BOSS OILWELL®
Products & Manufacturing Inc

Customized Extruded components & machining parts

Boss Equipment & Manufacturing, Inc is the ultimate one-stop solution for oilfield drilling & production equipment, Boss owns 12 different manufacturing plants and R&D centers, including 8000T forging foundry, extruded components, high-profile machining, cladding & Tungsten coating manufacturing plant, high-performance Gear manufacturing plant, API 16A BOP & 6A Valve manufacturer, massive fabrication facility. All of our equipment and parts are manufactured under our own plants to ensure consistent premium quality and rugged superior performance.

--The Ultimate one stop solution for customized extruded components and high-end machining services--

BOSS specializes in manufacturing a wide range of outstanding extruded components.

Extrusions are preferred because:

- Cross section transition is uniform
- No welding, other than the butt welt
- Butt welt can easily be radiographed
- Design flexibility allows placement of outlets where you want them
- More economical. Does away with tees and expensive girth welds
- Resistant to notch-sensitivity and fatigue failures

Downstream extruded components

- MULTI-OUTLET EXTRUDED MANIFOLDS

TOLERANCES:

OUTLETS I.D. ± 1/32”

CENTER-TO-CENTER ±1/8”

OUTLET HEIGHT ±1/8”

RUN END-TO-END ± 3/16”

These extrusions are made cold or hot. Boss's quality assurance program requires 100% liquid penetrant examination inside and out of all BOSS extruded outlets. Single set-up machining of outlets assures uniform face to face, center to center, and outlet height dimensions.

- High-ALLOY EXTRUDED OUTLETS

BOSS has pioneered the manufacture of cold extruded outlets in high alloys. Alloys such as the T-310, 800 H/ HT, T-304, T-347H, etc. All of these grades when subjected to high heat are prone to carbide precipitation, and thus are better frmed cold with female dies.

Subsequent heat treating is required to furnish resistance and ductility. BOSS has the capabilities of cold extruding throiugh 2” wall and up to 36” extruded diameters.

- MATERIALS TESTING & QUALITY ASSURANCE

  To assure that customers’ specifications are met, and quality level is maintained, tests of various types are performed during and after the manufacturing process. These included the following:

  RADIOGRAPHY All BOSS pressure welds are radiographed in accordance with ASME Section V Article II & III. Film negatives are

interpreted to ASME Section VIII Div. I UW51, Section I.PW51, ANSI B31.3, API1104, and specific customers' requirements.

HARDNESS TESTS Used to determine ductility when the air hardened steels, or high strength steels are used. Hardness levels are specified by the customer, or by BOSS where extrusion parameters dictate.

POSITIVE MATERIAL IDENTIFICATION (PMI)

TENSILE TESTS

CVN IMPACT TESTS Charpy "V" notch impact testing may be specified by the customer or required by the specific code to which the material are manufactured. This test is generally utilized where products are subject to low temperature, or high impact loading service.

ULTRASONIC TESTING (UT) BOSS uses U.T. to locate defects, laps, or laminations in material prior to extruding.

LIQUID PENETRANT TESTS P.T. Examination is used extensively to check the quality of extruded and welded products. P.T. examination will detect cracks and linear discontinuities in the product.

METALLOGRAPHIC EXAMINATION BOSS will utilize photomicrographs and photomicrographs at times to determines the grain structure of materials in manufacture