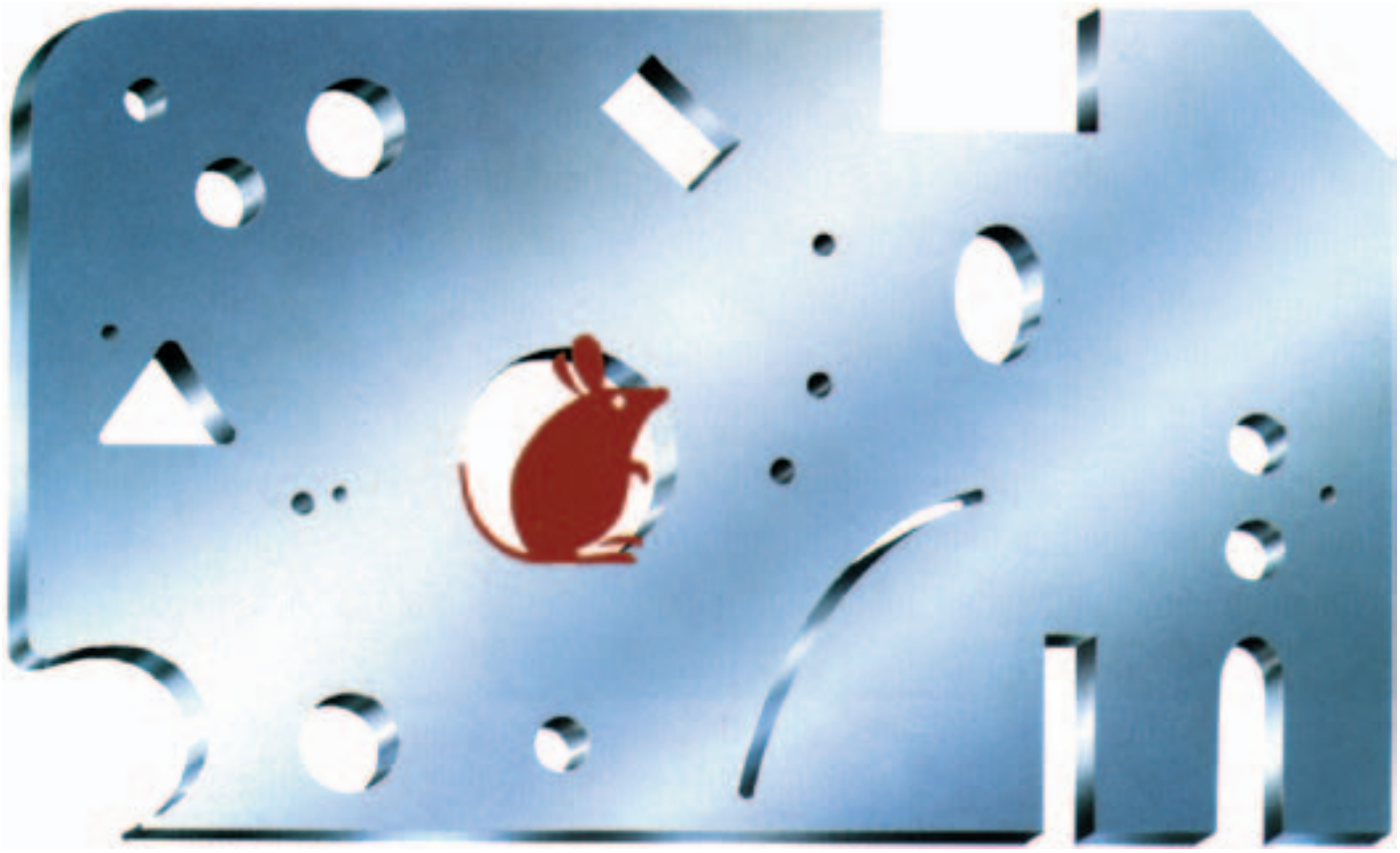
Controlling Machines with the Mouse



TRUMPF Programming System
for Laser and
Water Jet Machining

ToPs 100

TRUMPF

Get Maximum Performance out of Your TRUMATIC

ToPs 100: the programming system for laser and water jet machining.

Integrated know-how: Practice-based sheet metal fabrication

TRUMPF develops its ToPs range of programming systems on the basis of its extensive practical experience with sheet metal fabrication. With ToPs you not only get a programming system – you also get TRUMPF's comprehensive technological know-how in material processing.

- Optimally tailored to sheet metal production requirements
- Full utilization of machine technology

Success from Leading-Edge Technology. Comprehensiveness of the Sheet Metal Processing Chain

Leading-edge technology not only for machines but also for programming. Innovative ideas from the parallel development of machines and programming systems flow into ToPs on a continuous basis.

From the initial idea to the finished part, data flow between the programming systems in the ToPs range is fully comprehensive. The close connection between programming and machine technology guarantees sheet metal parts of the highest quality.

ToPs 100

ToPs Gives You the Leading Edge

Standardized Platforms

For its hardware platform, ToPs merely requires a PC with the Windows operating system. Integration into your corporate network or online linkage with the machine can be done quickly and easily using standard software.

Machines and Programming Systems from a Single Source

TRUMPF offers you a comprehensive concept for flexible fabrication. Both components – the machine and the programming system – are precisely tailored to each other, and constitute a harmonious unit. That way you can be sure that the full potential of your TRUMATIC is being utilized.

ToPs generates fast, process-safe NC programs automatically.

ToPs Puts You On Top Right Away

The programming systems in the ToPs line are of the latest design, and oriented towards standards familiar from any PC.

- Clearly laid out user interface.
- Self-explanatory operating sequences.

ToPs guides you clearly all the way from drawing generation through to the finished NC program.

Faster Starts

The integrated database is filled with all the important information you need:

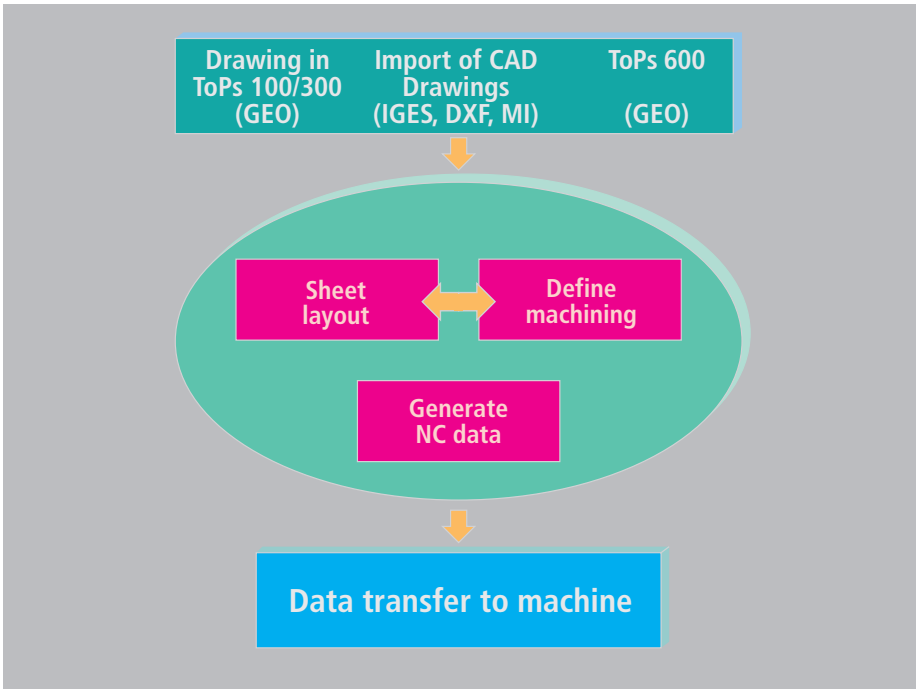
- Technology tables for laser and water jet machining.
- Rules with machining know-how.
- Machine and material data.

Short familiarization times combined with fast, safe and comfortable translation of the idea into the finished part are key factors in your market success.

Simple Part Administration via the Database

ToPs features an integrated database for the swift, structured administration of parts. Various search criteria – such as part number, customer reference, type of material and sheet thickness – guarantee the fullest support for part administration.

The Strategy:
Three Steps Towards the NC Program



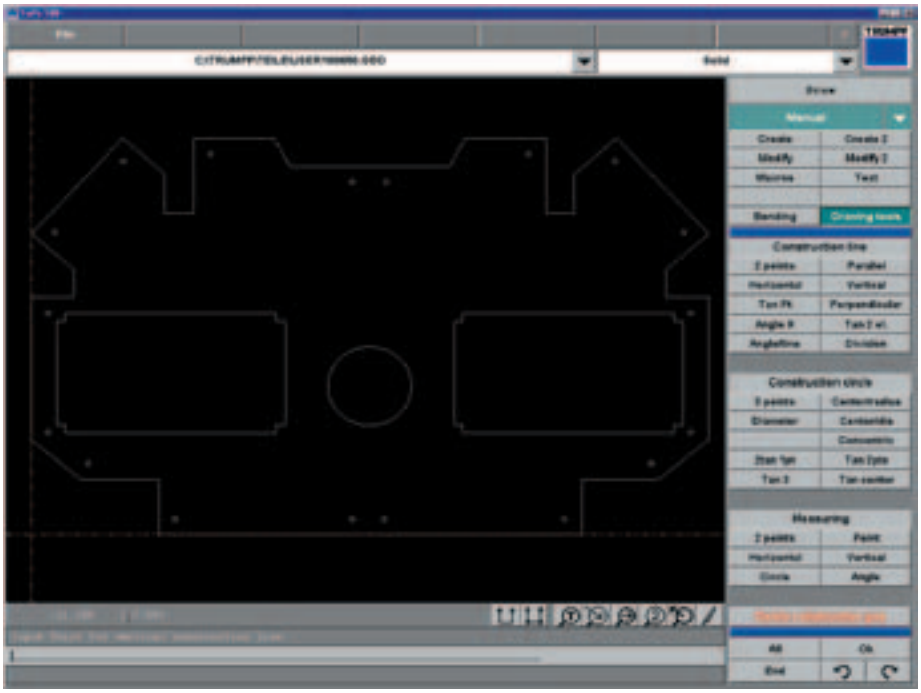
Programming Sequence

Today, the programming of simple parts no longer poses any challenge to programming systems. The great thing about ToPs is that it makes sure you get things finished quickly even when things get more complicated. After all, a programming system only really comes into its own when it's capable of going beyond standard requirements. Even when part spectrums become more complex, and automatic loading and unloading needs to be included in the programming, ToPs 100 is your reliable partner.

Workshop-Oriented NC Programs

ToPs 100 is strictly oriented towards the requirements of the machine operator. With its NC program, ToPs generates clearly laid out setup plans that include detailed information about processing times and tools required.

Drawing Ready for Production:
Generated or Imported by ToPs



Designing a single part using reference lines

Production-ready drawings form the basis of a fast, process-safe NC program.

- CAD systems:
  Import of data from your 2D or 3D CAD system takes place via the standard interfaces IGES, DXF or MI.
- Drawing with ToPs 100:
  CAD functionality, combined with macros for geometries that are either special or are frequently repeated, ensure that drawings are generated quickly and efficiently.
- Importing drawings from ToPs 600:
  ToPs 600 is a programming system for bending technology which delivers drawings precisely tailored for bending with the TrumaBend.

Automatic geometry analysis:
Each drawing is analyzed by ToPs with regard to subsequent machining. Open contours are closed, superimposed drawing elements deleted, and contour transitions smoothed out.

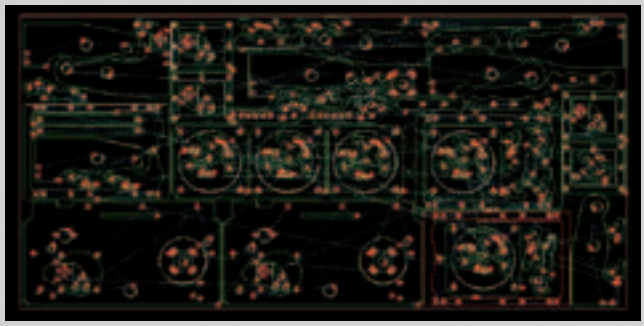
Sheet Layout and Processing:
Automatic, Optimum Sheet Utilization

Meet market challenges with flexible sheet layouts. The individual parts that you want to produce are combined into one job-specific nest order. ToPs knows the parts borders and computes the best possible material utilization – by nesting parts even inside other parts or between several parts.

Nested sheets are processed automatically: ToPs

- Generates loops or fillets at corners, piercing points, approach and departure paths
- Recognizes the contour size as well as internal and external contours
- Knows whether closed or open contours need to be processed
- Reduces the laser power for small contours and sets micro-joints, if so desired, provides fast, process-reliable NC programs for your machine.

Nested sheet

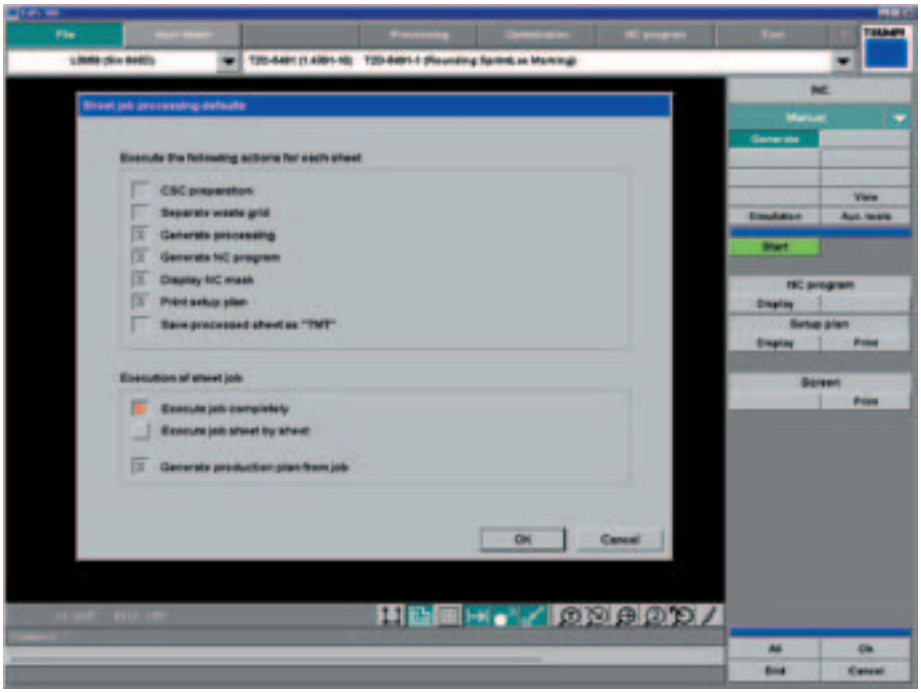


Automatic sheet processing

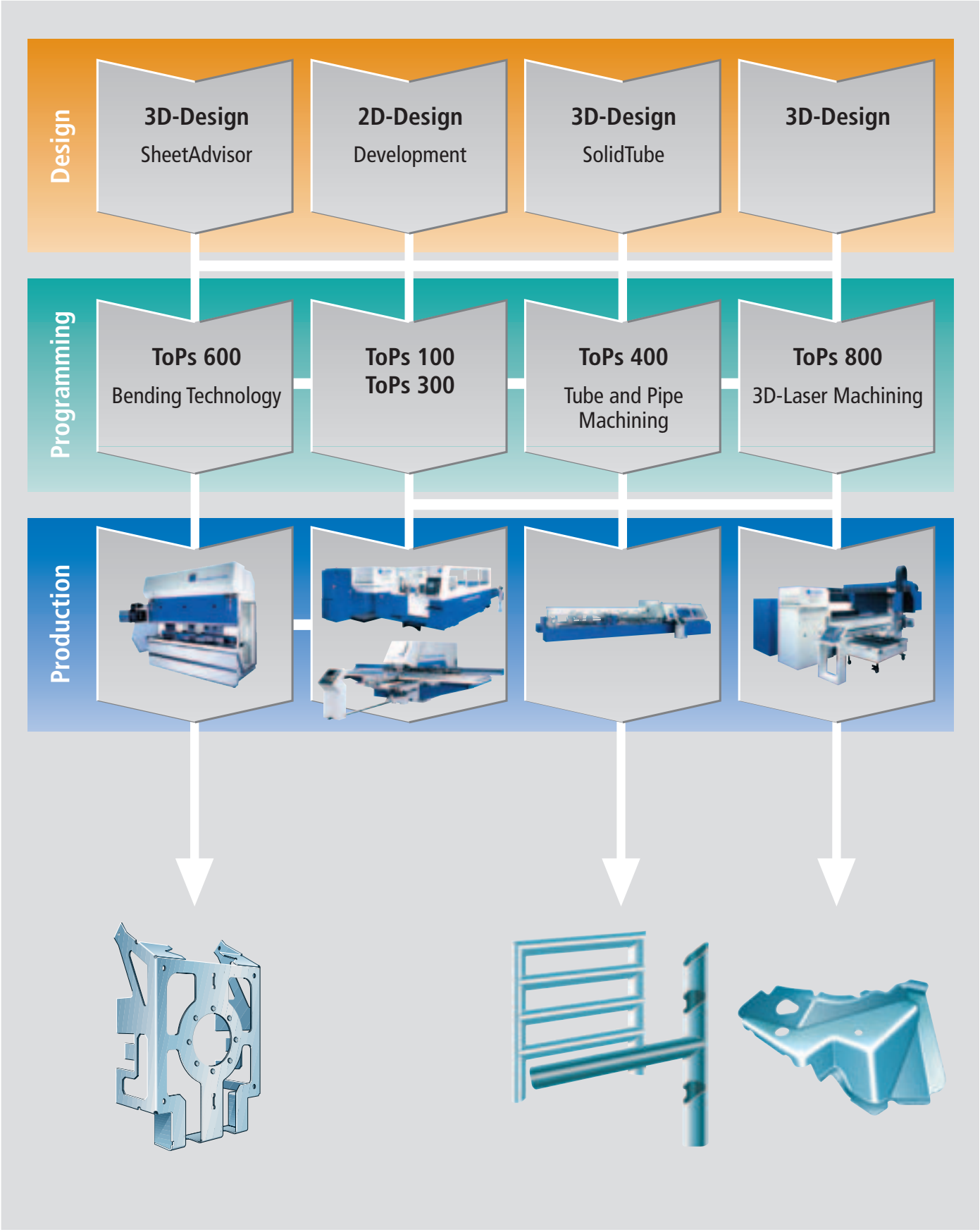
Processing a nesting job completely:
ToPs generates the production plan – finished

Creating a complete production plan from a nesting job – ToPs does it for you at a keystroke. If required, you can also set a sheet-by-sheet sequence. In automatic programming, you are guided through the necessary masks:

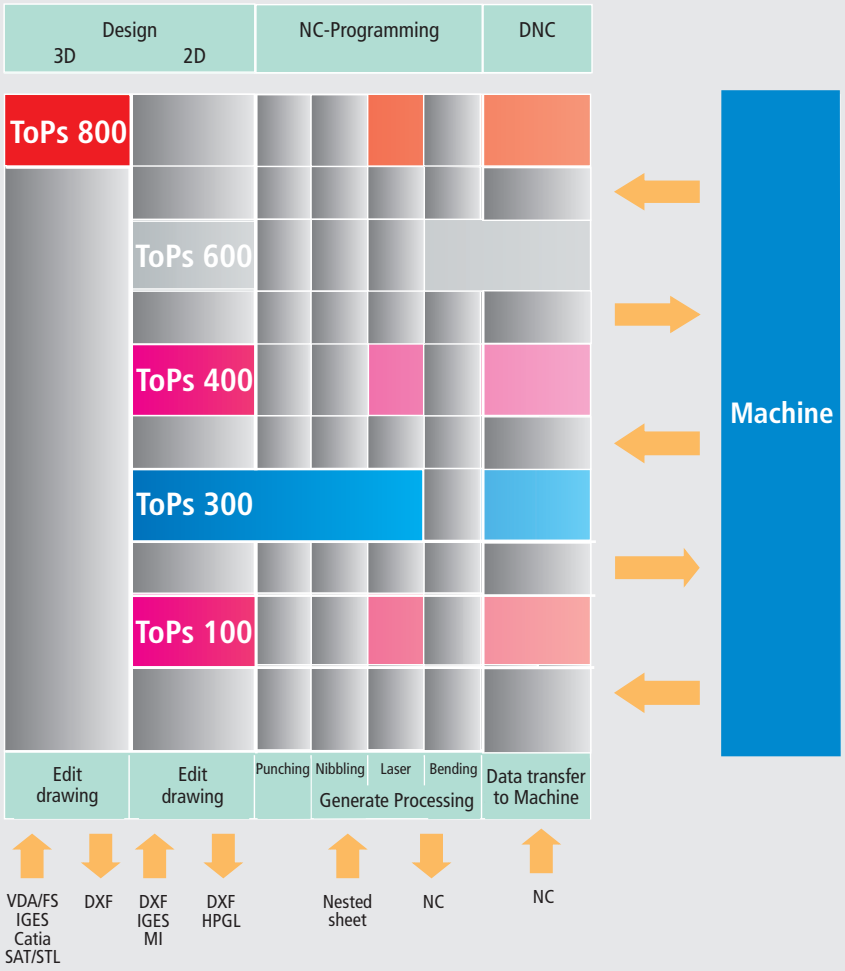
- Preparation for common slitting cuts
- Trim remainder grid
- Generate processing
- Create NC program
- Print setup plan
- Save processed sheet



The Sheet Metal Processing Chain
From the Idea to the Finished Product



The ToPs Series:
Support for Every Technology



The programming systems from the ToPs series support the machining technologies of all TRUMPF machines.

Programming system for Bending Technology:
ToPs 600

Programming system for Combination Punching and Laser Processing:
ToPs 300

Programming systems for 2D Laser Machining:
ToPs 100

Programming systems for Tube and Pipe Machining:
ToPs 400

Programming systems for 3D Laser Machining:
ToPs 800

TRUMPF is certified in accordance with DIN EN ISO 9001 and VDA 6.4

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IDENT-No. 128617-20-2-04 Subject to changes