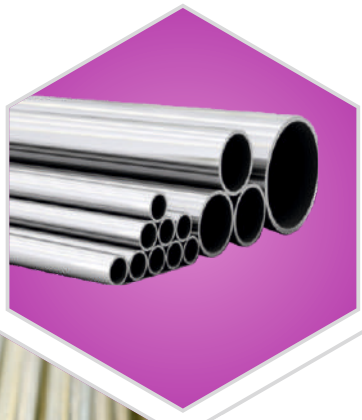
D-U-N-S
91-735-0832

SAINEST TUBES PVT. LTD.

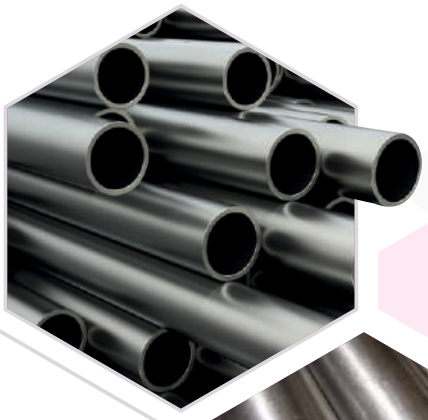
Precision Seamless Carbon Steel & Alloy Steel Tubes Manufacturer

Cold-drawn seamless Bright / Semi Bright Automotive and Hydraulic Tubes

Hydraulic Tubes



Automotive Tubes



Passivated Tubes

Mechanical Tubes

Ready to Hone
Hydraulic Cylinder Tubes

100% SOLUTIONS

(Well known Tube / Pipe Maker under the Indian Boiler Regulations Act 1950)

www.sainest.com info@sainest.com

TÜV NORD TUV India Private Ltd. ISO 9001 IATF 16949

TÜV NORD TUV India Private Ltd. ISO 14001 ISO 45001

SAINEST TUBES PVT. LTD.

Precision Seamless Carbon Steel & Alloy Steel Tubes Manufacturer

ABOUT US

SAINEST TUBES PVT. LTD. [STPL] is a leading manufacturer & exporter of Carbon steel & Alloy Steel Tubes & Pipes, established in December 1988. It is located 40 kms. away from Ahmedabad at Chhatral. Dist. Gandhinagar, Gujarat (India).

Sainest is established & managed by

- Mr. Ishwar P. Bajaj
- Mr. Parshottam C. Bellani
- Mr. Nari M. Matai
- Mr. Siddharth I. Bajaj
- Mr. Kaushal P. Bellani

"SAINEST USES ADVANCED TECHNOLOGY, MODERN PRODUCTION PROCESS AND THE LATEST PLANT & MACHINERY"

We have gained an enviable track record of growth over the years. We are determined to win patronage of discerning customers by our professional approach, to ensure that we meet all of their requirements. We are committed to consistent quality in products and services to customers at the all times. To ensure quality product & process control at all stages, we take the following steps:

1. Use of prime quality raw materials
2. Well defined process & quality control, at each stage of manufacturing
3. Upgrading technical capabilities
4. Self motivated and dedicated employees
5. Implementation of international quality managements for continual improvement

OUR VISION

To be the Most-Responsive Supplier of World-Class Quality Steel Tubes.

OUR MISSION

We strive to manufacture World-Class Quality Carbon & Alloy Steel Seamless Tubes & Pipes with Prompt Delivery & 100% Customer Satisfaction.

CORE VALUES

1. Integrity
2. Excellence
3. Commitment
4. Inspiration

CORE PURPOSE

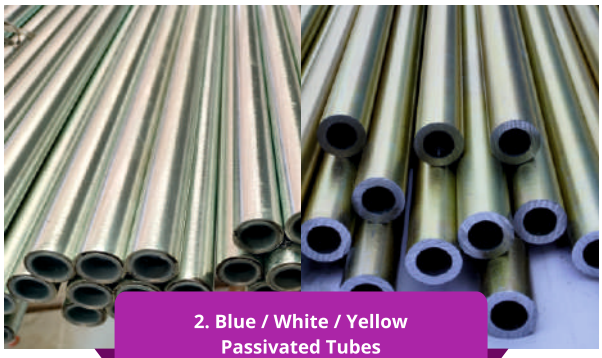
To make people safe, secure, prosperous & happy by delivering unmatchable world class solutions.

OUR STRENGTHS

1. Better quality due to scale free tubes processed by Bright Annealing Furnace.
2. Faster deliveries and quick response for shut down jobs.
3. Certified Manufacturers: **IATF 16949 (Automotive), ISO 9001 (Quality), ISO 14001 (Environment),ISO 45001 (Health & Safety)**
4. AD 2000-Merkblatt WO / PED (For Export to European Countries)
5. We implement lean manufacturing system principles.
6. We have controlled atmosphere furnace, hence we avoid final stage pickling of Tubes in HCL acid, which increases the life of tubes.
7. One of the biggest Cold Drawn Carbon Steel Tubes manufacturers in India.
8. We manufacture large range of seamless tubes and pipes, U-bend tubes and Fin tubes under one roof.

PRODUCTS

1. Bright Annealed and Semi Bright Hydraulic and Automotive Rubes



2. Blue / White / Yellow Passivated Tubes

3. Mechanical Tubes

4. Ready to Hone Hydraulic Cylinder Tubes

MANUFACTURING RANGE

Diameter:	**3.0 mm to 177 mm**
Thickness:	**0.5 mm to 15 mm**
Length:	**Up to 30 Mtrs.**

MARKET SEGMENTS

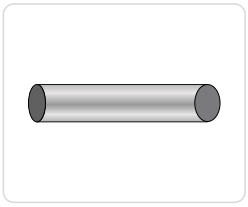
- Automobile Component Manufacturers
- Hydraulic System Manufacturers
- Mechanical Application
- Power Packs
- Construction Equipments
- Defence Equipments
- Hydraulic Presses
- Power Steering
- Needle Bearings
- CNG
- Brake Lines
- Railways
- Ship Building
- Earth Moving Equipments
- Shock Absorbers
- Piston Pins
- Bushes
- Hydraulic Cylinders

OUR VALUED CUSTOMERS

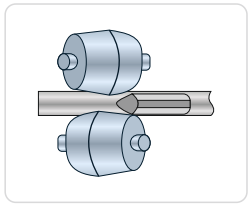
- ABB India Ltd
- Advance Weapons and Equipments India Ltd
- Ashok Leyland Ltd
- Bharat Earth Movers Ltd
- Bharat Heavy Electrical Ltd
- Bosch Rexroth
- Caterpiller Limited
- Daimler
- Doosan
- Eicher
- Hyundai Heavy Industries Co Ltd
- Imperial Auto Industries
- Kochi Shipyard Ltd
- Larsen & Toubro Ltd
- Mahindra & Mahindra
- Putzmeister
- Sany India
- Tafe Limited
- Schwing Swetter
- Tata Hitachi
- Tata Motors Ltd.
- TVS
- Volvo

OUR INTERNATIONAL NETWORK

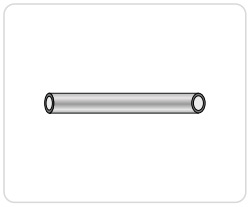
PRODUCTION PROCESS CHART



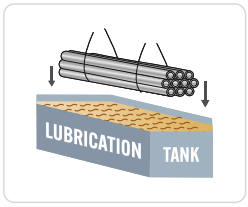
1. Round Bar



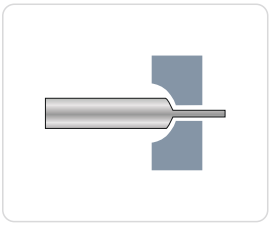
2. Piercing



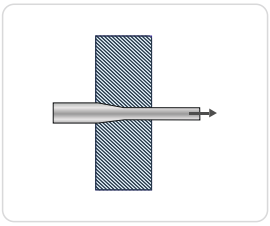
3. Seamless Mother Pipe



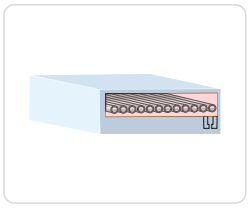
4. Lubrication



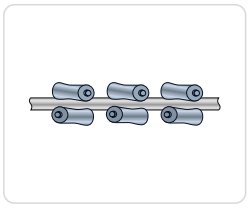
5. Pointing



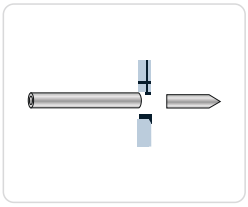
6. Cold Drawing



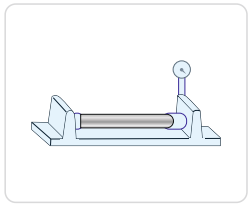
7. Heat Treatment Furnace



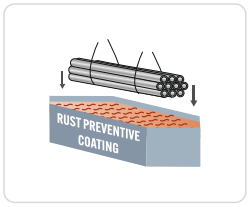
8. Straightening



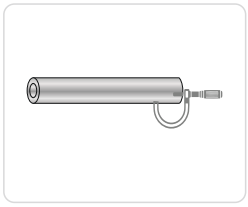
9. Cutting



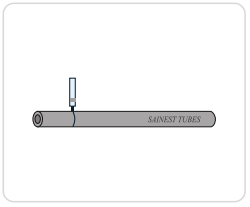
10. Hydro Test



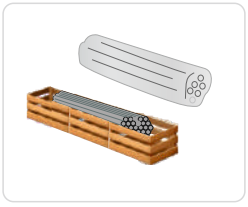
11. Rust Preventive Coating



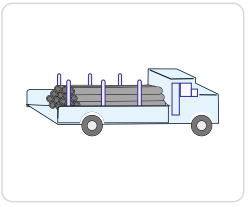
12. Inspection



13. Marking



14. Packing



15. Delivery

CERTIFICATION

ISO 9001 | ISO 14001 | ISO 45001 | IATF 16949 | PED

* We also implement Principles of lean manufacturing systems.

QUALITY TESTS

I. Dimension Check

To ensure the dimensional accuracy of OD, ID, Thickness, Length, Ovality etc.

II. Surface Check

To ensure that finished tubes are free from scale, pit marks rupture I.D. & O.D scores, roll marks, dent, etc.

III. Chemical Test

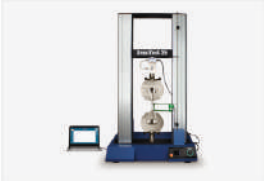
We use Spectrometer & PMI Machine to test the chemical composition and quality parameters of raw materials & the finished product.

IV. Mechanical Tests

1. Hardness Test

To test the hardness of the tubes.

2. Tensile Test

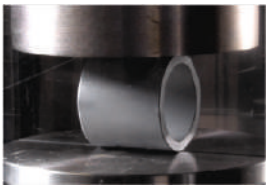


To check the tensile strength of the tubes.

3. Flaring Test

To check the ductility of material. End of tubes should be flared successfully without developing cracks.

4. Flattening Test



The test piece is determined acceptable if it stands the extreme specified compression stress without cracking.

5. Flange Test

The photo besides shows a test piece subjected to Flange Test as per standard.

6. Bend Test

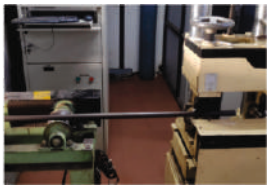
Pipes are bent at 90° to detect if any cracks are developed.

V. NON DESTRUCTIVE TEST

1. Hydro Test

100% Hydrostatic testing is carried out to check any leakage through out the tube.

2. Eddy Current Test



To detect subsurface in homogeneities from inside & outside of tubes.

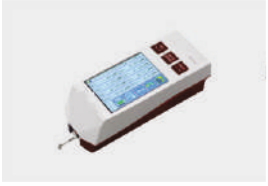
3. Utlrasonic Test

For detection of subsurface flaws and imperfections.

4. Air Under Water (Pneumatic)

This test is carried out to determine leakage in the tube.

5. Roughness Test



Roughness testing is carried out to check surface texture irregularities of the tubes and pipes.

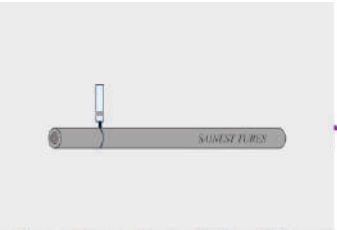
6. Boroscope Test

Boroscope testing is a visual inspection carried out to detect narrow and minor surface defects on I.D of the tubes and pipes.

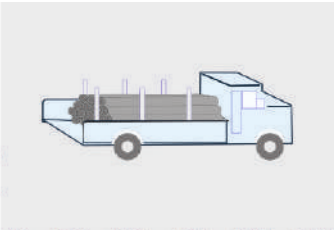
In addition to above, several other tests are carried out at the request or customers, such as micro structural examinations, grain size determination, RFET, HIC, Simulation etc. as per the specification.

DELIVERY PROCESS

MARKING



DELIVERY



PACKING

WOODEN CREATE

BUNDLE PACKING

ORDERING INFORMATION

Size	OD x THK / ID
Specification	Give the specification as mentioned in our catalogue or otherwise information required at the time of placing the order.
Application & Operation	It would be preferable if we understand your application and operation on tubes, which will help us in processing the material and understand your requirement.
Tolerance	As per specification or any specific requirement on OD / ID / THK / Length
Length	Randon Length / Fix Length / Multiples of cut lengths
Quantity	Mtrs / Nos.
Surface Condition	Bright / Semi Bright / Phosphated / Passivated
Type of Packing	HDPE / Wooden Box / Steel Crate / PVC

PRESSURE CHART

OD	THK	ID	Working Pressure (Kg/cm^2)	Burst Pressure (Kg/cm^2)	Working Pressure (Kg/cm^2)	Burst Pressure (Kg/cm^2)	OD	THK	ID	Working Pressure (Kg/cm^2)	Burst Pressure (Kg/cm^2)	Working Pressure (Kg/cm^2)	Burst Pressure (Kg/cm^2)
			St. 37.4 / E235+N		St. 52.4 / E355+N					St. 37.4 / E235+N		St. 52.4 / E355+N	
4.00	0.50	3.00	400	579	604	834	25.00	2.00	21.00	256	370	387	534
4.00	1.00	2.00	800	1157	1208	1668	25.00	2.50	20.00	320	463	483	667
6.00	0.50	5.00	267	386	403	556	25.00	3.00	19.00	384	555	580	801
6.00	1.00	4.00	533	772	806	1112	25.00	4.00	17.00	512	741	773	1067
6.00	1.50	3.00	800	1157	1208	1668	28.00	2.00	24.00	229	331	345	477
6.00	2.00	2.00	1067	1543	1611	2224	28.00	2.50	23.00	286	413	432	596
8.00	1.00	6.00	400	579	604	834	28.00	3.00	22.00	343	496	518	715
8.00	1.50	5.00	600	868	906	1251	28.00	4.00	20.00	457	661	690	953
8.00	2.00	4.00	800	1157	1208	1668	30.00	2.00	26.00	213	309	322	445
10.00	1.00	8.00	320	463	483	667	30.00	2.50	25.00	267	386	403	556
10.00	1.50	7.00	480	694	725	1001	30.00	3.00	24.00	320	463	483	667
10.00	2.00	6.00	640	926	967	1334	30.00	4.00	22.00	427	617	644	890
10.00	2.50	5.00	800	1157	1208	1668	30.00	5.00	20.00	533	772	806	1112
12.00	1.00	10.00	267	386	403	556	32.00	2.00	28.00	200	289	302	417
12.00	1.50	9.00	400	579	604	834	32.00	2.50	27.00	250	362	378	521
12.00	2.00	8.00	533	772	806	1112	32.00	3.00	26.00	300	434	453	625
12.00	2.50	7.00	667	964	1007	1390	32.00	4.00	24.00	400	579	604	834
14.00	1.50	11.00	343	496	518	715	32.00	5.00	22.00	500	723	755	1042
14.00	2.00	10.00	457	661	690	953	34.00	3.00	28.00	282	408	426	589
14.00	2.50	9.00	571	827	863	1191	34.00	4.00	26.00	376	545	569	785
15.00	1.50	12.00	320	463	483	667	34.00	5.00	24.00	471	681	711	981
15.00	2.00	11.00	427	617	644	890	35.00	3.00	29.00	274	397	414	572
15.00	2.50	10.00	533	772	806	1112	35.00	4.00	27.00	366	529	552	762
16.00	1.50	13.00	300	434	453	625	38.00	2.00	34.00	168	244	254	351
16.00	2.00	12.00	400	579	604	834	38.00	3.00	32.00	253	365	382	527
16.00	2.50	11.00	500	723	755	1042	38.00	4.00	30.00	337	487	509	702
16.00	3.00	10.00	600	868	906	1251	38.00	5.00	28.00	421	609	636	878
18.00	1.50	15.00	267	386	403	556	42.00	3.00	36.00	229	331	345	477
18.00	2.00	14.00	356	514	537	741	42.00	4.00	34.00	305	441	460	635
18.00	2.50	13.00	444	643	671	927	42.00	5.00	32.00	381	551	575	794
18.00	3.00	12.00	533	772	806	1112	48.00	3.00	42.00	200	289	302	417
20.00	1.50	17.00	240	347	363	500	48.00	4.00	40.00	267	386	403	556
20.00	2.00	16.00	320	463	483	667	48.00	5.00	38.00	333	482	503	695
20.00	2.50	15.00	400	579	604	834	48.00	6.00	36.00	400	579	604	834
20.00	3.00	14.00	480	694	725	1001	50.00	5.00	40.00	320	463	483	667
20.00	4.00	12.00	640	926	967	1334	50.00	6.00	38.00	384	555	580	801
22.00	2.00	18.00	291	421	439	606	50.00	8.00	34.00	512	741	773	1067
22.00	2.50	17.00	364	526	549	758	63.50	6.00	51.50	302	437	457	630
22.00	3.00	16.00	436	631	659	910	65.00	8.00	49.00	394	570	595	821

ASSUMPTIONS

Barlow's Formula	P = (2 x T x S)/(D x SF)	P -> Pressure (psi)
Yield Strength (St. 37.4/E235+N)	235 Mpa (Working Pressure)	T -> Thickness (Inch)
Tensile Strength (St. 37.4/E235+N)	340 Mpa (Bursting Pressure)	S -> Strength of Material (psi)
Yield Strength (St. 52.4/E355+N)	355 Mpa (Working Pressure)	D - Outside Diameter (Inch)
Yield Strength (St. 52.4/E355+N)	490 Mpa (Bursting Pressure)	SF - Safety Factory

Safety Factor = 1.50	1 Kg/Cm2 = 14.2 psi	1 MPA = 145 psi

-> What pressure is tube good for ?

-> We can only state the minimum therotical burst pressure of a particular tube at room temperature and state that the end user must decide what the safe max. working pressure should be based on this information.

-> This is because STPL can never be sure of environmental conditions in which the tube will be used or appropriate safety factor for that application.

-> Additional allowances towards other factors like corrosion, thinning of tubes while bending etc. are not considered for calculation of pressures.

STANDARD SPECIFICATION OF CARBON STEEL SEAMLESS TUBES

Specification	Grade	Chemical Composition						Mechanical Properties			
		C%	Mn%	P%	S%	Si%	Al%	Condition	Tensile Strength Mpa	Yield Strength Mpa	Elongation %
DIN 1629	ST 37.0	0.17 Max	-	0.04 Max	0.04 Max	-	-	Heat Treated	350 - 480	235 Min	25% Min
	ST 44.0	0.21 Max	-	0.04 Max	0.04 Max	-	-		420 - 550	275 Min	21% Min
	ST 52.0	0.22 Max	1.60 Max	0.04 Max	0.035 Max	0.55 Max	0.020 Min		500 - 650	355 Min	21% Min
DIN 1630	ST 37.4	0.17 Max	0.35 Min	0.04 Max	0.04 Max	0.35 Max	0.020 Min	Heat Treated	350 - 480	235 Min	25% Min
	ST 44.4	0.20 Max	0.40 Min	0.04 Max	0.04 Max	0.35 Max	0.020 Min		420 - 550	275 Min	21% Min
	ST 52.4	0.22 Max	1.60 Max	0.04 Max	0.035 Max	0.55 Max	0.020 Min		500 - 650	355 Min	21% Min
DIN 2391	ST 30 AL	0.10 Max	0.55 Max	0.025 Max	0.025 Max	0.05 Max	-	BK	430 Min	-	8% Min
								BKS (SR)	380 Min	280 Min	16% Min
								NBK (Normalized)	290 - 420	215 Min	30% Min
	ST 35	0.17 Max	0.40 Min	0.025 Max	0.025 Max	0.35 Max	-	BK	480 Min	-	6% Min
								BKS (SR)	420 Min	315 Min	14% Min
								NBK (Normalized)	340 - 470	235 Min	25% Min
	ST 45	0.21 Max	0.40 Min	0.025 Max.	0.025 Max	0.35 Max	-	BK	580 Min	-	5% Min
								BKS (SR)	520 Min	375 Min	12% Min
								NBK (Normalized)	440 - 570	255 Min	21% Min
	ST 52	0.22 Max	1.60 Max	0.025 Max	0.025 Max	0.55 Max	-	BK	640 Min	-	4% Min
								BKS (SR)	580 Min	420 Min	10% Min
								NBK (Normalized)	490 - 630	355 Min	22% Min
EN 10305-1	E 215	0.10 Max	0.70 Max	0.025 Max	0.025 Max	0.05 Max	0.025 Min	+C	430 Min	-	8% Min.
								+SR	380 Min	280 Min	16% Min
								+N	290 - 430	215 Min	30% Min
	E 235	0.17 Max	1.20 Max	0.025 Max	0.025 Max	0.35 Max	0.015 Min	+C	480 Min	-	6% Min
								+SR	420 Min	350 Min	16% Min
								+N	340 - 480	235 Min	25% Min
	E 355	0.22 Max	1.60 Max	0.025 Max	0.025 Max	0.55 Max	0.02 Min	+C	640 Min	-	4% Min
								+SR	580 Min	450 Min	10% Min
								+N	490 - 630	355 Min	22% Min
	E 255	0.21 max	0.40 - 1.10	0.025 Max	0.025 Max	0.35 Max	-	+C	580 Min	-	5% Min
								+SR	520 Min	375 Min	12% Min
								+N	440 - 570	255 Min	21% Min
EN 10305-4	E 215	0.10 Max	0.70 Max	0.025 Max	0.015 Max	0.05 Max	0.025 Min	Heat Treated	290 - 430	215 Min	30% Min
	E 235	0.17 Max	1.20 Max	0.025 Max	0.015 Max	0.35 Max	0.015 Min		340 - 480	235 Min	25% Min
	E 355	0.22 Max	1.60 Max	0.025 Max	0.015 Max	0.55 Max	0.020 Min		490 - 630	355 Min	22% Min
SAE	J524	0.18 Max	0.30 - 0.60	0.04 Max	0.05 Max	-	-	Heat Treated	310 Min	170 Min	35% Min
IS 3074	CDS 1	0.20 Max	0.30 - 0.60	0.04 Max	0.04 Max	-	-	As Drawn	430 Min	370 Min	-
								Annealed	310 Min	160 Min	-
	CDS 2	0.10 - 0.18	0.40 - 0.70	0.04 Max	0.04 Max	-	-	As Drawn	430 Min	370 Min	-
								Annealed	310 Min	160 Min	-
	CDS 3	0.10 - 0.20	0.60 - 0.90	0.04 Max	0.04 Max	-	-	As Drawn	430 Min	370 Min	-
								Annealed	330 Min	180 Min	-
	CDS 4	0.30 - 0.40	0.60 - 0.90	0.04 Max	0.04 Max	-	-	As Drawn	570 Min	460 Min	-
								Annealed	430 Min	270 Min	-
	CDS 5	0.45 - 0.55	0.60 - 0.90	0.04 Max	0.04 Max	-	-	As Drawn	690 Min	590 Min	-
								Annealed	510 Min	330 Min	-
	CDS 6	0.16 - 0.24	1.30 - 1.70	0.04 Max	0.04 Max	0.10 - 0.35	-	As Drawn	630 Min	510 Min	-
								Annealed	470 Min	270 Min	-

Specification	Grade	Chemical Composition						Mechanical Properties			
		C%	Mn%	P%	S%	Si%	Al%	Condition	Tensile Strength Mpa	Yield Strength Mpa	Elongation %
IS 3601	CDS 160	-	-	0.06 Max	0.06 Max	-	-	Annealed	310 Min	160 Min	-
	CDS 200								330 Min	200 Min	
	CDS 240								410 Min	240 Min	
	CDS 310								540 Min	310 Min	
	CDS 370							As Drawn Or As Drawn & Tempered	410 Min	370 Min	
	CDS 430								540 Min	430 Min	
	CDS 540								650 Min	540 Min	
A 519	1010	0.08 - 0.13	0.30 - 0.60	0.04 Max	0.05 Max	-	-	-	-	-	-
	1015	0.13 - 0.18	0.30 - 0.60	0.04 Max	0.05 Max	-	-	-	-	-	-
	1018	0.15 - 0.20	0.60 - 0.90	0.04 Max	0.05 Max	-	-	-	-	-	-
	1020	0.18 - 0.23	0.30 - 0.60	0.04 Max	0.05 Max	-	-	N	379 Min	234 Min	22 % Min
	1026	0.22 - 0.28	0.60 - 0.90	0.04 Max	0.05 Max	-	-	N	379 Min	248 Min	22 % Min
	1035	0.32 - 0.38	0.60 - 0.90	0.04 Max	0.05 Max	-	-	N	448 Min	276 Min	20 % Min
	1040	0.37 - 0.44	0.60 - 0.90	0.04 Max	0.05 Max	-	-	-	-	-	-
	1045	0.43 - 0.50	0.60 - 0.90	0.04 Max	0.05 Max	-	-	N	517 Min	331 Min	15 % Min
JIS G3445	STKM 11A	0.12 Max	0.60 Max	0.040 Max	0.040 Max	0.35 Max	-	Heat Treated	290 Min	-	35 % Min
	STKM 12A	0.20 Max	0.60 Max	0.040 Max	0.040 Max	0.35 Max	-		340 Min	175 Min	35 % Min
	STKM 12B						-		390 Min	275 Min	25 % Min
	STKM 12C						-		470 Min	355 Min	20 % Min
	STKM 13A	0.25 Max	0.30 - 0.90	0.040 Max	0.040 Max	0.35 Max	-		370 Min	215 Min	30 % Min
	STKM 13B						-		440 Min	305 Min	20 % Min
	STKM 13C						-		510 Min	380 Min	15 % Min
	STKM 14A	0.30 Max	0.30 - 1.00	0.040 Max	0.040 Max	0.35 Max	-		410 Min	245 Min	25 % Min
	STKM 14B						-		500 Min	355 Min	15 % Min
	STKM 14C						-		550 Min	410 Min	15 % Min
	STKM 15A	0.25 - 0.35	0.30 - 1.00	0.040 Max	0.040 Max	0.35 Max	-		470 Min	275 Min	22 % Min
	STKM 15C						-		580 Min	430 Min	12 % Min
	STKM 16A	0.35 - 0.45	0.40 - 1.00	0.040 Max	0.040 Max	0.40 Max	-		510 Min	325 Min	20 % Min
	STKM 16C						-		620 Min	460 Min	12 % Min
DIN EN 10216-1	P195TR1	0.13 Max	0.70 Max	0.025 Max	0.020 Max	0.35 Max	-	Heat Treated	320-440	195 Min	27 % Min
	P235TR1	0.16 Max	1.20 Max	0.025 Max	0.020 Max	0.35 Max	-		360-500	235 Min	25 % Min
	P265TR1	0.20 Max	1.40 Max	0.025 Max	0.020 Max	0.40 Max	-		410-570	265 Min	21 % Min
	P195TR2	0.13 Max	0.70 Max	0.025 Max	0.015 Max	0.35 Max	0.02 Min		320-440	195 Min	27 % Min
	P235TR2	0.16 Max	1.20 Max	0.025 Max	0.015 Max	0.35 Max	0.02 Min		360-500	235 Min	25 % Min
	P265TR2	0.20 Max	1.40 Max	0.025 Max	0.015 Max	0.40 Max	0.02 Min		410-570	265 Min	21 % Min
DIN EN 10216-2	P195GH	0.13 Max	0.70 Max	0.025 Max	0.010 Max	0.35 Max	0.02 Min	Heat Treated	320-440	195 Min	27 % Min
	P235GH	0.16 Max	1.20 Max	0.025 Max	0.010 Max	0.35 Max	0.02 Min		360-500	235 Min	25 % Min
	P265GH	0.20 Max	1.40 Max	0.025 Max	0.010 Max	0.40 Max	0.02 Min		410-570	265 Min	23 % Min
Defence Grade	B-10	0.07 - 0.14	0.35 - 0.65	0.04 Max	0.035 Max	0.17 - 0.37	-	Heat Treated	35 Kg Min	21 Kg Min	24% Min
	B-20	0.17 - 0.24	0.35 - 0.65	0.04 Max	0.035 Max	0.17 - 0.37	-		42 Kg Min	25 Kg Min	21% Min

STANDARD SPECIFICATION OF ALLOY STEEL SEAMLESS TUBES

Specification	Grade	Chemical Composition								Mechanical Properties			
		C%	Mn%	P%	S%	Si%	Al%	CR%	MO%	Condition	Tensile Strength	Yield Strength	Elongation
IS 3074	CDS 7	0.26 Max	0.50 - 0.80	0.04 Max	0.04 Max	0.10 - 0.35	-	0.90 - 1.20	0.20 - 0.35	As Drawn	710 Min	590 Min	-
										Annealed	550 Min	390 Min	-
A 519	4130	0.28 - 0.33	0.40 - 0.60	0.040 Max	0.04 Max	0.15 - 0.35	-	0.80 - 1.10	0.15 - 0.25	N	621 Min	414 Min	20%
	4140	0.38 - 0.43	0.75 - 1.00	0.040 Max	0.04 Max	0.15 - 0.35	-	0.80 - 1.10	0.15 - 0.25	N	855 Min	621 Min	20%
JIS G 4052	SCM 415	0.12 - 0.18	0.55 - 0.95	0.03 Max	0.03 Max	0.15 - 0.35	-	0.85 - 1.25	0.15 - 0.35	-	-	-	-
"Defence Grade"	A 213 T22	0.05 - 0.15	0.30 - 0.60	0.025 Max	0.025 Max	0.5 Max	-	1.90 - 2.60	0.87 - 1.13	"Heat Treated"	415 Min	205 Min	30% Min

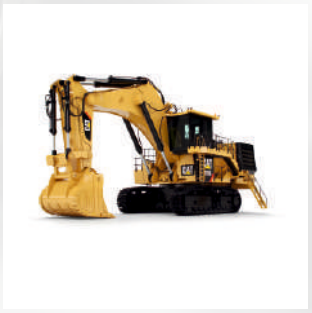
C = Cold Drawn (BK), SR = Stress Relieved (BKS), A = Annealed, N = Normalized

Leading Manufacturers of Carbon & Alloy Steel Seamless Tubes & Pipes in India

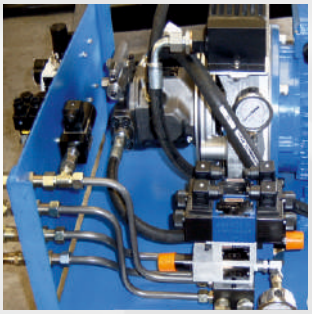
- SAINEST TUBES PVT. LTD.








REGD. OFFICE

+91 9099927709 / 9099979270

info@sainest.com

A-404, S G Business Hub, Nr. Gota Overbridge,
Gota, A'Bad, Gujarat, India – 380060

MANUFACTURING PLANT

Plot No.: 3327 - 3329, G.I.D.C., Phase IV, Chhatral,
Dist. Gandhinagar, Gujarat, India - 382729

www.sainest.com @sainesttubespvtltd