



Comprehensive
Piping Products

resistant 
metal alloys LLP
alloys with integrity



A large, complex offshore oil platform is shown in the foreground, featuring a dense network of yellow structural beams, pipes, and walkways. Several tall, white cylindrical chimneys or towers are visible on the upper levels. The platform is situated in the middle of a dark blue sea under a bright blue sky with scattered white clouds. In the background, another smaller platform is visible, with a plume of orange and yellow smoke or fire rising from it. The overall scene conveys a sense of industrial scale and maritime operations.

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Serving Piping Industries with Comprehensive Solutions

resistant metal alloys llp is an indian entity purely engaged in manufacturing and stock holding of piping products exclusively for sectors affiliated to process piping, oil & gas piping, power piping & other disciplines in pipeline transportation for liquid hydrocarbons, refrigeration pipeline, heat transfer components, gas transmission & distribution system.

commonly known industrial field of applications includes chemical & food processing units, petrochemical plants, oil, gas & steam transmission pipelines, nuclear & thermal power generation plants, offshore engineering, mining, sub sea piping, etc.

resistant metal alloys llp is young but backed with experiences partners, worldwide counterparts, valued associates and strong business ethics enough to drive through the sector in a very short period. resistant metal alloys llp values and apprehends both clientele & vendor perception and strives to create concurrence between, thus creating long terms business threads required to sustain growth and longevity in the field.

Core Activities



manufacturing

Just like any craftsmen we are equipped with modern technology & latest Industrial Standards to meet any Manufacturing requirement in the Piping World.



stock clearance

Order Surplus! Our Stock products are off-shelf ready to be shipped the next day. All Regular products & Grades available.



outsourcing

Let us do the Hard-work. Parallel team equipped with High Standard for Outsourcing the best & affordable products for your Comprehensive project.



crucial requirements

Additional Fast Track Manufacturing Concept adopted for meeting deadline for your Shut Down Project.

Manufacturing Range

pipe fittings

wrought butt welded
forged socket weld
forged screwed / threaded
plate fabricated fittings
bar stock / block fittings
hygienic / sanitary fittings

tube fittings

instrumentation
hydraulic
pneumatic

flanges

weld neck
slip-on
socket weld
threaded
lap joint
blind
orifice flange
long weld neck
nipo flange
weldo flange
reducing flange
expander flange
nozzle flange
spectacle blind
blind & spacer

fasteners

hex bolts
stud bolts
screws
nuts
washers

valves

gate valve
globe valve
butterfly valve
diaphragm valve
plug valve
check valve
ball valve
knife valve
pinch valve

expansion joints

rubber expansion joints
metallic expansion joints &
teflon expansion joints

pipes

seamless pipes
welded pipes

tubings

seamless tubings
welded tubings

plates

hot rolled
cold rolled

bar stock

rolled
forged

Stock Holding



pipe fittings

an iso 9001:2008 certified manufacturer of wrought butt welding & forged pipe fittings suitable for all service type. resistant metal alloys llp initiated its manufacturing activity with duplex stainless-steel butt weld pipe fittings and is well equipped with manufacturing low temperature alloy steel, high temperature carbon steel to marine grade copper nickel on regular basis.

apart from standard range, we have expertise in offering field critical fittings in titanium, zirconium, tantalum. we can produce these pipe fittings with in american, german, european, british & iso standards with additional industrial specifications and norms.

dimensional range

3/8" to 24" seamless
3/8" to 60" welded

categories

butt weld fittings
socket weld fittings
threaded fittings
fabricated fittings
block type butt weld fittings
branch fittings
investment casting fittings
hygienic pipe fittings

materials

ductile iron
high strength carbon steel
low temperature alloy steel
stainless steel
duplex stainless steel
super duplex steel
marine grade copper nickel
corrosion resistance nickel
monel alloy
high strength inconel
crevice resistance hastelloy
aerospace grade titanium
tantalum & zirconium alloys

manufacturing standards

american asme	b16.9, b16.11, b16.28, b16.49
german din	2616-1, 2616-2, 2617, 2628, 2619, 2980, 2981, 2982, 2983, 2986, 2990, 2991, 2993, 2999-2, 28011
european en	10253, 11851, 11852, 11853, 11864
british bs	1640 - 1, 1640 - 2, 1640 - 3, 1640 - 4, 1740, 3799, 4825 - 1, 4825 - 2, 4825 - 3, 4825 - 4
indian iso	3419 & 5251

pipe flanges

precisely forged & machined pipeline flanges for oil & gas platforms, petrochemical, nuclear & thermal power extraction, marine & offshore engineering, metal & mining installations, etc.

resistant metal alloys llp manufactures & supply cnc machined flanges for acute precision as required for high critical jobs with value added services like coating and third-party inspection.

these flanges can be either forged or plate formed into desired size and tolerance under various manufacturing standards including american, german, european, british, japanese, russian & iso.

dimensional range

½" nps to 96" nps

pressure ratings

75lbs up to 2500lbs, pn1.6 to pn400

standard pipeline flanges

welding neck flange, slip-on flange, socket-weld flange, threaded flange lap joint flange, blind flanges.

special flanges & companions

long weld neck flange, orifice flange, expander flange, reducing flange weldo flange, nipo flange, nozzle flange, spectacle blind, blind & space

material offered

ductile iron, high strength carbon steel, low temperature alloy steel stainless steel, duplex stainless steel, super duplex steel, marine grade copper nickel, corrosion resistance nickel, monel alloy, high strength inconel, crevice resistance hastelloy, aerospace grade titanium, tantalum & zirconium alloys

manufacturing standards

american asme	b16.5, b16.36, b16.47 a-b, awwa c207, api 6a-605
german din	2527, 2573, 2576, 2502, 2503, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2638, 2628, 2629, 2627, 2641, 2642, 2565, 2566, 2567, 2568, 2569, 28115
european en	1092-1
british bs	10, 1560 & 4504, mss-sp-44
japanese jis	b2220
russian gost	12815, 12820, 12821, 12836
south african sabs	1123

fasteners

resistant metal alloys llp offers comprehensive range fasteners with variety in shapes, sizes, material, dimensional specifications, etc. high tensile fasteners to super critical zirconium bolting, resistant metal alloys llp is capable of supplying full range fasteners with required industrial specifications and norms. moreover fasteners are very useful for connecting flanges & flanged connections in piping system.

hex bolts, studs, socket head cap screw, socket set screw, hex nuts, heavy hex nut, acorn nuts, plain & spring lock washers are some of regular fastener products used in piping system.

dimensional range

m1 to m110 in metric
#0 to 4" in imperial

common fastener products

hex bolts
heavy hex bolts
machine screws
stud bolts
socket head cap screw
set screws
flange bolts
hex nuts
heavy hex nuts
thin jam nuts
acorn nuts
hex coupling nuts
plain washers, spring washers
lock washers
dowel pins

material category

high strength carbon steel
low temperature alloy steel
stainless steel
duplex stainless steel
super duplex steel
marine grade copper nickel
corrosion resistance nickel
monel alloy
high strength inconel
crevice resistance hastelloy
aerospace grade titanium
silicon, aluminium phosphor bronze
nitronic & nimonic alloys
tantalum & zirconium alloys

material specifications

astm a193, a307, a320, a325,
a449, a490, a540, a574, f468,
f593, f835, f837, f2281
bs en iso 3506-1

dimensional standards

din 912, 913, 916, 931, 933, 934,
939, 940, 976, 439, 125, 127,
2510
iso 4014, 4017, 4032, 4034, 4762
asme b18.2.1, b18.3, b18.2.4.1m,
b18.2.2, etc are some dimensional
standards for fasteners.

coatings

plain finish, zinc plated, cadmium
plated hot dipped galvanized,
phosphate, ptfе coated black zinc,
aluminium flake, copper
electroplated nickel plated & chrome
plated

thread types

un : unified national threads
unc : unified national coarse
unf : unified national fine
unef : unified national extra fine
uns : unified national special
unr : unified national round
(round root)
iso : international standards
organisation (metric)
bsw : british standard whit-worth
bsf : british standard fine

industrial valves

valves are very crucial for operating any piping system. resistant metal alloys llp works with a chain of long established associates & manufacturing entities to enable us to keep a steady stock of industrial valves including gate, globe, butterfly, pinch, diaphragm type, etc. apart from these resistant metal alloys llp inhouse manufactures small sizes ball valves, needle valves, check valves & manifolds.

these valves are either cast formed or forged. our team is in full-time co-ordination with the entities to ensure indifferent quality & precision every time. these valves are manufactured in accordance with latest industrial standards & specifications

dimensional range

3/8" to 96"

industrial valve types

gate valve
globe valve
butterfly valve
diaphragm valve
plug valve
check valve
ball valve
knife valve
pinch valve

material offered

ductile iron
high strength carbon steel
low temperature alloy steel
stainless steel
duplex stainless steel
super duplex steel
marine grade copper nickel
corrosion resistance nickel
monel alloy
high strength inconel
crevice resistance hastelloy
aerospace grade titanium
tantalum & zirconium alloys

dimensional standards

api 595, 599, 600, 602, 6d,
609
bs en 593, 5153
din 3202, 3352, 11851
iso 5752 are common dimensional
standards.

expansion joints

expansion joints are used in piping systems to absorb thermal expansion where the use of expansion loops are undesirable or impractical. resistant metal alloys llp excels in fabrication and supply of expansion joints in metallic, teflon & rubber configuration. expansion joints a.k.a expansion bellows are designed for linear, lateral & axial tension as well.

depending upon the piping joints, expansion joints can be offered with butt-weld, threaded & flanged connections. flanges to suit dimensional compliance of asme b16.5, b16.47, api 6a, api 605, mss-sp-44, en 1092-1 & various din standards.

dimensional range

1/2" to 60" nps

pressure ratings

75lbs up to 2500lbs & pn1.6 to pn400

standard types

tapered joints, offset joints, sleeve-type joints, filled arches, multiple arches, rectangular, no arch & wide arch.

construction

metallic >> free type, guided rod type, gimbal, hinged, universal, reinforced & pressure balance type. rubber >> single sphere, double sphere, spool type. teflon >> teflon lined metallic & teflon lined rubber expansion joint

end connections

butt-weld, threaded & flanged

material offered

metallic >> ductile iron, carbon steel, alloy steel, stainless steel, duplex & super duplex stainless steel, copper nickel, titanium, tantalum, zirconium, copper & bronze. non-metallic >> teflon & rubber

design standards

these expansion joints are customized as per customer requirement accounting the pressure temperature ratings, design length & desired end connections. flanges to suit asme b16.5, b16.47, mss-sp-44, jis b2220, bs10, 1560, en 1092-1 & din standards.



certification

- acceptance test certificate 3.1.a
- acceptance test certificate 3.1.b
- acceptance test certificate 3.1.c
- acceptance test certificate 3.2

testing & inspection facility

- value of the chemical composition of steel: the cast, the product
- dimensional checks
- mechanical properties: tensile, hardness, impact bend test
- technological tests: flattening, flaring, flanging, bending, ring test
- impermeability: hydro pressure test, non-destructive methods
- non-destructive testing (eddy current, stray flux, ultrasound) longitudinal defects, transverse defects duality
- further testing (metallography, corrosion resistance, etc.).



value added services

- cut to size
- custom fabrication
- forgings
- heat treatment
- coating & surface finishing
- perforation jobs
- third party inspection

stock program

resistant metal alloys llp holds comprehensive stock of regular carbon steel, chrome moly alloy steel, stainless steel and duplex stainless-steel piping & tubing products. stock sizes are 1/2" to 24" in stainless steel & nickel alloys & 1/2" to 48" in carbon & alloy steel. other products includes boiler quality plates, alloy steel, stainless steel, copper nickel, high nickel, titanium alloys, etc.

logistics

orders are thoroughly secured over damage and shipped with utmost care. we offer comprehensive shipping methods teamed up with expertise in global freight forwarding & logistics. our logistic team is always in touch with the freight and keeps you updated till the cargo reaches your destination. we offer hassle free shipping experience with following partners.



why us

fully dedicated to piping sector

resistant metal alloys llp dedicates its operation & effort towards development of piping sector & desires to function for process piping, power piping, fuel & gas piping, hydro carbon & fluid transportation systems, heat exchangers & condenser piping systems.

equipped with technical know how

resistant metal alloys llp perceives the dream of being the largest entity for piping solutions from india. to chase the same, we understands the need to change, diversify & adapt to new & promising technologies to bring the best into the piping industry.

offers products with global standards

with vision to serve on the global platform, resistant metal alloys llp recognises the need for improvement in production, with modern technology & latest updates from the industry. resistant metal alloys llp offers products in american, german, european, japanese & indian standards as well.

global resources with local support

with 3 decade old roots, resistant metal alloys llp has inherited all the global resources from its parent entity to source down any requirement for piping projects. be it any rare metal/alloy/product, resistant metal alloys llp delivers it all.



fields of application

- ◆ oil & gas refining units
- ◆ nuclear & thermal power generation
- ◆ metal & mineral mining
- ◆ aerospace & defense installation
- ◆ sea water desalination
- ◆ chemical & petro-chemical industries
- ◆ food & beverage processing plants
- ◆ air separation & cryogenic systems
- ◆ subsea piping
- ◆ fabrication of heat exchangers
- ◆ fabrication of condenser, etc.
- ◆ ship building & marine engineering
- ◆ oil, gas & steam transmission pipe

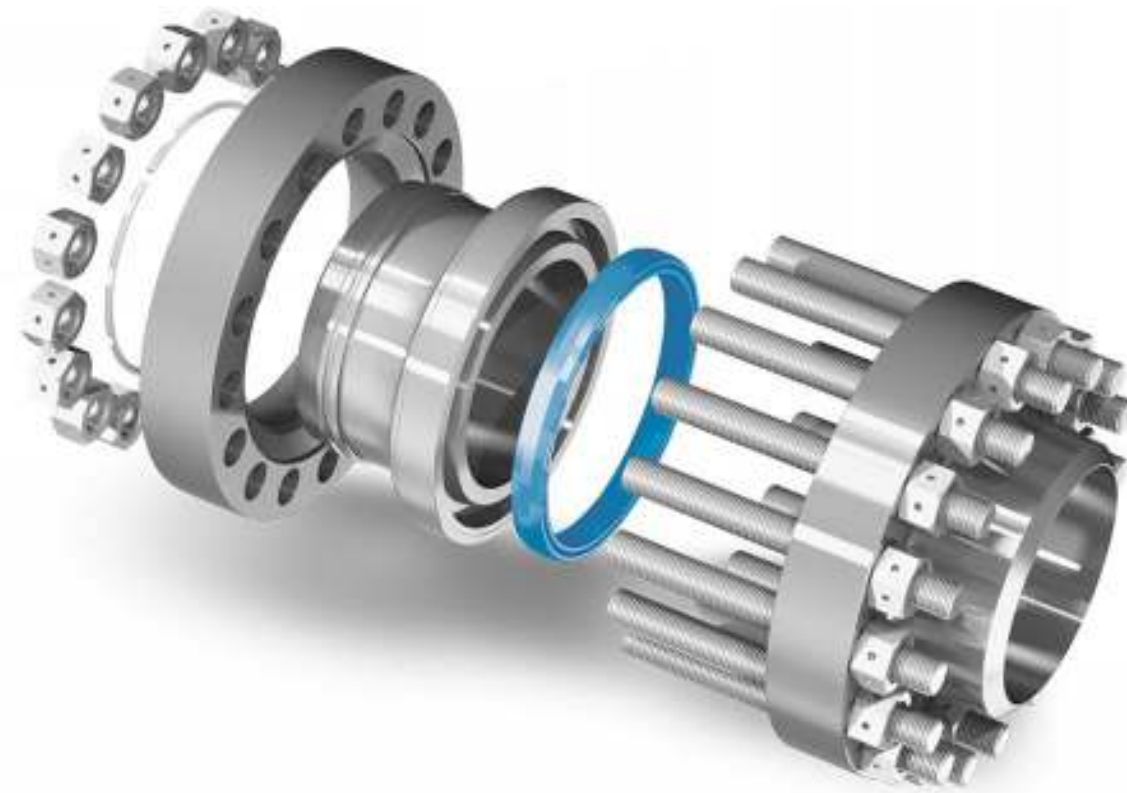
material specifications



TRADE NAME	UNS NUMBER	WERKSTOFF NUMBER	DIN
ST 37-2	-	1.0037	ST 37-2
ST 52-3	-	1.0570	ST 52-3
CARBON STEEL (C22)	K30504	1.0402	C22
CARBON STEEL (C22.8)	-	1.0460	-
LOW TEMP CARBON STEEL	K03011	1.0508	TT St E 36
HIGH YIELD STEEL	K03014	-	-
3 1/2 NICKEL STEEL	K32025	1.5639	-
5 CHROME, 1/2 MOLY	K41545	1.7362	12CrMo19.5
1 1/4 CHROME, 1/2 MOLY	K11572	1.7733	24CrMoV-55
	K11597	1.7335	13 CrMo 44
2 1/4 CHROME, 1/2 MOLY	K21590	1.7380	10CrMo9.10
9 CHROME, 1 MOLY	K90941	1.7386	-
X 12 CHROME, 091 MOLY	K91560	1.4903	-
13 CHROME	S41000	-	-
17-4PH	S17400	1.4542	-
153 MA	S30415	1.4818	-
201	-	1.4372	-
202	S20200	1.4371	X3CrMnNiN1887
248SV	-	1.4418	-
253MA	S30815	1.4835	-
254SMo	S31254	1.4547	-
301	S30100	1.4310	X12CrNi177 / X10CrNi188
301LN	-	1.4318	X2CrNi187
302	S30200	1.4300 / 1.4319	X12CrNi188
303	S30300	1.4305	X10CrNi189
304	S30400	1.4301	X5CrNi1810 / X5CrNi189
304H	S30409	1.4948	X6CrNi1811
304L	S30403	1.4306	X2CrNi1911
304/304L	-	1.4307	X2CrNi189
304LN	S30453	1.4311	X2CrNiN1810
305	S30500	1.4303 / 1.4312	X5CrNi1812
308	S30800	1.4303	X8CrNi1812
309	S30900	1.4828	X15CrNiSi2012
309S	S30908	1.4833	X7CrNi2314
310	S31008	1.4845	-
310L	-	1.4335	X1CrNi2521
310S	S31008	1.4845	X12CrNi2521
310/314	S31000	1.4841	X15CrNiSi2520
316	S31600	1.4401	X5CrNiMo17122
	S31600	1.4436	X5CrNiMo17133
			X5CrNiMo1810
316Cb	S31640	1.4580	X6CrNiMoNb17122
316F	-	1.4427	X4CrNiMoS1811
316H	S31609	1.4919	X8CrNiMo1712
316L	S31603	1.4404	X2CrNiMo17132
316/316L	-	1.4432	X2CrNiMo17123
			X2CrNiMo1810
316LHMO	S31603	1.4435	X2CrNiMo18143
316LN	S31653	1.4429	X2CrNiMoN17133
		1.4406	X2CrNiMoN17122
316Ti	S31635	1.4571	X6CrNiMoTi17122
317	S31700	1.4449	X5CrNiMo1713
317L	S31703	1.4438	X2CrNiMoN18164
317LNM	S31726	1.4434 / 1.4439	X2CrNiMoN17135

TRADE NAME	UNS NUMBER	WERKSTOFF NUMBER	DIN
318	-	1.4583	X10CrNiMoNb1812
321	S32100	1.4541	X6CrNiTi1810
-	-	-	X10CrNiTi189
321H	S32109	1.4878	X12CrNiTi189
327	-	1.4821	X20CrNiSi254
329	S32900	1.4460	X4CrNiMo2751
330	N08330	1.4864	X12NiCrSi3616
347	S34700	1.4550	X6CrNiNb1810
-	-	-	X10CrNiNb189
348	S34800	1.4546	X5CrNiNb1810
353MA	S35315	1.4854	-
403	S40300	1.4000	X6Cr13
405	S40500	1.4002	X6CrAl13
		1.4724	X10CrAl13
409	S40900	1.4512	X6CrTi12
410	S41000	1.4006	X12Cr13
		1.4024	X15Cr13
410S	S41008	1.4001	X7Cr14
414	S41400	1.4008	G-X8CrNi13
416	S41600	1.4005	X12CrS13
420	S42000	1.4021	X20Cr13
		1.4034	X38Cr13
		1.4028	-
420C	-	1.4034	X46Cr13
420F	S42020	1.4028	X30Cr13
422	S42200	1.4935	X20CrMoWV121
429	-	-	X10CrNi15
430	S43000	1.4016	X6Cr17
430F	S43020	1.4104	X12CrMoS17
430Ti/439	-	1.4510	X3CrTi17
431	S43100	1.4057	X20CrNi172
434	S43400	1.4113	X6CrMo171
440/444	S44400	1.4521	X2CrMoTi182
440A	S44002	1.4109	X65CrMo14
		1.4110	X55CrMo14
440B	S44003	1.4112	X90CrMOV18
440C	S44004	1.4125	X105CrMo17
440F	-	-	-
442	-	-	X10Cr25
446-1	S44600	1.4749	X18CrN28
630 (17-4PH)	S17400	1.4542	X5CrNiCuNb174
631 (17-7PH)	S17700	1.4568	X7CrNiAl177
633 (AM350)	S35080	-	-
634 (AM355)	-	-	-
654 SMO	S32654	1.4652	-
660 (A286)	K66286	1.4980	X5NiCrTi2515
904L	N08904	1.4539	X1NiCrMoCu25205

TRADE NAME	UNS NUMBER	WERKSTOFF NUMBER	DIN
AL-6XN®	N08367	-	-
ALU 6061	6061	3.3211	-
ALU 5154	5154	3.3635	-
ALU 5083	5083	3.3547	-
CARPENTER 20	N08020	2.4660	-
CUNIFER® 10	C70600	2.0872	CuNi10Fe
CUNIFER® 30	C71500	2.0882	CuNi30Fe
CU 5MCuC	-	-	-
DUPLEX 4462	S31803	1.4462	X2CrNiMoN2253
	-	-	-
FERRALIUM® 255	S32550	-	-
NICROFER 5923 hMo (Alloy 59)	N06059	2.4605	NiCr22Mo
NICKEL 200	N02200	2.4066	-
NICKEL 201	N02201	2.4068	-
MAGNESIUM	M11311	3.5312	-
MONEL® 400	N04400	2.4360	-
MONEL R-405	N04405	-	-
MONEL® K500	N05500	2.4375	-
INCOLOY® 25-6MO	N08926	1.4529	X1NiCrMoCuN25207
INCOLOY® 800	N08800	1.4876	X10NiCrAlTi3320
INCOLOY® 800H	N08810	1.4958	-
INCOLOY® 800HT	N08811	1.4959	-
INCOLOY® 825	N08825	2.4858	NiFe30Cr21Mo3
INCONEL® 600	N06600	2.4816	-
INCONEL 601	N06601	-	-
INCONEL 617	N06617	-	-
INCONEL® 625	N06625	2.4856	NiCr22Mo9Nb
INCONEL 690	N06690	-	-
INCONEL 718	N07718	-	-
INCONEL® X750	N07750	2.4669	-
HASTELLOY® B2	N10665	2.4617	-
HASTELLOY® B3	N10675	2.4600	-
HASTELLOY® C	N10002	-	-
HASTELLOY® C22	N06022	2.4602	NiCr21Mo14W
HASTELLOY® C276	N10276	2.4819	-
HASTELLOY® C4	N06455	2.4610	-
HASTELLOY G	N06007	-	-
HASTELLOY G3	N06985	-	-
HASTELLOY G30	N06030	-	-
HASTELLOY X	N06002	-	-
SAF 2507	S32750	1.4469	G-X-25Cr7Ni4MoN
	-	-	-
SAF 2304	S32304	1.4362	-
SANICRO® 28	N08028	1.4563	-
ULTIMET	R31233	2.4681	-
TANTALUM®	R05200	-	-
TITANIUM GR. 1	R50250	3.7025	-
TITANIUM GR. 2	R50400	3.7035	-
TITANIUM GR. 3	R50400	3.7055	-
TITANIUM GR. 5	R50400	3.7165	-
TITANIUM GR. 7	R52400	3.7235	-
ZIRCONIUM® 702	R60702	-	-
ZIRCONIUM® 705	R60705	-	-
ZERON 100	S32760	1.4501	-



resistant 
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