

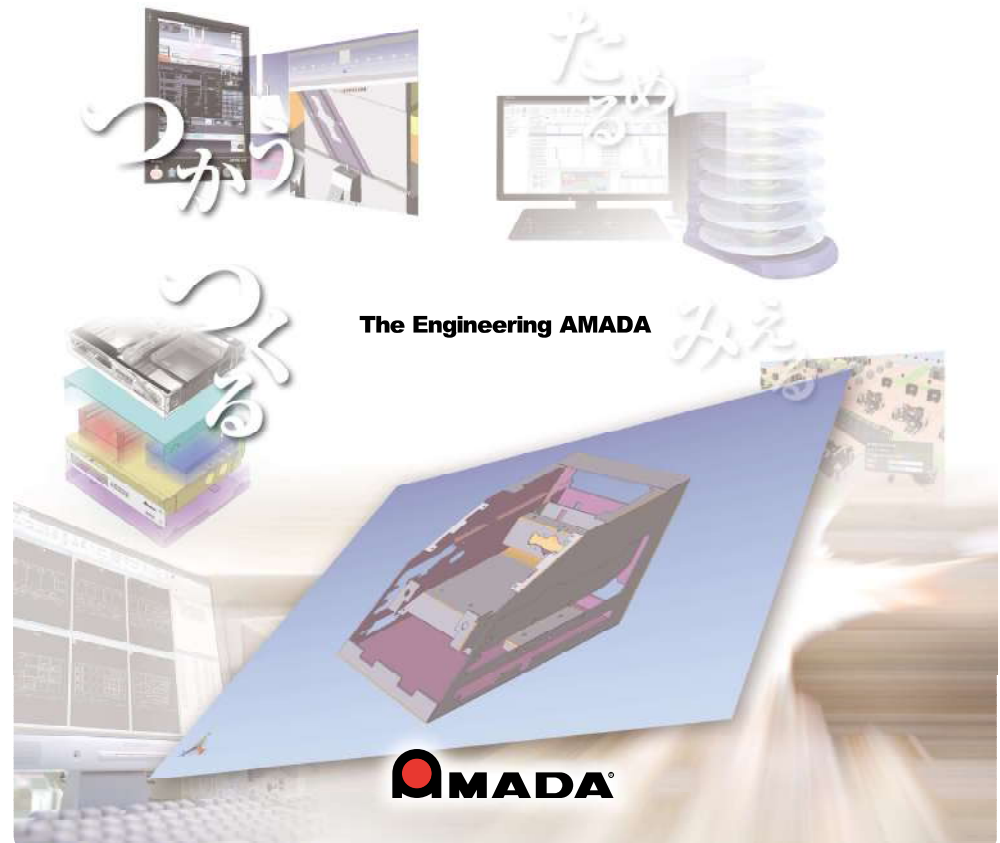
SOLUTION




Advanced sheet metal engineering system **VPSS 4i₂**



The Engineering AMADA



 Please read the "Instruction Manual" carefully before use to ensure safety and proper operation.

*The specifications, appearance and equipment are subject to change without notice.
*For details on the operating environment, please consult your sales representative.
*The functions may be limited depending on the specifications of the processing machine.
*The specifications in this catalog are for Japan.

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Inquiries

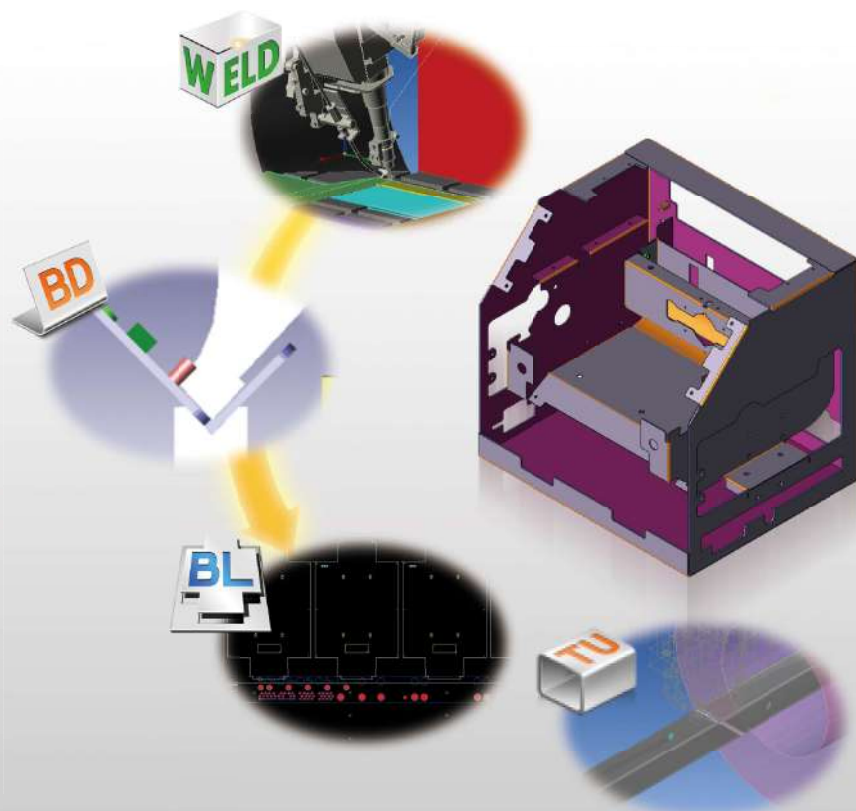
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Mar. 2024

Advanced sheet metal engineering system VPSS 4ie digitizes processing know-how for all processes

VPSS 3i, a CAD/CAM system that contributes to the smart factory in sheet metal factories.

The concepts of VPSS 3i, Intelligent, Interactive, Integrated, and Innovative, were added, and then Easy, Efficiency, Environmental, and Evolution were added to VPSS 4ie.

Further enhancing intelligence and automation, digitizing processing know-how will have a breakthrough effect for machines, software, and operators.



Advanced sheet metal engineering system

VPSS 4ie

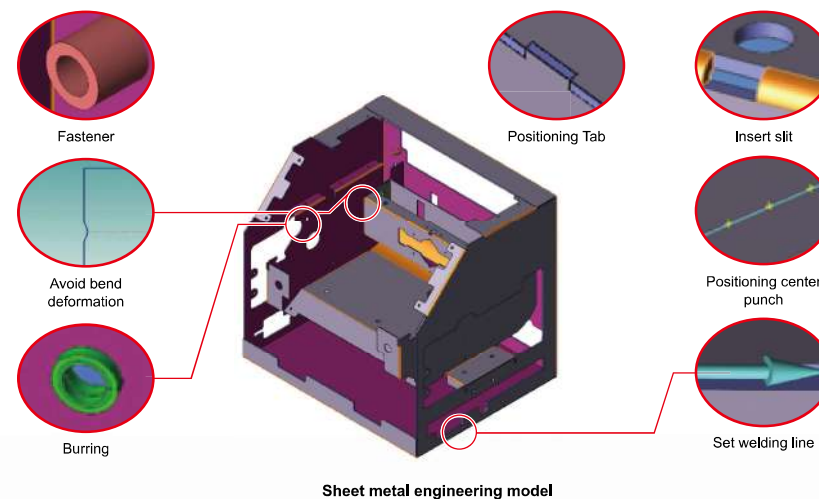
VPSS 4ie Features

•Core Technologies and SEM

VPSS 4ie creates a 3D model called Sheet Metal Engineering Model.

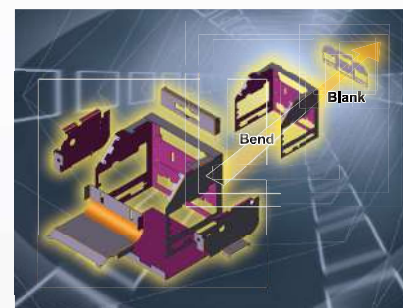
SEM contains 3D models and information necessary for production, such as process machines, process information, procedures, drawings, and images.

Using SEM, optimal program data for fiber laser welding, bending, and blank process can be created in a short time, enabling smart operations at the shop floor.



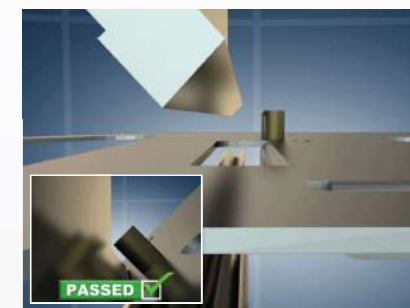
•Reverse Engineering

Reverse engineer the design of your parts from the finished product.










•Process simulation

VPSS 4ie adds simulation to the 3D model to show the process sequence.



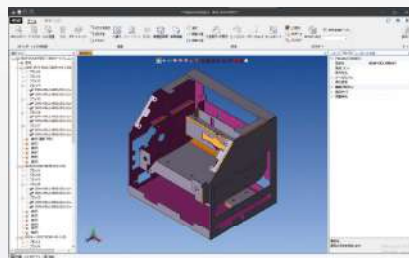
Contents of VPSS 4ie

<p>Production Designer</p>  <p>Assembly verification Add processing know-how</p>	<p>VPSS 4ie 2D-CAD</p> <p>2D CAD AI drawing assistance</p>	<p>VPSS 4ie BEND</p>  <p>Bending CAM Bending verification / create bend program</p>
<p>VPSS 4ie BLANK</p>  <p>Blank CAM Blank verification / create blank program</p>	<p>VPSS 4ie WELD</p>  <p>Fiber laser Welding CAM For welding robots Welding verification / create welding program</p>	<p>VPSS 4ie ARBEND</p> <p>Bending robot CAM Bending robot verification / create bending robot program</p>
<p>VPSS 4ie TUBE</p>  <p>Pipe index Pipe index CAM Creating a structural steel and pipe program</p>	<p>ABE Planner</p>  <p>Creating a schedule Nesting Creation of multiple bending program</p>	<p>VPSS 4ie server</p>  <p>Data Management: Data Explorer Parameter management: Parameter Explorer</p>

Production Designer

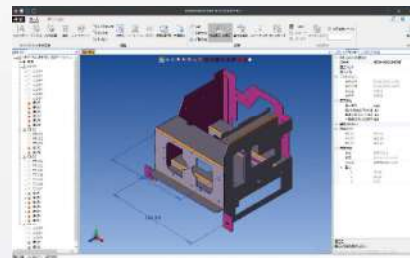
•Create SEM (Sheet Metal Engineering Model)

3D, Unfold drawings, and three-view drawings are imported to create a "SEM" file for manufacturing. Forming shapes within each part are automatically recognized and Displayed on the SEM part file.



•Assembly verification

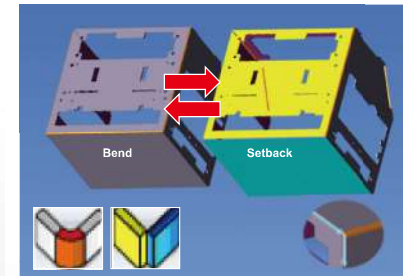
Three-view drawings and 3D parts can be assembled with simple operations. Check the dimensions of the assembly to verify that there are no errors in the dimensions of each part or unfolding layout.



Production Designer

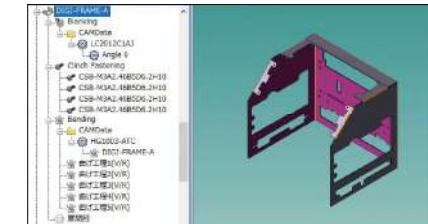
•Bend or setback

Identify bends and setbacks with a single click to adjust the model.



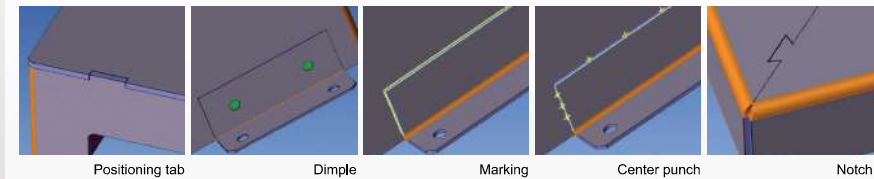
•Process tree

Set up process information and processing sequence for blanks, secondary process, bending, welding, etc. Process verification can be performed prior to working on each process.



•Addition of positioning notches

Forming tools and notches, used for part positioning and alignment, can easily be added to the SEM part file in the assembly view.

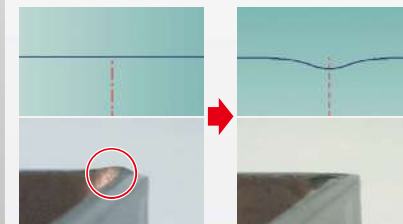


•Smart Check

Identifies possible material deformations and provides ways to eliminate them.

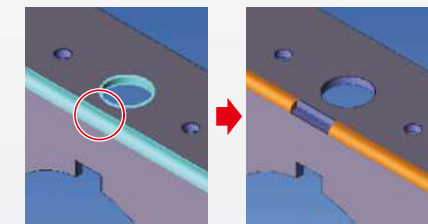
Avoid bend deformation

Bending bulges are automatically detected and deformation prevention processing can be inserted into Unfold drawings with a single click.



Add slit

Holes and forming near the bend are automatically detected and slits are added to the bend line.



VPSS 4ie 2D-CAD

•AI drawing assistance

AI extracts dimensions from PDFs or images and automatically creates auxiliary lines from three-view drawings. Simply tracing the drawing along the auxiliary lines allows you to easily extract the faces, reducing Unfold drawings creation time.



CAM Applications



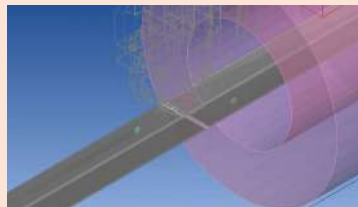
CAM for blanks (VPSS 4ie BLANK)

Create static and dynamic nesting data with high material utilization. Create automation data for parts picking and stacking.



Pipe index CAM (VPSS 4ie TUBE)

Create 3D tube program data for ENSIS-RI and FOM2-RI. Automatic nesting of pipes and steel products significantly reduces lead time and improves nesting utilization.



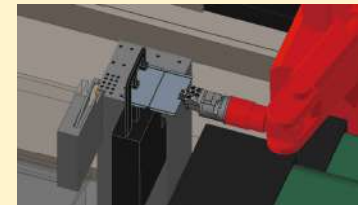
Bending CAM (VPSS 4ie BEND)

Verifies whether or not each part can be bent and creates a bending program. The bending sequence, tool layout, and backgauge position are automatically created. Simulations with realistic drawings, including forms and fasteners, are available for confirmation.



Bending robot CAM (VPSS 4ie ARBEND)

The "Programming Assist," which automatically calculates robot movements, bending order, and tools to be used, has greatly improved ease of use. Even beginners can reduce programming time with easy-to-understand and simple operations.



Fiber laser welding CAM (VPSS 4ie WELD)

Based on the SEM, a program for the fiber laser welding system is created. After setup and correction of the processing jig, etc., processing can be performed immediately.

