

REFRACTORY ANCHORS

CUSTOM BOLTING

CUSTOM FABRICATION

CUSTOM MACHINING

in Nickel Alloys & Special Steels



shaping exotic metals



WHAT WE ARE ∞ WHAT WE DO

At Sunrise Machination, We practice optimum standard in delivering our Products and Services

We are over 40 people company, delivering sheer Quality Products all over the globe from past many year

We term ourselves as **SHAPERS OF EXOTIC METALS** as per Clients Specification
In simple words we manufacture customized engineering products as per Customers Drawing

Metals We Shape

- Duplex Steel
- Nickel
- Monel
- Alloy 20
- Super Duplex Steel
- Incoloy
- Titanium
- SS 904L
- Hastelloy
- Inconel
- 254SMO
- Stainless Steel

Processes We Do

- Laser Cutting
- Water-Jet Cutting
- Plasma Cutting
- Wire Cutting
- CNC Bending
- Hot Forging
- Orbital Welding
- Tig Welding
- Laser Welding
- CNC Turning
- VMC Milling
- Honing
- Grinding
- Roll Threading
- Sand Blasting
- Solution Annealing
- Age Hardening
- Vacuum Hardening
- Xylan Coating
- PTFE Coating
- Wear Resistance Coating
- Electro Polishing
- Mat Polishing
- Mirror Polishing

Industries We Serve

- Steel Industries
- Constructions Industries
- Shipping Industries
- Forging Industries
- Process Industries
- Mining Industries
- Petro Chemicals
- Furnace Industries
- Chemical Industries
- Food & Pharma
- Cement Industries
- Textile Industries



REFRACTORY ANCHORS

*We manufacture Refractory Anchors as per
Clients specifications and drawings*

- Brick Lining Anchors
- Ceramic Fiber Lining Anchors
- V-Type Anchors
- U-Type Anchors
- Twist Locks Washer & Stud
- Concrete Lining Anchors
- Y- Type Anchors
- Speed Washer
- Corrugated Anchors
- Unilock Plates & Rods
- & Others...



MATERIALS

- INCOLOY • INCONEL • STAINLESS STEEL • 253 MA
- Other Metals on demand

CUSTOM BOLTING

High Integrity & Special Fasteners are manufactured to the perfection by SUNMACH in exotic metals & others

- High Nickel Alloys Bolting
- Duplex Bolting
- Super Duplex Bolting
- 904L Bolting
- 254 SMO Bolting
- Titanium Bolting
- Stainless Steel Bolting
- Copper Bolting
- & Others...



MATERIALS

- DUPLEX STEEL
- NICKEL
- MONEL
- ALLOY 20
- SUPER DUPLEX STEEL
- INCOLOY
- TITANIUM
- SS 904L
- HASTELLOY
- INCONEL
- 254SMO
- STAINLESS STEEL

Other Metals on demand

CUSTOM FABRICATION & MACHINING

We manufacture Prefabricated Piping, Pressure Vessels, Process Equipments & Custom Built Fabricated & Machined Parts in High Nickel Alloys & other Special Steel

> PREFABRICATION

- Prefabricated Piping & Pipe Spool
- Pipe Fittings & Flanges

> STOCKING

- Pipes & Tubes
- Sheets, Plates & Bars

> CUSTOM FABRICATION & MACHINING

- Customized Fabrication
- Customized Machining

> PROCESS EQUIPMENTS (Design & Manufacturing)

- Reactors
- Heat Exchangers
- Mixing Equipments
- Agitators
- Separators
- Tank & Vessels
- Columns
- Drying Equipments
- Cyclone
- Impellers / Re-Circulating Fans
& Others...



MATERIALS

- DUPLEX STEEL
- NICKEL
- MONEL
- ALLOY 20

- SUPER DUPLEX STEEL
- INCOLOY
- TITANIUM
- SS 904L

- HASTELLOY
- INCONEL
- 254SMO
- STAINLESS STEEL

Other Metals on demand

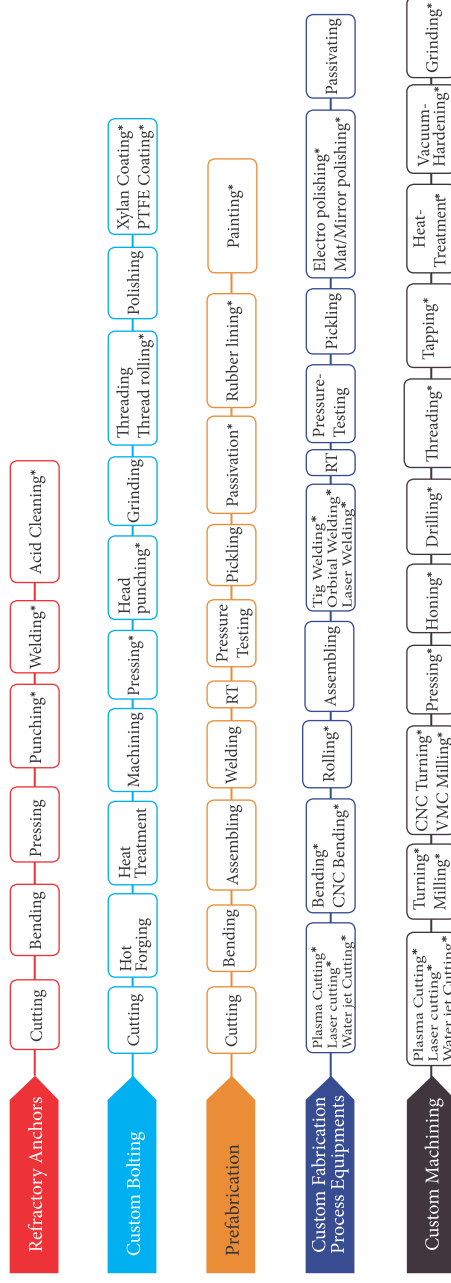


CHEMICAL PROPERTIES OF Major of the Material we deal in

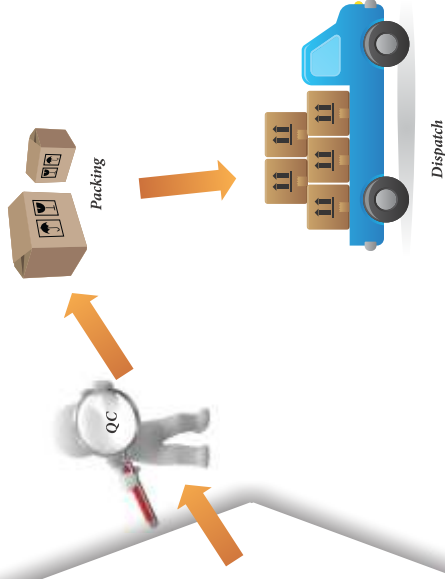
Uns	Type	Carbon	Manganese	Phosphorus	Sulfur	Silicon	Chrome	Nickel	Molybdenum	Copper	Others
S15500	15 - 5 PH	0.07	1.0	0.03	0.015	1.0	14 - 15.5	3.5 - 5.5	0.5	2.5 - 4.5	Cb + Ta = 8xC Min - 0.45 Max
S15700	15 - 7 PH	0.09	1.0	0.07	0.03	1.0	14 - 16	6.5 - 7.75	2 - 3	-	Al .75 - 1.5
S17400	17 - 4 PH	0.07	1.0	0.04	0.03	1.0	15 - 17.5	3 - 5	3 - 5	-	Cb + Ta = 0.15 - 0.45
S30400	304	0.08	2.0	0.045	0.03	1.0	18 - 20	8 - 12	0.5	0.5	-
S30403	304L	0.03	2.0	0.045	0.03	1.0	18 - 20	8 - 12	0.5	0.5	-
S30900	309	0.08	2.0	0.04	0.03	1.0	22 - 24	12 - 15	0.75	0.5	-
S30908	309S	0.08	2.0	0.045	0.03	1.0	22 - 24	12 - 15	-	-	-
S31000	310	0.08	2.0	0.045	0.03	3 - 8	24 - 26	19 - 22	0.5	0.5	-
S31008	310S	0.08	2.0	0.045	0.03	1.5	24 - 26	19 - 22	-	-	-
S31600	316	0.08	2.0	0.045	0.03	1.0	16 - 18	10 - 14	2 - 3	0.5	-
S31603	316L	0.03	1.25 - 2.0	0.04	0.03	1.0	16 - 18	10 - 14	2 - 3	0.5	-
S31635	316 Ti	0.08	2.0	0.045	0.015	1.0	16.5 - 18.5	10.5 - 13.5	2.0 - 2.5	-	Ti 5 X C - 0.7
S31700	317	0.08	2.0	0.045	0.03	1.0	18 - 20	11 - 15	3 - 4	-	-
S31703	317L	0.03	2.0	0.045	0.03	1.0	18 - 20	11 - 15	3 - 4	-	-
S32100	321	0.08	2.0	0.045	0.03	1.0	17 - 19	9 - 12	-	-	Fe Balance
S32109	321H	0.04 - 0.1	2.0	0.045	0.03	0.75	17 - 19	9 - 12	-	-	Fe Balance
N08330	330	0.08	2.0	0.03	0.03	0.75 - 1.5	17 - 20	34 - 37	-	-	Fe Balance & 10x(C+N)min. - 1.0
S34700	347	0.08	2.0	0.045	0.03	1.0	17 - 19	9 - 13	-	-	Fe Balance & 10x(C+N)min. - 1.0
S34709	347H	0.04 - 0.1	2.0	0.045	0.03	0.75	17 - 19	9 - 13	-	-	Fe Balance, Cu 0.5 - 1.5, N 0.15 - 0.25
N08926	6 Mo	0.02	2.0	0.03	0.01	0.5	19 - 21	24 - 26	6 - 7	-	N 0.14 - 0.20, Ce 0.03 - 0.08
S30815	253 MA	0.05 - 0.1	0.8	0.045	0.03	1.4 - 2.0	20 - 22	10 - 12	-	-	N .18 - 0.22, N 0.18 - 0.22 & Fe Balance
S31254	254 SMO	0.02	1.0	0.03	0.01	0.8	19.5 - 20.5	17.5 - 18.5	6 - 6.5	0.5 - 1.0	Fe Balance
N08904	904L	0.02	2.0	0.045	0.035	1.0	19 - 23	23 - 28	4 - 5	1 - 2	-
S31803	DUPLEX / 2205	0.03	2.0	0.03	0.02	1.0	21 - 23	4.5 - 6.5	2.5 - 3.5	-	N 0.08 - 0.2
S32750	SUPER DUPLEX / 2207	0.03	1.2	0.035	0.02	0.08	24 - 26	6 - 8	3 - 5	0.5	N 0.24 - 0.32
S32760	SUPER DUPLEX / ZERON 100	0.03	1.0	0.03	0.02	1.0	24 - 26	6 - 8	3 - 4	0.5 - 1	N 0.2 - 0.3 & W 0.5 - 1.0
N02200	ALLOY 200 / NICKEL 200	0.15	0.35	-	0.01	0.35	-	Ni + Co = 99.0 Min	-	0.25	Fe 0.4
N04400	ALLOY 400 / MONEL 400	0.3	2.0	-	0.024	0.5	-	Ni + Co = 63 - 70	-	Balance	Fe 0.25
N05500	ALLOY K500 / MONEL K500	0.25	1.5	-	0.01	0.05	-	Ni + Co = 63 - 70	-	Balance	Al 2.3 - 3.15, Ti 0.35 - 0.85 & Fe 2.0
N06600	ALLOY 600 / INCONEL 600	0.15	1.0	-	0.015	0.5	14 - 17	72 Min	0.5	-	Al 0.35, Ti 0.5, Cb + Ta = 1.0, Co 1.0 & Fe 6 - 10
N06601	ALLOY 601 / INCONEL 601	0.1	1.0	-	0.015	0.5	21 - 25	58 - 63	-	1.0	Al 1 - 7, Fe Balance
N06625	ALLOY 625 / INCONEL 625	0.1	0.5	0.015	0.015	0.5	20 - 23	Balance	8 - 10	-	Al 0.4, Ti 0.4, Co 1.0, Cb + Ta 3.15 - 4.15 & Fe 5.0
N07718	ALLOY 718 / INCONEL 718	0.08	0.35	0.015	0.015	0.35	17 - 21	50 - 55	2.8 - 3.3	0.3	Al 0.2 - 0.8, Co 1.0, Ti 0.7 - 1.15, Cb + Ta = 4.75 - 5.5 & Fe Bal.
N08800	ALLOY 800 / INCOLOY 800	0.1	1.5	-	0.015	1.0	19 - 23	30 - 35	-	0.75	Ti 0.15 - 0.6, Al 0.15 - 0.6, Fe 39.5 min.
N08810	ALLOY 800H / INCOLOY 800H	0.05 - 0.1	1.5	0.045	0.035	1.0	19 - 23	30 - 35	-	0.75	Ti 0.15 - 0.6, Al 0.15 - 0.6, Fe 39.5 min.
N08811	ALLOY 800HT / INCOLOY 800HT	0.06 - 0.1	1.5	0.045	0.035	1.0	19 - 23	30 - 35	-	0.75	Ti 0.15 - 0.6, Al 0.15 - 0.6, Fe 39.5 min.
N09925	ALLOY 925 / INCOLOY 925	0.03	0.5	0.03	0.03	0.5	19.5 - 22.5	42 - 46	2.5 - 3.5	1.5 - 3	-
N08020	ALLOY 20 / CARPENTER 20	0.07	2.0	0.045	0.035	1.0	19 - 21	32 - 38	2 - 3	3 - 4	Co 1.0, Cb + Ta = 4.75 - 5.5, Ti 0.65 - 1.15, Al 0.2 - 0.8
N10276	ALLOY C-276 / HASTELLOY C-276	0.08	1.0	0.04	0.03	-	14.5 - 16.5	Balance	15 - 17	-	Co 2.5, W 3.0 - 4.5, V 0.35
N06022	ALLOY C-22 / HASTELLOY C-22	0.010	0.5	0.02	0.02	0.08	20 - 22.5	Balance	12.5 - 14.5	-	Co 2.5, Fe 2 - 6, W 2.5 - 3.5, V 0.35
C70600	Cupro Nickel 90/10	0.05	-	-	-	-	-	10.0	-	-	Cu 88.7, Fe 1.3
R50400	TITANIUM Gr. 2	0.08	-	-	-	-	0.30	-	Bal	-	N 0.03, H 0.015 - 0.013*, O 0.2, Al 5.50 - 6.75, V 3.5 - 4.5, Fe 0.25
R56400	TITANIUM Gr. 5	0.08	-	-	-	-	-	-	-	-	N 0.05, H 0.015 - 0.013*, O 0.2, Al 5.50 - 6.75, V 3.5 - 4.5, Fe 0.25



PRODUCTION PROCESS



* Wherever Applicable



Overseas Clientele



Australia



Netherlands



Nigeria



UAE



Oman



Kuwait



Saudi Arabia



Thailand



Indonesia



Loading



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