



Presenting

SOMTA Tools (Pty) Ltd

Somta Tools specialises in the design and manufacture of standard and custom tools for the industrial and "do it yourself" markets. Product categories can be summarised as drills, cutters, reamers, threading tools and toolbits, which are made in a wide range of sizes, using various materials (HSS and Solid Carbide) and Balzers PVD surface coatings to extend wear life.

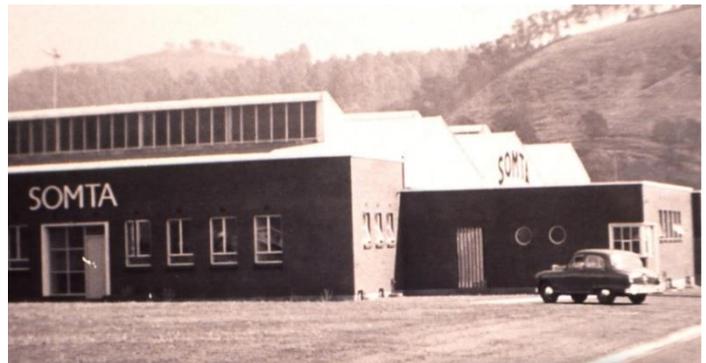
The company's vision of "To manufacture and supply superior cutting tools, driven by a culture of service excellence, to global and domestic markets" is supported by ISO accreditation which was first achieved in 1991 and still remains in place today.

Company History

Somta Tools was founded in 1954 by Samuel Osborn Ltd of Sheffield, England. The name Somta is an acronym derived from the names of Samuel Osborn (founder of Osborn Steels U.K.), and Robert Mushet (the 19th century inventor of High Speed Steel).

The full name being

Samuel **O**sborn **M**ushet **T**ools **A**frica



Original Products: Somta started out producing Twist Drills, Reamers, Toolbits and Chisels with a complement of about 20 employees.

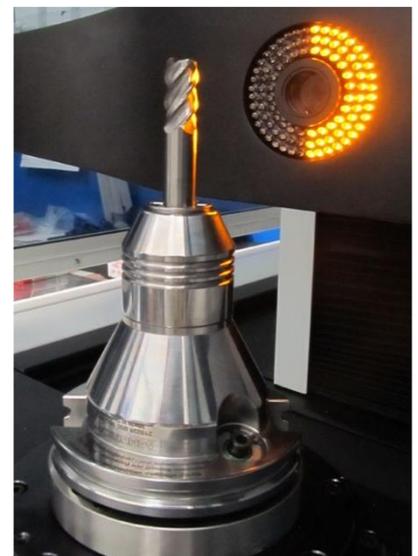
A First: One of Somta's claims to fame is that its former parent company produced the first Twist Drill made from High Speed Steel. Prior to 1870, twist drills were made from a flat piece of steel and then physically twisted, hence the name. Thereafter the flutes were produced on milling machines until the grinding method arrived.

US\$2 million Investment in Balzers Coating Plant

In 2003, Somta integrated a state-of-the-art Balzers PVD Rapid Coating System into its manufacturing programme, offering the Innovative range of Balzers BALINIT® high Performance coatings on all cutting tools. This enabled Somta to offer coated cutting tools to compete with the very best high tech tool producers in the world.

Carbide Production Facility Expansion

In 2012 Somta invested over ten million rand in a single year on state-of-the-art CNC equipment, which saw the company quadruple its carbide tool manufacturing capacity, thereby improving delivery times. Included in this investment was a Walter Helicheck Basic 3, for non-contact complete measurement of rotationally symmetrical precision tools with complex geometry, which significantly improves quality and inspection procedures.



To accommodate these new machines and allow space for further expansion, the carbide production facility was expanded. This expansion allowed for a dedicated test and training facility which included the addition of a HAAS VF-3YT CNC vertical machining centre, to test, run and enhance current and new tool designs, as well as for training purposes.

SOMTA can now utilize its state-of-the-art R&D facility to find solutions to difficult machining applications or material types. SOMTA is able to simulate the production conditions so that their customers no longer have to break into critical production lines to conduct testing. No other facility on the African continent boasts the combined manufacturing, measuring, coating and testing capabilities of Somta Tools.



Introducing the Present and Future of Somta Tools (Pty) Ltd

Product Range Today: The factory in Pietermaritzburg manufactures 7 000 standard items and a further 3 000 made-to-order items to serve local markets and export markets in over 70 countries worldwide.

Staff Complement: From humble beginnings in 1954 with 20 employees, Somta has grown into one of the largest cutting tool manufacturers in the southern hemisphere, operating from offices and modern manufacturing facilities laid out over 3 hectares with a complement of over 400 employees.

Factories: We have separate factories for Blank Prep, Heat Treatment, Drills, End Mills, Taps, Reamers, Specials, carbide and Coating all on one site.

Standard Products

Straight Shank Drills

Straight shank drills are the most common drill type used in portable as well as fixed drilling applications. Somta manufactures various types of straight shank drills with differing flute geometries to suit specific applications. Drills are available in stub, jobber, long series and extra length versions. Drill material types are HSS, HSS-Co5 and Solid carbide.

Morse Taper Shank Drills

MTS drills are generally used in fixed drilling applications. Somta manufactures various types of MTS drills with differing flute geometries to suit specific applications. Drills are available in standard and extra length versions. Drill material types are HSS, HSS-Co5 and HSS-Co8.

Sockets and Sleeves

Sockets and sleeves are used for accommodating a MTS tool that has a different shank size to that of the machine arbor.

Reamers, Countersinks and Counterbores

Reamers are used for finishing a pre-drilled hole to a diameter that conforms to a closer tolerance than the drilled hole diameter. The reamed hole will have a superior surface finish and a closer diameter tolerance than that of a drilled hole. Reamers are used to produce holes which require a specific fit with a mating part. Countersinks are used for producing a chamfer on drilled or



reamed holes, usually to accommodate a countersunk head screw. Counterbores are used for counter-boring a drilled or reamed hole to accommodate a capscrew head. Countersinks and Counterbores are available with either a straight shank or a MTS.

Bore Cutters

These cutters are generally used in milling applications on horizontal milling machines.

Shank Cutters

The term "shank cutter" is used to loosely refer to a range of tools that have threaded, plain or flatted shanks. These tools are generally used in milling applications on vertical milling machines. Shank Cutters are available in regular and long series. Shank Cutter material types are HSS, HSS-Co5, HSS-Co8, HSS-Co8e and Solid Carbide.

Threading Tools

These tools are used to produce internal threads (taps) and external threads (dies). Short Hand Taps are for use in hand tapping applications using a tap wrench. All short hand taps have straight flutes. Short Machine taps are for use in machine tapping applications.

Helical flute machine taps are designed for use in blind hole tapping applications. The spiral flute of the tap is designed to direct the swarf up out of the tapped hole thereby preventing swarf buildup in the tapped hole. Gun Nose (spiral point) machine taps are designed for through hole tapping applications. The gun nose (spiral point) is designed to direct the swarf ahead of the tap in the hole thereby preventing swarf buildup in the tapped hole.



Toolbits

Toolbits are manufactured for use in turning applications where the user can grind the required profile onto the tool bit.

Application Products

Colour Band Range

SOMTA Colour Band Application range of drills and taps is specially designed to optimize your machining performances. Each range has been designed with different cutting geometries and surface treatments to ensure optimum tool performance for each specific material category.

MTS Chipbreaker Drills

This outstanding development increases drill cutting efficiency by means of greatly improved chip control. A chipbreaker rib is positioned along the length of the flutes, which curls and breaks long chip forming material into small manageable chips for easier evacuation. There is no clogging of chips in the flutes, as small chips flow freely along the flutes. The chipbreaker drill thus cuts more freely than standard drills.



Reamer Tool Range

Established in 1954, Somta offers a range of high quality standard reamer products and custom reaming solutions. From closest tolerance precision machining of extremely accurate holes through to enlargement, alignment and deburring of holes for construction, assembly and general purpose applications. We have a product or a solution to satisfy your specific engineering requirements.

Solid Carbide Tooling (Standard Range)

Somta's Solid Carbide Tooling Standard Range is a comprehensive family of solid carbide stub and jobber length drills, 2 and 4 flute end mills and ball nose end mills, in both regular and long series.

Solid Carbide End Mills for Aluminium

Somta's high efficiency carbide end mill range with optimal flute geometry provides all the required features for high performance machining of aluminium, with the added benefits of greater stock removal rates at high speeds and feeds, excellent surface finish quality and extended tool life.

Solid Carbide Hard Material End Mills

A range of high performance finishing end mills for operation on hard materials up to 52HRC (512HB), plus Somta's hi-feed end mill with patent pending geometry that removes the most amount of material in the least amount of time combined with extended tool life, for use on hard and super hard steels up to 62HRC (684HB).

Solid Carbide VariCut End Mill

Somta's new "Vari-Style" End Mill, VariCut has a new patent pending tool design. This unique design uses a new core form and a new reinforced end geometry with unequal flute spacing which enables it to remove the most amount of material in the least amount of time with an excellent surface finish. On Stainless, or Titanium, it will match or outperform any other 4 flute "Vari-Style" End Mill in the market.



UD Parabolic Flute Drills

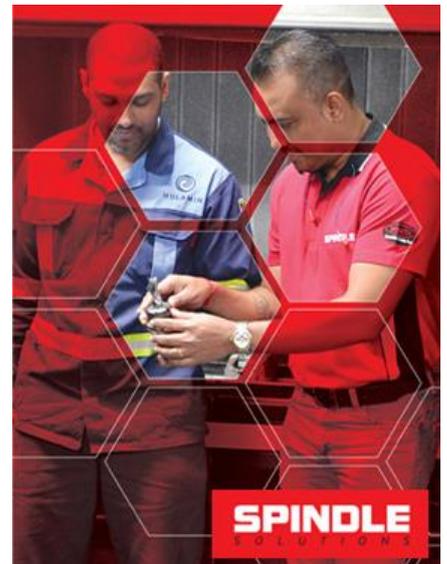
A comprehensive range of heavy duty drills designed with improved point and flute geometries for enhanced penetration and chip removal in long chip forming, short chip forming and abrasive material groups. This range of Parabolic Flute Ultra Drills are designed to meet the challenges of a broad spectrum of difficult drilling applications.

Somta Spindle Solutions

Ensuring Excellence from Our Production Line to Yours

Somta's Spindle Solutions Team is a division of Somta Tools that is dedicated to assisting tool users in their efforts to solve technical machining challenges, improve productivity, enhance the performance of their machinery and reduce production costs.

The Spindle Solutions Team maintains an efficient, informative and productive rapport between Somta, its distributors and end users. One of the benefits of this is that information gathered at the spindle is taken to Somta's Research and Development centre to assist development and improvement thereby allowing Somta to continue developing tools of the highest quality and performance standards.



Manufacturers & Suppliers of Drills, Reamers, End Mills, Bore Cutters, Taps & Dies, Toolbits, Solid Carbide Tooling, Carbide Insert Tooling, Custom Tools & Surface Coatings

www.somta.co.za