

BANSAL BROTHERS

www.banbro.net



BANSAL BROTHERS

We are a group of companies in the manufacturing field for the past 40 years, with experience in manufacturing of Shafts, Agricultural Implements, Industrial Components (Turned and/or Forged) and Industrial Gases.

Our manufacturing facilities are spread over a floor area of 45,000 square feet.

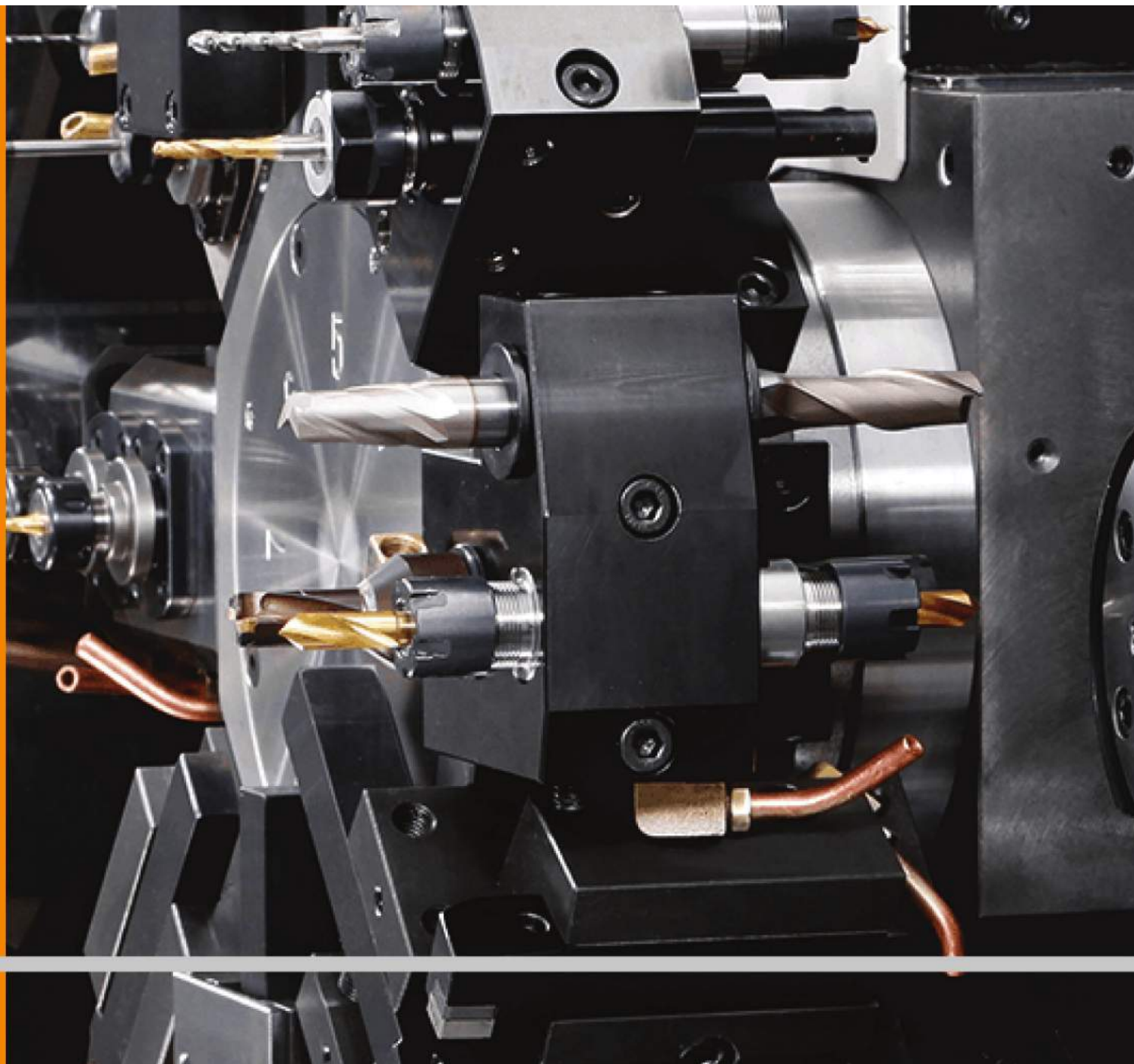
All our products are made as per Quality Plans approved by the customer to assure

the best service and we pride ourselves in making timely dispatches as per the customer schedules.

With our all round knowledge of men, materials, machines and tooling we aspire to offer our customers the least cost alternative for manufacturing of high quality raw materials, components and services.

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Machine Shop



Machines

**CNC 10-200mm OD
(Jyoti)**

**Sliding Head 3-38 mm
(Tsugami)**

**Sliding Head 3-20mm
(Citizen)**

**Turn Mill Centre
(Miyano)**

**VMC 5 Axis
(Haas)**

Solutions, Manufactured

Bansal Brothers has a state of the art Machine Shop where we can take up jobs for machining of components made from a variety of metals including Titanium, Inconel, Stainless Steel, Aluminium, Mild Steel, Copper and any Copper Alloy. We can provide end to end solutions for any and all kinds of components.

We ensure quality and precision through carefully setup processes and inspections at every stage of manufacturing.

All our machines are equipped with bar feeders to ensure continuous and uninterrupted operations resulting in higher productivity and lower end part wastage. We make sure to use high quality and precise tooling. These help in reducing costs which are passed on directly to our customers.



Extrusion

We own and operate a 600 T Hydraulic Extrusion Press used to manufacture all shapes, sizes and profiles used in Pressure Fittings, Automobile, Aerospace, Hardware and Electrical industries in all copper alloys.

The sizes we can extrude are from a thickness of 4mm upto 90 mm (depending on the grade).

We excel at extruding tough copper alloys such as C26000 (70/30), AB1, AB2, Silicon Bronze etc. other than various free - cutting and lead free copper alloys.

All our supply is UltraSonic tested for internal defects in rods to minimise customer rejections and machine down times.



Testing Equipments

**Optical Emission Spectrometer
(Spectro Maxx)**

**Hardness Testers
(Equotip & FIE)**

**Surface Finish Tester
(Mitutoyo)**

**UltraSonic Fracture Testing
(Equotip & EEE)**

**Universal Testing Machine
(FIE)**

**Air Electric Column $\pm 10 \mu\text{m}$
(Unity)**

Digital Callipers and Verniers



Vacuum Heat Treatment



Processes

Vacuum Hardening

Vacuum Tempering

Vacuum Annealing

Vacuum
Stress-Reliving

Vacuum Brazing

Applications

Hot & Warm Forging
Dies

Extrusion

Blanking, Forming,
Stamping, Progressive
Dies

Plastic Injection
Moulds

Pressure Die Casting
Moulds

Future of Heat Treatment

Bansal Brothers has a world class vacuum furnace. Mainly concentrating to ensure consistent metallurgical results as per standards which in turn results in multi fold life of heat treated products.

- Most advanced and controlled way of heat treatment to minimise the external reactions to metals - De-carb/Oxidation.

- Retains desirable quality after heat treatment - Brightness.

- Aides in Longer life and cycles for Tools & Dies & Components.

- Environmental friendly treatment complying to BS-VI standards.

We have well designed systems & components, as in very good pumping stations, efficient heat exchangers including the quintessential quenching fan and the optimised heating chambers.



Metals Treated

Cold Work Steels D2,
K340, SKD 11, 1.2379

High Speed Steels HSS
M2, M35, M41, ASP
2030,

ASP 2050, ASP 2063

Stainless Steel - SS
SS410, SS420, SS440C,
M300, 1.2083

Hot Work Steels - HDS
H 11, H 13, Bohler W302,

DAC, 1.2344, 1.2343,
8401

Precipitation Hardening
Steels -17-4PH , 15-5PH

Comparison

Below you can find the major differences between traditional Heat Treatment and Vacuum Heat Treatment and why it helps in increasing the life and repeatability which in turn saves on conversion costs.

Vacuum Heat Treatment	Oil/Salt Bath (Air Furnace)
<i>Excellent Wear Resistance</i>	<i>Uneven Wear Resistance</i>
<i>Superior Thermal Fatigue Performance</i>	<i>Lesser Thermal Fatigue Performance</i>
<i>Negligible White Layer</i>	<i>Considerable White Layer</i>
<i>Lowest Distortion</i>	<i>High Distortion</i>
<i>Bright Surface Finish as no Scaling or Decarburisation</i>	<i>Considerable Scaling and Decarburisation</i>
<i>Uniform Heating</i>	<i>Non Uniform Heating</i>
<i>Consistent Result due to fully automatic operations</i>	<i>Non consistent result as human error possibilities exist</i>
<i>Pollution Free Process</i>	<i>A lot of pollution and waste produced</i>

Steel

We are reputed traders of all types of engineering steels with an experience of over 40 years.

We can provide black and/or bright bars:

- Low / High / Medium carbon grades (EN1, EN8, EN21, AISI 1050, etc.)
- Stainless Steel (SS202, SS402, SS304, etc.)
- Hot Die Steel (H11, H13, H21, etc.)

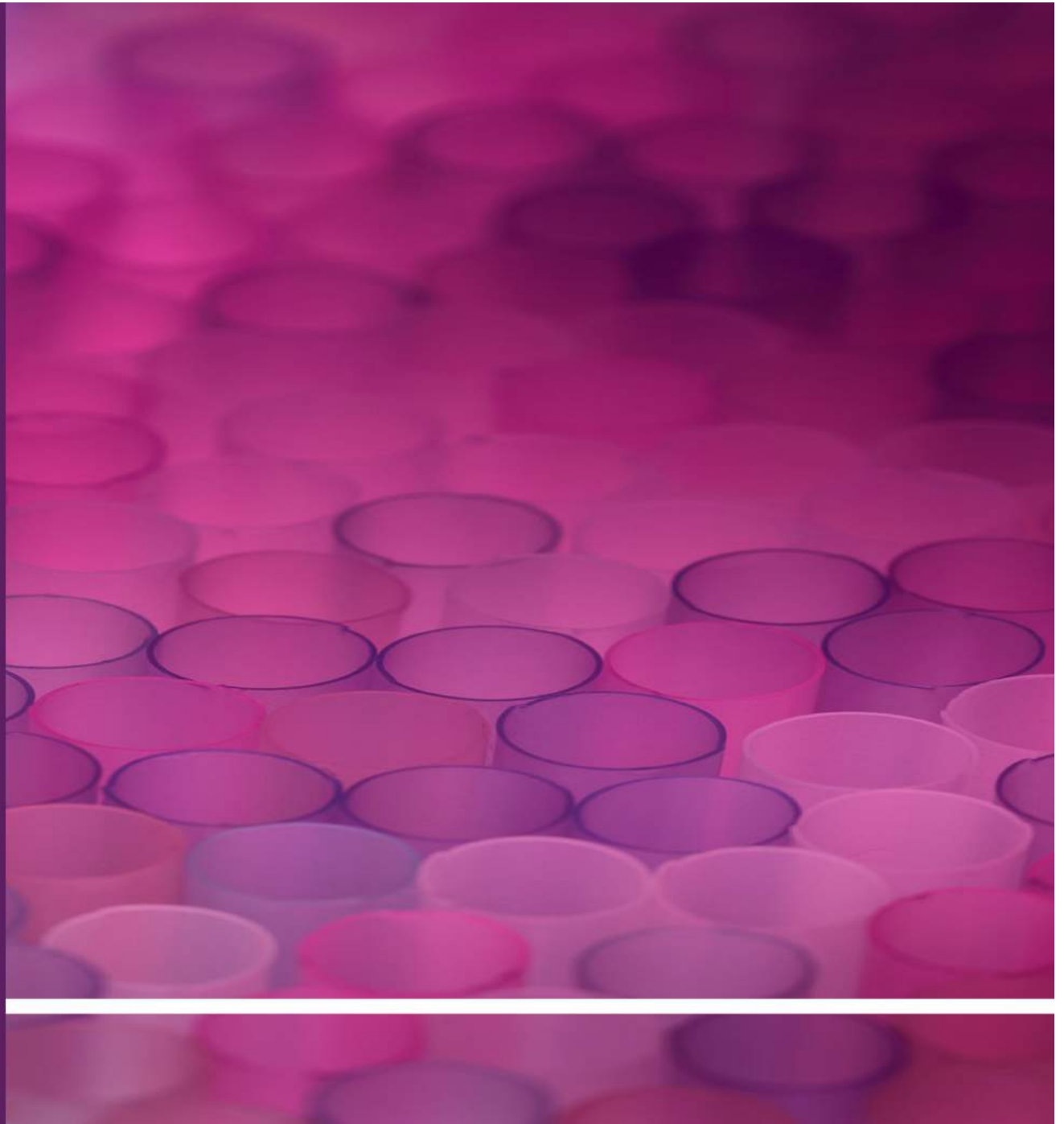
Any other requirement can be fulfilled as per enquiry.



Industrial Gases

We are manufacturers and dealers of Industrial Gases mainly Oxygen, Nitrogen & Argon and have been servicing the Saurashtra region of Gujarat since the past 20 years.

These gases are mainly used in fabrication, demolition, analytics and purging.





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