Besides providing standard products, INOX-NET also provides custom design stainless steel net and stainless steel rope application concepts if so desired.



Static Calculations

INOX-NET can perform structural static calculations for all kinds of stainless steel net and rope projects when needed.

Our static analysis services are:

- **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

After approval of the production drawings, they are delivered to the production department and productions start immediately according to these plans. Each net part is produced according to the desired measurements, diamond direction, and net ending features. I-ROPE systems are also produced by taking attention to the pin to pin measurements and pre-tension loads resulting from the static calculations.



Installation

- Self-Assembly by the customer,
- Installation training,
- Installation support.
- Installation supervision,
- Turn-key installation by INOX-NET.

According to customer preference, INOX-NET 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

BEHIND EVERY INNOVATIVE PRODUCT

THERE IS A CREATIVE SOLUTION.

I-ROD TENSION SYSTEMS



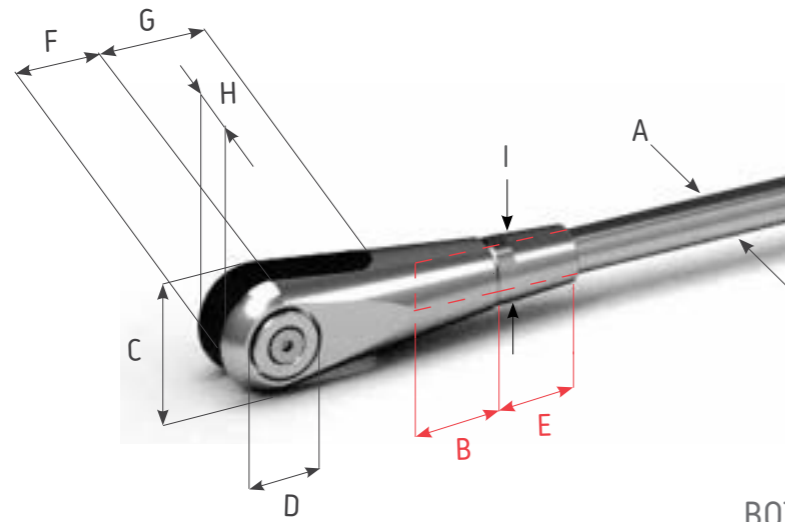
Rod systems are used in many fields of applications such as canopies, bracing of glass façades, bridge constructions and pedestrian bridges, as well as bus stations and airport buildings. INOX-NET I-ROD systems are suited for a wide range of applications from M10 up to M30 sizes with individual rod lengths up to 6m. All systems are delivered pre-assembled and ready for installation.

TECHNICAL DETAILS

FORK

Part Number	System Thread	Rod Ø mm	Dimensions in mm							
			A	B	C	D	E	F	G	H
IRD-610-010-00	M10	10	20	25.7	10	20	12.9	19.7	11	15
IRD-610-012-00	M12	12	24	29.7	12	23	14.8	22	12	18
IRD-610-016-00	M16	16	32	39.6	18	28	19.8	29.3	16	24
IRD-610-020-00	M20	20	40	52.6	20	35	26.3	38.7	16	28
IRD-610-024-00	M24	25	48	60.1	26	42	30	45	22	35
IRD-610-027-00	M27	28	55	66.5	28	47	34.1	48.2	22	36
IRD-610-030-00	M30	30	60	75.9	30	53	37.9	55	22	40

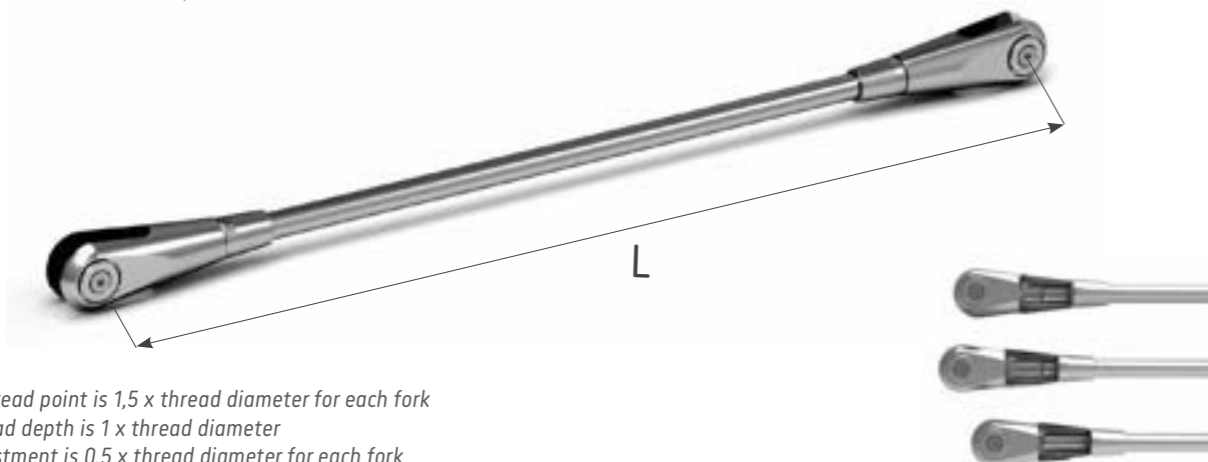
Material AISI 316 L / 1.4462 Duplex



BOTH SIDE FORK SET

Set Number	System Thread	Rod Ø A(mm)	Max. Rod Length (mm)	Max. Set Length (L) max.(mm)	Min. Set Length (L) min.(mm)	Length Adjustment L +/- (mm)
IRDS-601-010	M10	10	6000	6084	294	10
IRDS-601-012	M12	12	6000	6096	316	12
IRDS-601-016	M16	16	6000	6128	366	16
IRDS-601-020	M20	20	6000	6170	480	20
IRDS-601-024	M24	25	6000	6192	524	24
IRDS-601-027	M27	28	6000	6217	615	28
IRDS-601-030	M30	30	6000	6240	656	30

Material AISI 316 L / 1.4462 Duplex

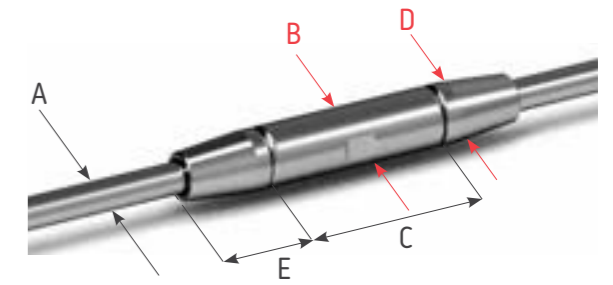


set up thread point is 1,5 x thread diameter for each fork
min. thread depth is 1 x thread diameter
fork adjustment is 0,5 x thread diameter for each fork

TURNBUCKLE

Part Number	System Thread	Rod Ø mm	Dimensions in mm				
			A	B	C	D	E
IRD-620-010-00	M10	10	19	65	19	27	
IRD-620-012-00	M12	12	20	71	20	30	
IRD-620-016-00	M16	16	28	79	28	37	
IRD-620-020-00	M20	20	38	85	38	47	
IRD-620-024-00	M24	25	40	105	40	58	
IRD-620-027-00	M27	28	45	109	45	62	
IRD-620-030-00	M30	30	50	145	50	65	

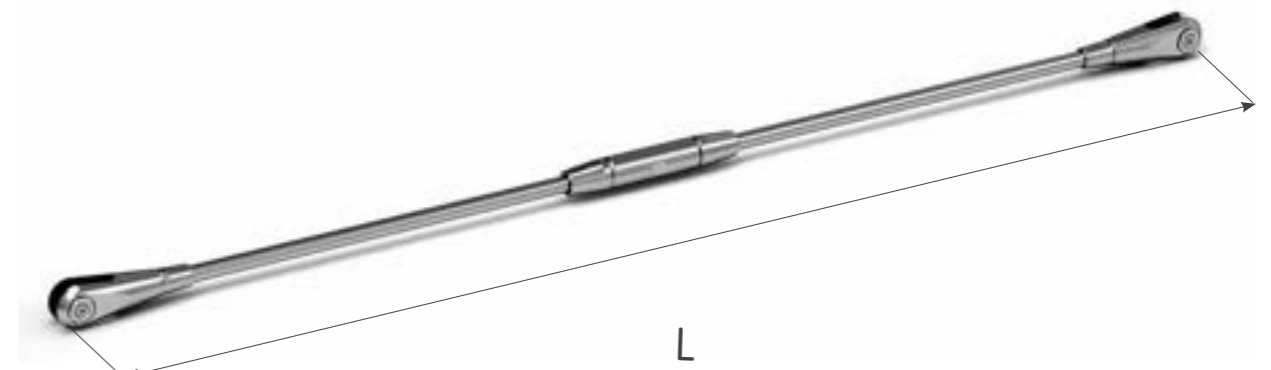
Material AISI 316 L / 1.4462 Duplex



BOTH SIDE FORK WITH TURNBUCKLE SET

Set Number	System Thread	Rod Ø A(mm)	Max. Rod Length (mm)	Max. Set Length (L) max.(mm)	Min. Set Length (L) min.(mm)	Length Adjustment L +/- (mm)
IRDS-602-010	M10	10	6000	12129	563	30
IRDS-602-012	M12	12	6000	12141	597	32
IRDS-602-016	M16	16	6000	12175	669	36
IRDS-602-020	M20	20	6000	12215	859	40
IRDS-602-024	M24	25	6000	12249	945	49
IRDS-602-027	M27	28	6000	12272	1098	53
IRDS-602-030	M30	30	6000	12325	1181	70

Material AISI 316 L / 1.4462 Duplex



Material AISI 316 L / 1.4462 Duplex

set up thread point is "thread diameter + 10 mm" for each side of turnbuckle for M10-M20
"thread diameter + 12,5 mm" for each side of turnbuckle for M24-M27
"thread diameter + 20 mm" for each side of turnbuckle for M30
min. thread depth is 1 x thread diameter
turnbuckle adjustment is "+/- 20mm" for M10-M20
"+/- 25mm" for M24-M27
"+/- 40mm" for M30



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. Thus 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;

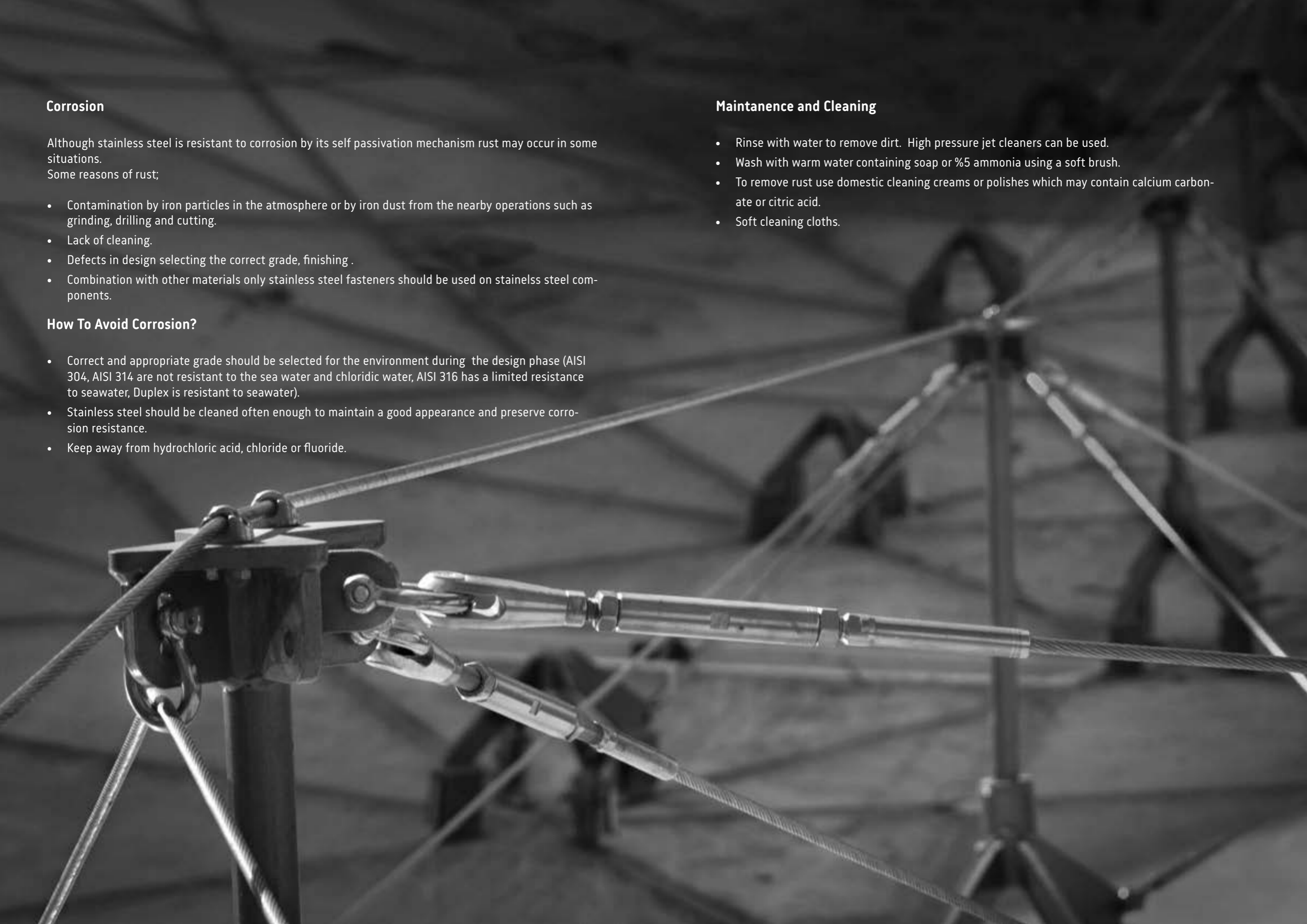
- Contamination by iron particles in the atmosphere or by iron dust from the nearby operations such as grinding, drilling and cutting.
- Lack of cleaning.
- Defects in design selecting the correct grade, finishing .
- Combination with other materials only stainless steel fasteners should be used on stainless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





OUR GOALS

As INOX-NET 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 INOX-NET 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.

