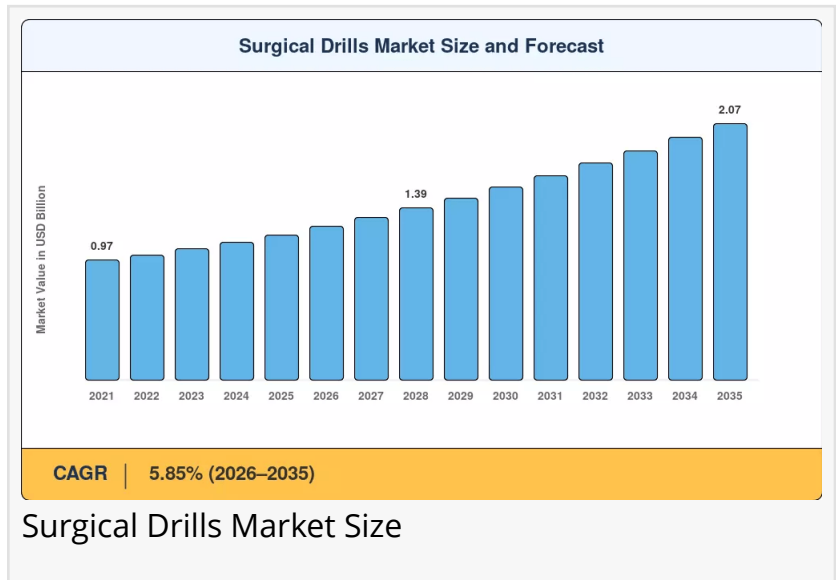


Surgical Drills Market to reach USD 2.07 Billion by 2035 at 5.85% CAGR

Surgical Drills Market to Surge from USD 1.24 Bn in 2026 to USD 2.07 Bn by 2035- By Rising Global Surgical Volumes, Cordless Battery Technology Advancement

NY, CA, UNITED STATES, June 17, 2026 /EINPresswire.com/ -- As per Market Research Future, the [global Surgical Drills Market size](#) to reach USD 2.07 Billion by 2035 from USD 1.24 Billion in 2026, at a CAGR of 5.85% during the forecast period 2026--2035. The market base was estimated at USD 1.17 Billion in 2025.



The 5.85% CAGR---anchored by structural surgical demand rather than discretionary healthcare spending---is driven by three converging forces: rising global surgical volumes that continue to widen the addressable base for powered surgical drill systems, sustained cordless battery technology advancement that has pulled orthopedic bone drilling tools into routine procurement cycles, and robotic and navigation platform integration that has converted sterile surgical power tools from standalone instruments into precision-calibrated components of integrated surgical ecosystems.

National governments and multilateral health organizations are amplifying this momentum. The WHO estimates that over 310 million major surgical procedures are performed annually worldwide, a figure growing at roughly 3% per year as developing nations expand operating-room capacity. The U.S. Centers for Medicare & Medicaid Services (CMS) expanded ASC-eligible procedure codes by 18% between 2022 and 2025, moving total joint arthroplasty and select spinal decompressions into outpatient settings.

The global installed base of orthopedic surgical robots grew 34% year-over-year in 2024, crossing 12,500 units, each robotic console requiring drill handpieces calibrated for sub-millimeter navigated accuracy. India's Ayushman Bharat targets 150,000 new surgical beds by 2028, directly

translating into equipment procurement cycles favoring modern orthopedic bone drilling tools. Together, these initiatives are creating the procurement infrastructure and delivery innovation on which the Surgical Drills Market depends.

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Key Market Trends & Growth Drivers

Rising Global Surgical Volumes and ASC Expansion

Global surgical schedules increasingly exceed 310 million major procedures annually, with each orthopedic, neurosurgical, and dental intervention creating demand for powered surgical drill systems, drill bit for bone surgery accessories, and post-operative instrument maintenance. The WHO estimates that over 310 million major surgical procedures are performed annually worldwide, a figure growing at roughly 3% per year as developing nations expand operating-room capacity.

Each incremental procedure requiring powered surgical drill systems---from hip arthroplasty to spinal fusion---creates recurring demand for both capital equipment and consumable drill bits for bone surgery accessories. National programs such as India's Ayushman Bharat, which targets 150,000 new surgical beds by 2028, directly translate into equipment procurement cycles favoring modern orthopedic bone drilling tools.

CMS expanded ASC-eligible procedure codes by 18% between 2022 and 2025, moving total joint arthroplasty and select spinal decompressions into outpatient settings. ASCs purchasing new orthopedic bone drilling tools favor compact, cordless kits with rapid-swap sterile surgical power tools that fit tighter instrument trays. This channel already accounts for the fastest-growing end-user segment in the Surgical Drills Market.

Early-adopter health systems report that the shift toward cordless sterile surgical power tools reduces operating-room turnover time by an estimated 6--8 minutes per case. In the U.S. alone, over 1.2 million total joint replacements are performed annually, with a growing share migrating to ASC settings that demand compact powered surgical drill systems.

Cordless Battery Technology Advancement

Legacy pneumatic-line setups are giving way to cordless, battery-driven platforms that pair smart lithium-ion packs with software-guided torque profiles. Lithium-ion cells with energy densities exceeding 270 Wh/kg now allow surgical handpieces to sustain 70+ minutes of continuous drilling on a single charge, eliminating the need for cumbersome pneumatic hose infrastructure. Autoclavable battery modules rated for 500+ sterilization cycles have reached cost parity with pneumatic maintenance contracts, tipping the replacement calculus for mid-size hospitals. The

shift toward cordless sterile surgical power tools also reduces operating-room turnover time by an estimated 6--8 minutes per case.

Pooled procurement through hospital group purchasing organizations drives per-unit prices down for high-volume orthopedic bone drilling tools, expanding access while compressing manufacturer margins. Cordless platforms typically deliver 15--20% lower ten-year cost versus pneumatic lines when accounting for maintenance, hose replacement, and infrastructure upkeep. In the US, battery-powered drill platforms are forecast to expand at a 6.55% CAGR through 2035, driven by cordless convenience and improved autoclavable lithium-ion packs. This adoption curve is now extending to Europe and Asia-Pacific markets as hospitals modernize their sterile surgical power tools inventories.

Robotic and Navigation Platform Integration

The global installed base of orthopedic surgical robots grew 34% year-over-year in 2024, crossing 12,500 units. Each robotic console requires drill handpieces calibrated for sub-millimeter navigated accuracy, creating a pull-through demand channel for precision-engineered cranial neurosurgery drills and orthopedic burr sets. Stryker's Mako and Medtronic's Mazor X Stealth platforms both stipulate proprietary powered surgical drill systems, locking device revenue to the console's installed base. The global installed base of surgical navigation systems surpassed 12,000 units in 2024, each requiring compatible sterile surgical power tools.

Hospitals investing in robotic-assisted surgery suites increasingly demand orthopedic bone drilling tools that integrate with navigation towers, and manufacturers have responded with drill bit for bone surgery sets engineered for sub-millimeter repeatability. This convergence compresses capital budgets---one integrated system replaces two---and lowers the training burden on surgical teams. By 2028, an estimated 45% of newly installed robotic-surgical systems globally will include factory-integrated navigation, up from 22% in 2024, accelerating replacement cycles across the Surgical Drills Market. The trend toward integrated surgical ecosystems---where a single vendor supplies the robotic arm, navigation tower, and drill bit for bone surgery consumables---is concentrating wallet share among three to four global players.

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Market Segment Insights

BY PRODUCT

Electric Drills: Dominant segment with ~58.8% revenue share in 2025. Reflecting hospital preference for consistent high-torque output in orthopedic bone drilling tools. Wall-powered torque consistency is critical during cortical reaming in high-volume orthopedic settings. Electric drills remain the revenue leader, preferred in settings where sustained power delivery and

predictable speed control are paramount.

Battery-Powered Drills: Fastest-growing product segment at 6.55% CAGR (2026--2035). Driven by cordless convenience and improved autoclavable lithium-ion packs. Next-generation cells achieving 280 Wh/kg enable powered surgical drill systems that match corded output for over 70 minutes of continuous use. The elimination of pneumatic hose infrastructure and reduced OR turnover time make battery-powered platforms the preferred upgrade path for mid-size hospitals.

Pneumatic Drills: USD 0.22 Billion in 2025. Legacy installed base in cost-sensitive facilities drives residual demand. Pneumatic drills retain a niche in facilities where centralized gas infrastructure is already amortized, though replacement cycles increasingly favor battery-driven sterile surgical power tools.

BY SPEED

High-Speed Drills (Above 60,000 rpm): Dominant segment with ~65.1% revenue share in 2025. Favored in cranial neurosurgery drills and dental applications where rpms above 60,000 reduce thermal exposure time. High-speed systems dominate procedures requiring fine burring and craniotomy work.

Standard-Speed Drills (Below 60,000 rpm): Growing segment at 5.40% CAGR (2026--2035). Dense cortical bone work in orthopedic trauma drives demand. Standard-speed systems excel in heavy orthopedic bone drilling tools applications---such as intramedullary reaming---where controlled torque at lower rpms prevents cortical micro-fracture.

BY APPLICATION

Orthopedic Surgery: Dominant application with ~61.2% revenue share in 2025. Joint replacement and trauma fixation serve as primary volume drivers. The global knee and hip replacement market alone exceeds 4 million procedures annually. Each incremental procedure creates recurring demand for both capital equipment and consumable drill bits for bone surgery accessories.

Dental Surgery: Fastest-growing application segment at 6.96% CAGR (2026--2035). Fueled by implantology growth in emerging economies. Volumes of dental implants in Asia-Pacific are increasing at an estimated 14% per annum, driven by rising disposable income and aesthetic awareness in China, South Korea and Southeast Asia. Guided implant protocols increasingly specify dedicated high-speed drill bit for bone surgery sets that pair with CBCT imaging software.

Neurosurgery: USD 0.09 Billion in 2025. Cranial neurosurgery drills for burr-hole and craniotomy drive demand for high-speed precision instruments. The sub-millimeter accuracy requirements

of cranial procedures favor premium drill platforms with integrated navigation compatibility.

ENT & Others: Growing segment at 4.85% CAGR (2026--2035). Mastoidectomy and sinus surgery instrument upgrades drive incremental demand.

BY END USER

Hospitals & Clinics: Largest segment at ~73.8% share in 2025. Capital budgets, complex case mix, and robotic suites dominate volume, channeling routine sterile surgical power tools supply. Hospitals command the largest share of procurement, driven by case complexity and robotic-platform requirements.

Ambulatory Surgery Centers: Fastest-growing end-user segment at 6.33% CAGR (2026--2035). Outpatient joint replacement and lower overhead cost model drive demand. ASCs purchasing new orthopedic bone drilling tools favor compact, cordless kits with rapid-swap sterile surgical power tools that fit tighter instrument trays. U.S. ASC-eligible orthopedic codes expanded 18% since 2022.

Specialty Clinics & Others: USD 0.05 Billion in 2025. Dental chains and neurosurgery centers of excellence represent incremental demand channels.

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Regional Outlook

North America -- Dominant Market (~43.0% Share, 2025)

The United States generates approximately 78.5% of North American Surgical Drills Market revenue, driven by Medicare ASC expansion, robotic surgery adoption, and over 1.2 million total joint replacements performed annually---a single policy shift that converted a pneumatic-dominated market into one with a structural cordless and robotic tail. The US dominates through a combination of high procedural volumes, rapid ambulatory surgery center expansion, and integrated robotic-drill ecosystem adoption. CMS expanded ASC-eligible procedure codes by 18% between 2022 and 2025, moving total joint arthroplasty into outpatient settings that demand compact powered surgical drill systems.

Europe -- Second Largest (USD 0.32 Billion, 2025)

Europe's Surgical Drills Market reflects divergent national strategies---Germany leads regionally with its strong medtech manufacturing and clinical research base, contributing ~28.3% of regional share, while the UK historically used selective drill targeting before broadening coverage through the NHS Elective Recovery Plan backed by GBP 8 Billion through 2025, targeting a 30%

increase in orthopedic throughput. France is growing at steady pace on national robotic surgery deployment targets. Italy is growing at 5.30% CAGR on aging population driving joint replacement volumes. Spain is growing at 4.95% CAGR on medical tourism and private hospital investment.

Asia-Pacific -- Fastest-Growing Region (6.62% CAGR, 2026--2035)

Asia-Pacific is the engine of the Surgical Drills Market. China holds the largest regional share with ~34.2% of regional revenue, driven by domestic manufacturing and volume-based procurement reforms that simultaneously compress per-unit prices and expand procedural access in tier-2 and tier-3 cities. India is growing at 7.85% CAGR on the back of Ayushman Bharat surgical infrastructure expansion---targeting 150,000 new surgical beds by 2028, requiring full orthopedic bone drilling tools equipping and presenting a multi-year procurement wave. Japan contributes USD 0.04 Billion through super-aging society driving orthopedic procedure growth at steady pace.

Middle East & Africa -- Emerging Opportunity (5.15% CAGR, 2026--2035)

The Middle East & Africa carries the widest infrastructure gap and therefore the steepest opportunity. Saudi Arabia leads the region with Vision 2030 healthcare infrastructure investments, contributing ~32.5% of regional share---constructing five mega-hospital complexes totaling 10,000 beds, each requiring full orthopedic bone drilling tools and cranial neurosurgery drills suites. The UAE is growing at 5.60% CAGR on medical tourism hub development, with Dubai and Abu Dhabi hosting international orthopedic centers that import premium sterile surgical power tools. South Africa contributes USD 0.01 Billion on public-hospital equipment refresh programs.

South America -- Growing Presence (USD 0.06 Billion, 2025)

Brazil anchors South America's Surgical Drills Market at ~62.0% of regional revenue, with the SUS public-health modernization plan including capital grants for 120 regional trauma centers, creating procurement openings for powered surgical drill systems and consumable drill bit for bone surgery kits. The private orthopedic clinic segment in Argentina is growing as cross-border medical tourism from neighboring countries increases demand for sterile surgical power tools. Argentina is growing at 5.05% CAGR on private-sector orthopedic clinic expansion.

Competitive Landscape and Recent Developments

The Surgical Drills Market exhibits medium concentration, with the top five players capturing an estimated 55--62% of global revenue. Stryker and Medtronic lead through integrated robotic-drill ecosystems, while mid-tier specialists compete on niche innovation in cranial neurosurgery drills and dental handpieces. The competitive field is consolidating as platform economics favor vendors offering end-to-end surgical workflows.

The competitive landscape is stratified between full-ecosystem orthopedic leaders serving high-volume hospital networks, spine and cranial navigation specialists capturing robotic-console tenders, and European hospital network strength providers consolidating the mid-tier surgical motor segment.

KEY COMPANIES AND RECENT MILESTONES

Stryker Corporation (2024--2025): Maintains leadership with System 9 power tools and Mako robotic integration, commanding ~14--18% of global Surgical Drills Market revenue. Full-ecosystem orthopedic leader serving high-volume hospital networks globally. Premium platform positioning in robotic joint replacement offsets tender-price compression in pooled procurement.

Medtronic plc (2024--2025): Midas Rex and Mazor X Stealth drill compatibility anchor a strong spine and cranial navigation franchise, holding ~10--14% of global revenue. The company benefits from the structural robotic surgery tail created by expanded navigation platform adoption.

DePuy Synthes (J&J) (August 2024): Expanded VELYS robotic platform compatibility to include third-party drill bit for bone surgery consumables, broadening the ecosystem. Power Pro electric system and VELYS robotic platform anchor a broad trauma and joint reconstruction franchise, holding ~9--13% of global revenue.

Future Outlook: 2026--2035

By 2030, AI-autonomous drilling and closed-loop feedback will become the operating system of precision bone preparation. AI-driven closed-loop drill systems are expected to manage torque, depth, and thermal load autonomously during bone preparation. Clinical trials at Johns Hopkins and Charité Berlin have shown that sensor-fused powered surgical drill systems reduce cortical breach rates by 38% compared with manual control. Machine-learning algorithms that adjust drilling speed and torque in real time, depending on bone-density feedback, are a high-value adjacency for powered surgical drill system producers. Early prototypes have shown a 42% reduction in risk of heat necrosis during cortical drilling. As these platforms commercialize, the Surgical Drills Market will shift value from hardware margins to software-subscription revenue.

Platform economics and ecosystem lock-in will reframe cost structures by the early 2030s. The trend toward integrated surgical ecosystems---where a single vendor supplies the robotic arm, navigation tower, and drill bit for bone surgery consumables---is concentrating wallet share among three to four global players. Stryker, Medtronic, and J&J each operate closed platforms that lock drill handpiece revenue to console placements, mirroring the razor-and-blade model. Smaller manufacturers of orthopedic bone drilling tools must forge OEM partnerships or risk disintermediation. As per-device software costs fall with scale, the addressable channel widens

from academic centers to community hospitals and ASCs. By 2032, recurring software and data-services revenue could account for a meaningful share of total market value.

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