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: radpunch

CNC programming for all your punch machines

Radpunch is machine independent and designed to provide your operators with the tools they require to reduce lead times and optimize your punching machines. Designed to seamlessly integrate with Radprofile, the Radan punch/ profile solution delivers optimization for punch, profile and combination machine tools. This combination will expand with you to program all your future punch, laser, plasma, router and combination machine tool investments from one system.

Seamless Programming
Radpunch seamlessly integrates the whole programming process of geometry creation, tooling, nesting, sequencing, code generation and finally DNC connectivity to the machine controller. The seamless integration delivered by Radpunch provides an easy to use experience for your operators, while accuracy and consistency of programming is maintained with the collation of process critical data in the Manufacturing Database (MDB). Material, tooling and machine tool specific data are stored in the MDB in readiness for instantaneous distribution when required to assist an operator or automated process. Understanding the sophistication and the limits of each machine tool individually is the key to driving it efficiently; Radpunch will assist your operators to optimize your manufacturing capacity to within those limits for all of your machines from a single system.

Tooling Optimization
Optimizing the tooling used by a punch machine is paramount to the efficient programming of a punch machine and thus the reduction of the cost to manufacture a part. Simply optimizing conventional tools on a part and their location in the turret or tool rail is no longer sufficient, as tooling suppliers are providing more sophisticated tooling such as close to clamp slitters,

wheel tooling, de-burring tools, scribes and flexible part marking tools. Radpunch understands the constraints of tools and the necessary NC codes required to support them.

Radpunch orientation specific tooling permits multiple tooling setups to be applied to a part for different nesting orientations and different machine tools. This enables the downstream nesting process to fully optimize material utilization by part rotation which may have otherwise been restricted due to tool rotation limitations. The same functionality also optimizes preparation of parts for removal processes on more sophisticated machine tools. While a part may be capable of dropping down a chute or being picked at one orientation, at another orientation it may not be suitable. Orientation specific tooling enables the appropriate part removal processes to be applied to complement the part orientation during nesting.

To minimize programming lead time, identification and manipulation of tooling is important to an operator. Radpunch provides this capability with the user customizable interactive tool list. The easy to use interface enables an operator to quickly identify and interact with tooling at process critical stages.

Features include

Drag and drop data input

Batch processing of
DXF/DWG including healing

Automatic
tooling/sequencing

Automatic part removal

Graphical program
verification

Single part true
shaped nesting

Project nesting incorporating
user definable reports

Quick estimates for
parts or nests

Simple intuitive interface
with clear simple icons

Supporting machines
advanced features

Improved machine/tooling
efficiency

Reduced lead times
and increased production

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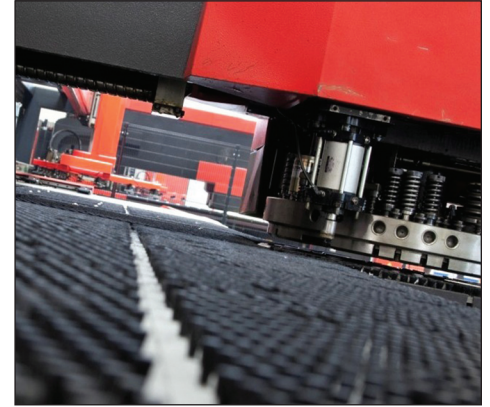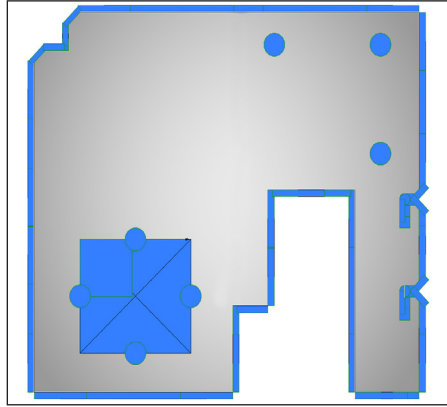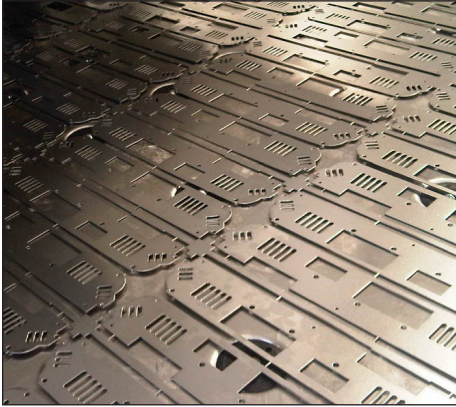
Power and control

The power of automation with the ability to control by your preferences. The Radpunch programming solution provides your operators with easy to use software that can be educated to adopt your preferred practices and processes. Tool selection, tagging, preferred removal procedures, preferred punching sequences, and more can be defined relative to material type, thickness and machine tool in the Manufacturing Database (MDB). The MDB expands with your business. The introduction of new customers, new products or new machines brings into your manufacturing environment the need to control new material, tooling and new practices. The MDB ensures consistency of programming for these new criteria for all of your machines which translates to less rejects, less rework and higher returns.

If manual control is your preference, this is in abundance with Radpunch. An operator can take full control of the programming process at any stage. The ability to interact manually and override any of the automated processes gives a Radpunch user the power to tackle the most difficult jobs with ease and confidence.

The fully integrated Project Nester provides your operator with an instantaneous overview of your punching demand. Automatic rectangular nesting, single part true shape nesting, and manual drag and drop nesting techniques enable your operator to quickly, easily and efficiently meet your ever-changing production and customer demands. If material utilization is critical to your business, upgrading the nester to Radnest (our true shape nester) will raise your material utilization while providing further advanced nesting tools for your operator.

Efficiency is Everything

Radpunch is a fast, modern programming application designed and written by Radan to assist a programmer in transferring data from CAD to NC code. The seamless interface, and the automatic processes all assist the operator. Unfortunately in reality, production workflow is not always that consistent. Problems downstream, manufacturing change requests, and rework requests all require an operator to be fast and efficient. Radpunch enables an operator to jump into the programming process at the point where the change

is required; but it does not necessarily demand that the whole programming process is repeated.

A machine tool is only as efficient as the software driving it, so that is why we personally install every Radpunch post processor to ensure that it is commissioned to match your machine tool and controller. It is your production efficiency that it is going to be controlling, that's why your software is important to us.

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