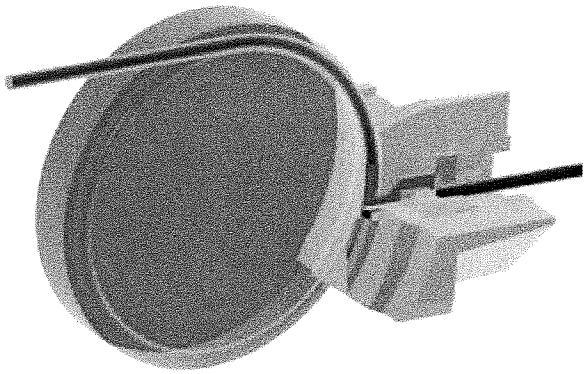
The Conform Process

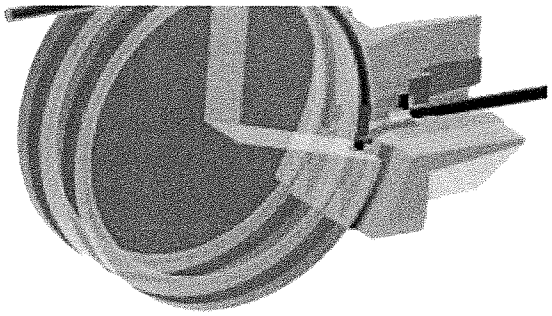
The use of a single revolving wheel as the driving force in an extrusion process enables the manufacture of products of unlimited length. In its simplest form the wheel has a single groove in its periphery which accepts the feedstock and transfers the material to the extrusion zone and die.



The diagram right shows the configuration normally used for the production of solid and hollow sections. As the product leaves the wheel in a radial direction the process is commonly referred to as radial extrusion.

A die chamber, carrying the appropriate die , is supported in a massive shoe. The die chamber incorporates an abutment which protrudes into the wheel groove which itself carries the feedstock material. The force applied by the rotating wheel causes the feed material near the abutment to flow plastically into the die chamber and exit through the die as the final product. While the feedstock is usually in the form of rod, the process can also operate with material of any morphology provided that it can be fed into a groove of suitable size.

The capacity and flexibility of the process is substantially



increased by the use of two grooves in the wheel as shown in the diagram left. This format enables extrusions of larger cross-sectional area to be produced with standard size feed rods and at acceptable output rates.

The twin groove system also allows the use of more robust tooling in the extrusion zone and creates more space to permit extrusions of high width to thickness ratio to be produced.

Improved tooling design, in twin groove configuration, particularly for hollow sections, provides effectively seamless products which can be produced at higher output speeds and tighter tolerances.