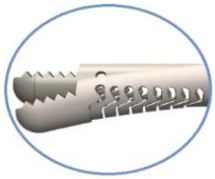
EXECUTIVE SUMMARY

FLEXCUT – Replacing the Gold Standard of Bone and Tissue Resection with an Innovative and Efficient Contoured Solution – Maximizing Surface Contact



To optimize the resection efficiency of bone and tissue in arthroscopic procedures, The Beta Group (www.betagroupllc.com) has developed an innovative and proprietary solution to enhance the performance of shaver blades, burrs, cutters and microdebriders.

The first arthroscopic power-driven device was a patellar shaver introduced in 1975, and since then, blades and burrs commonly address pathologies in joints of the knee, shoulder, hip, ankle, wrist and elbow.[1] The primary objective of a resection device is the precise removal of damaged bone and tissue with an intent of preserving the healthy segments intact. Depending on the surgical application, rigid devices come available in straight, angled and curved configurations. Rigid constructs have remained to be the gold standard design over the past 4 decades, however, rigidity limits surface-to-window contact in remote locations, against irregular structures and along contoured surfaces.

An innovative yet simple solution to optimize resection efficiency is a flexible region beneath the cutting window. The distal end will flex when minimal pressure is applied and return to its original position once force is relieved, enabling the blade to naturally respond along irregular and contoured surfaces. The inner cutting shaft and outer sheath will flex in accordance to the patient's anatomy; thus, optimum surface contact can be achieved. This unique feature provides tactile feedback to the operator, enhancing a surgeon's ability to accurately control the interaction force being applied to the desired surface; thereby, avoiding over-resection and minimizing inadvertent damage to nearby structures.

An advanced cutting technology that delivers tactile feedback and naturally responds to the surface anatomy may result in smooth, precise and rapid resection. More importantly, controlled surface interaction may increase operating efficiency and improve surgical outcomes in both demanding and challenging procedures. Sculpting of articular cartilage, ACL/PCL stump removal, notchplasties, subacromial decompressions, distal clavicle excisions, osteochondral defects and osteophyte resection are few examples of when excessive and precise removal is needed or where surface contact is limited. Superior performance in such settings may reduce OR time and improve clinical outcomes.

Typically, 1-2 cutting devices are used in shoulder and knee arthroscopies, many of which are reprocessed after the procedure. The reprocessing of single-use blades and burrs raise concern for several reasons: 1) inadequate cleaning and sterilization methods are susceptible to hazardous contamination which can lead to infection or equipment malfunction, 2) devices are more prone to generate particle debris and metal ion release which can cause adverse reactions and inflammation of the joint, and 3) multiple use results in dulling of the blade which decreases cutting performance and operating efficiency.[2-3]

Approximately 90% of the resection market is dominated by 5 companies, however, minimal differentiation is seen among shaver blades and burrs. In a competitive landscape saturated with "me too" product technologies, the opportunity to capitalize on innovation is vital for key players to sustain and capture market share.

FlexCut Technology holds promise to optimize resection efficiency, enhance surgeon control, reduce OR time, improve patient outcomes, and eliminate concerns with reprocessed devices. Designed to maximize overall performance and improve surgical outcomes, FlexCut Technology delivers innovation and differentiation in a highly competitive market.

OVERVIEW & HIGHLIGHTS

Intellectual Property

- Patent US 9,474,541 B2

Attractive Arthroscopy Market

- 6M arthroscopies worldwide: 4M knees & 1.6M shoulders[4]
- 1M+ knees: 100,000 ACL's & 750,000 meniscectomies (U.S.)[5-6]
- 650,000+ rotator cuff repairs (U.S.)[7]
- 100,000+ hip arthroscopies (U.S.)
- ~20% procedures in small joints; ankle, wrist & elbow
- Other: Spine & ENT microdebriders

Driving Growth Factors

- Increased sports related activity
- Aging population
- Rise in obesity
- Adoption of minimally invasive procedures

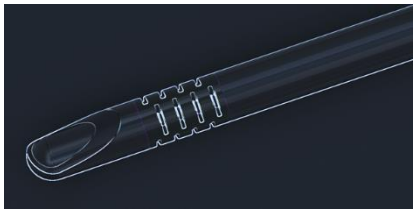
FlexCut Technology Highlights

- Optimum surface contact along irregular & contoured surfaces
- Natural response delivers smooth, precise & rapid resection
- Tactile feedback allows controlled, accurate & efficient removal
- Superior performance improves operating efficiency & enhances clinical success
- Eliminate concerns with reprocessed blades & burs
- Intuitive concept, no training required & compatible with existing power consoles
- User adoption, market penetration & premium pricing
- Patented technology

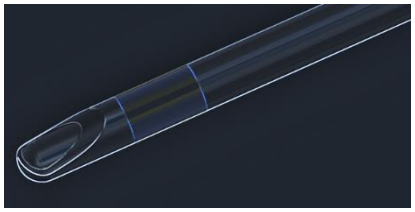
Innovation & Differentiation in a Highly Competitive Market

Conceptual Designs

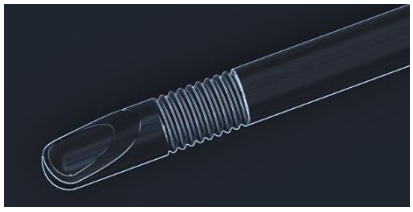
Numerous design variations may allow the distal member to flex once force is applied and return to its natural position once pressure is relieved. For further details, please refer to patent number US 9,474,541 B2.



- Variations in laser cut patterns, slits and slots to existing rigid metallic sheaths



- Region composed of a deformable elastic material such as nitinol, polymer, etc.



- Puzzle-piece, spherical, coiled, accordion-style or other design variations

Features & Benefits

RESECTION EFFICIENCY	**Optimal Surface Contact** allows rapid and efficient resection in anatomically remote locations, against irregular structures and along contoured surfaces
TACTILE FEEDBACK	**Enhanced Surgeon Performance** with ability to accurately control the interaction force being applied to the surface, avoiding over-resection and minimizing inadvertent damage
NATURAL RESPONSE	**Precise, Smooth & Controlled Resection** may increase operating efficiency and improve clinical outcomes
ACCESSIBILITY	**Straight, Angled & Curved** sheath options with a flexible feature maximizes resection efficiency in tight and hard-to-reach locations
COST-EFFECTIVE	**Operating Efficiency** reduces OR time and potential complications in demanding and challenging procedures
IMPROVED RESULTS	**Intraoperative & Postoperative Outcomes** may benefit both hospitals and patients from a cost and clinical success standpoint
PATENTED TECHNOLOGY	**Differentiated & Innovative Solution** promotes user adoption and market share penetration within a competitive landscape saturated with "me too" product technologies

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