

TRAUMA & SPINE

Trauma & Spine Systems

Precision components for orthopaedic,
trauma and spinal applications.

BETTER DEVICES.
HEALTHIER LIVES.
A MORE MOBILE TOMORROW.

FROM
MICRONS
TO MILLIONS.



**High
Precision**



**Consistent
Quality**



**Scalable
Production**



**Trusted
Manufacturing Partner**

TYPICAL COMPONENTS

- Bone Screws
- Locking Screws
- Cortex Screws
- Cancellous Screws
- Cannulated Screws
- Guide Pins
- Fixation Pins
- Trauma Plate Components
- Interlocking Nail Components
- Pedicle Screws
- Set Screws
- Spinal Connectors
- Rod Components
- Interbody Cage Components

SUITABLE MACHINE TECHNOLOGY



Swiss-Type CNC

High-precision, small-diameter components



Turn-Mill CNC

Complex geometries in a single setup



5-Axis CNC Machining

Advanced, multi-surface components



High-Speed VMC

Efficient production of secondary features



Explore Collaboration
www.afsuham.com/medtechmfg



Submit an Expression of Interest
www.afsuham.com/eoi

**ENGINEERING
POSSIBILITIES
TOGETHER.**

MINIMALLY INVASIVE SURGERY & ENDOSCOPY

PRECISION COMPONENTS FOR LESS INVASIVE SOLUTIONS.

Afsuham manufactures high-precision, small-diameter and complex components for minimally invasive surgical (MIS) systems and endoscopic instruments using advanced Swiss-Type CNC machining and multi-axis technologies.



High
Accuracy



Consistent
Quality



Scalable
Production



Trusted
Manufacturing Partner

SWISS
PRECISION
FOR A
HEALTHIER
TOMORROW.

ENGINEERING
POSSIBILITIES
TOGETHER.

APPLICATIONS



Laparoscopy



Arthroscopy



Gynaecology



Urology



Thoracoscopy



Neurosurgery

TYPICAL COMPONENTS

- Trocar & Cannula Components
- Endoscopic Shafts & Tubes
- Graspers & Forceps Components
- Scissor & Knife Inserts
- Optical Housing Components
- Precision Valves & Connectors
- Handle & Actuation Parts
- Miniature Screws, Pins & Bushings
- Custom MIS Instrument Components

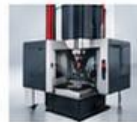
SUITABLE MACHINE TECHNOLOGY



Micro Swiss-
Type CNC



Turn-Mill
CNC



5-Axis CNC /
VMC



Precision
Grinding



Micro-
Machining

SMALLER COMPONENTS. BIGGER POSSIBILITIES.



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ENGINEERING
POSSIBILITIES
TOGETHER.

PRECISION ENGINEERED. QUALITY CONTROLLED. PRODUCTION READY.

SURGICAL ROBOTICS & UROLOGY

PRECISION COMPONENTS FOR ADVANCED HEALTHCARE SYSTEMS.

Afsuham manufactures high-precision components that enable next-generation surgical robotics, urological devices and minimally invasive healthcare systems. From complex instrument drive components to miniature end-effector parts, we help turn innovation into better patient outcomes.



**High
Precision**



**Consistent
Quality**



**Scalable
Production**



**Trusted
Manufacturing Partner**

ENGINEERING
POSSIBILITIES
TOGETHER.

APPLICATIONS



**Surgical
Robotics**



Urology



**Stone
Management**



**Urological
Endoscopy**



**Prostate
Care**



**Bladder
Management**

TYPICAL COMPONENTS

- Robotic Joint & Actuator Components
- Precision Shafts & Couplings
- Instrument Drive Components
- End-Effector Parts
- Guide Tubes & Cannulas
- Obturators & Sheaths
- Valve Bodies & Fluid Control Components
- Handles & Housings
- Miniature Fasteners & Interfaces
- Custom OEM Components

SUITABLE MACHINE TECHNOLOGY



**Swiss-Type
Multi-Axis CNC**
Micro. Complex. Repeatable.



Turn-Mill CNC
Complete Parts. Higher Efficiency.



5-Axis CNC Machining
Complex Geometries. Superior Finish.



Micro-Drilling
Small Features. Big Possibilities.



Precision Grinding
Ultra-Fine Tolerances. Consistent Quality.

MATERIALS

Titanium Alloys | Stainless Steel | Cobalt Chrome | PEEK | Engineering Plastics (as per requirement)



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ENGINEERING
POSSIBILITIES
TOGETHER.

AFSUHAM PRECISION ENGINEERING

Quality, Materials & Process Control

Engineered quality. Measurable confidence.

Afsuham delivers precision medical components through rigorous material control, advanced metrology and disciplined processes — ensuring every part meets the highest standards of quality, traceability and performance.



Highest
Accuracy



Strict
Process Control



Consistent
Quality



Production
Ready



MATERIALS

CERTIFIED MATERIALS FOR CRITICAL APPLICATIONS.



**Titanium
Alloys**

Ti-6Al-4V, Ti CP
& other grades



**Stainless
Steel**

316L, 17-4 PH
& other grades



**Cobalt
Chrome**

CoCrMo
for implant grade



Aluminium

High-performance
grades



**Engineering
Plastics**

PEEK, UHMWPE
and other
medical grades

INSPECTION & METROLOGY

ADVANCED METROLOGY FOR MEASURABLE QUALITY.



CMM



Video Measuring System



Surface Roughness Tester



Profile Projector



Digital Micrometers



Height Gauge



Thread Gauges



Custom Gauges
& Fixtures

QUALITY PROCESS

DISCIPLINED PROCESSES. RELIABLE OUTCOMES.

01



Drawing Review
& Feasibility

02



First Article
Inspection

03



In-Process
Control

04



Final Inspection
& Documentation

05



Continuous
Improvement

QUALITY
ENABLES
BETTER
OUTCOMES.



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