



**Indian Standard IS 9471 : PART 5 : SEC 1 : 1980 - Modular
Lower Limb Orthotic Components - Part 5 : Joint Unit Section 1 :
Knee**

Knee joint units are essential components of modular lower limb braces, designed to provide support and stability to individuals with knee impairments or injuries. These units come in two main types: off-set and drop-lock, allowing for adjustable functionality based on the user's needs. It assists in recovery from knee surgeries or injuries by limiting movement and providing stability, offers support for individuals with conditions like arthritis or ligament injuries, enhancing mobility and reducing pain. Also modular design allows for easy adjustments and replacements, catering to varying levels of activity and rehabilitation progress.

Customers expect knee joint units to be made from high-strength materials that can withstand regular use without failure or wear. The units should provide a comfortable fit, allowing for natural movement while preventing discomfort or irritation during use. Customers look for features that allow for easy adjustments to accommodate different activity levels and rehabilitation needs, ensuring optimal support and stability. The joint units should be designed to prevent accidental locking or unlocking, ensuring user safety during movement.

Indian Standard, **IS 9471 : Part 5 : Sec 1** specifies that knee joint units must be manufactured from high-strength, heat-treatable stainless steel, ensuring durability and reliability. It outlines precise dimensions and shapes for the joint units, allowing for a tailored fit that enhances comfort during use. The inclusion of two types of knee joint units (off-set and drop-lock) provides options for users, catering to different functional needs and preferences. The standard emphasizes accurate machining and the requirement for components to be free from defects, ensuring the safety and reliability of the joint units. Specifications for electro-polishing and finishes indicate a focus on maintaining cleanliness and ease of care for the joint units.