



UMIYA ENGINEERING SOLUTION

ISO 9001:2015 Certified



REGISTERED OFFICE ADDRESS

268 Suncity Paradise,
B/H Vishwamitry Township,
Manjalpur, Vadodara 390 011.

PLANT ADDRESS

433, GIDC, Makarpura,
Vadodara - 390010.

Umiya Engineering Solution specializes in Oil and Gas product manufacturing like Gas Lift Valves (Flow Control Device), Gas Lift Mandrels, Packers and its accessories, API certifications and QMS with internal auditor, Process Validations like Heat Treatment, Calibration, Welding, NDE & Phosphating (Coating), Knowledge of conventional & CNC machining.

Apart from above machinery we have around 30 CNC turning and VMC in our group, if you can supply any machining work then we can give you all component with full traceability from Raw Material stage to finish part.

OUR VISION

To be the providing all engineering solution
To become the most trusted partner for Quality Assurance.

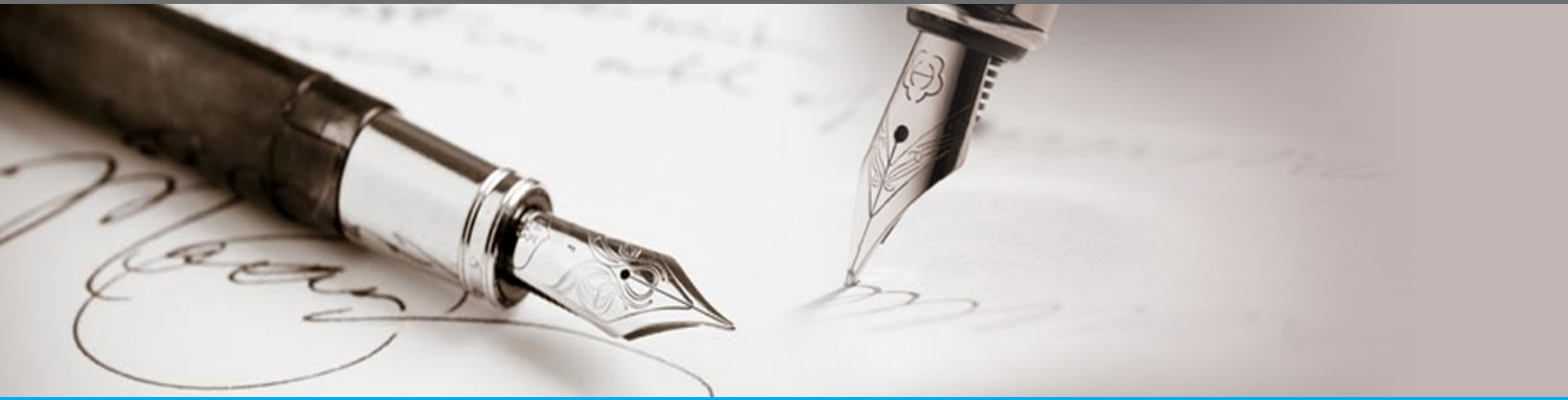


OUR MISSION

To exceed our customers' expectations with innovative and bespoke Assurance, Testing, Inspection and Certification services for their operations and supply chain. Globally. 24/7.



FOUNDER'S EXPERIENCE & EDUCATION QUALIFICATIONS



Sachin Panchal,

13 years of experience of Oil and Gas product manufacturing like Gas Lift Valves (Flow Control Device), Gas Lift Mandrels, Packers and its accessories, API certifications and QMS with internal auditor, Process Validations like Heat Treatment, Calibration, Welding, NDE & Phosphating (Coating), Knowledge of conventional & CNC machining.

Education

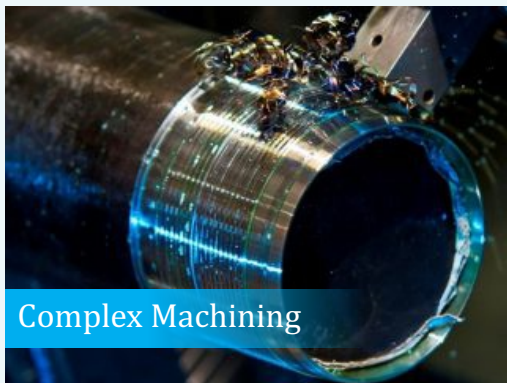
Mechanical Engineer with MBA in Operation Management & Materials Management

Work Experience

2003 to 2005 JVS Engineers as a "QC-In charge"
2005 to Feb 2016- Weatherford-India as a "Manager QA, MR, Assembly and Testing, Phosphate Manager" Till date I have handled manufacturing of API 19G2 (Flow control device) & API 19G1 (Side Pocket Mandrels) (Formerly it was API 11V1), API 11D1 (Packers and Bridge Plugs), API 5CT (threader), API 5B & 5B1 (Tubing and Casing thread inspection)

Apart from above product lines I have also experience of manufacturing PBR (Polished Bore Receptacle), Liner and Hanger, Valve body, casing head, ring joint gaskets as per API 6A, Conventional mandrels and many more Oil & Gas sector's products.

SERVICES



Complex Machining



Water Jet



Coating



Die & Press Shop



Heat Treatment



Metal Finishing

Gas Lift Valves

We can manufacture IPO Valves (Injection Pressure Operated) and mainly categories as “Conventional Valves” & “Wireline Valves along with “Latches”, as you know there are only two sizes in the Gas Lift Valves, one is 1” and another is 1-1/2”. MOC of valves is mainly SS316L or Monel-400, we have a source for both the materials and can manufacture the valves and these valves will be as per API 19G2.

The “Opening” & “Closing” of valves will be as per the equation given in the API 19G2. We can manufacture Conventional Valves, Wireline Retrievable Valves, Orifice Valves, Dummy Valves, Waterflood Valves, Chemical Injection Valves, Back check Valves (Reverse Flow Check Valves)



Latches

Umiya Engineering offers a wide variety of latches for installing wireline retrievable devices in side pocket mandrels. These Latches are manufactured to meet the requirements of API 11V1. They are specifically designed to lock in place when located in either 180 degree or 360 degree latching pocket profile.

To retrieve a latch and attached flow control device, upward jarring of the tool string shears the release shear pin permitting the locking mechanism to disengage from the latch locking profile. 180 degree latch pocket profile have a spring loaded ring style latching mechanism. A ported ID is included in some designs for applications requiring a communication path between the latch and top of the attached flow control device.



Side Pocket Mandrels

Side pocket mandrels (SPMs) give you the cost-effective edge for maximizing your production and revenue while minimizing or eliminating costly workovers. Part of Camco gas lift systems, these mandrels are the most widely recognized and technologically advanced on the market.

Expanding on the innovative and industry-original SPM design, the G-series mandrels have an orienting sleeve, a tool discriminator, and a solid pocket that can be forged or machined.

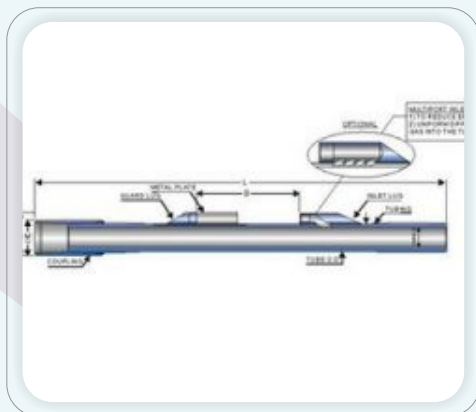
Camco SPMs are manufactured to the strictest industry standards, and a complete line of types and sizes is available to accommodate a multitude of completions and gas lift configurations. These SPMs can be used with a wide variety of Camco retrievable gas lift valves and flow control devices to offer complete life-of-the-well design flexibility.



Packers

Umiya Engineering manufactures packer elements from special elastomer / rubber compounds using cutting edge molding methods. The Packer Element compound must be able to withstand very hostile environments and produce the required isolation in Oil wells. When Packer Elements are manufactured with the right materials and installed properly, the tools should perform at its best. The Packer Elements manufactured by Umiya Engineering often stay in Oil Wells for long periods of service and after they are retrieved, they look as if they could still function for a few more days.

Umiya Engineering Packer Elements are proven to give the desired results when they are inserted on packers and put into the most hostile well environments. With Umiya Engineering Packer Elements, the operation of tools in the Well becomes worry free. Umiya Engineering manufactures packer and other components to fit most manufactures packers, bridge plugs, tubing anchors etc. Some of the OEM companies include ARROW, BAKER, ELDER, GUIBERSON, HALLIBURTON and others. Contact us for more detailed information on our Packer Elements.



Conventional Mandrels

Conventional Mandrels. Offered mandrels are designed by our expert professionals for single-string installations. These components are mainly used in injection pressure operated tubing flow applications as these help to pass the gas in the proper direction. We are also able to provide complete plastic coating to ensure a longer service life. The offered Conventional Mandrels are quality tested and packed in shock proof packages to prevent damage during shipping.

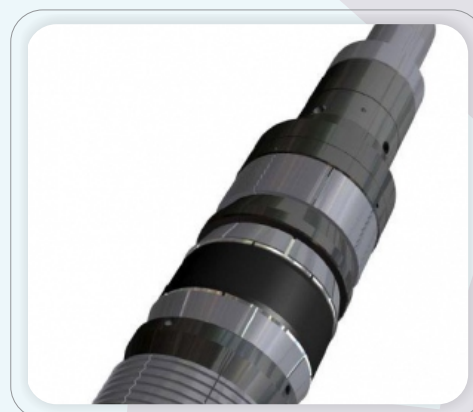
Features:

- Dimensionally accurate
- Easy to fit
- Durable
- Pressure resistant

Bridge Plugs

A downhole tool that is located and set to isolate the lower part of the wellbore. Bridge plugs may be permanent or retrievable, enabling the lower wellbore to be permanently sealed from production or temporarily isolated from a treatment conducted on an upper zone

Bridge Plug also covers under API 11D1.



Polished Bore Receptacle (PBR)

At the top of the liner hanger is a polished bore receptacle (PBR) to accept a seal assembly. The production tubing that is used has basically the same ID as the liner. When the completion is run, a seal assembly is run on the bottom of the production tubing and landed in the PBR

We have an experience of manufacturing of two types of BPR which are as below in the size & only difference in size is its length. The ID of PBR is honed with 0.8 Ra value. Polished bore is required to easy movement of seal stag in ID.

210.70 mm Max OD x 189 mm ID (+/- 0.1 mm) x 3400 mm length

210.70 mm Max OD x 189 mm ID (+/- 0.1 mm) x 2600 mm length

Slips:

Slip is a load bearing component in the Packer. MOC of Slip is mainly 8620; this material is suitable for case hardening. Case carburizing is the most common heat treatment process for the slips as by function slips has to bite the casing so slips surface should be harder than the casing material and it should withstand the impact load which normally slip suppose to bare during Packer set operation. So Slip has to have a harder surface so it must has 56-62 HRC surface hardness and core should be soft to bare impact load. Effective case depth should be 0.8 mm and total case depth should around 1.2 mm.

Other than 8620 material, slips also can be produced in 1026 material.

Slips can also be manufactured in Gray Cast Iron and Ductile cast iron; these casting materials are required to do induction hardening as a surface treatment.



Drag Blocks:

Drag blocks are mainly manufacture in casting and material is again 8620. This also requires a case hardening process to perform its function in the well.



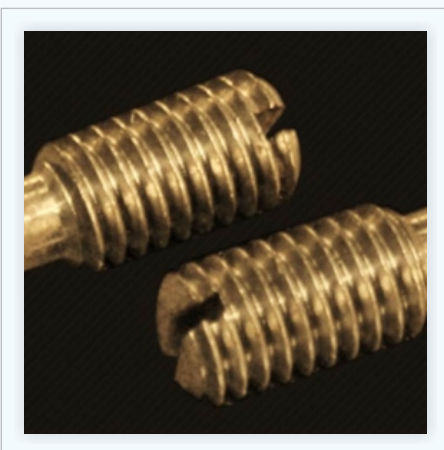
Springs:

We can supply all type of springs used in Packers. Alloy as well as inconel



Shear Screws:

Every shear screw has a range of shear value and it has to be break within that range only. We can procure the shear screw according to your material specification and can machine and test it to get the exact value which should fall under the shear value range.



Elastomer Items :

We can supply Elastomers like o-ring & packing elements used in Packer assembly. Elastomers material can be like Nitrile, HNBR, Viton, Aflas, Neoprene, MFT (Molyfilled Glass Teflon), etc... With different hardness, Tensile and elongation.



Packing Solution

We are manufacturing these nets shown above with different size which is very easy packing to protect seal surface, threading and critical machining area. These nets are available in 25 met lengths only & it's MOQ for each size.

These nets are available from 5 mm OD to 200 mm OD. These nets are stretchable in nature which you can dress on OD.

Thread Protectors

We can manufacture 2-3/8" to 4-1/2" EU & NU thread protectors from virgin High Density Polyethylene material which can withstand temp. from -10° C to 66° C. Please refer our website for more type of thread protectors www.krishnapolymer.com



Copper Washers:

We mainly produce these copper washer from EC grade material which has 99.9% Cu. We can produce according to the customer requirements.



TC Seat & Ball

TC Seat & Ball: TC seat and Ball are used in Gas Lift Valves (Flow Control Device) and both are very important to close the valves within permissible limit.



Machined engineering plastic components

Consultancy can be provided to convert any imported parts which are fitted into assembly or imported tools or machine into indigenous form.
eg. Orifice of water jet machine which was fitted and then imported from Germany to keep in to stock as a spar.

The item orifice is a part which control the jet of the water and sand and it's a consumable as per the manufacturer and it orifice found to be damage then it has to be replaced but every time it has to be import from Germany.

Here I tried to manufacture as per the part provided to me. I did complete analysis and then manufacture as per my experience and the same part which earlier run for only a month or less than that now it's working for 2 to 3 months.

The analysis includes material testing (Tensile & Hardness) & micro structure test. I can also provide heat treatment solution also



Ring Joint Gasket : We are manufacturing

Ring Joint Gaskets as per API 6A in different materials like, Soft Iron, Carbon & Low Alloy Steel, Stainless Steel, Nickel Alloy UNS N08825, other CRAs materials.

Fittings

Brass Fittings

We are manufacturing these nets shown above with different size which is very easy packing to protect seal surface, threading and critical machining area. These nets are available in 25 met lengths only & it's MOQ for each size.

These nets are available from 5 mm OD to 200 mm OD. These nets are stretchable in nature which you can dress on OD.



High Pressure Tube Fittings

High Pressure Equipment Company has developed a line of High Pressure products to assure safe and easy plumbing for 30,000, 40,000 and 60,000 psi. These needle valves, fittings, line filters, check valves, safety heads, rupture discs, anti-vibration gland assemblies, tubing and nipples are engineered to the highest standards of repeatable quality. The reliable performance of these products has made HiP one of the world's leading suppliers of elevated pressure components.

High Pressure components use a coned-and-threaded connection which accommodates the high temperatures and pressures common in these applications. High Pressure valves are available in various tubing sizes and with body designs to satisfy widely varied requirements. A line of fittings is available to facilitate adapting to Taper Seal, Medium Pressure, or other High Pressure threaded pipe systems.



High Pressure Forged Fittings

Since our founding in 1954, Umiya Engineering Solution Company has focused upon the valves, fittings & tubing market segment, consistently committing the resources necessary to be the industry's most reliable and economical source for quality high pressure products. Our extensive line of components and systems is designed to satisfy the unique requirements of elevated pressure applications, with a complete product line that includes valves, fittings, tubing, gauges, safety devices, pressure vessels, reactors, pumping systems, intensifiers, gas boosters and pressure generators for use at pressures through 150,000 psi.



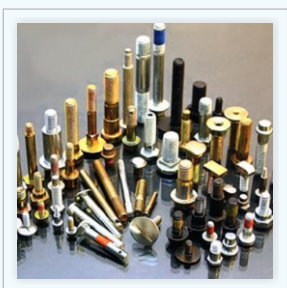
Flanges

A flange is a method of connecting pipes, valves, pumps and other equipment to form a piping system. It also provides easy access for cleaning, inspection or modification. Flanges are usually welded or screwed. Flanged joints are made by bolting together two flanges with a gasket between them to provide a seal.

Fasteners

High Tensile Fasteners

We are manufacturing these nets shown above with different size which is very easy packing to protect seal surface, threading and critical machining area. These nets are available in 25 met lengths only & it's MOQ for each size. These nets are available from 5 mm OD to 200 mm OD. These nets are stretchable in nature which you can dress on OD.



Specialized Fasteners

We mainly produce these copper washer from EC grade material which has 99.9% Cu. We can produce according to the customer requirements. TC Seat & Ball: TC seat and Ball are used in Gas Lift Valves (Flow Control Device) and both are very important to close the valves within permissible limit.

Rolled Fasteners

We mainly produce these copper washer from EC grade material which has 99.9% Cu. We can produce according to the customer requirements. TC Seat & Ball: TC seat and Ball are used in Gas Lift Valves (Flow Control Device) and both are very important to close the valves within permissible limit.





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 +91-98240 02174

 sachin@umiyaengineeringsolution.com

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