



PUNCHING AND SHEARING COMBINED MACHINES

LEVEL UP YOUR PROFITABILITY WITH OUR
PRODUCTIVE AND MATERIAL-SAVING SOLUTIONS

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Find out more about what
our technologies can do
for you and how you could
benefit from our consulting
and assistance services:
primapower.com



EVOLVE BY INTEGRATION

Today, every manufacturer in **sheet metal industry** has to step up their business. Competition is rising, customers have more demands, the market has fewer resources: companies have to optimize processes, automate production, save energy and money.

The sheet metal industry asks for evolution – and evolution is what we have always offered at Prima Power. We do it through the widest range of machines in the industry.

But mostly, we do it with **our unique ability to integrate our technologies into customers' processes** to enhance production performances.

It's about our engineering knowledge and our **customer-centered approach**. It's about our very history of technological integration.

Our brand promise means all that. To level up productivity through targeted dynamic solutions. To support growth through modular and scalable offers. **To evolve by integration.**

DYNAMIC SOLUTIONS TO LEVEL UP YOUR PRODUCTION PROCESS

Prima Power provides businesses of all sizes with targeted dynamic technologies that **enhance profitability** in **sheet metal working**. We create **integrated automated solutions** designed to meet our clients' challenges and open to their future growth. We offer **high-performance machines** that deliver flexible and precise execution.

At Prima Power, value lies in the **focus on customers**. We build our offer on a full range of modular solutions, using our distinctive customer-centered approach and long-standing knowledge in engineering systems and machinery for sustainable, efficient manufacturing - all based on a **unique history of technological integration**.

Level up your production with Prima Power.
DISCOVER HOW



PUNCHING & SHEARING COMBINED TECHNOLOGY

PUNCHING & LASER COMBINED TECHNOLOGY

LASER PROCESSING

BENDING

FLEXIBLE MANUFACTURING SYSTEMS

AUTOMATION & ROBOTICS

SOFTWARE



DRIVING INDUSTRIAL PROGRESS

SERVING HIGH-TECH SECTORS
WITH SPECIALIZED KNOWLEDGE



Leveraging its **diversified expertise**, Prima Power offers solutions that cater to a wide array of industries. Our range's breadth and modularity, combined with our cross-industry knowledge, allow us to provide **targeted and specialized solutions** aligned with the distinctive demands of each sector.

With a focus on customers' needs, we **facilitate the growth and progress of evolving industries**, aiming to boost customer profitability through advanced and reliable production systems.

Prima Power is present in our everyday lives. [DISCOVER HOW](#)



Visit our website
Find out more

PUNCHING & SHEARING PHILOSOPHY

- 
- 1 Highly profitable combination of different processes: **punching, tapping, forming, marking, shearing** with **up to 600 tools** in the punch turret without additional tool storage.
 - 2 Unbeatable **productivity for rectangular parts** with best-in-class **cutting length, +150%⁽¹⁾** than market, resulting in fewer shear hits and **shorter cycle time**.
 - 3 Truly **sustainable manufacturing** with **20%⁽²⁾ higher sheet optimization** and **75%⁽³⁾ energy saving**.

(1) Total blade length 2,500 mm, market reference: 1,000 mm. (2) Using our common line cutting & skeleton-free capability.
(3) Compared to hydraulic technology, based on internal data analysis.

The Shear philosophy is to provide one machine capable of transforming parts to final production stages without the need for secondary operations for costly sorting and unloading. The punching and shearing concept saves material, decreases necessary floor space and investment in separate machine tools, tooling and energy.

Today, right angle shear technology is used throughout the industrial world in most varied applications like panels, doors, HVAC, cabinets etc.; in independent production cells, or as central units within automatic material handling systems up to a factory-wide FMS level.



We wanted to eliminate the separate blanking operation and find a solution that allowed us to process an entire sheet with common-line cutting, without having to shake out parts at the end. The punch-shear has accomplished just that. Also part consistency and dimensional accuracy gained with the machine have virtually eliminated our quality issues.

Brad Johnson

*Industrial engineer and continuous improvement coordinator
(LaForce, United States)*

PUNCHING & SHEARING PHILOSOPHY

AVOID THE COST OF PRE-SHEARING

Pre-shearing is a waste of time and money. Moreover, it is extremely difficult for a stand alone shear to achieve anything like the accuracy of components manufactured by an integrated right angle shear. Shear Genius can be fed with sheets up to 4,300 x 1,500 and direct from a coil line.

JUST THE RIGHT EDGE QUALITY

A right angle shear produces sufficiently high edge quality for practically every purpose. The component is usually ready for the next work stage as it unloads from the machine. For example, there is no oxide layer on the edges to be removed before painting.

PRACTICALLY NO CONSUMABLES

As for consumables, Prima Power's right angle shear technology uses only energy and compressed air.

The blades have several cutting edges – enough for years of production with an occasional sharpening. Blades, like punching tools, can be sharpened numerous times. The modern shear also reduces 75% of the maintenance time.

DON'T PAY FOR MATERIAL YOU DON'T NEED

Compared with traditional methods, an integrated right angle shear can significantly save raw material costs with continuous line nesting.

The Shear method makes maximum use of material and eliminates microjointed parts and further manual operations.

AUTOMATED SOLUTION

The reliability of shearing and automatic component removal are inherent benefits of the right angle shear concept, and make punch & shear combination the optimum machine tool for high-level automation, unmanned operation and PSBB production line.



GREEN MEANS®: AN INTEGRATED AND PRAGMATIC COMMITMENT

In Prima Power we embrace an integrated and pragmatic approach to sustainability. We deliver solutions designed to optimize production cycles by **focusing on process efficiency**, with the aim of saving materials and energy without affecting the quality of the final output.

Our technologies simultaneously guarantee both a **saving of resources** and **economic savings for manufacturers**.

This means prioritizing effective and feasible solutions, like laser cutting applications we have been pioneering since 1979.

We have summarized our concept of sustainability in two words: **Green means®**.



82%

ENERGY SAVED

by our servo-electric punching and shearing with the ECOPUNCH® technology



~13%

**SCRAP MATERIAL
REDUCTION**

with our punch-shear technology
Combining two technologies, saving
floorspace and increasing output



Visit our website

Find out more



THE INTELLIGENT RIGHT ANGLE SHEAR



The Prima Power right angle shear is extremely fast in operation. Programmable blade height and automatic stroke depth adjustment optimize shearing. Blade speed is automatically selected for the maximum speed. Together with automatic shearing modes this optimizes operation speed.

The intelligent right angle shear always allows using of the optimum solution for the stroke according to the part size to be made in each case. The longest shearing blades in the world (1,000 x 1,500 mm) for fast and reliable part release to bending process.

The shearing process is the most reliable method for part separation from the sheet. When blades are down, it is 100% sure that part is released with high quality, making this technology a key factor for unmanned production.



Visit our website

Explore the Prima Power solutions for Punching & Shearing

THE INTELLIGENT RIGHT ANGLE SHEAR

PROGRAMMABLE SHEET HOLDER

The lateral forces caused by the shearing action are compensated using pneumatic sheet holders for excellent shearing quality and high tolerances.

In the right angle shear, sheet holders are programmable, allowing shearing close to forms.

AUTOMATIC BLADE CLEARANCE SETTING

Blade clearance adjustment is automatic. Machine control calculates the optimum blade clearance for materials of different thickness and the adjustment unit in the right angle shear automatically sets the correct clearance.

This prolongs blade life and ensures high-quality and burr-free parts.

OUTSTANDING ACCURACY

As the right angle shear is an integral part of the cell and not a separate machine, and since the sheet is firmly held throughout the fabrication process, high component accuracy is achieved.

SUPPORT OF LARGE WORK PIECES

When shearing large pieces an automatic lifting mechanism integrated in the conveyor holds the parts for high accuracy.

INTELLIGENT PART SORTING

The modern shear has a unique system to sort parts and scrap. If there are any trims or leftover on the sheet, it is sorted out through the shear frame and conveyor. Inside the shear a fast inverter driven conveyor system separates scrap and moves the parts to sorting or stacking without any delay or waiting time.

LONG BLADE LIFE TIME, ENGINEER-FRIENDLY SETUP

Shear blades are hardened tool steel with very long life time combined with automatic clearance setting.

However, blades can be turned and reused since they have more than one cutting edge each. When all corners are used, blades can be sharpened and reused. With the modern intelligent shear, blade maintenance time is 75% shorter due to shear construction and remote control box for service engineer tests and adjustments.

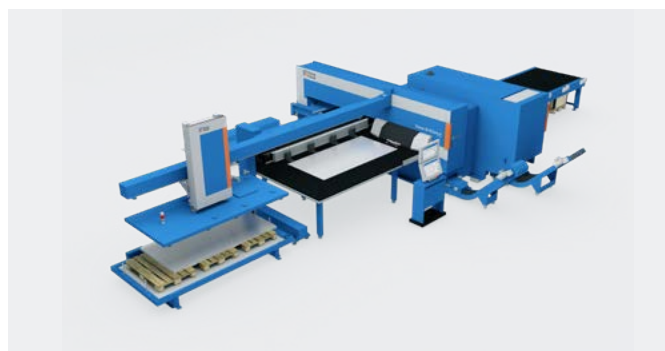
PUNCHING & SHEARING COMBINED RANGE

LEVEL UP YOUR PROFITABILITY WITH OUR PRODUCTIVE AND MATERIAL-SAVING SOLUTIONS



Shear Genius®

High productivity with integrated punching and shearing. Lowest cost per part, highest output, sustainable fabrication.



Shear Brilliance®

Outstanding productivity. Loading in hidden time, more production time available. Hit speeds up to 1,300 hpm – fastest hit rate available for fabricating full format sheets, 3,100 mm common working area. Punching and shearing without repositioning.

SHEAR GENIUS®

HIGH PRODUCTIVITY WITH INTEGRATED
PUNCHING AND SHEARING



The Shear Genius® philosophy is to provide one machine capable of transforming parts to final production stages without the need for secondary operations for costly material handling between loading, punching, shearing, sorting and unloading.

Shear Genius® concept saves material, decreases necessary floor space and investment in separate machine tools, tooling and energy.



Visit our website

Find out more



ACCESSIBLE

Easy to use and monitor



INTELLIGENT RAM

More tools in turret and shorter tool change times



SCRATCH FREE

Vertically moving brushes prevent the scratching of sensitive materials



MODULAR TECHNOLOGY

Manufacturing cell can be equipped with automation solutions to achieve unattended production



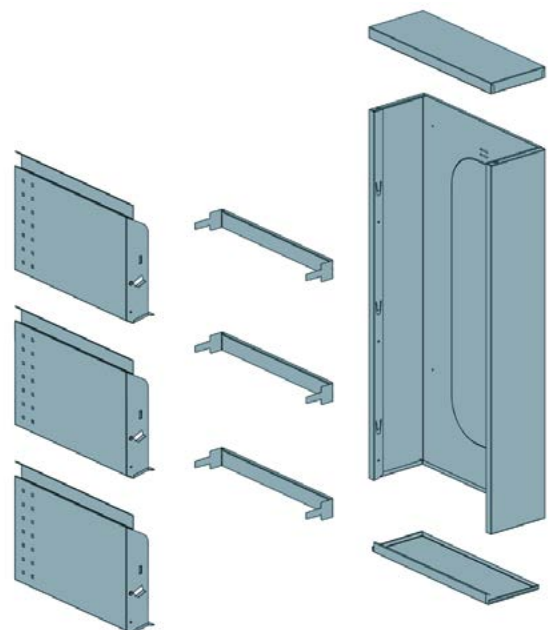
SHEAR GENIUS®

HIGH PRODUCTIVITY WITH INTEGRATED PUNCHING AND SHEARING

The longest shearing blades in the world (1,000x1,500 mm) for fast and reliable part release to bending process. The shearing process is the most reliable method for part separation from the sheet. When blades are down, it is 100% sure that part is released with high quality, making this technology a key factor for unmanned production.

INDUSTRIES

Building & Housing Equipment
Electric Cabinets
Energy / Food Service Equipment
Healthcare & Medical / HVAC
Elevators & Escalators
Steel Furniture, Panels
& Warehousing



TECHNICAL SPECIFICATIONS

SHEAR GENIUS®

	SG 1530	SG 1540	
Maximum sheet size	3,074 x 1,565	4,300 x 1,565	(mm)
X movement	3,144	3,144	(mm)
Y movement	1,615	1,615	(mm)

PERFORMANCE LEVEL	SG Pure	SG Dynamic	
Ram force	230	300	(kN)
Punching speed	700	1,000	(l/min)
Maximum positioning speed	127	150	(m/min)
Maximum tool rotation speed	180	250	(r/min)

Maximum n° of tools / index tools	16 hole turret 384/384, 20 hole turret 400/240
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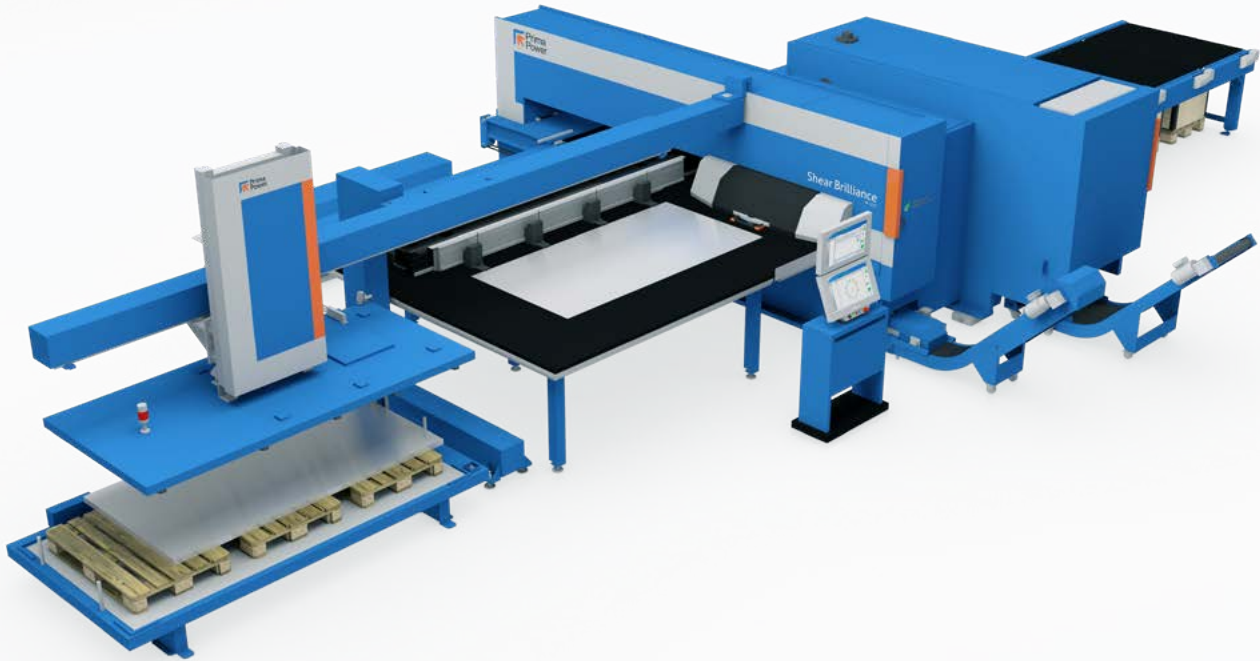
MAXIMUM SHEET THICKNESS	Aluminium	Mild steel	Stainless steel	(mm)
Punching	8	8	8	(mm)
Shearing	5	4	3	(mm)

Maximum sheet weight	250	250	(kg)
Average power consumption	5	5	(kW)



SHEAR BRILLIANCE®

OUTSTANDING PRODUCTIVITY



Prima Power Shear Brilliance is based on the very latest in composite materials, servo-electric technology and linear drives to achieve truly impressive performance values which translate into a new level of productivity in versatile, flexible fabrication.

The vast majority of all sheet metal components fabricated are rectangular, so a highly economical method to produce them is to perform first punching and then shear the components loose in the same automatic process with an integrated right angle shear. Also, parts with three or two straight edges are perfect for fabrication with a right angle shear.



ACCESSIBLE

Easy to use and monitor



INTELLIGENT RAM

- More tools in turret and shorter tool change times
- 3,100 mm common working area



SCRATCH FREE

Vertically moving brushes prevent the scratching of sensitive materials



MODULAR TECHNOLOGY

Manufacturing cell can be equipped with automation solutions to achieve unattended production



Visit our website

Find out more



SHEAR BRILLIANCE®

OUTSTANDING PRODUCTIVITY



Fully servo-electric Shear Brilliance features linear drive technology in sheet positioning and raises manufacturing speed and productivity up to a new level. The sheets are pre-positioned during machine operation, which reduces loading time dramatically.

Other inherent benefits of modern servo-electric technology are operation economy due to low power consumption and low maintenance requirement, as well as excellent accuracy in all the versatile capabilities.

Modularity allows the fast high-precision manufacturing of components that require also forming – even bending – tapping and marking in a single, flexible cell and a fully automatic process. Finally, by its very nature, the integrated punching-shearing concept can bring savings in raw material consumption.

INDUSTRIES

*Building & Housing Equipment
Electric Cabinets
Energy / Food Service Equipment
Healthcare & Medical / HVAC
Elevators & Escalators
Steel Furniture, Panels
& Warehousing*

TECHNICAL SPECIFICATIONS

SHEAR BRILLIANCE®

	SB 1530	SB 1540	
Maximum sheet size	3,100 x 1,565	4,300 x 1,565	(mm)
Total work area X x Y without repositioning (loading-punching-shearing)	3,100 x 1,565	3,100 x 1,565	(mm)
X movement	5,040	5,040	(mm)
Y movement	1,640	1,640	(mm)

PERFORMANCE LEVEL

Ram force	300	300	(kN)
Maximum positioning speed	210	210	(m/min)
Maximum tool rotation speed	275	275	(r/min)

Maximum n° of tools / index tools	24 hole turret 576/576, 30 hole turret 600/360		
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MAXIMUM SHEET THICKNESS	Aluminium	Mild steel	Stainless steel	(mm)
Punching	8	8	8	(mm)
Shearing	5	4	3	(mm)

Maximum sheet weight	250	250	(kg)
Average power consumption	6.2	6.2	(kW)

VERSATILE TOOLING AND FEATURES

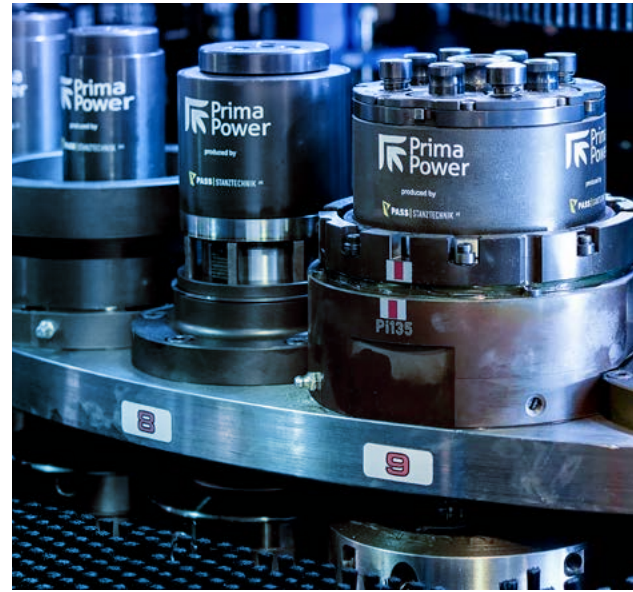
LARGE TOOLING CAPACITY

The large number of tools with Prima Power punching machines results from a set of technical features which is not available from any other manufacturer:

- Multi-Tools®
- Rotating Auto-Index system
- Intelligent ram

With a carefully designed turret, Prima Power customer can make things happen easier and faster:

- with max. 600 tools in the turret, there is less need to stop the machine for re-tooling
- easier programming; a tool needed to make a part is in the turret
- better usage of the sheet as parts can be nested freely when the tools rotate.



Visit our website

Explore the Prima Power tooling concept



VERSATILE TOOLING AND FEATURES

LARGE TOOLING CAPACITY

FORMING, TAPPING, MARKING MORE VALUE TO PARTS

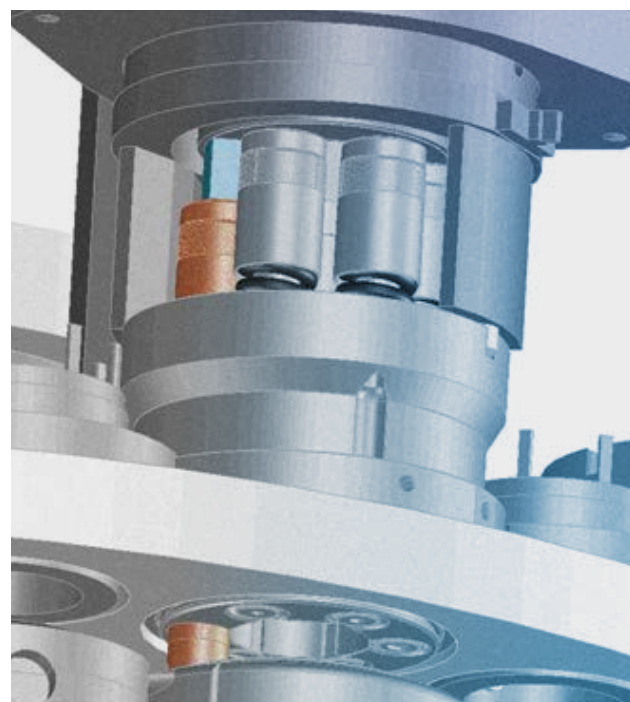
Prima Power's servo-electric Ecopunch® technology offers several highly productive tools in a single machine.

Automatic tapping can be achieved with Multithread tapping tool.

Prima Power options include part tracing systems from labelling to laser marking.

INTELLIGENT RAM

Intelligent ram shortens tool change time and increases the number of tools in turret and especially that of index tools. Intelligent ram includes a rotating ram head, which enables old Multi-Tool® types to be used as indexable. Up to 300 kN servo-electric punching force can be selected for the ram. Automatic overload protection and central lubrication ensure dependable machine operation.



Watch the video

Explore the Prima Power Punching and Shearing Solutions



Wheel tool



Multithread tapping



Laser marking



Intelligent ram



VERSATILE TOOLING AND FEATURES

LARGE TOOLING CAPACITY

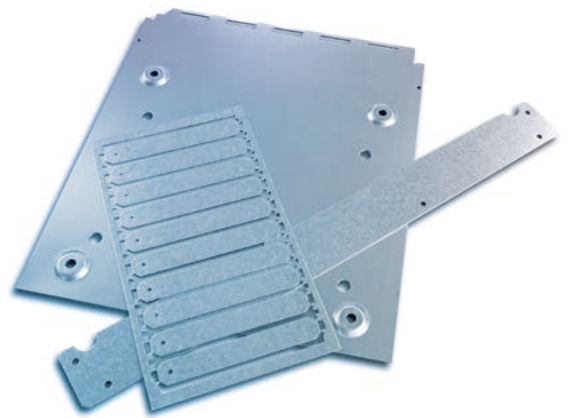
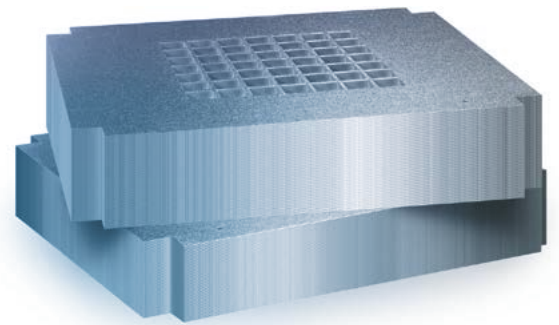
Tooling can be flexibly selected as required by the application. Up to 600 standard or 576 index tools can be simultaneously available in the turret for active use.

Turrets with 16 and 20 stations are available for Genius series and 24 and 30 stations for Brilliance series. The turrets are also compatible with standard thick turret tooling. The setup of all punching, forming and special tools is easy using the graphical tool library of the Tulus® operating system. Automatic tool lubrication system and vacuum assisted scrap removal are available as options.

ACCESSIBLE

Prima Power punching machines are operated with a modern control unit and its touch screen panel. Management of machine setup and work queues is easy with the Tulus® user interface.

The NC Express™ programming system and Tulus® work in perfect combination, provide comprehensive reports on machine and production status, and can be linked to the factory ERP system when required. Special attention has been paid to ergonomics and user friendliness of the control unit.



AROUND-THE-CLOCK PRODUCTION

MODULAR AUTOMATION

Prima Power machines are highly reliable and are used worldwide in the harshest production environments and for the most demanding manufacturing schedules. This makes them particularly suitable for 24/7 operation.

The flexible and modular Prima Power range of automation ensures the optimal way of material handling for extensive unmanned operation and thus lower production cost. The Shear machines are compatible with the whole range of optional material handling equipment for fast raw material feeding, sorting and stacking. Due to the wide range and modularity, the optimum solution can be found for every application and all system sizes.

PUNCH & SHEAR TECHNOLOGY CAN AUTOMATE

- Fast raw material availability
- Raw material change in hidden time during machine operation
- Sorting and stacking of components
- Exit of components without interrupting machine operation
- Integration to next process steps such a bendings
- Storage connections

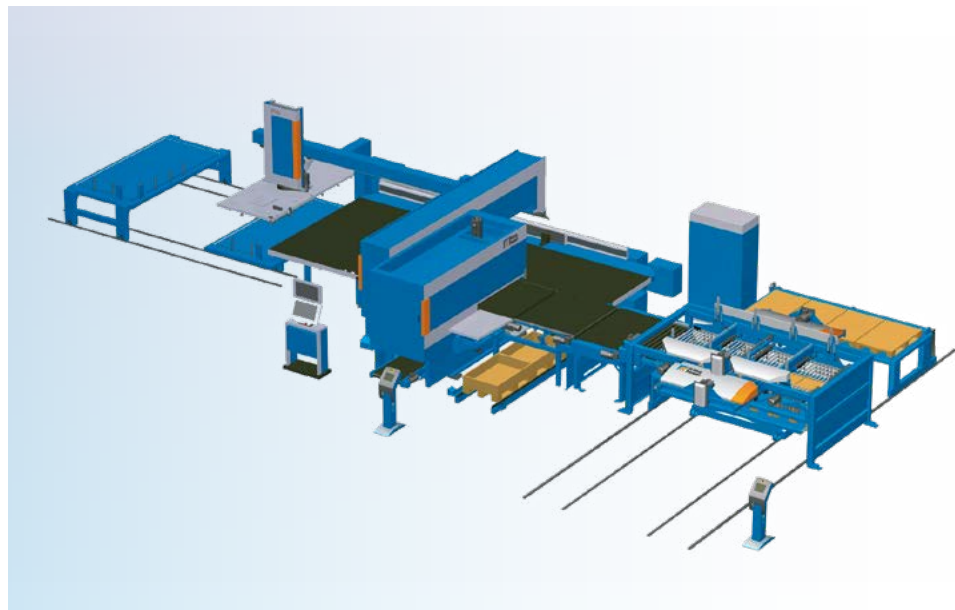
AROUND-THE-CLOCK PRODUCTION

AUTOMATED PART HANDLING

Shear Genius with stacking system STS

Stacking solution with fast stacking address change based on guided free fall part stacking.

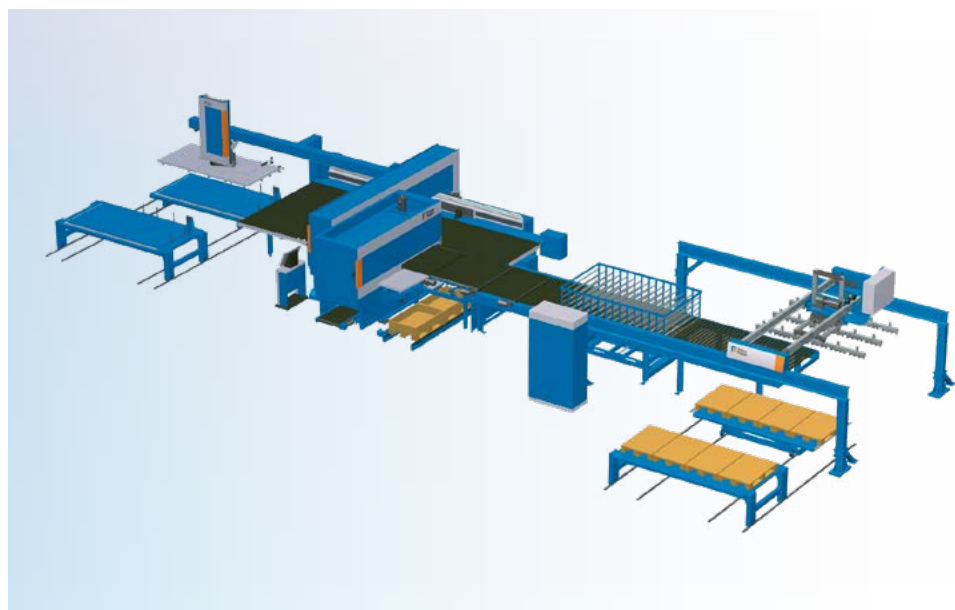
- Guided free fall stacking
- Fast stacking and address change
- Up to two stacking wagons
- Multiple stacking addresses



Shear Genius with picking and stacking robot PSR

Stacking solution with high flexibility based on accurate and gentle part stacking by gripper.

- Accurate and gentle stacking by gripper
- Scratch free
- Large stacking area up to four wagons and two stacking tables same time at the
- Connection to panel bender



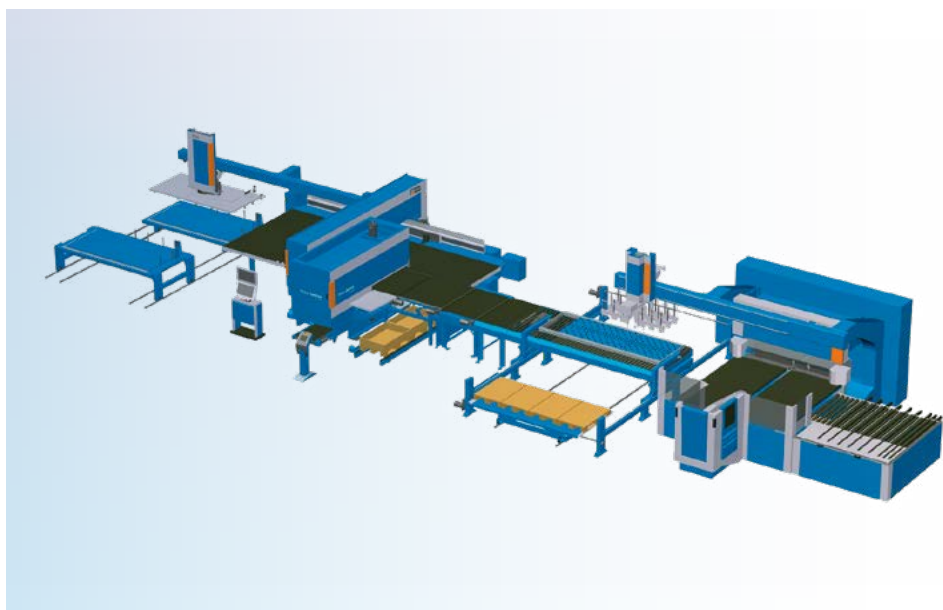
AROUND-THE-CLOCK PRODUCTION

SHEAR GENIUS AS A PART OF AUTOMATED MANUFACTURING LINE

PSBB with part centring device PCD

Compact PSBB manufacturing line for fully automatic manufacturing process dedicated for panel production and door manufacturing.

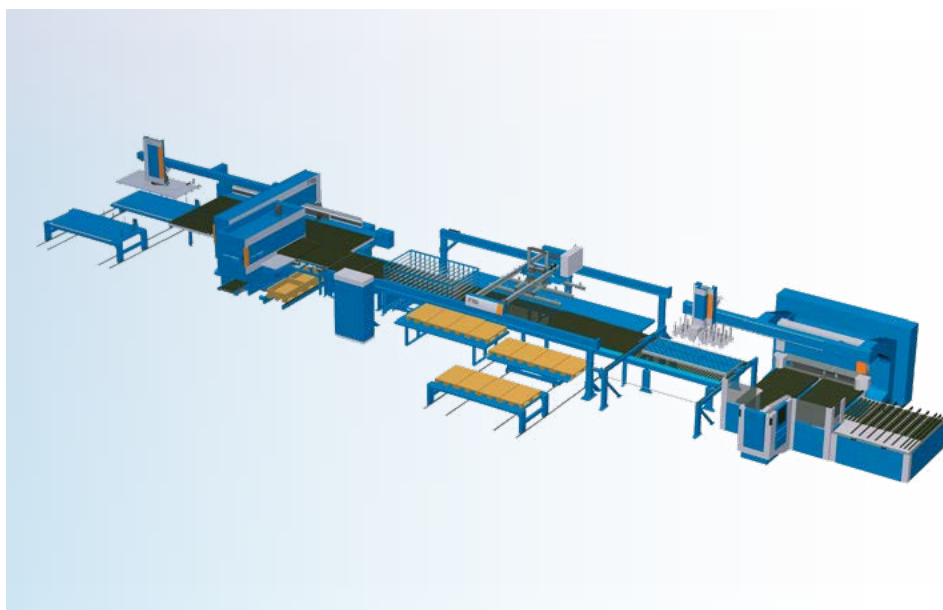
- Part buffering to conveyors
- Part stacking
- External part feed to bending
- Part turning before bending



PSBB with PSR

PSBB manufacturing line with high flexibility and large capacity of buffering and stacking components between punching/shearing and bending process.

- Large stacking capacity
- External feed of bent parts
- Part turning before bending
- (buffering) Balancing between punching/shearing and bending process
- Re-organization of part flow before bending

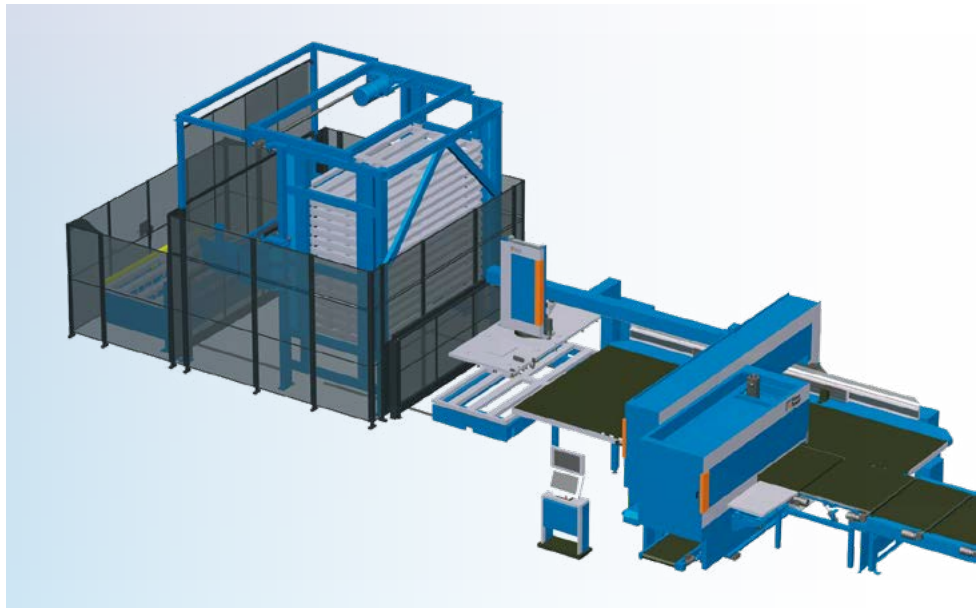


AROUND-THE-CLOCK PRODUCTION

AUTOMATED MANUFACTURING LINES WITH STORAGE SOLUTIONS

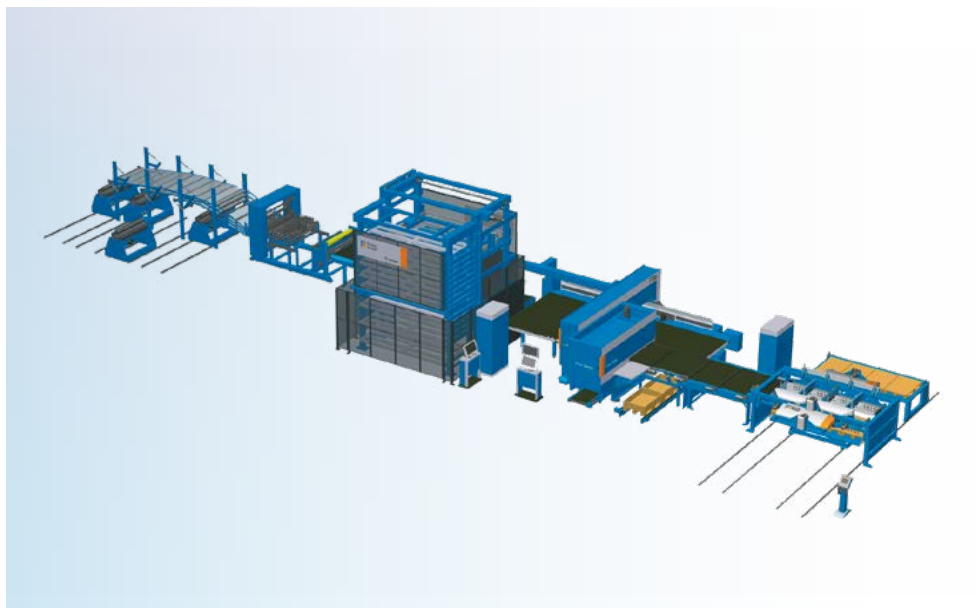
Combo Tower with 90 degree connection by using rotating gripper of loading device LD

Combo Tower is a compact material storage enabling the availability of different materials whenever needed automatically and without delays. The rotating gripper option of loading device LD enables a more flexible placement of manufacturing lines to customer premises as required by production logistics.



Cut-to-length line and FL storage integration

FL storage is a process efficient solution when fast material changes are required due to production requirements. FL storage can deliver material to machine cell in hidden time. With cut to length line integration remarkable savings in material usage can be achieved and machine utilization can be increased. Cut-to-length line can be used to feed material to the FL storage.



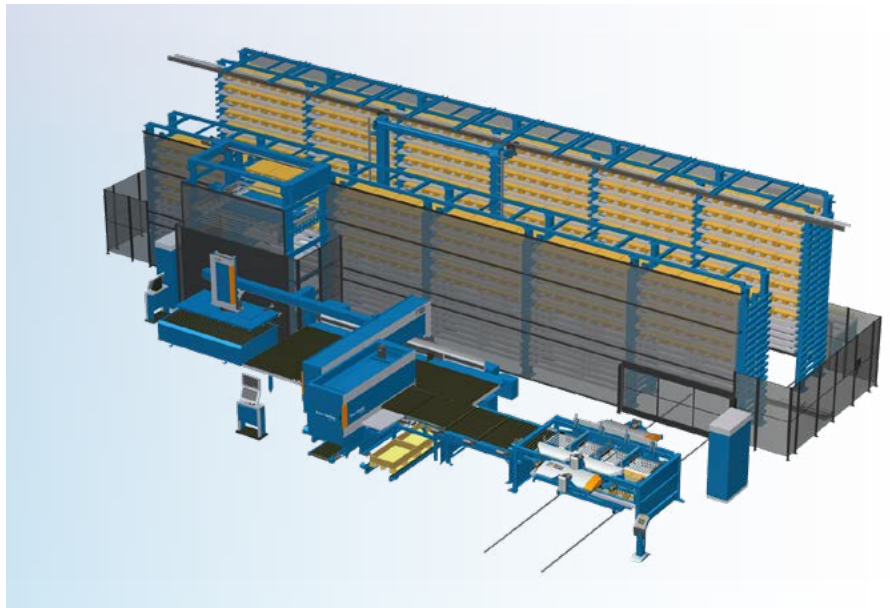
AROUND-THE-CLOCK PRODUCTION

AUTOMATED MANUFACTURING LINES WITH STORAGE SOLUTIONS

Night Train FMS® with Fast Loading Device FLD

Night Train FMS® is a comprehensive solution for a sheet metal working factory designed for automated operation, where the main equipment is an automatic logistic centre. It can serve as material storage and as buffer storage for punched/sheared and laser-cut parts. Automatic storage enables long unmanned production times.

When fast material changes are required to machine cells, Fast Loading Device FLD can be placed between Night Train FMS and machine cell. FLD picks up material directly from the cassettes on shelving unit and brings it to machine cell in hidden time without delays.



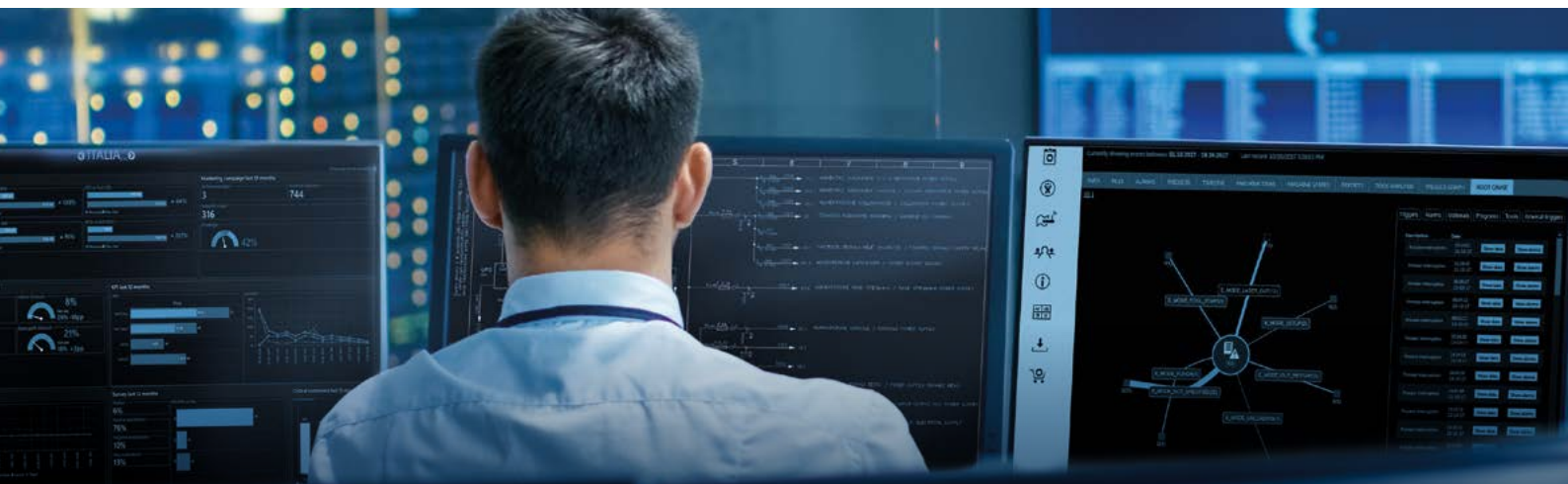
**Trains don't stop
for the night...**

**...why should
your production**



SOFTWARE

LEVEL UP YOUR PRODUCTIVITY
WITH OUR DIGITAL ECOSYSTEM



- 1 One **comprehensive ecosystem** for the entire production flow.
- 2 **Improved profitability** with optimized material management and data-driven process and maintenance.
- 3 **Empower your team** with enhanced programming capabilities combined with intuitive interfaces.

Always be in control of your system, regardless of the technology, with Prima Power's complete suite of machine user interface software.

From controlling machine operations, tools, parameters, and production orders to the stacking of finished parts, all available directly on-board with an intuitive touch-screen interface.

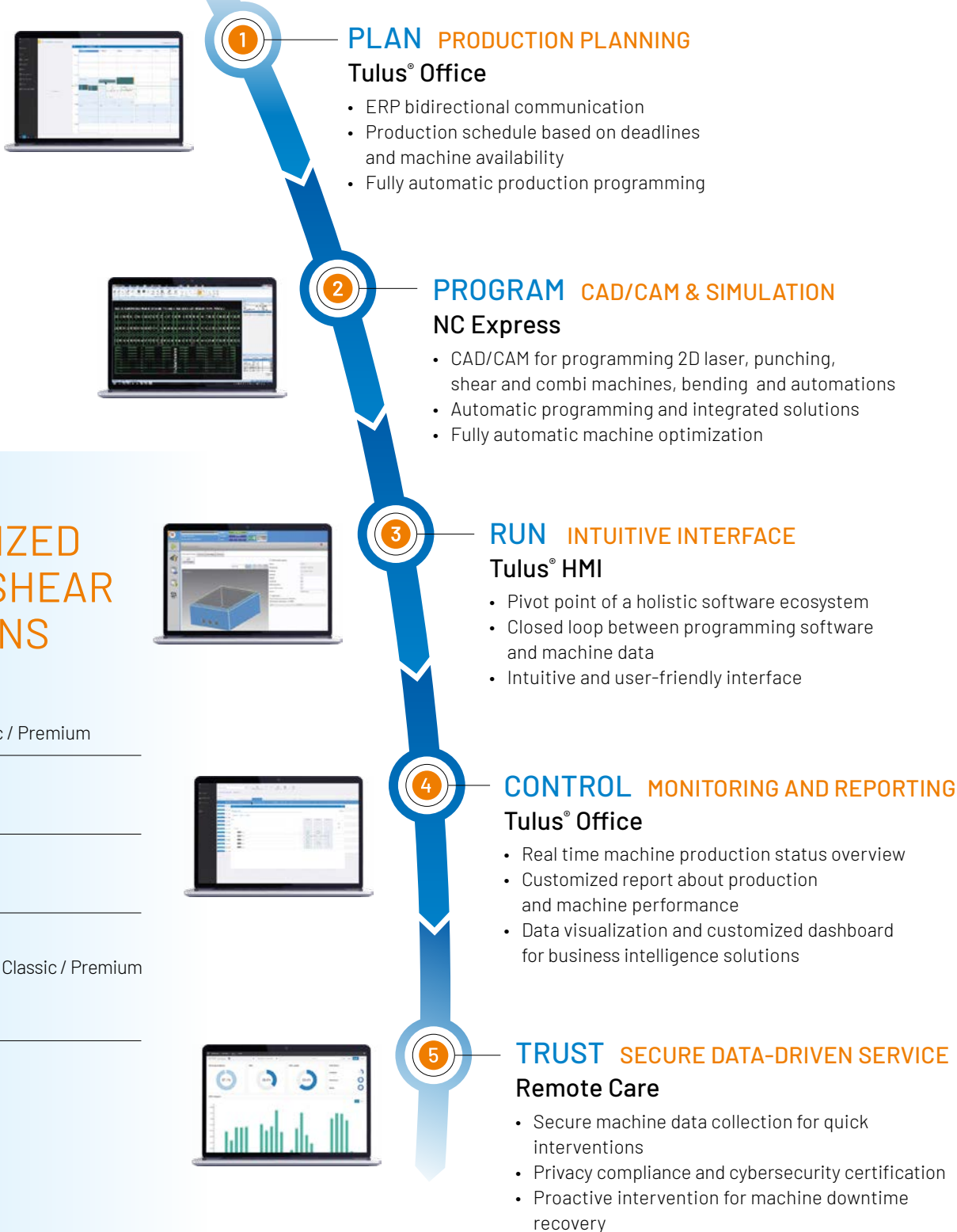


Visit our website

Learn more about the
Prima Power Software

ALL IN ONE

CONTINUOUS AND INTEGRATED PRODUCTION FLOW



SPECIALIZED PUNCH-SHEAR SOLUTIONS

PLAN

- Tulus Office Classic / Premium

PROGRAM

- NC Express Combi

HMI

- Tulus HMI

CONTROL

- Tulus Office Basic / Classic / Premium
- Tulus Terminal
- Tulus Analytics

TRUST

- Remote Care

LIFE-CYCLE SUPPORT



Visit our website
Find out more

CUSTOMER-FOCUSED APPROACH THAT
TARGETS YOUR PRODUCTIVITY CHALLENGES

ANALYZE & ADVISE

- PROCESS ANALYSIS
- FEASIBILITY AND CYCLE TIME STUDY
- PRODUCTION FLOW SIMULATION
- FACTORY AND ERP INTEGRATION ANALYSIS
- MODULAR SOLUTION SELECTION

SET-UP & TRAIN

- SOLUTION SETUP
- PRODUCTION START-UP
- TRAINING
- PROCESS OPTIMIZATION
- PRODUCTION RAMP-UP



EVOLVE & INTEGRATE

- SOLUTION UPGRADE AND SCALE-UP
- SOFTWARE UPGRADE
- REFURBISHMENT
- PRIMA POWER ACADEMY
- RELOCATION

ASSIST & MAINTAIN

- PREVENTIVE MAINTENANCE
- SERVICE AGREEMENTS
- IN-FIELD, PHONE & REMOTE SUPPORT
- SPARE PARTS & TOOLS
- SPECIALIZED TECH SUPPORT

PRIMA POWER'S GLOBAL PRESENCE

WORLDWIDE CUSTOMER-FOCUSED APPROACH

Prima Power's global presence embodies its **dynamic approach and unwavering focus on customers**. With a widespread industrial and sales and service footprint, the company strategically positions itself where it's needed most.

A connection rooted in decades of knowledge and expertise enables Prima Power to truly **understand and support the unique needs of each market and industry**.

~400 SERVICE ENGINEERS

15,000+ INSTALLED MACHINES

6 R&D AND PRODUCTION PLANTS

SEMEA

- 1 HEADQUARTERS
- 3 PLANTS AND R&D CENTERS
- 2 TECH CENTERS



PLANT
R&D CENTER
TECH CENTER

NORTH EUROPE

- 1 PLANT AND R&D CENTER
- 2 TECH CENTERS

AMERICAS

- 1 PLANT AND R&D CENTER
- 2 TECH CENTERS

APAC

- 1 PLANT AND R&D CENTER
- 1 TECH CENTER



Find out where
we are
closest to you



Send us your request
or start a live chat

 Prima
Power IS PART OF **PRIMA INDUSTRIE GROUP**

1,900 PEOPLE
550+ MIO € REVENUES



