



# Stellram®

Solutions for difficult-to-machine materials



## Cutting Edge Solutions for all your Difficult-to-Machine Materials

STELLRAM® is a globally integrated technology leader in the development of metal cutting solutions for turning, milling, threading, drilling and grooving applications.

As channel partners for ATI STELLRAM, NICKUNJ Group has the answer to all your difficult-to-machine materials and offers you the best milling, turning and drilling applications.



is the authorised agent for



Stellram

ATI Engineered Products



### ● MILLING

STELLRAM®, an industry leader in milling cutter designs and insert geometry, offers a complete program of cutter bodies and inserts for many applications. Standard milling tools are available up to Ø 16" (400mm). Designs include cutters for contour milling, ball nose and long edge cutters, tools with 45° and 90° approach angles, octagonal milling inserts, plunging face mills, adjustable width, side and face milling cutters.

ATI STELLRAM specifically designed the tools for difficult-to-machine Materials. The resulting cutting characteristics of the insert's geometry produces a super efficient cutting edge when machining Titanium alloys, High Nickel and High Cobalt based alloys as well as Stainless Steels.

#### MILLING PRODUCTS:

##### Face Milling / End Milling / Long Edge Milling

Stellram has a complete range of 45° cutters for face milling, radius end milling, chamfering, slotting, pocketing, contour milling and hole milling.



##### FACE MILLING:

A strong multi-purpose cutter, excellent in high temperature alloys and stainless steels using 4mm or 6mm octagonal inserts.

##### END MILLING:

Excellent for most materials. Available with one of the industry's widest range of A-style inserts. Ideal for thin-walled sections.



##### LONG EDGE MILLING:

These high productivity cutters are designed to remove high volumes of material in square shoulder and slot milling applications



#### STAR Products:

##### A Style -48 Geometry Insert

The geometry of this insert design provides a smooth cutting action with excellent chip control. Once positioned in the cutter body the combined effective cutting geometry produces lower radial forces, specifically in the direction of the feed, leading to a more stable cutting environment.



##### T-SLOT:

This cutter is designed for machining T-slots after machining of the shaft passage. The patented design places two inserts slightly higher on the body to machine the top of the cut while the other two inserts to machine the bottom of the cut. Thick pocket walls provide excellent support and reduce vibration during high feed machining.



- Stellram provides the widest range in Die & Mould Segment.

### HIGH FEED CUTTER

#### THE MATERIAL:

- Unalloyed steels, alloyed steels, cast irons, aluminum and alloys, hard steels (52-56 Hrc), high temperature alloys and stainless steel.

#### THE APPLICATION:

- High feed facing and pocketing. ● Plunging capability for unstable conditions.
- Cavity machining by linear or circular interpolation.

#### PERFORMANCE FEATURES:

- High volume of metal removal up to 3mm.
- Close to profile pocketing compared to round inserts.
- Reduced vibration and cutter deflection in deep cavities.
- Utilizes same CAD/CAM programs as round insert tools.



### CONTOUR MILLING:

These cutters are used in die mould & in power generation. They have special grade X500 & X700 which is used in power generation.

#### PERFORMANCE FEATURES:

These versatile tools are used for face milling, radius end milling, slotting, pocketing, contour milling and hole milling. All Stellram Contour Milling Cutters feature P-20 tool steel bodies. Through-tool coolant allows better chip evacuation and higher feed rates. They can be used in roughing and finishing operations.

### BALL NOSE CUTTER

#### THE MATERIAL:

- Steels, cast irons and hardened steels

#### THE APPLICATION:

- General roughing and semi-finishing of profiles and complex contours.
- Pocketing by ramping and helical interpolation.



#### PERFORMANCE FEATURES:

- Strong, thick inserts, ideal for medium to heavy roughing applications in die and mould.
- X400 - new patent-pending grade for steels and hardened steels.
- Axial retention screw for added security.
- Increased feeds and speeds possible due to helical insert design and rigid fixation system.
- Double-edge insert is indexable for reduced inventory.
- Capable of plunging up to its full radius.



### ● TURNING

STELLRAM®'s leading edge grades and geometries, combined with patented coating technologies, are available for a full range of materials from steels and cast irons to high temperature alloys and aluminum. Positive and negative inserts are offered in a complete range of PVD and CVD grades with a choice of coating options for Maximum productivity.

A Complete Product Line - All Industries / Applications

Inserts for finishing to heavy roughing applications for aerospace, automotive, power generation, general machining and precision machining. Inserts for heavy-duty applications for railroad and bar peeling. Toolholders and boring bars for external and internal applications. Solid carbide and tungsten-reinforced bars for tough internal applications.



#### **4E Geometry:**

The new 4E was specifically designed for the Aerospace, Power Generation, and Oil and Gas Industries. It is designed to machine a wide variety of materials including stainless steels, high nickel, cobalt and titanium based alloys. The machining of this wide variety of materials reduces shop inventory, operator cost and error. The new precise reinforce chip breaker profile with positive cutting action radically reduces built up edge, for a smooth surface finish and greater component dimension integrity.

#### **1B Geometry:**

New geometry & chip breaker for finish machining of Steel, Stainless Steel and Difficult-to-Machine alloys, has been designed to cope with the ever increasing demands for greater productivity with improved component integrity. The precisely controlled cutting edge and nose profile remove material cleanly and efficiently leaving a superior surface finish while reducing machining pressure for longer tool life and increased cutting edge security.





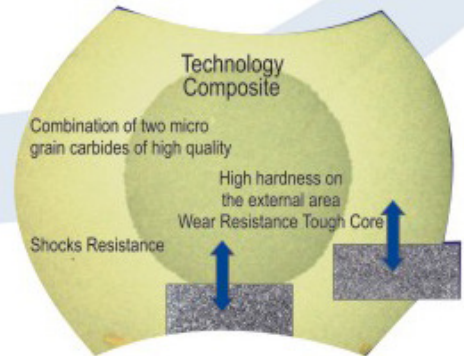
## ● DRILLING

STELLRAM® drilling systems provide the capability of drilling holes in a range of diameters from 3/8" to 4-1/2" (10 mm to 114 mm) with three different families of drills. All drills offer through-coolant capability for optimum chip evacuation and increased tool life.



### HARDCORE®:

This technology by Stellram rewrites the rules for machine tools by eliminating the need for compromise. The secret: two grades of carbide combined in one tool. The results: 50% less cost per hole for drilling. Four times the tool life. And extreme feed/penetration rate capability that allows up to two times faster production speeds.



### The new POSIDRILL PLUS™:

This system offers excellent performance in short-hole drilling. The body and insert combination offers an unbeatable combination for 2x (all drills above 2.500"Ø) or 3x diameter short-hole drilling. The POSIDRILL PLUS™ replaces the POSIDRILL li™.

A unique pocket design preventing slugs as the drill exits the component. This allows stacked plates and welded assemblies to be drilled.

Multiple inserts in each flute for larger drills break the cut into smaller sections. This reduces the power consumption, creates more manageable chips and allows for excellent chip evacuation.

Use in static and rotating applications.

Able to bore up to 10% hole diameter.



### UNIDRILL®:

This product range is a replaceable insert system with the capability of drilling several diameters with one body. Both HSS and carbide inserts are available for drilling all materials.





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Machine Tool Accessories 

Electrical & Electronics 

Manufacturing 

Graphite & High Temp. Insulation 

Speciality Products 

High Temperature Textiles 

Safety & Security 



**Nickunj Eximp Entp P Ltd**

An ISO 9001:2000 Company

**Machine Tool Accessories Division**

**Corporate Office:**

Sri Joravar Bhavan, 93 M. Karve Road, Marine Lines, Mumbai - 400020 India.

Tel: +91 22 22190300, 43220300 Fax: +91 22 22060415 Email: info@nickunjgroup.com www.nickunjgroup.com

**Branch Offices:**

- Ahmedabad + 91 79 30023523 ● Bangalore +91 80 32952884 ● Chennai +91 44 65447740
- Coimbatore +91 422 4393303 ● Hyderabad +91 40 27842948 ● Jaipur +91 141 2791123
- Kolkata +91 33 32986780 ● Ludhiana +91 161 5045324 ● New Delhi +91 11 25886755
- Pune +91 20 24488539

