TEMNOS LASER

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We've got the Idea!

The process of laser cutting from coils is a good example of flexibility and ability to face new challenges and provide answers to current market needs, requiring more competitive solutions to speed up production steps, reduce scrap and increase yield, reduce material storage space and increase value area.
With its long experience and technical expertise in fed coil lines and cut to length, TEMNOS 3rd Generation laser cutting solution to its range of metal strip cutting systems. TEMNOS is a Coil Fed Laser cutting, available in 500-mm, 1000-mm, 1250-mm and 1500-mm width versions, and can be integrated with a program-mable unloading system, thereby offering accurate laser head always cuts over space, elimination flashback, Clean high-quality edge, precise, repeatable dimensional quality.
It is equipped with Rexroth hardware solutions, including NC and digital drives, with 3D software solutions.

First generation built in 1998



Second generation built in 2008



Third generation built in 2018
FULLMOTION version



Fiber Laser

High power fiber laser design enables the highest cutting speed available, bringing efficiency and low-cost production to your facility. Fiber lasers can cut up to five times quicker than CO2 lasers. Fiber lasers are also less costly to operate and maintain; laser gas tanks are no longer required.
The fiber has a long life and requires little to no maintenance, no mirrors/optics to align, and no consumable parts required to keep on hand.

Key Features

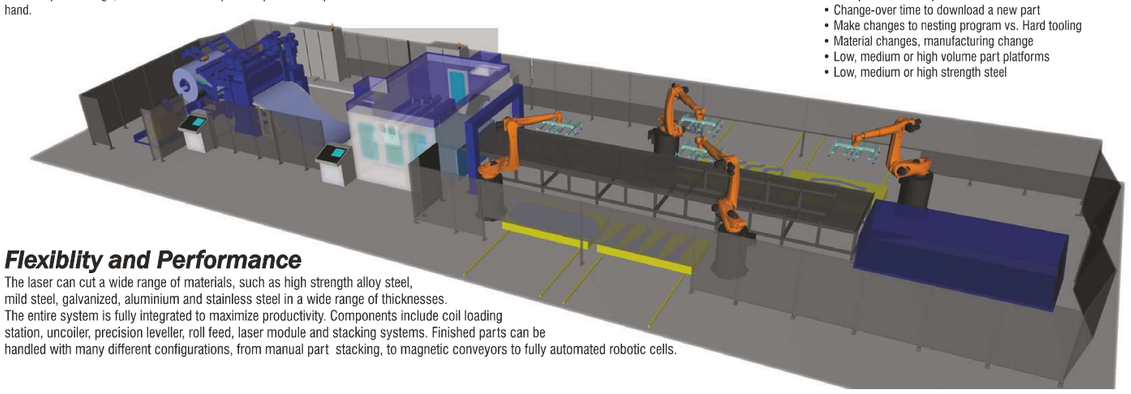
Coil fed fully integrated solution, FULL MOTION Patented laser cutting process Combination roll feed and laser traverse Eliminates flash back on the bottom of the part Fumes and contaminants removed via vacuum/exhaust system Trap door-scrap with "side out" parts Integrated high speed shear (option) Integrated finished part handling

Coil-Fed Laser Blanking Systems

Coil-fed laser blanking can lower overall operating costs, by eliminating dies and their maintenance, as well as the press itself with a low installation cost and floor space requirement. Part nesting can be optimized better than in traditional blanking lines, therefore reducing scrap and saving material. A unique characteristic of this line is its ability to continuously laser cut parts from coiled strip. Precision servo motors control both the strip feed and the laser X and Y axes, which results in high accuracy cutting. The laser head moves in both axes X and Y direction, while the metal strip is forward with continues speed, the result it is a FULL MOTION flow production.
Thanks, of the on air laser table, there is no flashback onto the bottom side of the part, leaving a clean and high quality edge.

Laser Blanking Key Advantages:

- High Povered fiber laser
- No die, die changeover & die maintenance cost
- No sheet change - cut continuously from coil
- Low installation cost and floor space
- Decrease time to market launch
- Less Scrap with nesting capabilities
- Low power consumption
- Change-over time to download a new part
- Make changes to nesting program vs. Hard tooling
- Material changes, manufacturing change
- Low, medium or high volume part platforms
- Low, medium or high strength steel

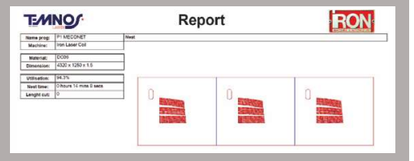


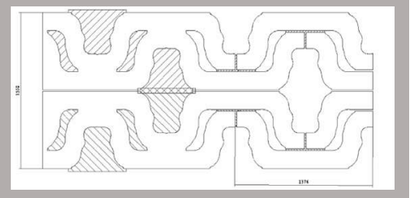
Flexiblity and Performance

The laser can cut a wide range of materials, such as high strength alloy steel, mild steel, galvanized, aluminium and stainless steel in a wide range of thicknesses.
The entire system is fully integrated to maximize productivity. Components include coil loading station, uncoiler, precision leveller, roll feed, laser module and stacking systems. Finished parts can be handled with many different configurations, from manual part stacking, to magnetic conveyors to fully automated robotic cells.

Part Nesting:

- Nest parts by parameters
- Coil Width, OD, ID
- Optimal coil width
- Optimal material utilization
- Calculated Outputs
- Part cycle time
- Total coil cycle time
- Parts per coil
- Scrap usage
- Import CAD drawings
- Multiple part nesting
- Coil & scrap optimization
- Part cutting simulation
- Standard or custom reports







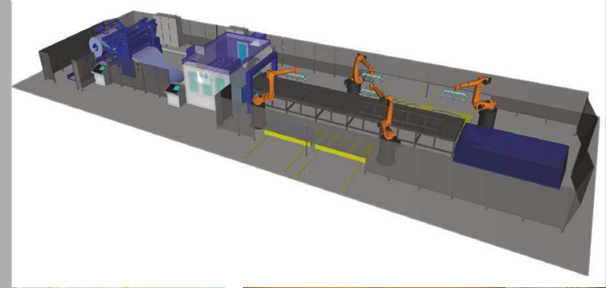
Soluzioni **Personalizzate** per
la Lavorazione della Lamiera e del Coil

Customized Sheet Metal and Coil-Fed Processing Lines

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TEMNOS è il brevetto costituito nel 1996 da Pierluigi Dalla Pace, fondatore di IRON, operativa dal 1969 e divenuta negli anni uno dei leader nel settore della deformazione della lamiera per spessori da 0,5 a 12,7 mm e larghezze fino a 2000 mm.
L'ingegnosa intuizione di utilizzare il Coil di lamiera nell'area della lavorazione del laser, ha dato, nonostante il limitato campo di applicazione della I generazione, al tempo con soluzioni di CO2, risultati eccellenti.
Nel 2008, la II generazione di TEMNOS, con l'avvento della fibra laser, grazie all'aumento della velocità del taglio laser, il campo di applicazione si è ampliato portando l'azienda ad essere una delle rilevanti nel campo della lavorazione del Coil con il laser.
Nel 2018 TEMNOS è alla III Generazione chiamata FULL MOTION grazie al sistema di tavola laser chiamato Loopslot anti-flashback.
Nasce quindi l'esigenza di specializzarsi ed essere più efficaci per competitività, affidabilità, performance e assistenza, nasce quindi un Team dedicato a questa specifica applicazione in continuo sviluppo.
• Full Motion soluzioni
• Evoluto sistema di tavola laser Loopslot anti-flashback
• Sistema di inseguimento del nastro
• Lettura del bordo nastro per la correzione dell'off set
• Lettura del riposizionamento del taglio in continuo
• Super flessibilità
• Produttività elevatissima e sicurezza anche senza presidio dell'operatore
• Un servizio sempre migliore ai clienti.
Oggi TEMNOS è presente con referenze in tutto il mondo e può contare di una rete commerciale specializzata e competente, ciò ha permesso di raggiungere un'ottimale ripartizione geografica delle vendite.
La grande esperienza delle persone che lavorano all'interno dell'azienda si pone a garanzia di un prodotto che sempre più presenti benefici aggiunti, che solo un articolato processo industriale può garantire.
Nuove soluzioni derivanti da studi meccanici strutturali, elettronici ed elettromeccanici di analisi dei sistemi di controllo e gestione software diretti al miglioramento, l'intuitività di lavoro per l'operatore e il full online tele service garantisce l'assistenza del cliente direttamente dai nostri uffici, sono sperimentate e testate su un modello chiamato TEMNOS online.
L'impegno di TEMNOS nella ricerca e nei costante aggiornamento di tecnologie avanzate garantisce ai propri clienti le massime performance produttive.

TEMNOS is the name of a patent registered in 1996 by Pierluigi Dalla Pace, founding partner of IRON, a company that has been in business since 1969 and has gradually risen to the position of leader in the industry of sheet metal forming for thicknesses from 0.5 to 12.7 mm and widths of up to 2000 mm.
Despite the limited scope for application of the first generation, which used CO2 laser solutions, the ingenious idea of coil-fed laser blanking produced excellent results from the outset.
In 2008, increased cutting speeds thanks to the advent of fibre lasers meant that the application field was broadened for TEMNOS generation II, allowing the company to occupy a benchmark position in the field of coil-fed laser blanking.
TEMNOS reached the third generation in 2018 with the FULL MOTION version, through the Loopslot anti-flashback laser cutting table system.
This led to the need to specialize and maximize added value in terms of competitiveness, performance and service, resulting in the creation of a team devoted to this constantly evolving application.
• Full Motion solutions
• Evolved Loopslot anti-flashback laser cutting table system
• Strip tracking system
• Strip edge reading for offset correction
• Continuous reading of cut repositioning
• Exceptional flexibility
• Very high productivity and safety, also in the case of unmanned operation
• Ever higher levels of customer service.
Today, TEMNOS is present with installations all over the world supported by a specialized and highly competent sales network, allowing the company to achieve the optimal geographical distribution of sales.
The enormous experience of the company's personnel is a guarantee of excellence of a product that increasingly offers the added benefits that only a fully articulated industrial process can deliver.
New solutions are derived from studies in structural engineering, electronics and electromechanics, analysis of control systems and software management oriented towards improvement, combined with the intuitive nature of the operator's work and full online teleservice that guarantees customer assistance directly from our offices, all tried and tested on a model called TEMNOS online.
TEMNOS' commitment to R&D and to the constant updating of advanced technologies translate into a guarantee of the maximum production performance for all our customers.

TEMNOS est le brevet établi en 1996 par Pierluigi Dalla Pace, fondateur de IRON, opérationnelle depuis 1969 et qui est devenu au fil des ans l'un des leaders dans le domaine de la déformation de la tôle de 0,5 à 12,7 mm d'épaisseur et jusqu'à 2000 mm de largeur.
L'intuition ingénieuse d'utiliser la bobine de tôle dans le domaine de l'usinage au laser a donné d'excellents résultats, malgré le champ d'application limité de la première génération, à l'époque avec des solutions de CO2.
En 2008, la deuxième génération de TEMNOS, avec l'avènement de la fibre laser, grâce à l'augmentation de la vitesse de découpe laser, le champ d'application s'est élargi et l'entreprise est devenue l'une des références dans le domaine de l'usinage des bobines avec le laser.
En 2018, TEMNOS arrive à la troisième génération, appelée FULL MOTION, grâce au système de table laser appelé Loopslot anti-flashback.
La nécessité de se spécialiser et d'être plus efficace en termes de compétitivité, fiabilité, performance et assistance est donc née et une équipe dédiée à cette application spécifique en développement continu est créée.
• Solutions de mouvement complet
• Système de table laser Loopslot anti-flashback
• Système de suivi de bande
• Lecture du bord de bande pour la correction du décalage
• Lecture du repositionnement de la coupe continue
• Super flexibilité
• Productivité et sécurité élevées, même sans surveillance de l'opérateur
• Service à la clientèle de plus en plus performant.
Aujourd'hui, TEMNOS est présente avec des références dans le monde entier et peut compter sur un réseau commercial spécialisé et compétent, ce qui a permis d'assurer une répartition géographique optimale des ventes.
La grande expérience des personnes qui travaillent au sein de l'entreprise est la garantie d'un produit qui présente de plus en plus d'avantages, que seul un processus industriel complexe peut garantir.
De nouvelles solutions issues d'études mécaniques, structurelles, électroniques et électromécaniques pour l'analyse des systèmes de contrôle et la gestion logicielle en vue de l'amélioration, le travail intuitif pour l'opérateur et le télé service complet en ligne qui assure une assistance client directement depuis nos bureaux, sont expérimentées et testées sur un modèle nommé TEMNOS online.
L'engagement de TEMNOS dans la recherche et la mise à jour constante de technologies de pointe garantit à ses clients des performances de production maximales.

Dati Macchina	TEMNOS 10	TEMNOS 12	TEMNOS 15	TEMNOS 20
Area di Taglio X - Y / XX° mm	1200* x 1000	1500* x 1250	1500* x 1500	2000* x 2000
Lunghezza Asse Z mm	100	100	100	100
Velocità assi (m/min)	140	140	140	140
Accelerazione mm/sec.	9000	9000	9000	9000
Precisione mm	+/- 0.01	+/- 0.01	+/- 0.01	+/- 0.01
Ripetibilità mm	0,03	0,03	0,03	0,03
X Lunghezza di lavoro Asse Laser, XX Avanzatore Elettronico (Lunghezza Infinita), Y Larghezza del Coil o Foglio				

Machine Data	TEMNOS 10	TEMNOS 12	TEMNOS 15	TEMNOS 20
Working Area X - Y / XX° mm	1200* x 1000	1500* x 1250	1500* x 1500	2000* x 2000
Axis Travel Z mm	100	100	100	100
Speed Axis (m/min)	140	140	140	140
Acceleration mm/sec.	9000	9000	9000	9000
Accuracy mm	+/- 0.01	+/- 0.01	+/- 0.01	+/- 0.01
Repeatability mm	0.03	0.03	0.03	0.03
X Laser Axis Working Length, XX Roll Feeder device (infinity length), Y Width of coil or Sheets				

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TEMNOS é a patente constituída em 1996 por Pierluigi Dalla Pace, fundador da IRON, funcionando desde 1969 e que se tornou ao longo dos anos uma das líderes no setor da deformação de chapas de espessuras de 0,5 a 12,7 mm e larguras de até 2000 mm.
A engenhosa ideia de utilizar as bobinas de chapas na área de transformação a laser forneceu, independentemente do campo limitado de aplicação de 1ª geração, na época com soluções de CO2, resultados excelentes.
Em 2008, a 2ª geração da TEMNOS, com o desenvolvimento da fibra laser, graças ao aumento da velocidade de corte a laser, o campo de aplicação se ampliou levando a empresa a ser uma das referências na área da transformação de bobinas com laser.
Em 2018 a TEMNOS está na 3ª geração, chamada de FULL MOTION graças ao sistema de mesa laser chamado de Loopslot anti-flashback.
Nasce então a exigência de especializar-se para ser mais eficaz em relação à competitividade, confiabilidade, desempenho e assistência, nasce então uma equipe dedicada a essa aplicação em contínuo desenvolvimento.
• Soluções Full Motion
• Sistema evoluído de mesa laser Loopslot anti-flashback
• Sistema de follow-up da fita
• Leitura da borda da fita para correção do deslocamento
• Leitura do reposicionamento do corte contínuo
• Super flexibilidade
• Produtividade elevada e segurança mesmo sem a interferência do operador
• Um atendimento ao cliente sempre aprimorado.
Atualmente a TEMNOS está presente no mundo todo e conta com uma rede comercial especializada e competente, o que permitiu atingir uma divisão geográfica das vendas otimizada.
A grande experiência dos funcionários da empresa é garantia de um produto com cada vez mais benefícios agregados, que somente um processo de fabricação altamente articulado pode garantir.
Novas soluções derivadas de estudos mecânicos estruturais, eletrônicos e eletromecânicos de análise dos sistemas de controle e gestão de software direcionados ao aprimoramento, à intuitividade de trabalho para o operador e o serviço de atendimento totalmente on-line que garantem a assistência ao cliente diretamente a partir de nossos escritórios, estão sendo experimentadas e testadas por meio de um modelo chamado TEMNOS on-line.
O empenho da TEMNOS na pesquisa e atualização constante de tecnologias avançadas garante aos clientes o melhor desempenho de produção.

TEMNOS - это технология, запатентованная в 1996 году Пьерлуиджи Далла Пачи, основателем компании Iron, действующей с 1969 года, которая за эти годы достигла лидерства в области обработки листового металла толщиной от 0,5 до 12,7 мм и шириной до 2000 мм.
Гениальная идея использовать рулон листового металла для лазерной обработки принесла, несмотря на ограниченность применения станков 1-го поколения на CO2, отличные результаты.
В 2008 году второе поколение TEMNOS, с появлением лазерного волокна и благодаря увеличению скорости лазерной резки, расширило область своего применения и вывело компанию в лидеры лазерной обработки листового металла в рулоне.
Эра третьего поколения TEMNUS, начавшаяся в 2018 году, получила название FULL MOTION, благодаря системе лазерных столов Loopslot anti-flashback.
Вместе с ней появляется необходимость специализироваться, быть более эффективными с точки зрения конкурентоспособности, надежности, производительности и обслуживания. Создается специальная команда, нацеленная на разработку этого конкретного приложения в его непрерывном развитии.
- Система Full Motion;
- Усовершенствованная система лазерных столов Loopslot с антибликовым покрытием;
- Система слежения ленты;
- Считывание кромки ленты для коррекции отклонения;
- Непрерывное считывание репозиционирования резки;
- Высокийая гибкость.
- Очень высокая производительность и безопасность, даже при отсутствии оператора;
- Постоянное улучшение сервисного обслуживания.
Сегодня TEMNOS присутствует во всем мире через обширную коммерческую сеть, что позволило достичь оптимального географического распределения сбыта.
Большой опыт людей, работающих на предприятии, является гарантией постоянного усовершенствования продукции, обеспечить которое может только комплексный производственный процесс.
Новые решения как результат исследований в области механики, электроники и электромеханики, анализа систем управления и программного обеспечения для улучшения производственного процесса и облегчения работы оператора, а также полный удаленный сервис в режиме онлайн для клиентов, были опробованы на модели TEMNOS онлайн.
Приверженность TEMNOS исследованиям и постоянному обновлению передовых технологий гарантирует своим клиентам максимальную производительность.