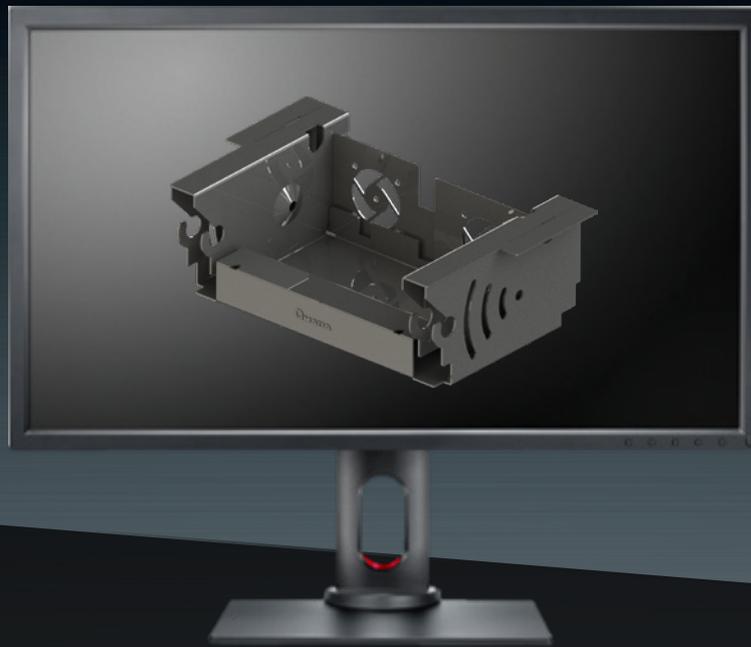


SOLUTION

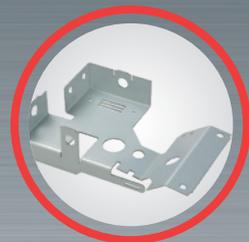
SOFTWARE



SOFTWARE SOLUTION PACKS



SOLUTIONS FOR SHEET METAL WORKING PRODUCTIVITY



AMADA®

VPSS 3i INTELLIGENT, INTERACTIVE, INTEGRATED

AMADA has promoted the digitization and networking of factories since the early 1990s with the aim of improving productivity in the sheet metal manufacturing industry.

Together with linking offices and workplaces via networks, we are at the forefront of the industry to propose a revolution from analog manufacturing that relies on the intuition and experience of skilled technicians to digital manufacturing that uses centralized data management and visible Simulation.

In recent years, as manufacturers have become more globalized, the life cycles have shortened.

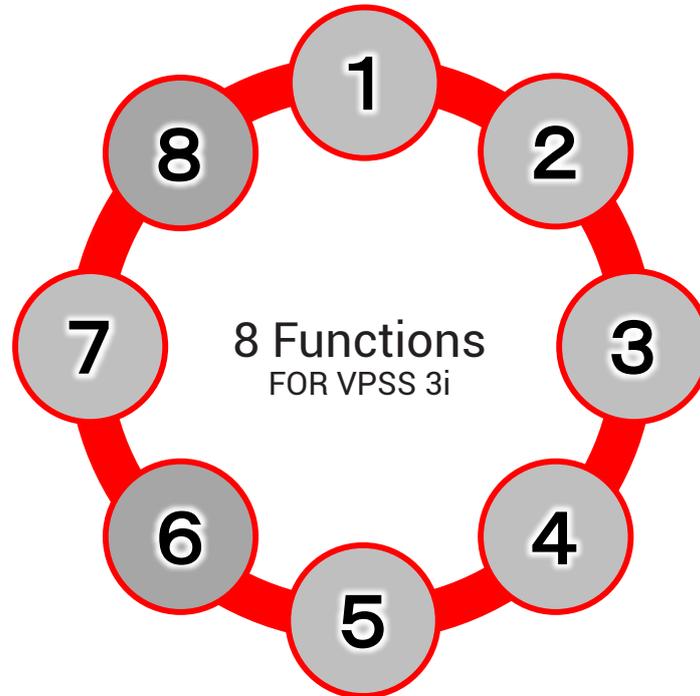
There has been an increase in assembly turnkey orders, and at the same time, there is a need for further cost reductions and shorter lead times.

These reasons have led to a paradigm shift toward an era in which it is essential to reinforce our ability to respond to diversified production and manufacturing capabilities.

AMADA has developed a new approach that can accommodate the entire assembly verification and all processes based on virtual prototyping. This enables the creation and management of manufacturing data in a short period of time to optimize machine programming, to make on-site operations more efficient and to prevent defects in assemblies. This evolved approach is part of the VPSS 3i suite of software products, which are some of the key contents for transforming our customers factories into Smart Factories.



VPSS 3i FUNCTIONS



- 1 CREATION OF SHEET METAL MANUFACTURING MODELS**
 VPSS 3i captures 3D-CAD and 2D-CAD geometry data and creates common data for sheet metal manufacturing models (SEMs).
- 2 ASSEMBLY VERIFICATION**
 Combines parts in three dimensions to verify that there are no dimensional defects or improper deployment.
- 3 PROCESS INSTRUCTIONS**
 Specifies the machining process, such as punching, lasers, bending, and welding, and then sets the machining instructions.
- 4 PROCESS DEFECT CHECK**
 Predicts process failures (bending bulges, holes near bending, flange deformation, etc.), and set checks and countermeasures for shapes to avoid machining problems.
- 5 SHEET METAL SHAPE EDITING**
 Performs hole editing with a faster change, positioning and specific shape editing.
- 6 MACHINE SIMULATION**
 Verifies whether machining is possible considering the set process order.
- 7 SCHEDULE CREATION**
 Automatically creates SCHEDULE machining programs for blanking (nesting) and bending (setup of other items) based on production Plan.
- 8 SHEET REPORT OUTPUTS (3D)**
 Outputs on-site with work support information such as ASSY 3-D shapes and affirmative information.

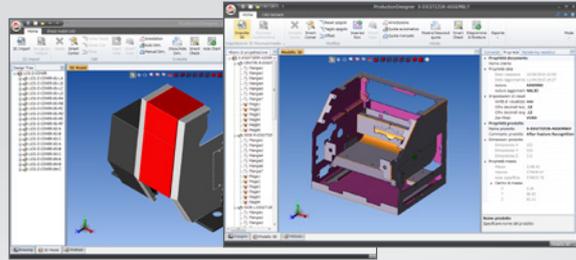
SOFTWARE - IMPORT AND EDIT

Production Designer

COMMON PLATFORM FOR ALL PACKS



Production Designer allows you to import different 3D data formats; it automatically converts them into 3D sheet-metal parts and save data into the AMADA Digital Database. Production Designer can automatically recognize sheet-metal specific attributes like bend data (V bend, hemming bend etc.), and blanking data (extrusions, tapping, emboss, louver, etc.).



SheetWorks

TUBE SOLUTION PACK /STANDALONE

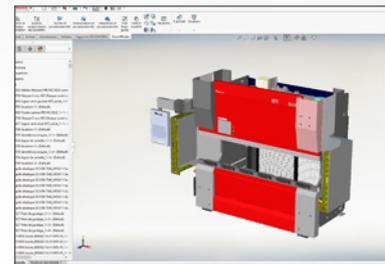


SheetWorks integrates AMADA sheet-metal & bending knowledge into a powerful SolidWorks environment to easily create 3D parts and empower the sheet-metal modelling features. Thanks to the "BatchUnfold" process, SheetWorks can automatically create unfold drawings with efficiency, with all the related CAD/CAM attributes, starting from the 3D assembly and save them all on the AMADA Digital Database.

AMADA offers SheetWorks as solution that expands the range of what CAD software can achieve.

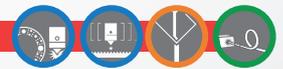
The advanced SheetWorks modeling tools help finalize sheet metal parts and assemblies with precision.

Its use of 3D visualization for design, development and modeling greatly enhances overall quality and efficiency.

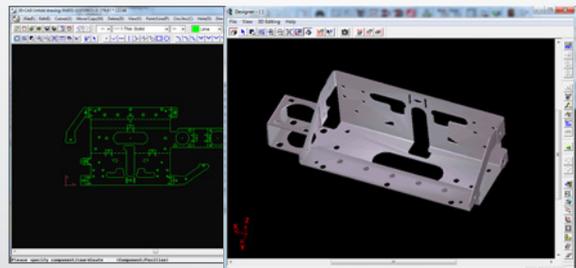


AP100 CAD

COMMON PLATFORM FOR ALL PACKS



AP100 CAD is not only a standard 2D CAD system, but it also includes specific sheet-metal drawing & unfolding functions. Thanks to real bend deduction data coming from AMADA bending machines, AP100 CAD ensures a quick efficient 3D Sheet-Metal Model creation.



SOFTWARE - CAM SOLUTION

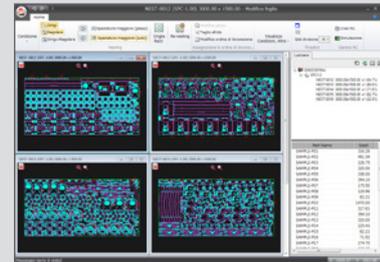
VPSS 3i BLANK

BLANK SOLUTION PACK

TUBE SOLUTION PACK

The evolution of CAM for AMADA blanking machines.

Fully integrated in the VPSS 3i suite, VPSS 3i BLANK is a perfect mix of advanced algorithms for automatic processing (nesting creation, tool assignment and process sequence) and a smart manual environment for a quick manual editing.



Dr. ABE TUBE

TUBE SOLUTION PACK

Dr. ABE TUBE provides fully automated off-line programming and nesting for AMADA tube lasers. It is directly linked to AMADA's 3D modelling system, SheetWorks, for fast switching between CAD and CAM environments.



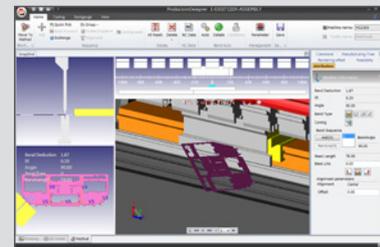
VPSS 3i BEND

BEND SOLUTION PACK

The next step in off-line bending CAM solutions.

Conceived from the actual AMADA bending solution experience, VPSS 3i BEND is the perfect match of a very simple all-in-one user interface and high level automatic bending algorithms.

VPSS 3i BEND allows off-line auto generation of the bending sequence, as well as tooling for single and multiple parts. Thanks to an advanced tooling engine, the software calculates the best common tool layout to drastically reduce the press brake tool setup time during everyday production.



VPSS 3i ARBEND

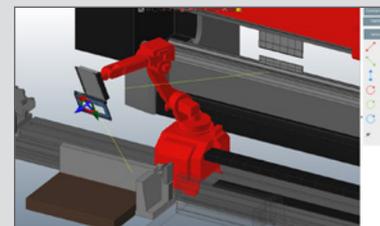
BENDING ROBOT SOLUTION PACK

The new off-line CAM solution for AMADA EG-AR and HG-R series.

ARBEND introduces a new management for robot press-brakes, increasing cycle efficiency and optimizing each single operation.

With a modern User Interface and thanks to automatic functions, users are always supported by the software during programs creations.

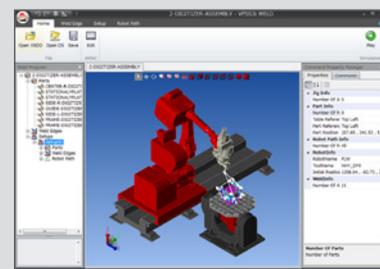
Operators have always a total control of movements and trajectories thanks to a very simple and intuitive design.



VPSS 3i WELD

WELD SOLUTION PACK

The VPSS 3i WELD software simulates the robot path based on data stored inside the AMADA Digital Database (3D model, welding attribute...) to enable offline programming and consequently enhancing the machine production ratio.



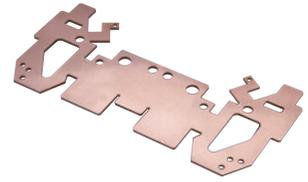
SOFTWARE SOLUTION PACKS OVERVIEW

BLANK SOLUTION PACK



- AP100 CAD
- Production Designer
- VPSS 3i BLANK

The Blank Solution Pack comprises all the AMADA blanking CAM solutions in order to run your AMADA laser, combi and punching machines at the highest speed and optimum level.



TUBE SOLUTION PACK



- AP100 CAD
- Production Designer
- SheetWorks
- VPSS 3i BLANK
- Dr. ABE TUBE

The Tube Solution Pack is everything you need to run your AMADA tube laser machine with the highest efficiency.



BEND SOLUTION PACK



- AP100 CAD
- Production Designer
- VPSS 3i BEND

Press brake productivity will be drastically improved through this complete suite of software which takes care of sheet-metal part creation and off-line bending program generation.



BENDING ROBOT SOLUTION PACK



- AP100 CAD
- Production Designer
- VPSS 3i ARBEND

It doesn't matter which kind of AMADA bending cell you want to program; with the Bending Robot Solution Pack you have all you need to run your production at the highest level.

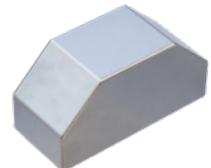


WELD SOLUTION PACK



- AP100 CAD
- Production Designer
- VPSS 3i WELD

AMADA welding machines can be easily driven using the software included inside the Weld Solution Pack for the fastest off-line welding programming.



PRODUCT OVERVIEW

PROCESS STEPS

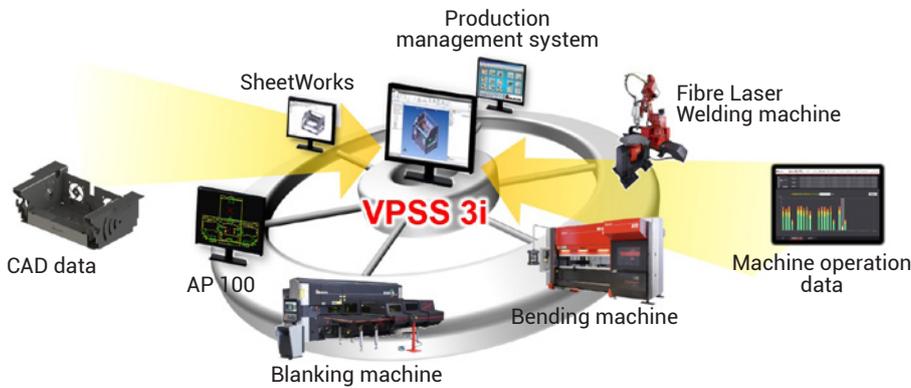
This table shows you which is the software you need for each process step.

		BLANK SOLUTION PACK	TUBE SOLUTION PACK	BEND SOLUTION PACK	BENDING ROBOT SOLUTION PACK	WELD SOLUTION PACK	AOM*	V-factory*	FMS-C / ISC*	
CUSTOMER INQUIRY	Customer order entering						●			Quote preparation
PRODUCTION PLANNING AND PROGRAMMING	Production planning									Planning/Programming
	Job schedule creation	●	●	●	●	●	●			
	Work order creation						●			
	Import/design part	●	●	●	●	●				
	Part programming	●	●	●	●	●				
NETWORKED PRODUCTION o Cutting o Bending o Welding o Marking	Assign job to machine	●	●	●	●	●	●			Production
	Monitor machine data						●	●		
	Measure production efficiency							●		
	Visualize machine status						●	●		
	Control machines during production							●		
	Assembly management	●	●	●	●	●				Automation
	Notifications in the event of a malfunction							●		
	Report job as complete						●			
	ERP Interface						●			
	Analytics: tools, material, performance, programs							●		
AUTOMATION	Control automatic store								●	Intralogistics and setup
	Manage manual store								●	
INTRALOGISTICS AND SETUP	Orders prioritization and tracking						●			

*For further information on these products please refer to the specific brochure.

PROCESS OVERVIEW

DIGITAL MANUFACTURING AND VPSS 3i SOFTWARE EVOLUTION



VPSS 3i can transmit and receive machining program data through a network and manage machine operation information.

VPSS 3i will become the core of the machine network system. By coordinating the best parts of each system, it will be possible to operate more efficiently.

AOM - INTEGRATE ALL PRODUCTION STEPS

A bridge between ERP and AMADA eco-system



Flexibility



Time Saving



Cost Saving



Fully Digitalized



Error Free



Industry 4.0

AMADA ORDER MANAGER

CLOUD-BASED SOLUTION
PAPERLESS PRODUCTION

AMADA Order Manager (AOM) is the new Cloud-based platform created by AMADA.

PRODUCTION CONTROL
IMPROVED PRODUCTION PLANNING

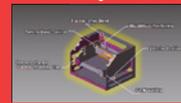
Thanks to the AMADA standard data exchange interface, the customer's existing ERP system can be easily connected to AOM to allow the production data to be sent to the AMADA machines and for collecting the machine production data.

As a result:

- Full control and management of the production planning.
- Empowered production planning to give a complete overview of material consumption and processing time.
- Reliable basis for planning in real time.

V-factory - IOT PRODUCT AND SUPPORT

Keeping an eye on production - simple, clear and accessible



IoT PRODUCT

MONITORING
MANUFACTURING DESIGN
FACTORY CONTROL

Various types of information can be connected within the customer facility to help create a smart factory.

As a result:

- Improved operation efficiency
- Faster information sharing, visible through the cloud
- Easier cost management

IoT SUPPORT

IOT SERVICING
IOT CONSULTING

It connects customers and AMADA through AMADA services.

As a result:

- Maximum machine uptime
- Minimum recovery time
- Proposals for better operations based on real data.

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