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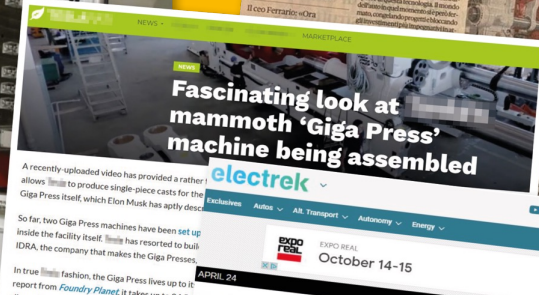
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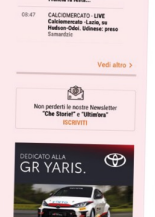
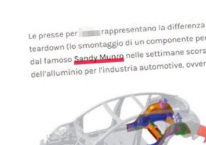
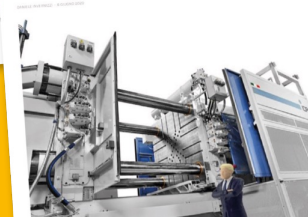
teardown reveals beautiful casting manufacturing breakthrough



Idra's Giga Press Which Will Change the Standard in Car Production

La GigaPressa di parla Italiano

le Giga Press dell'italiana Idra per la rivoluzione di



Move Aside Robots, Tesla Bets on Aluminium Casting published by New York Times

<https://www.nytimes.com/reuters/2020/09/08/business/08reuters-tesla-manufacturing-berlin.html>

The New York Times



Written by
Edward Taylor

<https://uk.mobile.reuters.com/article/amp/idUKKBN25Z1N>
[F?_twitter_impression=true](#)

Move Aside Robots, Tesla Bets on Aluminium Casting

By Reuters

Sept. 8, 2020, 6:54 a.m. ET



FRANKFURT/DETROIT — Robots are not efficient enough for Tesla's new car factory in Germany, which plans to replace hundreds of them with giant aluminium casting machines to build simpler chassis parts, a person familiar with the matter told Reuters.

The electric carmaker has struggled to raise production volumes through hi-tech automation and was forced to fly in a new production line from Germany to Nevada in 2018 after robots failed to coordinate seamlessly at the U.S. factory.

For the new Model Y, Tesla chief executive Elon Musk has said he will replace 70 components glued and riveted into the car's rear underbody with a single module made using an aluminium casting machine. That's just the start of a new automation drive, with the vehicle's front module and other parts to come, the source said.

"Will be amazing to see it in operation! Biggest casting machine ever made. Will make rear body in a single piece, including crash rails," Musk said on Twitter on Aug. 13. He did not say where or when the new machine would be rolled out.

Tesla did not respond to requests for comment.

Tesmanian, a blog specialising in Tesla news, said on Monday the company's new plant in Brandenburg, near Berlin, would be supplied with eight "Gigapress" machines.

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Car bodies have traditionally been made by assembling multiple stamped metal panels, which has helped carmakers to design crumple zones to absorb energy during a crash, but Musk is charting a new course at the Brandenburg plant.

"He wants the car's body to be made from modules, as few of them as possible," the source explained. "He sees casting as the new way forward. Like casting a toy car out of metal."

The Gigapress, which is the size of a small house, will be supplied by Italy's IDRA Srl, and forms a key part of Musk's drive to reinvent "the machine that builds the machine," the source added.

IDRA declined to comment. IDRA has previously said it has supplied its first ever Gigapress to a North American auto manufacturer, without naming it.

Musk's push to reduce manufacturing complexity comes as German carmakers BMW, Mercedes and Audi face pressure from their workers to preserve domestic assembly jobs which are under threat as regulators push electric cars that have fewer components than combustion-engined ones.

Aluminium has proven cumbersome to use in large components because it is difficult to stamp into complex shapes. To get intricate ridges and other shapes, aluminium pieces have needed to be glued or riveted, since welding deforms the metal.

Injecting molten aluminium into a cast and having robots pull out the moulded metal allows Tesla to combine several manufacturing steps.

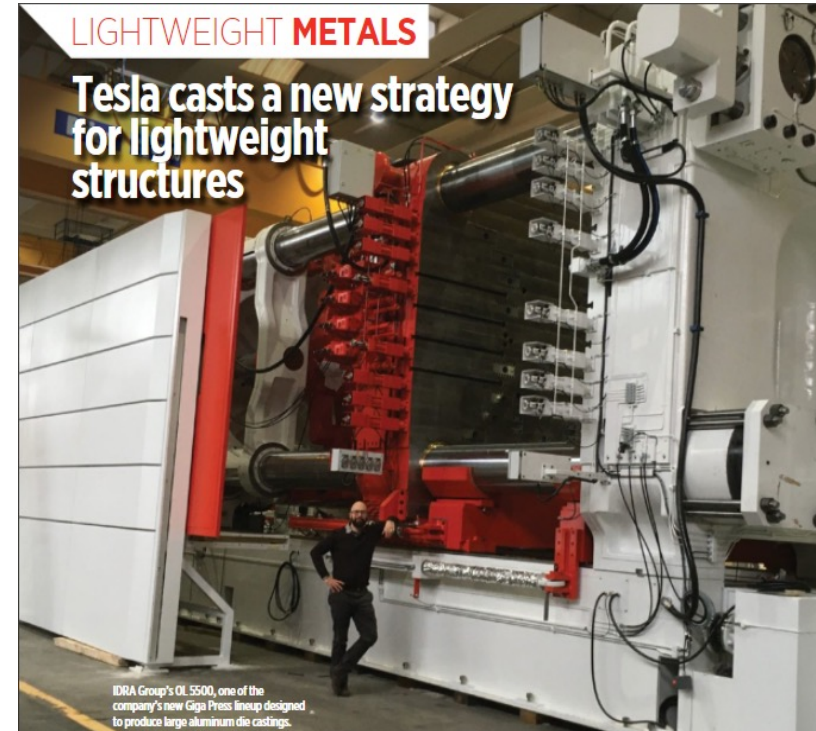
Sandy Munro, chief executive officer of manufacturing consulting firm Munro & Associates and a previous critic of some of Tesla's manufacturing processes, lauded its improvements.

"We were very critical of Tesla when we first started on their vehicles. The gaps were horrific, the weld spatter was everywhere. Nothing fit," Munro said during a recent presentation with consultants Frost & Sullivan. But the switch from the Model 3 to a larger vehicle, the Model Y, resulted in a step change in manufacturing improvements, he said.

Tesla has already reduced the rear underbody to two parts, forming the largest piece of aluminium that Munro has seen in 30 years of analysing components. "This is the biggest casting we have seen in a car company. This is just spectacular," he said.

Tesla casts a new strategy for lightweight structures published by SAE

<https://www.nxtbook.com/nxtbooks/sae/20AUTPO6/index.php#/p/12>



The EV maker boldly invests in the world's largest aluminum die-casting machine to manufacture entire rear underbody structures.

by Bill Visnic

Aluminum is synonymous with "weight-saving" in most contemporary automotive-engineering reference points. But apart from a few applications – most notably Ford's F-Series pickups – aluminum largely is deployed where steel can be readily displaced without performance loss or for comparatively small components that deliver comparatively small weight or process savings.

Electric-vehicle maker Tesla is readying the next step in aluminum use, however – one that effectively matches Ford's "big gain" approach by specifying a massive piece of structural die-cast aluminum for the rear underbody of the recently launched Model Y crossover. According to Tesla CEO Elon Musk, this new aluminum application represents a radical step for its design and manufacturing advantages and its light-weighting potential. Musk is renowned for oversized promises, but in

the case of the Model Y's die-cast rear underbody, his enthusiasm for this advanced use of aluminum – cast by a house-sized "giga press" – is supported by manufacturing experts who call it a game-changer.

"It's definitely an all-new look at how to do things," asserted Laurie Harbour, president at Harbour Results Inc. manufacturing consultancy. "Elon Musk has always pressed his engineers to be creative."

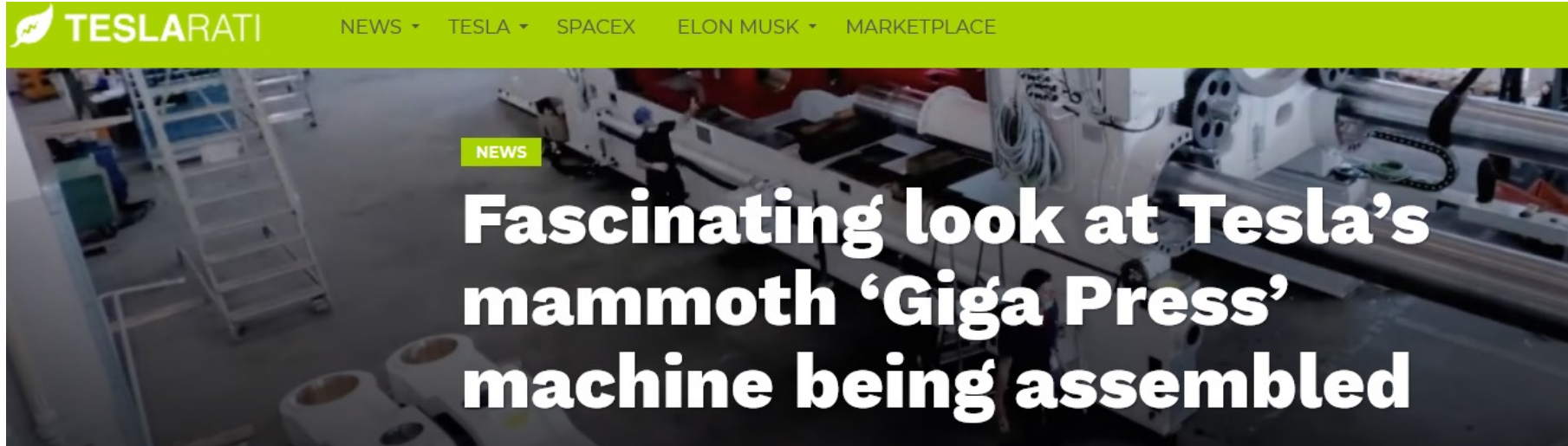
Reductions in – pretty much everything

Musk spoke in detail about the new casting process in an episode of the "Third Row Tesla Podcast" in April and made more than a passing mention of it in Tesla's

IDRA GROUP

Fascinating look at Tesla's mammoth 'Giga Press' machine being assembled published by Teslarati

<https://www.teslarati.com/tesla-model-y-giga-press-assembly-video/?fbclid=IwAR1IAXpRwNERTWkLWUsez3NAiUVVqQUNVQWcMy2pCikDyYLYoFJb3CI5230>



A recently-uploaded video has provided a rather fascinating glimpse at the assembly process of an IDRA "Giga Press" machine, which allows Tesla to produce single-piece casts for the Model Y. The short clip highlights the impressive and almost daunting size of the Giga Press itself, which Elon Musk has aptly described as comparable to the size of a small house.

So far, two Giga Press machines have been [set up in the Fremont Factory](#), and they are so massive that they could not be installed inside the facility itself. Tesla has resorted to building a shed of sorts around the Giga Presses, protecting them from the elements. IDRA, the company that makes the Giga Presses, reportedly has 12 orders for the giant casting machine.

In true Tesla fashion, the Giga Press lives up to its name. The machine showcased in the video is Giga Press No. 3, and according to a report from [Foundry Planet](#), it takes up to 24 flatbed trucks to transport the components of the massive 430-ton giant contraption. Its dimensions of 20m x 7.5m x 6m are also quite impressive.

Tesla CEO Elon Musk Test Drives ID.3; VW CEO Clarifies the Companies are not Looking to Partner published by Tesmanian

<https://www.tesmanian.com/blogs/tesmanian-blog/vw-tesla>

Tesla CEO Elon Musk Test Drives ID.3; VW CEO Clarifies the Companies are not Looking to Partner

by Eva Fox • September 07, 2020

Tesla • VW



The good relationship between Elon Musk and Herbert Diess is no secret to anyone. Musk previously noted that Diess is doing *more than any big carmaker to switch to electric transport* and therefore expressed his support for him. And Diess previously thanked Elon Musk for *pushing and pulling Germany's auto industry towards the era of electric vehicles*.

Last week Musk visited Germany. He had a very busy schedule, which included many important meetings and a visit to Giga Berlin. But, he made another surprise meeting: with VW Chief Diess, who had also brought the ID.3 and ID.4 along with him.

Musk and Diess spent about two hours together at the airport. During the meeting, they discussed issues of electromobility and digitalization of the automotive industry. Musk tested the ID.3, which was brought in by Diess, on the airport runway. He also had the opportunity to look at the ID.4 electric SUV, which has yet to be introduced to the world.

Diess thanked Musk for the visit and wrote in LinkedIn:

"Thanks for the visit, Elon! Hope you like the video. It was great driving the ID.3 with you! You were just quite critical with the available torque at higher speed. I told you: "Yes, we are on the runway - but no need for take off - its not a sports car. " For this you should try our Porsche Taycan. Looking forward to our next meeting!"

This event has sparked a wave of speculation that companies are starting a partnership or have a common project. However, today all rumors and assumptions have been dispelled. Hours after the first posting, Diess wrote that the CEOs simply drove the ID.3 and talked more informally--though are not actively exploring a collaboration or deal:

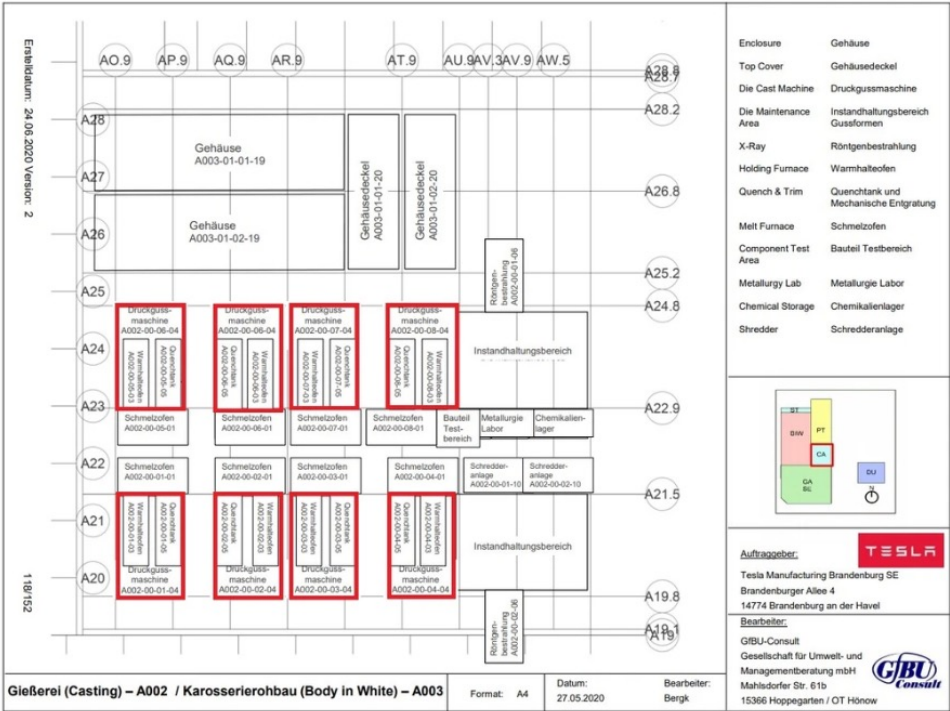
"Just to be clear. We just drove the ID.3 and had a chat - there is no deal/cooperation in the making."

Tesla Giga Berlin to Have 8 Giga Presses for Next-Level Manufacturing published by Tesmanian

<https://www.tesmanian.com/blogs/tesmanian-blog/tesla-giga-berlin-possibly-to-have-8-giga-presses-for-next-level-manufacturing>

Tesla Giga Berlin to Have 8 Giga Presses for Next-Level Manufacturing

by Eva Fox • September 07, 2020
Giga Berlin • Model Y Casting Machine • Tesla



The construction of Tesla Giga Berlin is progressing at a consistently rapid pace. Currently, there is great focus on the Casting building. This building is anticipated to house **eight** giant casting machines--the so-called Giga Press--for the manufacturing of Model Y.

At the moment, the installation of footings continues. The reinforcement frame is filled with cement, which is produced directly at the Giga Berlin site.



According to the revised application submitted by Tesla in early July, the company will install eight Giga Press machines for the Model Y's underbody castings.

Giga Presses are a series of aluminum die casting machines manufactured by Idra Group in Italy. They are notable for being the largest high-pressure die casting machines in the world, with a clamping force of 5,600 to 6,200 tonnes-force (55,000 to 61,000 kN). 6,100-tonne-force (60,000 kN) die casting machines were ordered for Giga Berlin.

"There are 8 die casting machines with a maximum operating capacity of 73.1 t/d per machine. The maximum total capacity is 213,474 t/year."

Move aside robots, Tesla bets on aluminium casting published by Reuters

https://uk.mobile.reuters.com/article/amp/idUKKBN25Z1NF?_twitter_impression=true



TUE SEP 8, 2020 / 12:10 PM BST

Move aside robots, Tesla bets on aluminium casting

Edward Taylor and Paul Lienert



FRANKFURT/DETROIT (Reuters) - Robots are not efficient enough for Tesla's (TSLA.O) new car factory in Germany, which plans to replace hundreds of them with giant aluminium casting machines to build simpler chassis parts, a person familiar with the matter told Reuters.

The electric carmaker has struggled to raise production volumes through hi-tech automation and was forced to fly in a new production line from Germany to Nevada in 2018 after robots failed to coordinate seamlessly at the U.S. factory.

For the new Model Y, Tesla chief executive Elon Musk has said he will replace 70 components glued and riveted into the car's rear underbody with a single module made using an aluminium casting machine.



FILE PHOTO: Tesla Inc CEO Elon Musk attends an opening ceremony for Tesla China-made Model Y program in Shanghai, China January 7, 2020.

REUTERS/ALY SONG

The Gigapress, which is the size of a small house, will be supplied by Italy's IDRA Srl, and forms a key part of Musk's drive to reinvent "the machine that builds the machine," the source added.

IDRA declined to comment. IDRA has previously said it has supplied its first ever Gigapress to a North American auto manufacturer, without naming it.

Giga Press published by Wikipedia

https://en.m.wikipedia.org/wiki/Giga_Press

Giga Press

Giga Press	
Classification	High-pressure die-casting (HPDC)
Industry	Metal casting
Application	Car chassis production
Dimensions	19.5 m × 5.9 m × 5.3 m 64 by 19 by 17 feet
Weight	410–430 tonnes 900,000–950,000 lb
Fuel source	Electric
Powered	2 × 132kW motors ^[1] 4 × 90kW motors ^[2]
Invented	~2018
Examples	2+ (Tesla, Inc.)

Giga Press are a series of [aluminium die casting](#) machines manufactured by Idra Group in Italy. They are notable for being the largest [high-pressure die casting](#) machines in the world, with a clamping force of 5,600 to 6,200 tonnes-force (55,000 to 61,000 kN).^{[2][3]} Initial usage of a customised **OL 6100 CS** Giga Press is planned by [Tesla, Inc.](#) for production of the [Tesla Model Y](#) electric car [chassis](#),^[4] at the [Tesla Factory](#) in Fremont, California.^[5]

Base specification **OL 5500 CS** and **OL 6200 CS** Giga Press machines had been included in Idra's catalogue since 2018.^[6] Each machine weighs 410–430 tonnes (900,000–950,000 lb).^{[2][3]}

Shots of molten aluminium weighing 80 kilograms (180 lb) are injected into the cold-chamber [casting mold](#) with a velocity of 10 metres per second (22 mph; 36 km/h).^[7]

In July 2019, during the [GIFA 2019](#) industry trade-show in Dusseldorf, contracts for a second Giga Press were signed—destined for an important Chinese-located customer.^[8]

Tesla

https://en.m.wikipedia.org/wiki/Giga_Press

1/9

8/9/2020

Giga Press - Wikipedia

As of 2015 Idra was one of the ten most important strategic suppliers to [Tesla Motors](#),^[9] with Tesla using purely die-casting machines made by Idra for use at the factories in California.^{[10][11]} In 2016 Tesla ordered a 3,000-tonne-force (30,000 kN; 7,000,000 lbf) press from Idra for making major car chassis components.^[12]

In May 2019, the first order for an over-5,500-tonne-force (54,000 kN) Giga Press was placed by [Tesla](#), and scheduled for [acceptance testing](#) by February 2020.^{[8][13]} The "big casting machine" would cast the [Tesla Model Y](#) rear chassis as a single component.^[14] The OL 5500 CS machine was upgraded to OL 6100 CS specification for Tesla prior to delivery.^{[4][15]}

In 2018 a patent application assigned to Tesla showed four Giga Press casting machines arranged at right angles for whole-vehicle unibody chassis casting.^[16] In 2019 [Jerome Guillen](#) stated that [Tesla Grohmann Automation](#) were working on a "giant, giant, giant machine" using modular construction.^[17]

In April 2020 [Elon Musk](#) stated that the two biggest casting machines in the world had been purchased to enable casting the [Tesla Model Y](#) rear chassis and crash rails as a single component.^{[15][18]}

Tesla Model Y Will Gain Single Rear Casting Thanks To IDRA Group published by Insideevs

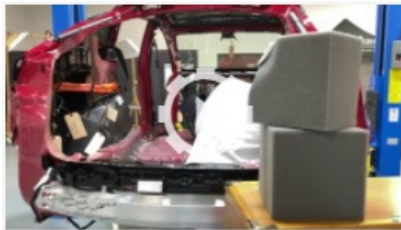
<https://insideevs.com/news/427179/tesla-model-y-casting-machine-idra-group/>

The Italian company will supply Tesla with a 5,500-ton press, suggestively called Giga Press.

When [Sandy Munro](#) revealed the biggest [Model Y](#) secret – its cast parts – [he said a single piece would replace the two halves that it currently uses](#). According to SAE, that is close to becoming a reality thanks to the IDRA Group. This Italian machinery company is the supplier of the casting equipment [Tesla](#) uses, and it says these machines are called Giga Presses. Suggestive, right?

After reading SAE's *Automotive Engineering* article, we got more details about what these casting machines. The article mentions Tesla uses an OL 6100 CS press, but the IDRA website contradicts that information. There is no OL 6100 CS, according to the official data, only an OL 6200 CS HPDC – High-Pressure Die Casting.

More News On The Tesla Model Y Cast Parts:



[Sandy Munro Gives New Details On Tesla Model Y Castings, Splashes, And Teslaract](#)



[How Do Tesla Lathrop And Model Y Relate? Cast Parts Are Made There](#)

Tesla ordered an OL 5500 CS HPDC, [which is mistakenly considered to weight 5,500 tons in an article the company quotes](#) to tell the world it is Tesla's supplier – 5,500 tons is the clamping force this press has, not its mass.

SAE's article mentions the machine is 64 feet (19.5 m) long, 17 feet (5.3 m) tall, and that it weighs 410 tons. It also has "a maximum aluminum-alloy 'shot' weight of 104.6 kg (231 lbs)," but that information relates to the [OS 6200 CS HPDC](#). Which actually weighs 430 tons.

Gallery: IDRA Group Confirms It Has Supplied Huge Casting Machine For The Tesla Model Y

Tesla To Install World's Largest Aluminum Die-Casting Machine For Model Y Rear Underbody published by Tesmanian

<https://www.tesmanian.com/blogs/tesmanian-blog/tesla-model-y-production-rear-body-casting>

Tesla To Install World's Largest Aluminum Die-Casting Machine For Model Y Rear Underbody

by Ma. Claribelle Deveza • June 04, 2020

Aluminum die-casting machine • Model Y • Tesla



Tesla has ordered an aluminum die-casting machine for the Model Y's rear underbody structure, which would allow the component to be produced in one piece. The EV automaker and Elon Musk have been teasing the Model Y's single-piece casting for some time. Now more information about the machine that will accomplish the feat has been revealed.

According to *SAE International*, Tesla ordered the world's largest **aluminum die-casting machine** for the Model Y's rear underbody from **IDRA** Group, the company that makes the Giga Press.

Based on **IDRA**'s website, the **Giga Press** has two variants labeled OL 5500 CS and OL 6200 CS after its 5500 ton and 6200-ton presses. Tesla was the first to order **IDRA**'s OL 5500 CS for the Model Y in 2019. Later, Tesla's Giga Press was upgraded to OL 6100 CS with specifications from the EV automaker.

Tesla's single-piece Model Y casting has not been kept a secret. The EV automaker eluded to its Model Y manufacturing improvement in its Q4 2019 Update Letter. Later in **TSLA's Q1 2020** Earnings Call, Elon Musk talked about the Model Y's casting improvements as well.

Model Y rear underbody
2 pieces of metal (eventually a single piece)

Credit: Tesla

"For Model Y, we introduced a revolutionary two-piece rear underbody casting that we are going to be making a single-piece casting later this year. Meaning like essentially the rear third of the body is cast as a single piece, which is no casting of the size of complexity has never been done before. In fact, there isn't even anything that is on par with the two-piece casting for the Model Y. So, we're really pushing the envelope on vehicle structural, engineering, and manufacturing. I'm very excited about this approach as it allows us to reduce the weight of the cast and improve NVH. It's better in every way essentially," Musk said.

Installation for Tesla's first OL 6100 CS machine was scheduled for May 2020. According to Laurie Harbour, from Harbour Results Inc. manufacturing consultancy, Tesla could save costs and gain a significant amount of efficiency with the Giga Press.

"Even with a big cycle time, you eliminate all the labor to assemble pieces and subcomponents," she observed. "You're saving on automation cells; you're saving on people. It would be tough to put dollars to it, but think of multiple suppliers doing stampings, you could save maybe 20% on labor cost. And reduction in footprint is major. My guess is that it's a net-net efficiency gain," she said.

Based on various online reports, Tesla plans to install its bespoke **IDRA** Giga Press in the Fremont factory, Giga Shanghai, and Giga Berlin. The Fremont factory has already started manufacturing Model Y vehicles. **Giga Shanghai** and **Giga Berlin** are expected to start Model Y production in early 2021.

Sandy Munro Model Y teardown published by Munro

<https://www.youtube.com/watch?v=KVGwLnNyF0&list=PLkIDIGyJnprdFftxAZ85a5Rp1LIET4Wbr&index=17&t=309s>



Model Y E14: Rear Mega Castings and Structure, Trunk Tub, Potential Tow Location

146,474 views • 8 Apr 2020

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Sandy touches on a few pieces of feedback from viewers, a phone from call from Tesla, a thorough review of the rear mega castings and structure, a comparison of the MY-M3 Trunk Tubs, and potential strategy for the addition of a hitch.

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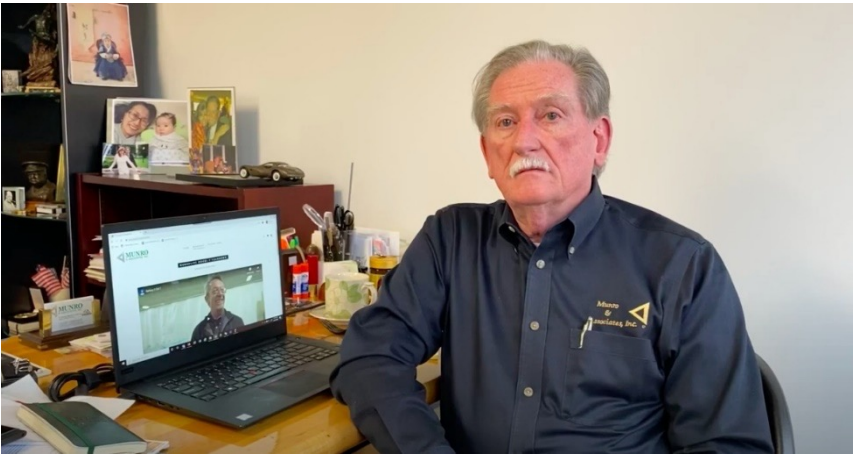
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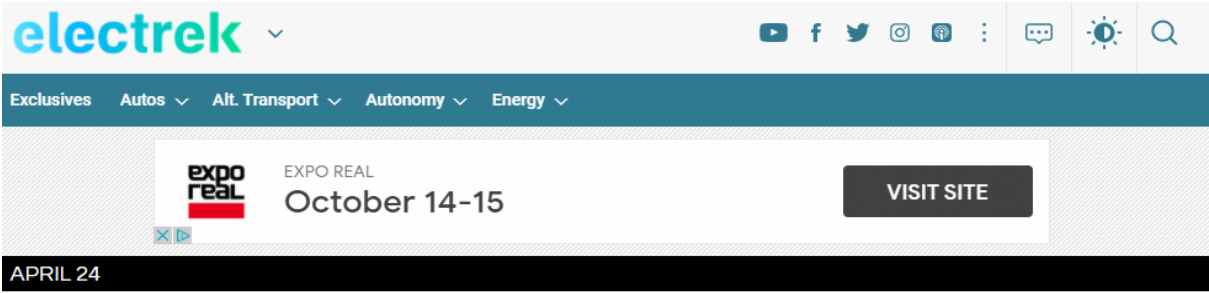


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Tesla Model Y teardown reveals beautiful mega casting manufacturing breakthrough published by Electrek

<https://electrek.co/2020/04/24/tesla-model-y-teardown-mega-casting-manufacturing-breakthrough/>



Tesla Model Y teardown reveals beautiful mega casting manufacturing breakthrough

The Tesla Model Y teardown is starting to reveal the beautiful mega casting on the rear of the electric SUV, which could be a great manufacturing breakthrough.

As we previously reported, Sandy Munro, a manufacturing expert who rose to fame in the Tesla community after his breakdown of an early Model 3, is doing the first teardown of a Model Y.

Munro is doing relating details about the teardown piece by piece, and you can check our previous reports for Tesla Model Y's fit and finish, frunk, and suspension and wiring and body casting.

The manufacturing expert is now digging deeper into the casting of the back end of the Model Y's body because it features one of the greatest improvements over the Model 3.

Here's his latest video about what he now calls Tesla's "mega casting":



Fachartikel

23.07.2020

erschieden in GIESSEREI Heft 7/2020

GIGA-Strukturguss für Modell Y



Ladesäule für einen Tesla. Die Gusspläne des E-Autopioniers könnten das Thema großflächiger Strukturguss in der

Automobilbranche noch stärker in den Vordergrund rücken - eine Chance für Guss!

Der E-Autobauer Tesla verfolgt beim Bau seines Modells Y Konstruktionspläne, die dem Thema Gießen eine bisher ungeahnte neue Bedeutung verleihen. Mit der weltweit größten Aluminiumdruckgießmaschine, IDRA's OL6200 CS HPDC, will der Autobauer die komplette hintere Unterbodenkarosserie des 231 Kilometer pro Stunde schnellen E-Autos in einem Teil gießen. Die Umstellung der Konstruktion ist noch in diesem Jahr geplant.

VON ROBERT PITEREK, DÜSSELDORF

Das einteilige Gussteil soll rund 70 Stanz-, Guss und Profilbauteile ersetzen, aus denen dieselbe Baugruppe im Tesla-Modell 3, der Konstruktionsbasis für das Modell Y, besteht. Tesla-Chef Elon Musk sprach in einem Podcast im April 2020 erstmals von dem neuen einteiligen Heck-Gussteil, das auch die hinteren Crash-Schienen integrieren soll. US-Automobilexperten bezeichneten das Gussteil als größte bisherige Gussanwendung im Automobilbau. Auf den „hausgroßen“ Anlagen des italienischen Druckgießmaschinenbauers IDRA, die Musk GIGA-Pressen nennt, sollen die riesigen Gussteile in den Tesla-Werken in Fremont, Kalifornien, und im chinesischen Shanghai in Serie gefertigt werden.

Ihre Herstellung im neuen Tesla-Werk im brandenburgischen Grünheide ist ebenfalls wahrscheinlich. Zu der deutschen GIGA-factory, die derzeit im Bau ist, 10 000 Mitarbeiter beschäftigen und jährlich bis zu 500 000 Fahrzeuge der Modelle 3 und Y herstellen soll, gehört auch eine Druckgießerei. Verschiedene Nachrichtenkanäle spekulieren bereits darüber, dass auch dort die GIGA-Pressen bei der Fertigung der gegossenen Heckkarosserie eingesetzt werden. Wegen neuester Produktionstechnik wie dieser rechnen Experten damit, dass die deutsche GIGA-Factory Teslas bislang profitabelstes Werk werden könnte.

Elon Musk ist zum einen für vollmundige Versprechungen, aber zugleich auch für bahnbrechende Innovationen bekannt. US-Fertigungsexperten bescheinigen ihm im Fall der neuen Gusskarosserie, einen „Game-Changer“ ins Spiel gebracht zu haben. „Die Vorteile wären über die erhebliche Einsparung verschiedener Ressourcen, Personal, ökologischem Fußabdruck und Kosten überaus vielfältig“, glaubt auch Prof. Dr.-Ing. Martin Fehlbier, vom Lehrstuhl für Gießereitechnik der Universität Kassel (Seinen Standpunkt zu Tesla lesen Sie in der aktuellen GIESSEREI).

Fachzeitschrift: Tesla-Produktion mit Giga-Presse deutlich billiger, mehr davon geplant

27. Juni 2020 | 19 Kommentare

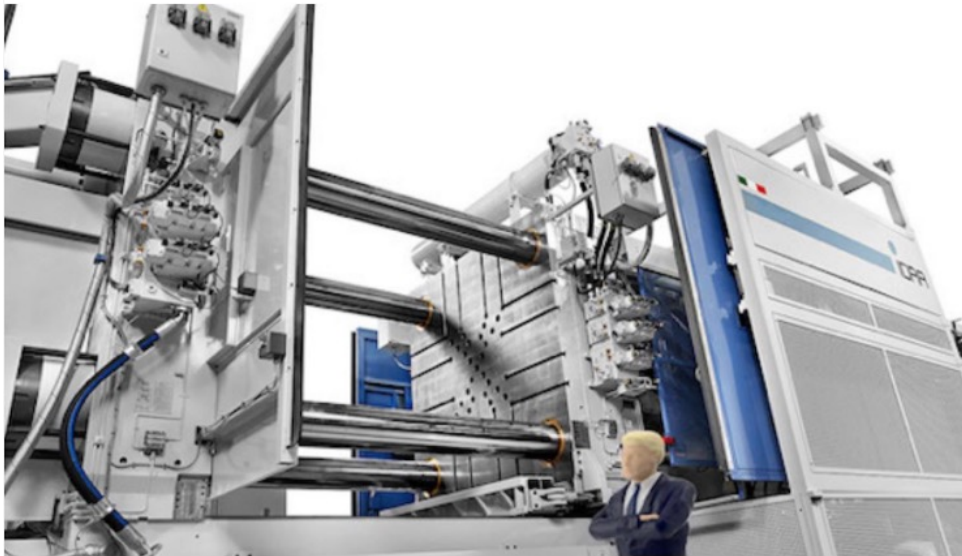


Bild: Idra

Die aktuelle Ausgabe der Fachzeitschrift SAE Automotive Engineering ist voll mit Tesla und Elon Musk: Auf der Titelseite prangt ein blaues Tesla Model Y, darunter wird ein Artikel über rostfreien Stahl für den Cybertruck angekündigt, und im Editorial lobt der Chefredakteur die **Pionier-Leistungen der Tesla-Schwesterfirma SpaceX in der Raketen-Technologie**. Im Inneren beschäftigt sich die Zeitschrift dann ausführlich mit Plänen für die effizientere Produktion des Tesla Model Y mit der Hilfe von riesigen Druckguss-Maschinen, von denen auch Musk schon geschwärmt hat: Damit bereite Tesla „den nächsten Schritt beim Einsatz von Aluminium für Autos“ vor.

Hausgroße Tesla-Maschine aus Italien

Von einer „riesigen, riesigen, riesigen“ Maschine für Tesla hatte Automotive-Präsident Jerome Guillen schon im Sommer 2019 gesprochen, in diesem April verriet CEO Musk, dass damit eine hausgroße Druckguss-Maschine von dem italienischen Hersteller Idra gemeint war. **Sogar zwei dieser Giga-Pressen habe Tesla bestellt**, die erste werde wohl bald installiert. Voraussichtlich zuerst im Elektroauto-Stammwerk Fremont und in der neuen Gigafactory in China will Tesla damit ein Heck-Teil aus einem Stück gießen, das beim Model Y bislang aus 3 Elementen und beim Model 3 sogar aus um die 70 Stücken zusammengesetzt ist.

Für Automotive Engineering ist das ein bedeutender Schritt: Auch andere Hersteller als Tesla würden schon heute mit Aluminium arbeiten, um Gewicht zu sparen. Meist aber gehe es dabei um relativ kleine Komponenten, die sich problemlos austauschen lassen – aber auch keinen großen Unterschied machen. Tesla-Chef Musk sei für große Versprechen bekannt, aber in diesem Fall würden Experten seiner Aussage zustimmen, dass **das Riesen-Gussteil für das Model Y als revolutionär anzusehen** sei.

Die Zeitschrift zitiert dazu auch den Industrie-Berater Sandy Munro, der in letzter Zeit mit viel Lob für Musk und seine Elektroautos in Tesla-Kreisen bekannt und beliebt geworden ist. Schon in der jetzigen Form gehörten die Gussteile für das Heck des Model Y zu den größten überhaupt, sagte er in einem Podcast zusammen mit dem Tesla-Chef. Mit dem Umstieg auf „Mega-Guss“ vergrößere Tesla seinen Vorsprung in dieser Hinsicht noch.

Mehr Druckguss-Pläne bei Tesla

Nach Angaben von Idra ist **Tesla der erste Kunde für seine knapp 20 Meter lange 5 Meter hohe und 400 Tonnen schwere Giga-Presse OL 6100 CS**, die zudem noch einmal verstärkt wurde. 30 Prozent Platz im Presswerk kann Tesla durch die Reduzierung auf ein einziges Guss-Teil für den Heck-Rahmen sparen, hat Musk dazu schon gesagt. Und damit einher gehen könnte eine Senkung der Arbeitskosten um 20 Prozent, wie die Beraterin Laurie Harbour Automotive Engineering sagte.

Laut CEO Musk soll auch das Model 3 früher oder später mit großen Gussteilen produziert werden, einstweilen aber müsse Tesla mit den Fehlern bei dessen Konstruktion leben. Spätestens aus der deutschen Gigafactory aber dürfte auch der Basis-Tesla teils aus einer Giga-Presse kommen, denn die Abläufe und Maschinen dafür kann Tesla frei neu festlegen. Und laut Munro wird ebenfalls schon darüber nachgedacht, auch die Front des Model Y aus einem Stück zu gießen.

Giga Press: Wie Tesla die Produktionskosten seiner Elektroautos senken will published by CleanThinking

<https://www.cleantinking.de/giga-press-tesla-produktionskosten-fremont-model-y/>



Giga Press: Wie Tesla die Produktionskosten seiner Elektroautos senken will

Der kalifornische E-Auto-Weltmarktführer **Tesla** ergreift derzeit große Anstrengungen, um die Produktionskosten seiner Elektrofahrzeuge zu reduzieren. Jetzt zählt auch eine aus Sicht mancher Experten revolutionäre Idee dazu: Mit einer **Giga Press** genannten, gigantischen **Hochdruckguss-Maschine** will der Autobauer in Kürze wichtige Teile der Karosserie in zwei bzw. später einem Stück fertigen – aus **Aluminium**. Aus China kommt jetzt von Tesla die Nachricht, dass die erste dieser Maschinen betriebsbereit ist. Gelingt das Vorhaben?

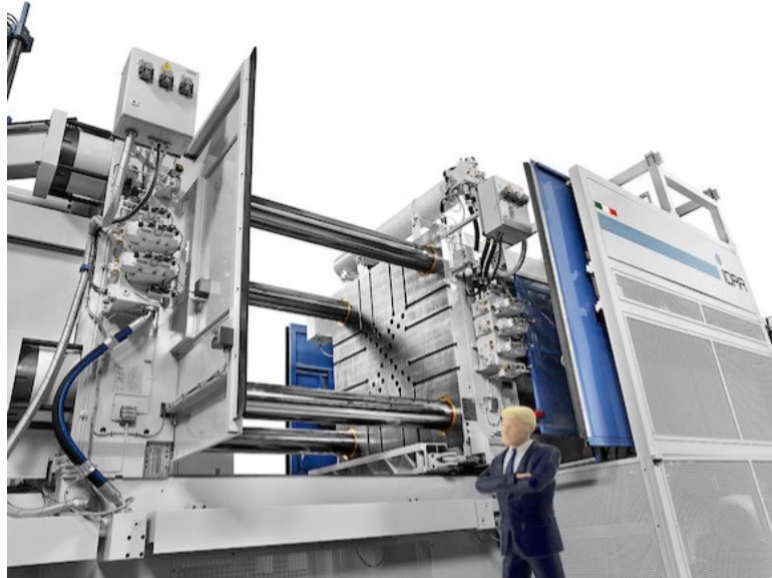
Es lohnt sich immer wieder, bei **Elon Musk** zwischen den Zeilen zu lesen. Wenn der Entrepreneur twittert, dass der Aktienkurs zu hoch sei, folgt wenige Wochen später die Ankündigung eines Aktiensplits. Wenn Musk verkündete, die eigenen Autos seien zu teuer, ist klar: Intern haben die Manager aus seinem Umfeld längst Ideen kreiert, wie die Produktionskosten reduziert werden können. Visionäre, vielleicht zunächst verrückt erscheinende Ideen dürfen dabei gedacht werden – teilweise werden sie auch umgesetzt.

Die Giga Press-Idee ist ein gutes Beispiel dafür. Gemeinsam mit der italienischen Idra Group entstand eine Hochdruckguss-Anlage, die mittlerweile in Fremont am kalifornischen Stammwerk von Tesla aufgebaut wurde. Die Giga Press, die mehr als 400 Tonnen wiegt, ist so gigantisch, dass sie in die dortigen Hallen nicht hineinpasst. Also baut Tesla die Maschine im freien auf und anschließend eine Halle drumherum.

La GigaPress di Tesla parla Italiano

DANIELE INVERNIZZI - 6 GIUGNO 2020

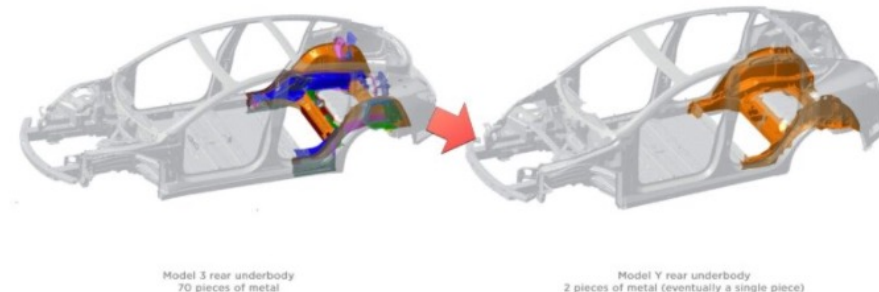
0 1.0K VIEWS



Un nuovo componente Made in Italy farà la differenza nella fabbrica di Fremont in California ed in quella Cinese di Shanghai che sforna Model3 in grandi quantità: una GigaPressa costruita dall'italianissima **IDRA Group**, la **OL6100CS** modificata ad Hoc per tesla è lunga 19,5 metri e alta 5,3 e pesa 410 tonnellate.

Ne verranno fornite due, per le GigaFactory americana e cinese. La GigaPress è stata annunciata direttamente da Riccardo Ferrario, General Manager alla guida di Idra Group che ha anche sottolineato l'importanza dell'alluminio e del risparmio dei trattamenti imposti a questo materiale non solo per l'abbattimento dei costi, ma anche e soprattutto per "incrementare la sostenibilità dei veicoli prodotti e diminuire la dipendenza dalle fonti fossili"

Le presse per Tesla rappresentano la differenza soprattutto per la nuovissima Model Y, il cui teardown (lo smontaggio di un componente per capirne il funzionamento) è stato eseguito dal famoso **Sandy Munro** nelle settimane scorse rivelando un assemblaggio inedito dell'alluminio per l'industria automotive, ovvero un underbody assemblato in soli due pezzi



Rispetto a Model 3, L' importantissimo componente posteriore di ModelY è composto da due soli pezzi assemblati insieme

Ma cosa significa meno componenti da assemblare? Semplicemente riduzione enorme di costi e tempi, ma anche risparmio di materiale ed energia. Un orgoglio italiano dunque andrà a costruire componenti per le future Tesla, dopo le primissime presse Italiane installate a **Fremont**.

Il gene italiano della Tesla Model Y.

EDOARDO NASTRI • 25/06/2020



■ La Tesla Model Y, SUV compatto elettrico che arriverà sul mercato europeo il prossimo anno, è anche italiana. La vettura viene costruita sulla stessa base della berlina Model 3, ma carrozzeria ed elementi tecnici sono specifici per il modello. Gli stampi in alluminio per il sottoscocca sono realizzati da quella che Elon Musk, numero uno del marchio, chiama "Giga Press", **un enorme macchinario prodotto da un'azienda italiana: la Idra di Brescia.**

Secondo quanto dichiarato dalla società questa gigantesca pressa è il **macchinario di pressofusione di alluminio più grande al mondo**, in grado di stampare l'intera struttura del sottoscocca posteriore. La pressa, grande quanto un'abitazione, misura 19,5 metri di lunghezza, 5,3 di altezza per 410 tonnellate di peso e consentirebbe di produrre il componente in un unico pezzo, risparmiando così tempo e denaro.

Prime installazioni in Usa e Cina

"Per la Model Y, abbiamo introdotto un sottoscocca posteriore che **diventerà entro la fine dell'anno un pezzo unico.** E' un passo avanti enorme che ci consentirà di produrre meglio e più velocemente", ha dichiarato Elon Musk. Tesla avrebbe intenzione di installare la Giga Press di Idra inizialmente negli impianti di Fremont e Shanghai. Successivamente potrebbe arrivare nei nuovi siti produttivi in Usa (al momento non si è ancora deciso se sarà in Texas o Oklahoma) ed Europa.

La Tesla Model Y sarà disponibile in quattro versioni di potenza: **Standard Range** - in arrivo nella primavera del 2021 a un prezzo di 39mila dollari per 370 chilometri di autonomia, **Long Range**, 47mila dollari e circa 480 chilometri con un pieno di energia, **Dual Motor** con trazione integrale e un'autonomia di 450 chilometri (51mila dollari) e infine la **Performance**, 60mila dollari per 450 chilometri di percorrenza. L'elettrica americana andrà a posizionarsi in un segmento che diventerà sempre più affollato e dovrà vedersela con modelli come Volkswagen ID.4, Volvo XC40 Recharge, Mercedes-Benz EQB e Nissan Ariya.

INTERNATIONAL ALUMINIUM JOURNAL



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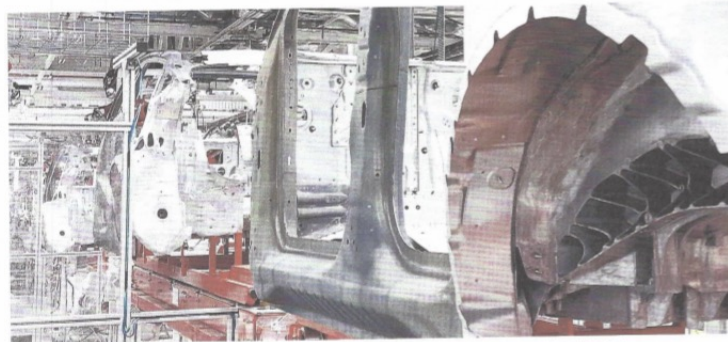
Danieli Breda: latest
developments for
extrusion presses

'Moulding' a new future
in casting technology

Presezi Extrusion – deve-
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Pandemic does not stop
Mino's rise in the alu-
minium rolling industry

Tesla starts world's largest diecasting machine for next level auto production



Tesla model Y, in production since January, was designed with a rear structure comprising three parts

Tesla Inc. has started operation of what is described as the world's largest diecasting machine at its manufacturing plant in Fremont, California – a significant development in auto manufacturing as well as in metal forming. The new mammoth machine – called the OL 6100 CS Giga Press and built by Italian firm Idra – measures 20 metres long by 5 metres high, and weighs some 400 tonnes. Tesla reports that by early-August this year the casting cell and first Giga Press were sub-

single component for the Y underbody structure. This installation of the OL 6100 CS also may be seen as part of a trend towards larger diecasting machines to produce automotive components from unitized designs that achieve structural and lightweighting targets.

The new machine had been purchased to enable casting the Tesla Model Y car frame – rear chassis and crash rails – as a multi-directional single component, a massive piece of structural die-cast aluminium for the rear underbody.

Vehicle efficiency and performance also be improved. The unibody design significantly reduce weight, resulting in better battery economy and improved handling, driving comfort. Safety, importantly, will be further enhanced, as the entire body better absorb energy forces in an accident.

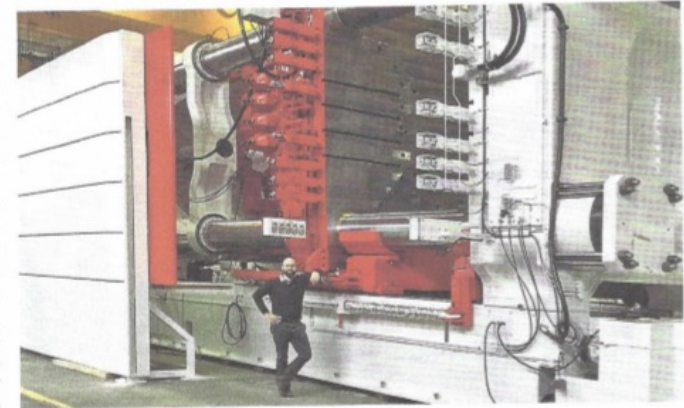
The automaker notes that it will reduce the number of casting machines required to build a vehicle frame and that it could build "a complete or substantially complete frame itself. The single-piece casting is

Along with the higher clamping force, Idra's Giga Press delivers a molten aluminium alloy shot weight of around 80 kg up to a maximum of 104.6 kg, injected into the cold chamber casting mould at 10 m/sec. The OL6100's output may be lightweight castings, but the machine itself is anything but light, weighing in excess of 410 tonnes.

Tesla says it plans to assemble up to one million vehicles annually based on the Model Y architecture, so the company's Giga Press investment likely is a sound one. Tesla will also maintain its continuous improvement in auto design and build.

With the Model Y, Tesla has introduced some important underbody engineering and manufacturing improvements. Using fewer parts streamlines the body assembly process and create fewer potential failure points. Altogether, this results in a less expensive and more durable product.

Tesla is installing complementary machinery to support each 60,000 kN Giga Press operation: Melting furnace, 850 °C; holding furnace, 750-850 °C; quench tank; mechanical trimming press; X-ray machine for poros-

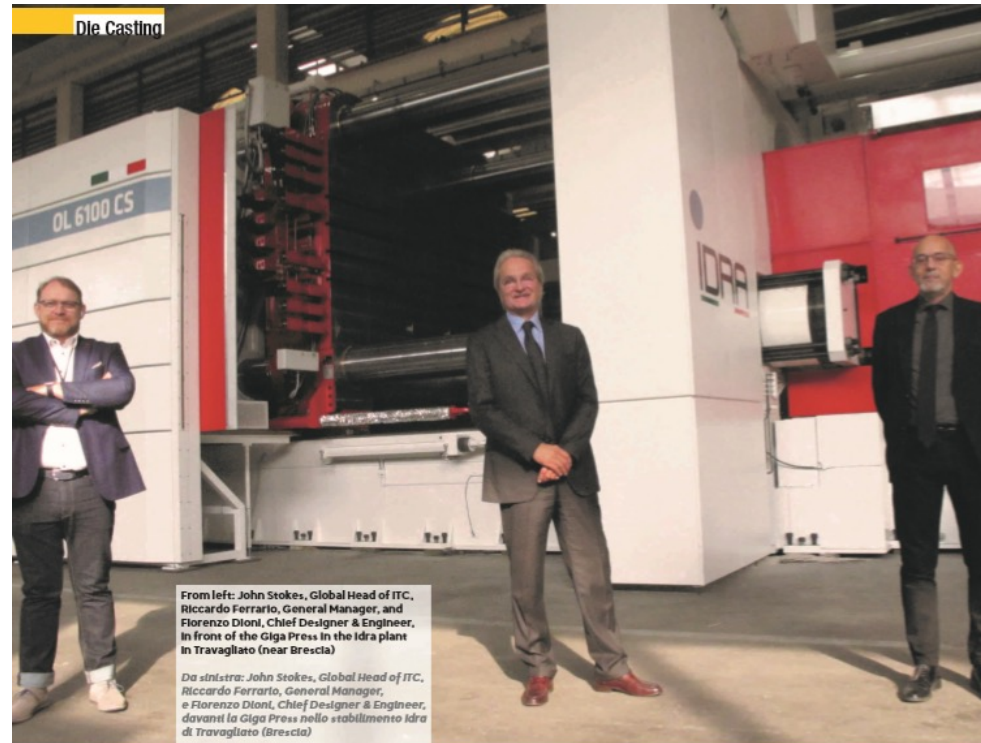


Idra Giga Press diecasting machine – as installed at Tesla plant in Fremont, California

ity testing; laser trimming equipment; drilling and tapping machines; laser scanning coordinate measuring machine; fastener insertion machinery, and a scrap metal shredder for immediate closed-loop recycling of aluminium process scrap.

The Giga Press now in operation at Tesla's California plant is one of two that the company has ordered from Idra. The second will be installed at Tesla's factory in Shanghai.

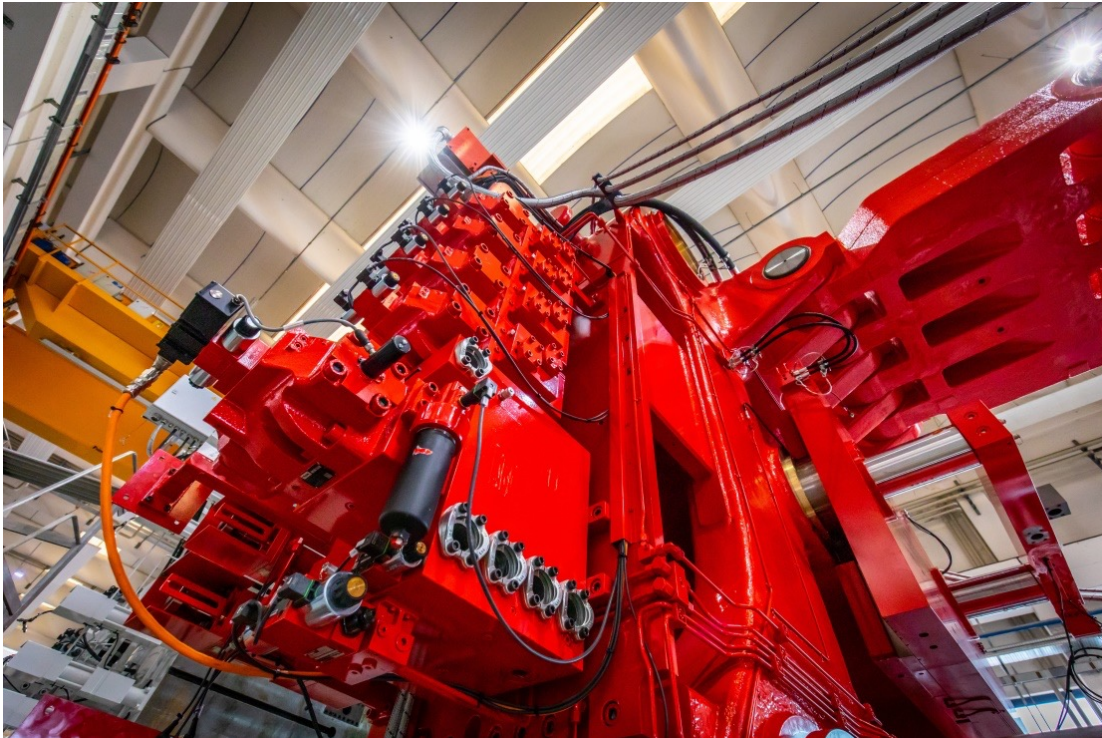
Ken Stanford, contributing editor



Idra's Giga Press Which Will Change the Standards in Car Production

by Roberto Guccione

A visit to Idra to discover the new 6100 Giga Press: a giant weighing 430 tons and 20 meters long which will produce large structural castings capable of transforming the chassis



Tesla: le Giga Press dell'italiana Idra per la rivoluzione di Musk - published by Gazzetta

<https://www.gazzetta.it/motori/mobilita-sostenibile/auto-elettriche/09-04-2021/tesla-giga-press-dell-italiana-idra-la-rivoluzione-musk-4002110795760.shtml>

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AUTO ELETTRICHE

Tesla: le Giga Press dell'italiana Idra per la rivoluzione di Musk

L'azienda bresciana ha realizzato il più grande macchinario al mondo di pressofusione che produce un pezzo unico della scocca comprendente oltre 70 parti diverse saldate fra loro. L'innovazione sarà usata per la Model Y ma anche per il pick-up Cybertruck

Emiliano Ragoni @EmilianoRagoni

9 aprile - MILANO



Elon Musk ha sempre avuto il cruccio di semplificare al massimo la produzione delle sue autovetture elettriche. Dopo diversi mesi di ricerca, la Tesla ha raggiunto il suo scopo riuscendo a produrre un pezzo unico della scocca in grado di sostituire oltre 70 pezzi stampati e saldati tra loro.

Ultim'ora

Tutte le notizie

G+

08:52 NAZIONALI - Rassegna stampa - Rivincita Spagna, è in finale a Tokyo. E anche la Francia fa festa...

08:47 CALCIO - LIVE Calciomercato - Lazio, su Hudson-Odoi. Udinese: preso Samardžić

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SEMPLIFICAZIONE E RIDUZIONE DEI COSTI-

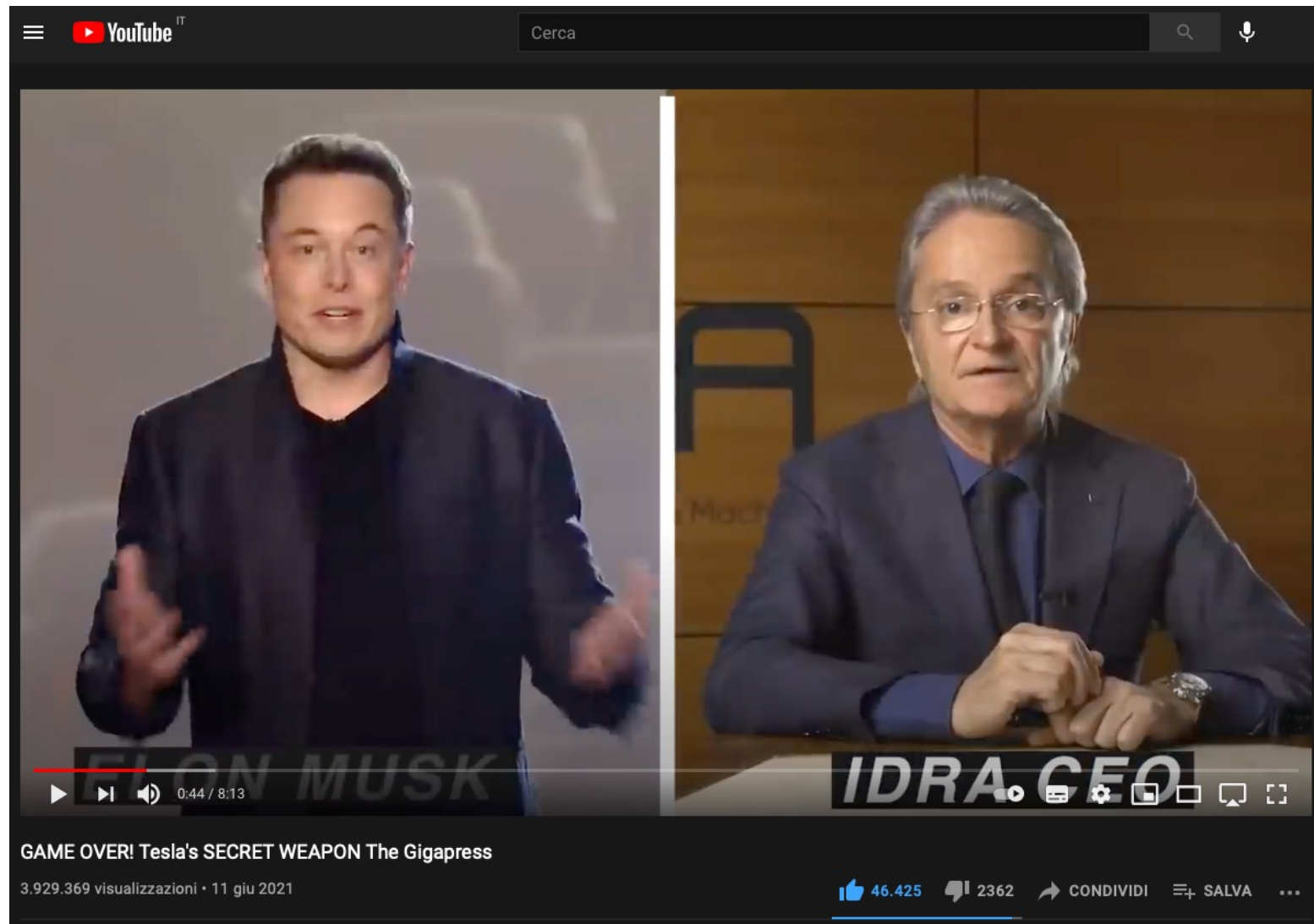
L'utilizzo della Giga Press si traduce in un drastico cambiamento nella produzione e nel design, poiché la Tesla, nell'assemblaggio della Model Y, sostituisce 70 pezzi di metallo in uno solo, con contenimento dei costi e semplificazione del processo produttivo. Secondo gli analisti, la Giga Press aiuterà a ridurre del 40% i costi del sottoscocca posteriore della Model Y, oltre a garantire una riduzione del 30% delle dimensioni della carrozzeria. Laurie Harbor, presidente della società di consulenza Harbor Results, stima che **Tesla potrebbe risparmiare complessivamente circa il 20%** sul costo per singola vettura prodotta. L'uso della Giga Press elimina anche i problemi di allineamento causati dalla combinazione di diverse parti più piccole, con il risultato di una qualità superiore. Il direttore generale di Idra, Riccardo Ferrario, in un video diffuso recentemente afferma che le Giga Press progettate dalla compagnia bresciana, oltre a ridurre tempi e costi di produzione, consumano meno energia e quindi emettono meno CO₂.



Commenta
per primo

GAME OVER! Tesla's SECRET WEAPON The Gigapress - published by Tech Space

<https://www.youtube.com/watch?v=rsBbt3TxKGg>



ALREADY AN ICON - IDRA'S GIGA PRESS IS NOT JUST XXL, IT SIGNALS THE NEW WAY OF THINKING IN DIE-CASTING
- published by Foundry Planet

<https://www.foundry-planet.com/d/already-an-icon-idra-s-giga-press-is-not-just-xxl-it-signals-the-new-way-of-thinking-in-die-casting/>

FOUNDRY CORPORATE NEWS - TOPIC PRESSURE DIE CASTING

04. NOVEMBER 2020

ALREADY AN ICON - IDRA'S GIGA PRESS IS NOT JUST XXL, IT SIGNALS THE NEW WAY OF THINKING IN DIE-CASTING









Thomas Fritsch

Chief Editor

IDRA OL 6200 CS GIGA PRESS NO.3 IS COMPLETELY ASSEMBLED AND READY FOR DISPATCH TO THE CUSTOMER

The Italian die-casting cell manufacturer IDRA has always been known for its powerful and sophisticated machines for aluminum die casting.

Large die casting machines for structural components are standard, and three years ago, the idea of a 5,500 and a 6,200 ton press was presented for the first time. What was greeted with a sceptical smile back then is reality today and enjoys cult status. The initial skepticism



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Web: www.idragroup.com

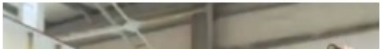


VIDEO



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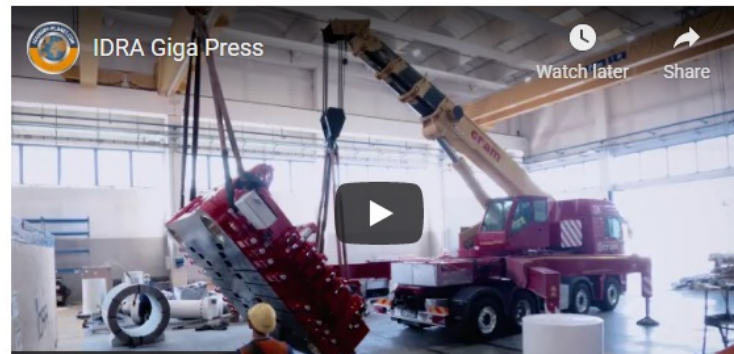
Press Review

Tesla, costi ridotti con la Giga Press italiana

Il macchinario di pressofusione più grande al mondo, realizzato dalla bresciana Idra, aiuterà la Casa di Elon Musk a produrre Model Y e Cybertruck con una singola scocca

| 09 apr - 16:03 [TESLA](#) [GIGA PRESS](#) [IDRA](#) 

C'è un po' di Italia nella costruzione delle **Tesla**. Perché c'è un'**azienda bresciana, Idra**, che ha direttamente collaborato con la Casa californiana avendo realizzato e fornito al Marchio la **Giga Press**, che è **la più grande macchina di pressofusione al mondo**. Una capacità di **6.000 tonnellate**, grazie al quale Tesla riuscirà a **sostituire 70 pezzi stampati e saldati con un unico pezzo di scocca**, semplificando di conseguenza l'intero processo produttivo.



Press Review

Tesla Cybertruck, la Giga Press più grande al mondo riservata al pick-up elettrico?

Sembra che **Tesla** abbia deciso di rivolgersi all'italiana **Idra** che ha annunciato di aver ricevuto il primo ordine al mondo per una **pressa da 8.000 tonnellate**. Non a caso, le **Giga Press** nei prossimi anni saranno utilizzate per la produzione di diversi veicoli del brand statunitense, incluso il **Cybertruck**.



*Per poter portare a termine la realizzazione di un grande veicolo ci vuole inevitabilmente una grande pressa, è quello che pensa il numero uno di Tesla, Elon Musk, che ha certamente inaugurato un innovativo modo di costruire la **scocca delle sue vetture**.*

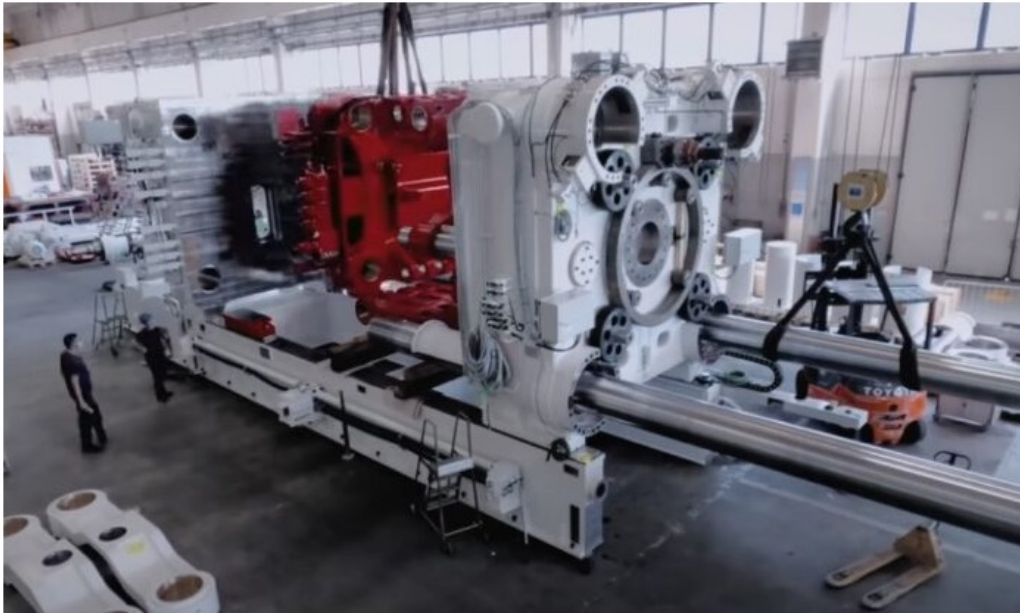
Solamente alcuni mesi fa la società statunitense ha diffuso **un breve filmato** in cui mostrava il funzionamento della Giga Press e del metodo di **costruzione della nuova Model Y**. Grazie alle imponenti dimensioni e ad una grande forza, compresa tra i 55.000 e i 61.000 kilonewton, le Giga Press sono infatti in grado di stampare un'enorme porzione di scocca della Model Y, riducendo **da 70 a 1** i pezzi per realizzarla. Non possiamo che sottolineare come l'utilizzo di tale tecnologia permetta di **risparmiare tempo e denaro**.



Giga Press, c'è un pezzo (di bravura) d'Italia nelle Gigafactory di Tesla

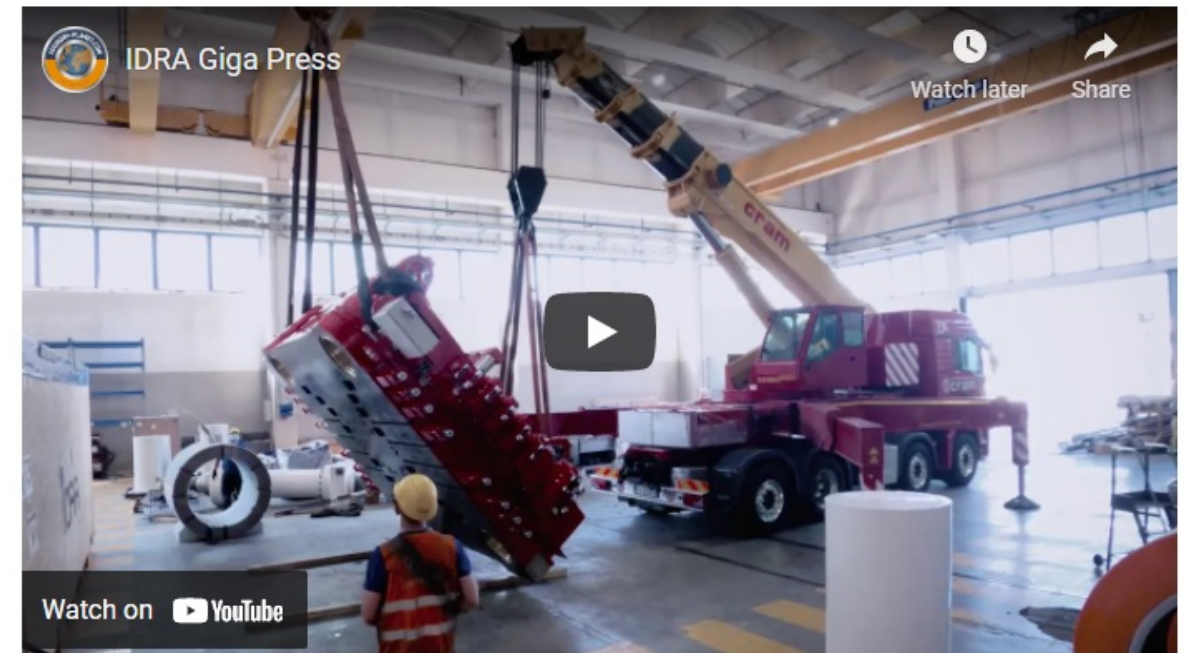
Da Marco Mussini - 31 Dicembre 2020

0



Le **Giga Press** sono attualmente le più grandi macchine al mondo per pressofusione ad alta pressione. Si può ben andar fieri del fatto che queste macchine gigantesche **sono realizzate in Italia per Tesla dall'azienda bresciana Idra**; il nome di catalogo è OL 6100 CS. Si ha notizia che finora **Tesla ne abbia previste 22 per i suoi vari impianti**, fra installate, in allestimento o ordinate.

Qui sotto un video che ne dimostra l'imponenza in fase di assemblaggio presso la sede di Idra.



A single revolutionary shift in how EVs are cast

They laughed, but Idra is cutting costs

Luca Ciferri and Andrea Malan
lciferri@autonews.com

Electric vehicles consist of new technologies to manage power and move. But they have also opened the door to a promising manufacturing process that helps achieve higher targets in weight savings and cost reduction.

Meet the giga press.

Automakers have had little to say about the new factory process so far — presumably for competitive reasons. Tesla is now believed to be using giga presses. So is Mercedes-Benz, and so will Volvo. Others will likely follow.

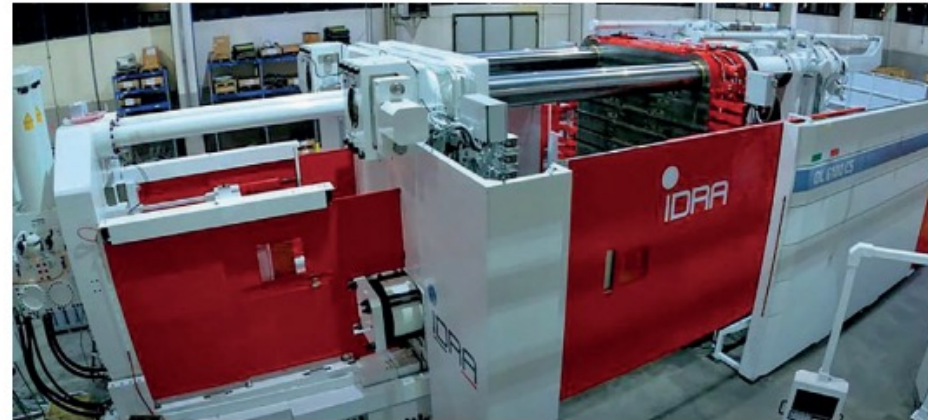
The concept permits a manufacturer to cast a single aluminum part that is

6,100 tons, Idra created a press capable of a multicavity casting, with up to four shock towers in one injection. In practice, the giga press can produce a rear underbody frame in a single piece.

Nondisclosure agreements

In November 2021, two years after the concept was laughed at, Idra held an open house in Travagliato that attracted 200 guests from around the world.

“After that day, we generated 21 nondisclosure agreements with potential customers, including several automakers,” Ferrario said.



Idra's giga press casts one part big enough to replace 60 or more separate ones.

Although Ferrario declined to speak of Tesla, industry insiders have said that Tesla's newly opened plant near Berlin will use several Idra giga presses

to create the front and rear underbody platform for the Model Y crossover.

Ferrario said that a one-shot casting of a front or rear platform from a giga

- **Concept:** Megacasting
- **Why it matters:** An advancement in aluminum casting is allowing EV producers to eliminate expensive plant tooling.

press replaces myriad pieces and reduces weight by 10 to 30 percent, depending on the mix of steel and alloys used in a traditionally built platform.

Idra estimates that a giga press saves a customer about 40 percent in costs over traditional casting

see **IDRA**, Page 34

Dove nascono le Giga press: viaggio nella fabbrica italiana che piace a Elon Musk - published by Sole 24 Ore

[Dove nascono le Giga press: viaggio nella fabbrica italiana che piace a Elon Musk - 24+ \(ilsole24ore.com\)](#)

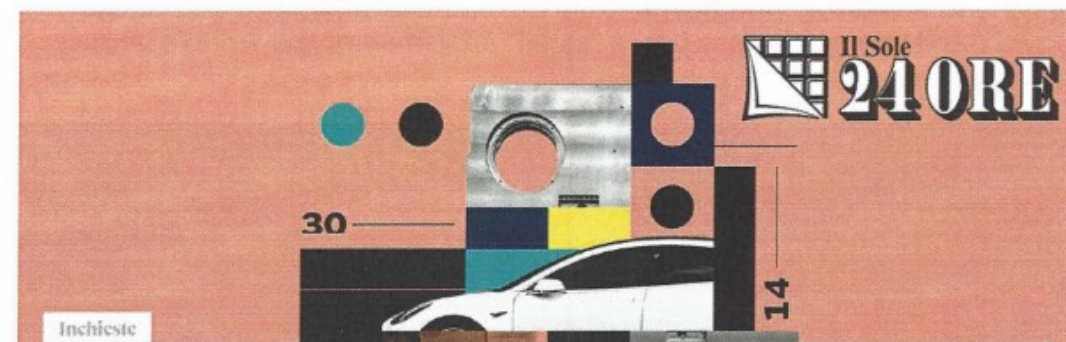


È lunga 30 metri, larga 22 e alta 14, come un palazzo di 4 piani. Può produrre componenti in leghe di alluminio e magnesio imprimendo una forza fino a 9mila tonnellate. Nata a Travagliato, alle porte di Brescia, negli stabilimenti Idra group, è la pressa più grande del mondo. Ma anche la più famosa, da quando si è scoperto che Elon Musk, il fondatore di Tesla, l'ha scelta per produrre le sue auto elettriche. Il sole 24 Ore è entrato nella fabbrica dove è stata progettata e costruita, nel 2019, la prima Giga press.

Oggi nel mondo sono in funzione 10 Giga press, con taglie diverse a partire da 5.500 tonnellate, ed altre 9 saranno spedite entro il primo semestre 2021. Idra Group – che

Where the Giga presses are born: a trip to the Italian factory that Elon Musk loves

By Antonio Larizza 3 December 2021



Chosen by Tesla in 2019, today the largest presses in the world made by the Brescia-based Idra Group attract the big names in the automotive industry. On a tour of the plant, managers from Volvo, Volkswagen, BMW and Stellantis are ready to buy them. Here's why

It is 30 metres long, 22 metres wide and 14 metres high, like a four-storey building. It can produce aluminium and magnesium alloy components with a force of up to 9,000 tonnes.

tons. Created in Travagliato, just outside Brescia, in the Idra group

Tesla Battery Day Mega Casting Muscle - published by Tesla Road Show

<https://www.youtube.com/watch?v=HK79ioBW8Mg>



Tesla fly-through video shows off new Giga Berlin factory



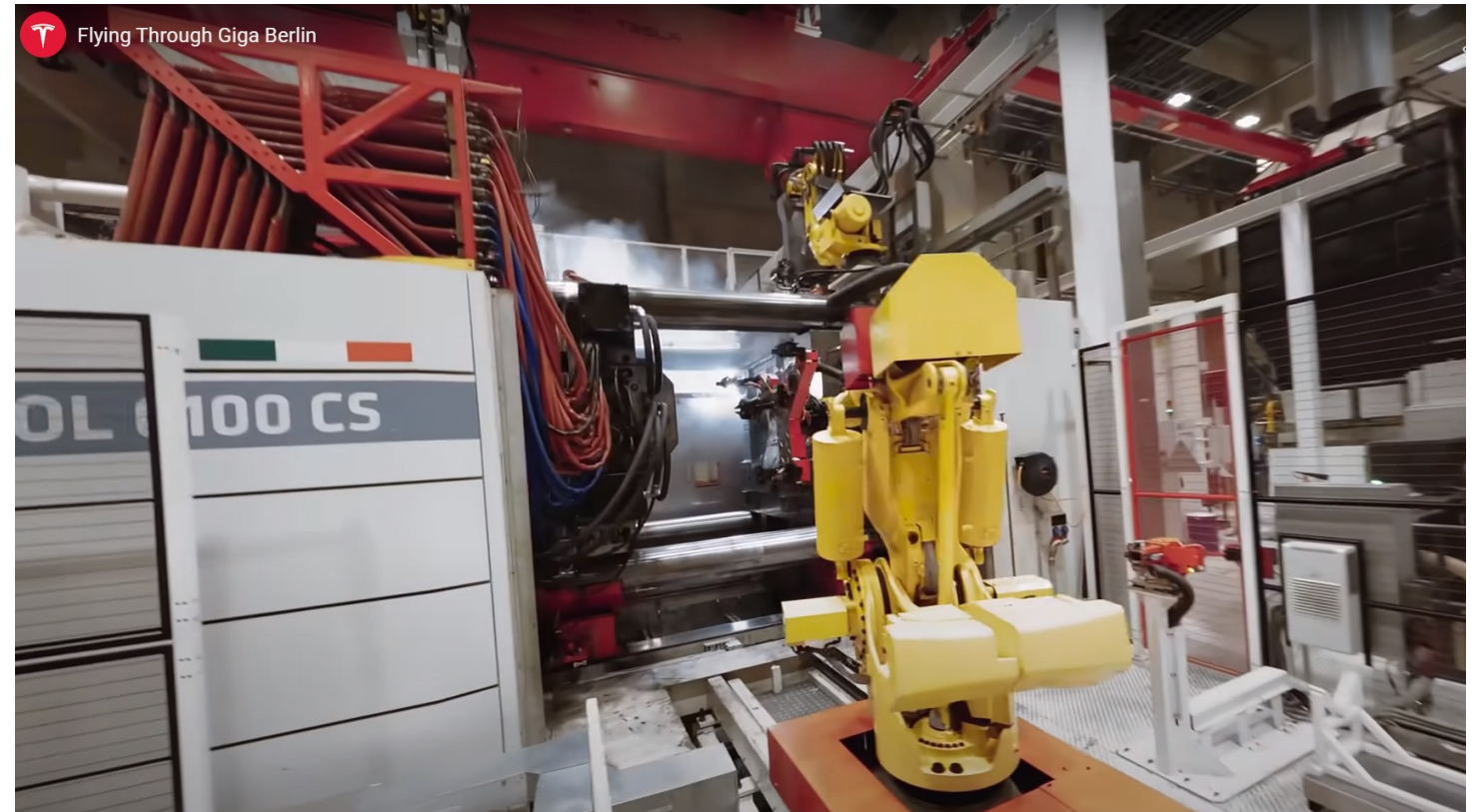
By Trevor Mogg
April 3, 2022

SHARE

A new drone video features a high-speed tour of Tesla's first European car factory, which [opened to much fanfare in March](#).

The stunning drone video (below) zips through multiple locations — including parts of the assembly line — inside Tesla's gleaming facility, which reportedly cost more than \$5 billion to build.

Located near Berlin, Germany, and employing around 10,000 people, the Giga Berlin factory will produce around half a million Tesla Model Y vehicles annually once it's operating at full capacity.



Tesla Gigafactory Tour - published by Tesla 9th October 2021

<https://www.youtube.com/watch?v=6XShl4SHjc0>



Tesla, GIGA BERLIN, Oktober 09_2021 Factory tour GigaBerlin

Industria Idra Group, l'azienda bresciana che produce per Musk

La sua pressa innovativa nella gigafactory di Tesla a Berlino

GIULIA CAZZANIGA

■ In uno dei video su YouTube di Tesla, un drone vola dentro allo stabilimento futuristico di Berlino e mostra i pezzi delle auto in fase di stampa. Eccolo, al minuto uno, il tricolore del gruppo Idra, in bella vista su questi giganti macchinari. Le chiamano "Giga Press", appunto, e quelli del settore pronunciano "ghiga".

Questa è una storia di gente visionaria, che ha sempre fatto cose tanto nuove che c'era chi li scherniva. "Presse grandi come una casa non le vuole nessuno", ridevano i concorrenti, che non li hanno imitati e così hanno regalato a questa azienda di Travagliato, nel bresciano, un vantaggio competitivo enorme. Il gruppo Idra produce presse per applicazioni di lega leggera tanto elaborate da richiedere quasi un anno per essere costruite, ed è capitanata da Riccardo Ferrario. Che a *Verità & Affari* non conferma né smentisce il suo rapporto d'affari con Elon Musk. Si limita ad un semplice «no comment», ma entusiasta racconta una storia italiana di successo. Narra come da un Paese di 13mila anime si può esportare in

Musk è l'uomo più ricco del mondo, con un patrimonio personale di 267 miliardi di dollari. È un assiduo fruitore di Twitter, tramite il quale comunica i propri investimenti



tutto il mondo e diventare un marchio "sinonimo di presse di robustezza e innovazione". In principio è la famiglia Pasotti a fondarla, ben 82 anni fa. I primi a fare le presse a olio quando erano ad acqua, i primi a farle semiautomatiche, o da 4mila tonnellate. Crollano le Torri Gemelle e l'azienda da familiare è quotata in Borsa passa per il *delisting* e la ristrutturazione, fino al 2008. Arriva poi la Lk Technology di Hong Kong, e se la acquisisce tutta, ma mette soldi esclusivamente nell'innovazione del prodotto, tanto che da allora non preleva neanche un dividendo.

I NUMERI DEL BILANCIO

Crescono i numeri, il bilancio si porta in attivo dal 2010, come spiega Ferrario. Il fatturato passa dai 20 milioni di euro del 2010 ai 100 del 2017, «cinque volte tanto», e anche per quest'anno si prevede si aggiri intorno a quella cifra. Il costo di materie prime ed energia preoccupano, ma vicino a Brescia «giochiamo al Lego, e disegniamo i mattoncini», racconta l'amministratore delegato e direttore generale, per spiegarci come le attività siano state terziarizzate sul territorio - «che è un po' come la Disney del settore, ha tutte le competenze utili per i nostri prodotti» - così da rendere snella e flessibile la produzione. Consociate in Cina, Usa, Germania e Messico fanno inoltre attività di sviluppo tecnico-commerciale e soprattutto assistenza post vendita. «Esportiamo circa il 90% del fatturato, per il 75% nel settore automotive», prosegue il

numero uno del gruppo. Le auto, appunto. La rivoluzione delle presse giganti, delle Giga Press, arriva con un percorso iniziato nel 2015, quando sulle quattro ruote si inizia a montare sempre più alluminio, lega leggera per la scocca, così da ridurre le emissioni. Alla Idra anticipano il mercato parecchie volte, finché riescono a inventarsi delle presse che stampano ad esempio il pianale di un'auto elettrica in soli tre pezzi, quando prima se ne saldavano 160. «I vantaggi sono enormi: una nostra Giga Press consente di non utilizzare 400 robot di elettrosaldatura, con risparmi anche sulla logistica e quindi sul controllo qualità. Il tempo? Due terzi delle linee tradizionali». «Abbiamo calcolato un risparmio investimento per il cliente del 40%, del 30% del costo di produzione. Inoltre si riducono notevolmente gli spazi, e si risparmia il 45% sull'energia», precisa. «Quando abbiamo presentato il progetto in Germania ci hanno guardato come fossimo pazzi, ma siamo semplicemente poco presuntuosi, umili, sempre in contatto con gli esperti del settore», dice Ferrario che ha un passato anche in Fiat. Nel 2019 il primo ordine, oggi sono diventati ventidue, spalmati su tre clienti e in tre continenti. «Sei producono getti in lega leggera già in casa dei nostri clienti, altrettanto in fase di montaggio, ed entro fine anno ne consegneremo otto», conclude. Una macchina in continuo sviluppo ed evoluzione al passo con i tempi.

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07/03/22, 09:39

An Italian supplier's Giga Press is changing car manufacturing

Automotive News Europe

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March 05, 2022 02:22 AM

An Italian supplier's Giga Press is changing car manufacturing

Tesla, Mercedes, Volvo, VW among automakers adopting or eyeing one-part casting method.

LUCA CIFERRI

ANDREA MALAN



'Customers laughed'

While Ferrario was tight-lipped about his company's Tesla ties, he was willing to speak to *Automotive News Europe* about why and how Idra created the Giga Press, which took three years to create and cost 1.8 million euros (\$1.97 million) to make a reality.

Like many new inventions, the first Giga Press that Idra presented at the GIFA equipment trade fair in Germany in 2019 was initially greeted with ridicule.



Idra CEO Riccardo Ferrario remembers doubters telling him the Giga Press would never work.

"All potential customers laughed at the idea, saying we could never make it work," Ferrario said from his office in Travagliato, near Brescia, in a video chat with *ANE* on Feb. 15.

Undaunted, Idra's 2019 product catalogue included an item known as OL 5500 CS, its first Giga Press. The number 5500 corresponds to the clamping force of the press in metric tons. A year later, production started on Idra's first Giga Press.

Fast forward to now and Idra has sold 22 Giga Presses. Seven are in operation, five are being installed at customers' plants and 10 still need to be delivered.

<https://europe.autonews.com/suppliers/italian-suppliers-giga-press-changing-car-manufacturing>

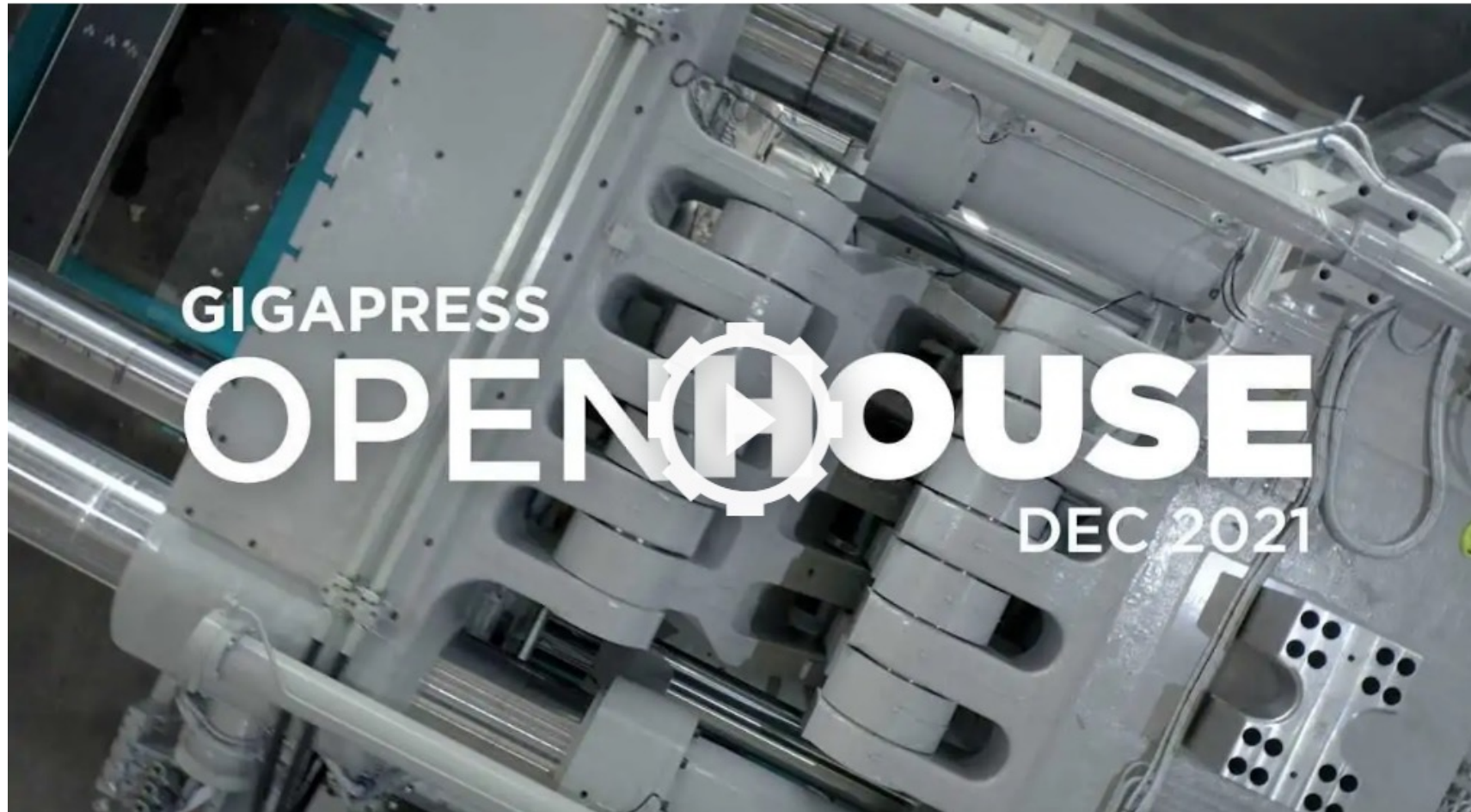
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Learn About Tesla's Giga Press From IDRA: Five-Part Documentary - published by Insideevs

<https://insideevs.com/news/563005/tesla-giga-press-idra-documentary/>

Learn About Tesla's Giga Press From IDRA: Five-Part Documentary

Tesla is deploying giant die-casting machines at its factories to revolutionize electric car manufacturing.



Press Review

+ La prima Tesla made in Germany con la Giga Press del gruppo Idra

Angela Dessi

ECONOMIA 24 mar 2022, 06:00



Elon Musk all'inaugurazione dello stabilimento Tesla in Germania - Foto Epa/Christian Marquardt © www.giornaledibrescia.it

Riflettori puntati sul più classico made in Brescia all'inaugurazione della **prima fabbrica Tesla in Europa**. Al taglio del nastro della Gigafactory di Grueneheide, nel Brandeburgo, a un'oretta scarsa di distanza da Berlino, alla presenza del ceo Elun Musk e del cancelliere tedesco Olaf Scholz, a tener banco è stata anche la «famigerata» **Giga Press prodotta negli stabilimenti della bresciana Idra Group**. Che, peraltro, al momento ne avrebbe ben 22 piazzate in tre continenti diversi per 3 clienti differenti, alcune pronte a produrre e altre da avviare o consegnare entro la fine anno.



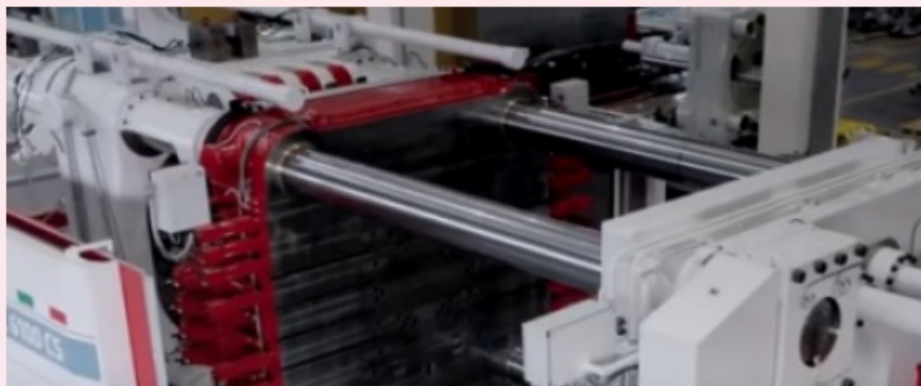
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Tesla: le Giga Press dell'italiana Idra per la rivoluzione di Musk

L'azienda bresciana ha realizzato il più grande macchinario al mondo di pressofusione che produce un pezzo unico della scocca comprendente oltre 70 parti diverse saldate fra loro. L'innovazione sarà usata per la Model Y ma anche per il pick-up Cybertruck

Emiliano Ragoni  @EmilianoRagoni

09 aprile 2021 (modifica il 09 aprile 2021 | 13:16) - MILANO



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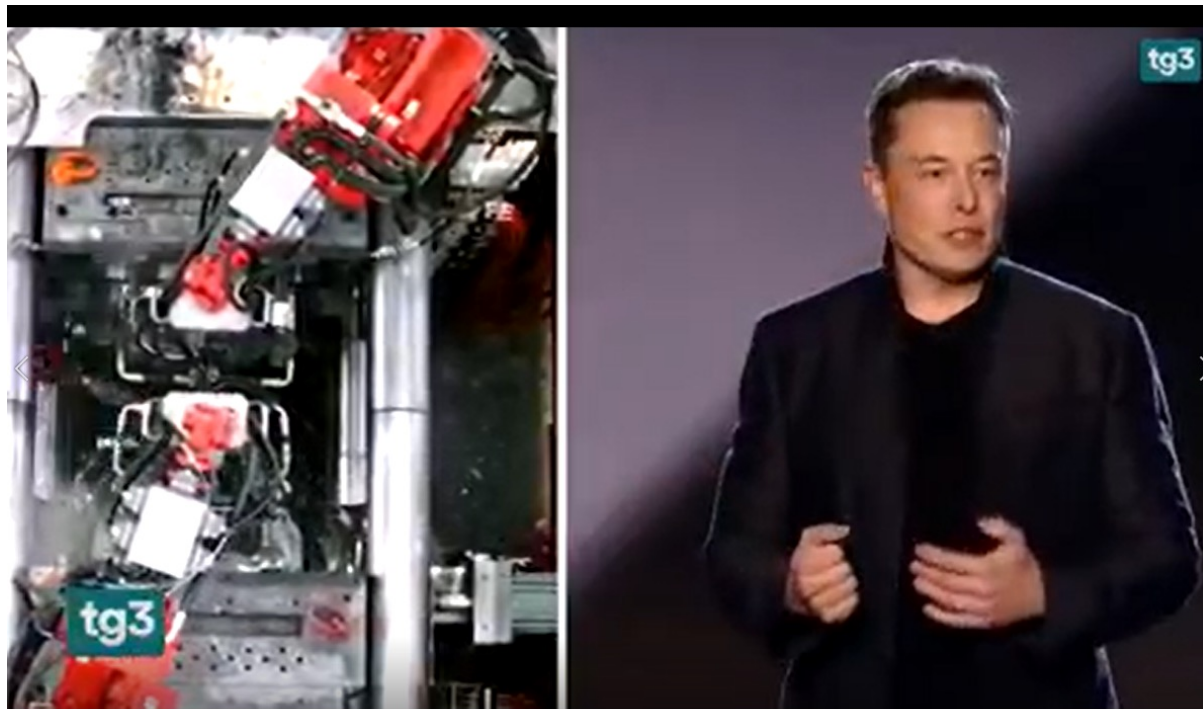


SOCIAL TRAVAGLIATO

GigaFactory di Berlino: orgoglio bresciano nella fabbrica del futuro di Tesla

Sarà la Idra di Travagliato a fornire a Tesla le Giga Press per la GigaFactory di Berlino: affare milionario per l'azienda bresciana fondata nel 1946





Pronta un'altra Giga Press italiana per Tesla: la più grande al mondo, serve per l'esoscheletro di Cybertruck



L'italiana Idra ha pronta una nuova pressa enorme, ed anche questa volta verrà fornita a Tesla, per la realizzazione del corpo del pick-up elettrico Cybertruck

di [Massimiliano Zocchi](#) pubblicata il 01 Giugno 2022, alle 10:10 nel canale [AUTO ELETTRICHE](#)

Tesla



A partire da **Model Y**, Tesla ha inaugurato un nuovo sistema produttivo, che consente di creare grandi parti di telaio in un unico pezzo, semplicemente stampandolo, anziché saldare insieme più di 70 componenti. Per far questo si serve di quelle che sono state soprannominate **Giga Press**, delle presse idrauliche enormi, che **sono prodotte dall'italiana Idra**.

Non si tratta ovviamente di un macchinario mai usato prima, ma Tesla è stata la prima a sperimentarne l'applicazione in **parti così estese e così fondamentali** in una vettura. Gradualmente le presse italiane sono entrate in servizio in tutti gli stabilimenti Tesla, da Fremont a Shanghai, passando per Austin e anche Berlino.

Nicht nur für Tesla: Maschinenbauer Idra zeigt bekanntem Berater seine stärkste Giga-Pressen

18. Juli 2022 | 20 Kommentare

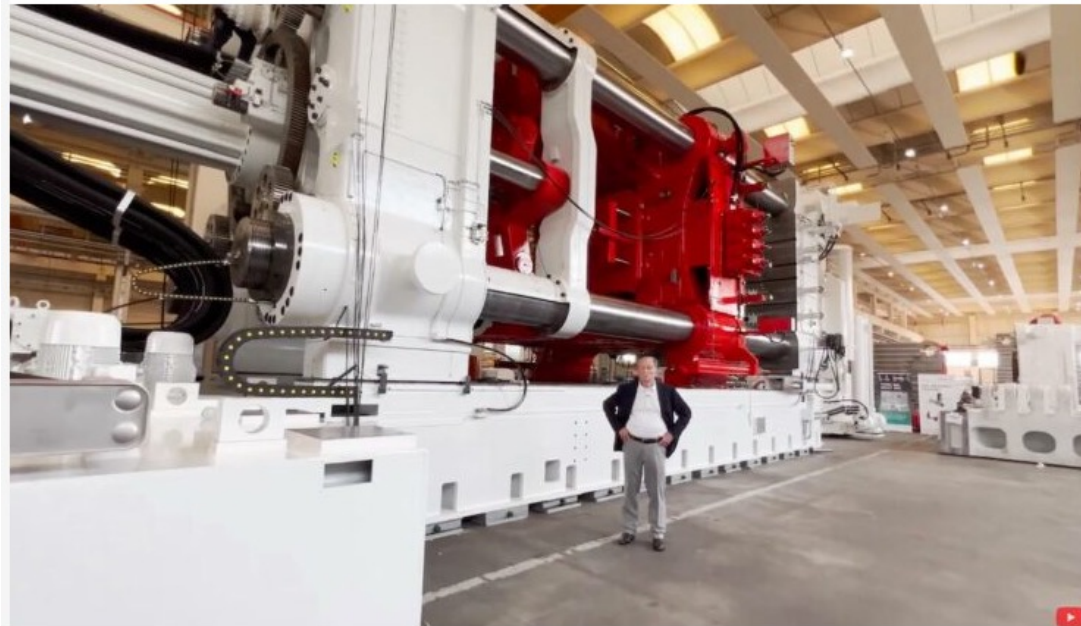


Bild: Munro Live

Mit der Verwendung von riesigen Druckguss-Maschinen könnte Tesla einen weiteren Trend gesetzt haben. Beim Model Y aus allen vier Fabriken weltweit, in denen es derzeit hergestellt wird, wird der komplette hintere Teil des Rahmens aus einem Guss in solchen Giga-Pressen

Tesla Confirms World's Biggest Casting Press for Cybertruck

Since first announced in 2019, anticipation for it has been immense

Written by Graham Hope 1st June 2022



Tesla has confirmed it will be using the world's largest casting machine, known as Giga Press, in the production of its Cybertruck electric pickup.

After Italy-based IDRA Group released a video of the 9,000-ton machine, Tesla CEO Elon Musk tweeted simply "Cybertruck body."

The video acts as a final teaser for the Giga Press before it is officially revealed at an IDRA open house event June 6-22 at its headquarters in Brescia, Lombardy.



IDRA Group's 9,000 - published by Tesla Oracle

<https://www.teslaoracle.com/2022/06/03/idra-groups-9000-ton-giga-casting-machine-is-for-the-cybertruck-unibody-confirms-elon-musk/>



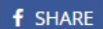
Giga Presses -- the giant die casts that are reshaping car manufacturing

Automakers including Toyota, GM, VW, Hyundai and Volvo are mulling using high-pressure aluminum die casting machines to build cars faster and more efficiently. Critics say the process poses quality and flexibility risks.

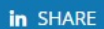
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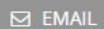
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TRAVAGLIATO, Italy -- By replacing around 60 welded components with a single module, gigantic aluminum die casting machines made by companies including Tesla supplier Idra Group are helping automakers to simplify manufacturing and cut costs by up to 40 percent in some areas.

Tesla has pioneered the use of massive casting machines, also known as Giga Presses, to make large single pieces of vehicle underbodies, streamline production and reduce the work of even robots.

This has helped it become the most profitable battery electric-vehicle maker.

Critics say the process poses quality and flexibility risks, as a single flaw can compromise a whole module, and make fixing more difficult if something goes wrong. But with the industry struggling to preserve profit margins amid surging raw materials prices, automakers including Toyota, General Motors, Hyundai, Volvo Cars and Chinese electric vehicle startup Nio are [turning to companies such as Idra for help](#).

"The basic idea was to provide a technology that could simplify the car production process," Idra general manager Riccardo Ferrario told Reuters in an interview at the company's headquarters in Travagliato, northern Italy.

Battery packs currently make up 25 percent to 40 percent of the total cost of BEVs.

"You need to make the rest cost less," Ferrario said.

WHAT IS A GIGA PRESS?

The term Giga Press was coined by Idra CEO Riccardo Ferrario for the first order of an OL 5500 CS HPDC machine in May 2019, the Italian company said in a release announcing that the term had been added to online encyclopedia Wikipedia.

A Giga Press is a series of high-pressure aluminum die casting machines. Molten aluminum weighing more than 100 kg is injected into the cold-chamber casting mold with a velocity of 10 meters per

Idra al centro della rivoluzione Tesla: che novità sulle Giga Press? - published by Insideevs

<https://insideevs.it/news/608317/idra-giga-press-tesla/>

Idra al centro della rivoluzione Tesla: che novità sulle Giga Press?

L'azienda italiana che produce le colossali presse usate da Musk e soci preannuncia importanti novità: ecco di cosa si potrebbe trattare

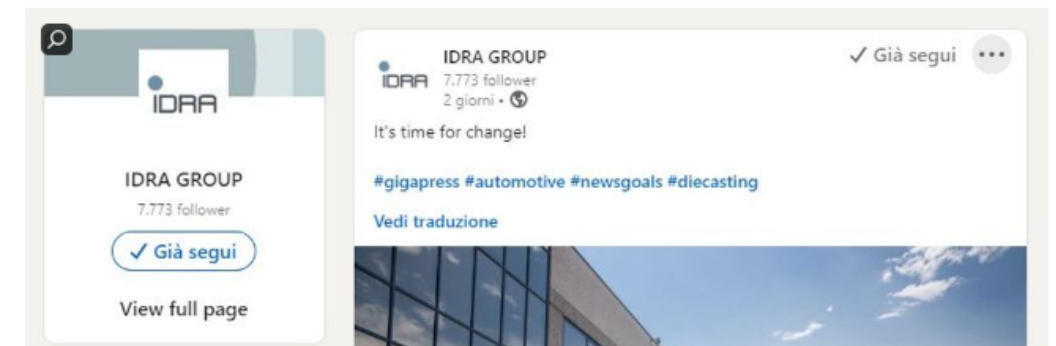


Idra, l'azienda bresciana che realizza le rivoluzionarie e ormai celebri **Giga Press** di Tesla, sta scatenando in queste ore la curiosità di appassionati e addetti ai lavori.

In un post apparso sul profilo ufficiale *LinkedIn* della società, si legge infatti un intrigante "It's time for change!". Oltre alla frase in sé, ad accendere l'interesse sono stati gli hashtag di accompagnamento e l'immagine sottostante, in cui è raffigurata una **Tesla Model Y** con decals "Giga Press".

➤ Arrivano le 4680 strutturali?

Ora, il fatto è questo: di che cambiamento stiamo parlando? Alcuni ipotizzano che Idra possa aver semplicemente introdotto in flotta una Model Y o che ne abbia acquistati alcuni esemplari da usare come auto aziendali. Ma la verità potrebbe anche essere un'altra, ben più interessante. Gli hastag "newgoals" (nuovi obiettivi) e "diecasting" (stampaggio), infatti, fanno pensare a qualche novità inerente il rivoluzionario **metodo produttivo** introdotto da Tesla proprio grazie alle italiane Giga Press.



Tesla Giga Press supplier IDRA teases new “Neo” - published by Teslarati

<https://www.teslarati.com/tesla-giga-press-idra-teases-neo-die-casting-machine-teaser/>



By [Simon Alvarez](#)

Posted on February 7, 2023

Tesla Giga Press supplier IDRA, which produces the contraptions that produce the Model Y’s front and rear megacasts, has teased what appears to be its newest creation. Named “Neo,” IDRA’s new flagship is dubbed by the company as a potential driver for the future of vehicle manufacturing.

IDRA’s video on Neo was posted on the company’s [official LinkedIn page](#). The die-cast machine maker did not provide many details about its new creation, though the post included a hashtag that read “#gigapress,” which may suggest that Neo is a new line of Giga Press machines that the company would offer to its clients. A description on the video posted on LinkedIn also hints at some of Neo’s functions.

Tesla new Cybertruck Giga Press - published by DieCasting.org

https://www.diecasting.org/web/news/web/news_announcements/tesla_s_new_cybertruck_giga_press_is_on_its_way.aspx



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Tesla's new Cybertruck Giga Press is on its Way

Idra, the maker of Tesla's large casting press, confirmed that it is now shipping Tesla's Cybertruck Giga Press, which is going to be the new world's largest press.

Earlier this year, Idra teased a new 9,000-ton Giga press that would take the prize as largest in the world. Considering Tesla's relationship with Idra, it was rumored that the new machine would be for the automaker.

Tesla CEO Elon Musk has since confirmed that the machine is going to be used for the Cybertruck body at Gigafactory Texas.

It's one of the most critical pieces of manufacturing equipment that Tesla will need to bring the Cybertruck to production. Tesla is expected to use the massive machine to build the stainless steel body of the electric pickup truck.

Press Review

Tesla Cybertruck 9000 Tonne Giga Press starts arriving in pieces

DECEMBER 20, 2022 · 78 COMMENTS · 2 MINUTE READ · RIZ AKHTAR



Tesla's next production vehicle, the polarising Cybertruck, is approaching the start of its production. This comes after the latest drone footage from Tesla's Texas Gigafactory reveals the gigantic machine to build the Cybertruck being delivered in pieces.

The Cybertruck body will be put together with a large casting machine known as the Giga Press. Specifically, it's the 9,000 Tonne Giga Press made by IDRA Group.



Sawyer Merritt · May 31, 2022

@SawyerMerritt · [Follow](#)

NEWS: IDRA has posted a new video of their 9,000 ton Giga Press being assembled.



Tesla Giga Press Supplier Reveals - published by Torque News

<https://www.torquenews.com/11826/tesla-s-giga-press-supplier-reveals-it-s-already-working-2nd-giga-press-cybertruck>

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By Tinsae Aregay Nov 29 2022 - 5:38pm

Tesla's Giga Press Supplier Reveals It's Already Working On A 2nd Giga Press For The Cybertruck

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Last month Tesla's Giga Press supplier, IDRA, announced that it has completed assembling and testing a new 9000-t Giga Press that will be used to build the Cybertruck's body. And today, IDRA revealed that the company has already started working on a new Giga Press that looks similar to the 9000-t Cybertruck Giga Press.

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A few months back, Tesla's Giga Press manufacturer IDRA released a video teasing a new 9000-ton Giga Press being assembled at the company's Italy factory. In the 21-second video, IDRA did not share a lot of details about the new machine besides stating it will be "coming in 3 weeks."

Currently, Tesla uses 6000-ton Giga Presses to build the front and rear chassis of the Model Y as single pieces. Using the Giga Press has allowed Tesla to decrease the parts that make up the rear body of the Model Y from 120 to 1.

Le gigapresse della lombarda Idra spingono i ricavi oltre 100 milioni

Meccanica

Quattro clienti operativi e trattative con altri 20 per i macchinari hi-tech

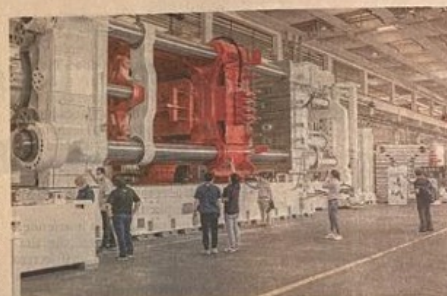
Il ceo Ferrario: «Ora serve un mercato per queste tecnologie»

Luca Orlando

Prima un solo cliente, con acquisti timidi a saggiare la tecnologia. Poi la svolta, con un mercato quadruplicato, aggiungendo al noto costruttore di auto elettriche Usa (Tesla, nome che l'azienda per contratto è tenuta a smentire) un altro brand coreano e due importanti fornitori Tier 1. Gruppi che acquistano con sempre maggiore convinzione il gioiello tecnologico della bresciana Idra, presse giganti in grado con un solo "colpo" da migliaia di tonnellate di realizzare in alluminio ampie sezioni della carrozzeria, spazzando via interi processi produttivi tradizionali. «Ricordo quel giorno - racconta il Ceo Riccardo Ferrario -, quel 20 agosto del 2020 in cui la presta ha iniziato a sfornare pezzi "buoni", risultato che inizialmente pareva impensabile. Il mondo dell'auto, che in generale è più conservatore di quanto si pensi, in quel momento si è dato una scossa». "Sveglia" che per Idra si traduce in maxi-ordini che possono arrivare anche a 15 milioni a pezzo per i sistemi più complessi, gigapresse da 5 mila tonnellate lunghe 26 metri e alte 8 in grado di sfornare anche pezzi per Suv e Pickup.

Quattordici di questi oggetti sono già in funzione nel mondo, otto sono in fase di installazione, altri tre vengono realizzati ora nel sito bresciano. «Il Covid per noi ha rappresentato un problema in più - racconta il manager - perché fino a quel punto eravamo gli unici a disporre di questa tecnologia. Il mondo dell'auto in quel momento si è però fermato, congelando progetti e bloccando gli investimenti più impegnativi in attesa di capire come si sarebbe evoluto il quadro mondiale. E questo ha dato il tempo ad alcuni nostri concorrenti, direi un paio di aziende, di recuperare parte del terreno perso. Ad ogni modo, direi che non ci possiamo lamentare».

Percorso visibile nei risultati, che per la prima volta nella storia portano Idra, controllata dalla cinese Lk Machinery, oltre i 100 milioni di ricavi, dopo un balzo di oltre il 25% grazie alle nuove commesse, per presse tradizionali ma soprattutto per i nuovi impianti "extralarge". «Per le gigapresse vedo un futuro molto promettente almeno con altri 4 OEM - racconta Ferrario - ma in realtà sul mercato abbiamo firmato accordi di confidenzialità con una ventina di aziende diverse, tra cui anche gruppi tedeschi». Commesse che incideranno solo in parte sui conti 2023, tenendo conto del nove mesi necessari per passare dall'ordine alla consegna. Tempo richiesto per realizzare questi oggetti hi-tech, in grado di inniettare nello stampo grandi quantità di lega liquida di alluminio in tempi rapidi, realizzando con migliaia di tonnellate di forza dinamica grandi pezzi di involucro della vettura. Eliminando intere linee robotizzate di saldatura o fissaggio e realizzando un solo componente di carrozzeria quando in passato ne servivano 50 o più. «È un processo che offre risposte sia sul tema



In consegna.
Una gigapressa per il settore auto presso il sito Idra di Travagliato (Bs)

della sostenibilità, abbattendo i consumi di energia e le esigenze logistiche e di trasporto, sia sul versante della qualità, concentrando l'attenzione su un numero molto più ridotto di variabili. Penso che il momento sia maturo per la diffusione di queste tecnologie, tra il 2025 e il 2030 immagino si vedrà il botto». Che per Idra, tuttavia si traduce solo in minima parte in crescita diretta dell'organico, nell'ordine delle 130 unità, non distante dai livelli di dieci anni fa, quando però i ricavi erano limitati a 20 milioni. Se l'azienda infatti segue ricerca, progettazione e assemblaggio, la realizzazione delle componenti è affidata ai fornitori del territorio, sette dei quali riuniti in una partnership

(Foundry Star Alliance) che combina risorse e know-how per completare le celle di pressofusione che poi Idra piazza sul mercato. «Attorno a noi c'è il meglio a cui si possa ambire, un bacino di competenze cruciale per qualità e flessibilità. A spanne diamo lavoro diretto ad almeno il doppio dei nostri dipendenti e ogni commessa genera un impatto rilevante per il territorio. Solo lo stampo, ad esempio, può valere qualche milione». Organico che ad ogni modo potrà crescere entro fine anno di una decina di unità per tenere conto della maggiore attività, così come a crescere saranno gli investimenti. «Software e ricerca, perché qui servono migliaia di ore di progettazione. E poi carriponte e mezzi di sollevamento, visto che il numero di maxi-presse da realizzare è in crescita». Altro nodo è quello degli spazi, con l'idea di creare una serie di magazzini esterni per avere un cuscinetto di componenti e pezzi pre-assemblati che consentano di gestire senza infoppi il lavoro.

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Gigapresses - the giant die casts reshaping car manufacturing - published by Reuters

<https://www.reuters.com/business/autos-transportation/gigapresses-giant-die-casts-reshaping-car-manufacturing-2023-02-10/>



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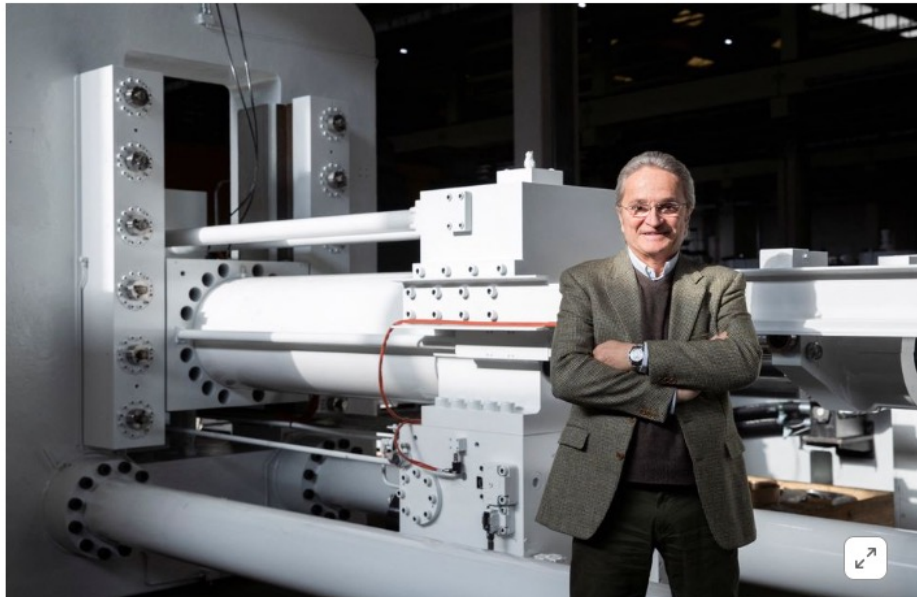


4 minute read · February 10, 2023 11:04 AM GMT+1 · Last Updated 19 days ago



Gigapresses - the giant die casts reshaping car manufacturing

By Giulio Piovaccari



TRAVAGLIATO, Italy, Feb 10 (Reuters) - By replacing around 60 welded components with a single module, gigantic aluminium die casting machines made by the likes of Tesla supplier IDRA Group are helping carmakers to simplify manufacturing and cut costs by up to 40% in some areas.

Tesla ([TSLA.O](#)) has pioneered the use of massive casting machines, also known as gigapresses, to make large single pieces of vehicle underbodies, streamline production and reduce the work of even robots.

"The basic idea was to provide a technology that could simplify the car production process," IDRA general manager Riccardo Ferrario told Reuters in an interview at the company's headquarters in Travagliato, northern Italy.

Battery packs currently make up 25%-40% of the total cost of BEVs.

"You need to make the rest cost less," Ferrario said.

Automakers using aluminium casting machines claim they can reduce investments needed to build chassis - a vehicle's second most expensive component after the engine - by 40%, and the average cost of their parts by 30%, Ferrario said.

Home News

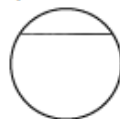
Toyota copia Tesla: così nasce la nuova piattaforma "EV first"

La Casa nipponica presenterà una nuova architettura per auto elettriche nel 2026. Per realizzarla ha smontato una Model Y



01 Marzo 2023 alle 10:03

1



Di: **FRANCESCO BARONTINI**

Toyota non è solo la più grande Casa automobilistica al mondo. È anche diventata un esempio di efficienza dei processi produttivi, introducendo metodi di gestione della logistica e della qualità che hanno spinto l'intero settore automotive a elevarsi verso nuovi standard.

Eppure, Toyota, ora che deve mettersi a fare **auto elettriche**, cerca ispirazione guardando qualcuno che fa meglio di lei. Quel qualcuno, manco a dirlo, si chiama **Tesla**.

La forza della semplicità

Con l'arrivo di Koji Sato al posto di Akio Toyota, il gruppo nipponico, che ancora crede in un futuro "multialimentazione", ha anche capito di dover correre sull'elettrico e, per farlo, ha dato avvio allo sviluppo di una **nuova piattaforma** con un'idea ben precisa in testa: "EV First". Sarà sviluppata da un team creato appositamente e vedrà la luce nel **2026**.

Per capire come svilupparla al meglio, Toyota è andata sul sicuro: ha preso una **Tesla Model Y** e l'ha smontata in mille pezzi per carpirne i segreti. Stando a quanto riportato da *Automotive News*, un dirigente della Casa giapponese avrebbe detto: "Guardando sottopelle la Model Y si scopre davvero un'opera d'arte".

61° MAIN FARO MEETING

Tecnici addio: ecco i coordinatori tecnologici di filiera

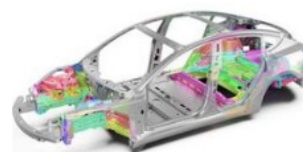
Un passato nella galassia FIAT, presente e futuro al cuore di una meccanica made in Brescia che sempre più spesso è protagonista nel mondo. Specie se, come ha fatto IDRA sotto la guida del general manager Riccardo Ferrario, è capace di raggiungere con le sue mastodontiche macchine della famiglia Giga Press traguardi prima impensati nell'agevolazione e velocizzazione delle operazioni di stampaggio per l'industria automobilistica e non solo. Il volto attuale di IDRA è ben

diverso da quello che Ferrario si trovò a osservare al suo arrivo nel 2009 quando sugli 11 milioni di euro di fatturato ben sette finivano archiviati alla voce perdite. Risollevarsi e ripartire di slancio è stato possibile grazie al supporto di finanziatori esterni e nella fattispecie cinesi; ma ancor più grazie a una visione imprenditoriale innovativa. La scelta di Ferrario è stata quella di valorizzare l'indotto facendolo diventare autentica parte integrante dei processi e percorsi di fabbrica.



Traditional Multi Press Component structure

Total of 370 separate components joined together using traditional joining methods and robots on the body in white line.



Advanced Modular Cast Component structure

Just 3 separate castings joined together using side body panels using more than 1000 less welds and 60% less robots on the line.



Simplification of vehicle Body in White Structure

Le presse sono state sottoposte a una riprogettazione, nel segno di una maggiore standardizzazione e semplificazione, fonte per le aziende clienti di maggiore produttività e valore aggiunto in sede di manutenzione e assistenza, oltre che di installazione. IDRA è passata dall'essere un'officina di meccanica pesante ad una società di ingegneria: «Il prodotto di IDRA», ha argomentato Ferrario, «è diventato intelligente e anche per questo apprezzato dai mercati. Molto si è lavorato sulle competenze; sull'evoluzione del personale e la sua specializzazione su progetti e lavorazioni core. In azienda operano pochi operai e

tanti tecnici, con ruoli di coordinamento e supervisione del montaggio delle nostre presse in qualsiasi parte del pianeta, insigniti per l'esattezza della carica di cosiddetti coordinatori tecnologici di filiera». Mettere lo sviluppo professionale dei singoli in cima alla lista delle priorità è uno dei segreti del successo e la lezione è valida a 360 gradi. Soprattutto in una fase di carenza di competenze qual è quella contemporanea, è strategico identificare all'interno della forza lavoro i dipendenti dal più elevato potenziale, farli crescere e conferire loro un ruolo centrale per l'attività della società. A patto che essi stessi continuino a mettersi costantemente in gioco e migliorarsi ininterrottamente.



FOCUS-Geely's EV brand Zeekr jumps on the 'gigapress' bandwagon SOURCE - published by Reuters

FOCUS-Geely's EV brand Zeekr jumps on the 'gigapress' bandwagon

SOURCE:

REUTERS

By Norihiko Shirouzu

April 27 (Reuters) - Geely's EV brand Zeekr is the latest to join a growing list of automakers that have turned to the "gigapress" die casting technique pioneered by Tesla to slash the cost of electric cars.

Zeekr's manufacturing technology chief Jiang Kehong told Reuters the Chinese carmaker had started using massive aluminium die casts to make a large rear underbody section of its Zeekr 009 six-seat, multi-purpose van (MPV).

He said the technique had helped Zeekr eliminate almost 800 welding points, cut defects, made the car lighter, and boosted its structural stiffness, in turn improving the ride of the MPV which went on sale in China this year.

"In the future, Zeekr will use giga-casting technology on more models," Jiang said.

Zeekr's shift to the gigapress technique comes at the same time Chinese rival Xpeng has adopted a new vehicle platform technology that also mimics the way Tesla designs and manufactures electric cars.

Metal and plastic die casting has long been used in manufacturing, but its application to large aluminium underbodies in carmaking is relatively new.

The newest and biggest press made by IDRA has a clamping force of over 9,000 tons. It can punch out the front and rear underbodies which support the car's outer skin and provide a platform for suspension components.

The front and rear sections are then connected with large under-floor battery packs to form a three-piece EV chassis.

The use of the heavy casting machines, dubbed "gigapresses" by Tesla, has helped simplify manufacturing and cut costs by up to 40% in some areas, according to Riccardo Ferrario, general manager of IDRA, based in Brescia near Milan.

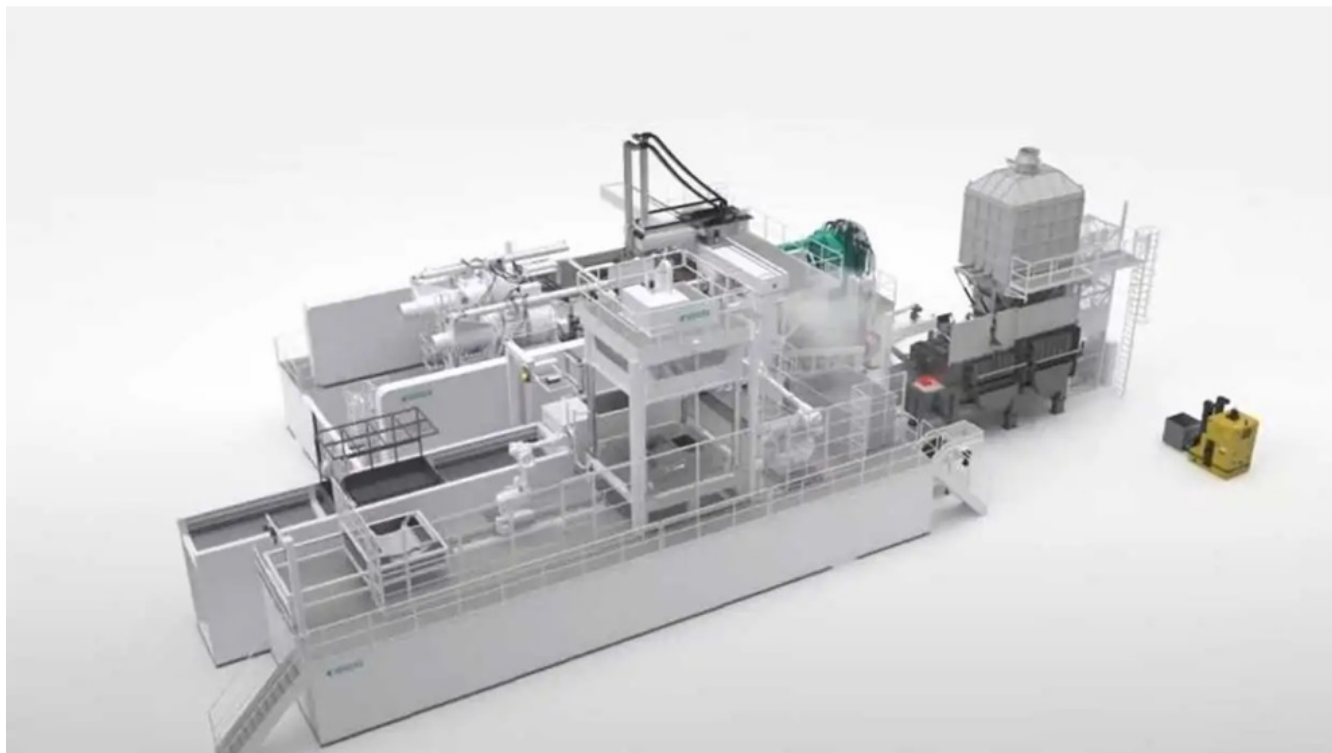
Non solo Tesla: chi crede nella rivoluzione delle Giga press - published by Insideevs

<https://insideevs.it/news/664450/case-giga-press-auto-elettriche/>

Home > News > Tecnologia

Non solo Tesla: chi crede nella rivoluzione delle Giga press

Dopo Elon Musk e soci, tante Case strizzano l'occhio all'idea italiana per costruire auto elettriche: da Xpeng a Volvo, ecco quali sono



Dall'Italia alla Cina, passando per l'America. Le **Giga Press** della bresciana Idrà conquistano il mondo e, dopo lo sbarco negli stabilimenti Oltreoceano di Tesla, trovano casa all'ombra della Grande Muraglia (e non solo).

L'ultima a sperimentare la tecnica della pressofusione è la cinese **Zeekr**, marchio del gruppo Geely fresco di annuncio del responsabile alla tecnologia, Jian Kehong. Ma in mezzo a Elon Musk e al Costruttore asiatico ci sono tante altre Case interessate alla nuova rivoluzione produttiva. Vediamo.

Il turno di Zeekr

Prima di tutto, però, ricordiamo cosa sono le Giga press. Nate nel nord Italia, sono **macchine a pressofusione** che consentono di "stampare" buona parte delle scocche per **auto elettriche**. I risultati finali vedono la realizzazione di 1 solo componente al posto di decine (70 nel caso della **Tesla Model Y**) e la riduzione di tempi e costi di produzione: si parla addirittura di un 30-50% di ore in meno.





Introduzione

Quando si tratta di automobili, l'Italia resta il posto del mondo dove si può trasformare nel più breve tempo possibile un'idea innovativa in qualcosa che si può vendere sul mercato.

Non si spiegherebbe, altrimenti, perché Elon Musk – l'uomo più ricco del mondo che con Space X può andare nello Spazio ogni volta che vuole – per trovare i cablaggi ad alto voltaggio di cui aveva bisogno per le batterie e i motori elettrici delle sue Tesla è atterrato nel piazzale della Intercable di Brunico, in provincia di Bolzano. O perché i tedeschi di Porsche – marchio controllato dal più grande gruppo automobilistico del pianeta – per raffreddare le batterie del Cayenne E-Hybrid hanno bussato alla UFI Filter di Nogarole Rocca, piccolo centro tra Verona, Mantova e la nebbia della Pianura Padana.

Italy inside: il risveglio della filiera

Come vedremo, l'elenco continua. Pagina dopo pagina, percepiremo quanto può essere lunga la lista delle imprese italiane che popolano la filiera dell'automotive e che non hanno paura del 2035: l'anno a partire dal quale, salvo ripensamenti a Bruxelles – che pure non si possono escludere – in Europa si potranno vendere solo auto elettriche.

Al contrario, queste imprese pensano e agiscono come se fossero già nel 2035. Vengono dal futuro. Parlano di un risveglio della centenaria filiera italiana dell'automotive. Anticipano segnali di profondità che arrivano dal tessuto produttivo, che ora anche le statistiche riescono a misurare.

Secondo l'ultima edizione dell'Osservatorio sulla com-

Introduzione

ponentistica automotive italiana curato dall'Anfia (Associazione Nazionale Filiera Industria Automobilistica), il 37,6% delle imprese italiane che operano nel comparto dell'auto si dice posizionata, oltre che su linee di prodotti tradizionali, anche sui *powertrain* elettrificati, valutando il proprio coinvolgimento come “medio-elevato”. A queste, si aggiunge una quota di imprese del 34,5% che si dichiara posizionata su progetti di sviluppo connessi all'auto elettrica, sebbene con un livello definito “basso”.

Oggi quindi circa tre imprese su quattro (72,1%), tra quelle che gravitano intorno all'industria automobilistica italiana, dichiarano di avere progetti per l'auto elettrica. Nel 2018, alla stessa domanda aveva risposto positivamente appena il 18,6% delle imprese.

Il risveglio c'è stato. Ma perché la realtà non si trasformi in un incubo, la filiera produttiva dell'automotive italiana – 5.528 imprese, 273.600 addetti e 86,2 miliardi di fatturato annuo – dovrà trasformarsi. Prendendo esempio da chi l'ha già fatto.

Basta salire su una Tesla qualsiasi. Le speciali presse con cui Elon Musk stampa le scocche in alluminio delle sue vetture – battezzate Giga Press – sono state inventate alla Idra Group di Travagliato, in provincia di Brescia, da Riccardo Ferrario, imprenditore visionario con un passato in Fiat.

Le prime presse sono entrate in funzione negli Stati Uniti. Poi è stata la volta della Cina. L'ultimo ordine è arrivato dalla Corea del Sud, firmato Hyundai. In mezzo le Giga Press con destinazione Berlino.

Le Giga Press made in Brescia permettono risparmi competitivi in termini di costi di produzione e peso fina-

Auto elettrica, Made in Italy e la sfida del 2035 - published by Sole24Ore

https://stream24.ilsole24ore.com/video/economia/auto-elettrica-made-italy-e-sfida-2035/AEGV7HKD?refresh_ce=1



La data del 2035 agita l'Europa dell'auto. Evoca la fine dei motori diesel e benzina. E in Italia scuote una filiera centenaria. Quale futuro per l'industria italiana? Ci sono nel nostro Paese pionieri dell'auto elettrica? Quale impatto avrà questa rivoluzione green nel settore auto sul mondo del lavoro? Ne hanno parlato i giornalisti del Sole 24 Ore Francesca Barbieri, Alberto Annicchiarico e Antonio Larizza, insieme a Silvia Bodoardo (docente del Politecnico di Torino e partner del piano Ue Battery 2030+), Riccardo Ferrario (direttore generale IDRA GROUP) ed Enrico Loccioni (presidente LOCCIONI).

Idra Group, sono di un'azienda italiana le "Giga Press" che producono le Tesla - published by EconomyUp

<https://www.economyup.it/automotive/idra-group-le-giga-press-che-sforzano-le-tesla/>

FILIERA AUTOMOTIVE

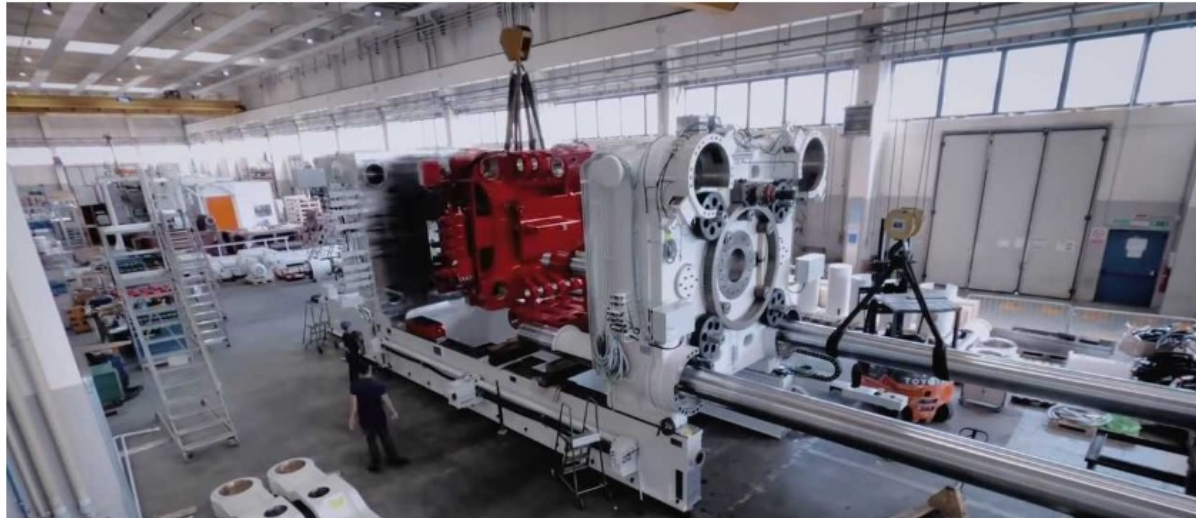
Idra Group, sono di un'azienda italiana le "Giga Press" che producono le Tesla

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L'azienda bresciana Idra Group ha creato enormi presse in grado di stampare in un unico pezzo intere parti di scocca dell'auto. Una soluzione sposata da Elon Musk e che promette di rivoluzionare l'industria automotive, abbassando costi e tempi di produzione

di [Angelo Berchicci](#)

Pubblicato il 03 Apr 2023



Press Review

Why are other automakers chasing Tesla's 'Gigacasting'?

Reuters

June 14, 2023 9:26 AM GMT+2 · Updated 2 days ago



[1/2] The logo of car manufacturer Tesla is seen at a dealership in London, Britain, May 14, 2021. REUTERS/Matthew Childs/File Photo



June 14 (Reuters) - Toyota Motor ([7203.T](#)) said this week it will adopt a technology Tesla ([TSLA.O](#)) pioneered known as "Gigacasting" as part of a strategy by the Japanese automaker to improve the performance – and lower the cost – of future electric vehicles (EVs).

Toyota is not alone in following Tesla's breakthrough.

Here's a look at Gigacasting and how the innovation is forcing automakers to scramble to match Tesla:

WHAT IS GIGACASTING?

The Giga Press is an aluminium die-casting machine adopted by Tesla at its factories in the U.S., China and Germany. The house-sized machines are able to produce aluminium parts far bigger than anything used before in auto manufacturing.

ALL POSTS TAGGED "GIGA PRESS"



NEWS
Tesla partner IDRA shows rumored Cybertruck Giga Press
"Update: The fifth paragraph was edited to note that the tonnage refers to clamping force, not weight." A photo shared on Monday...



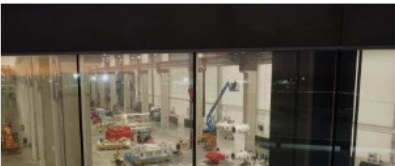
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Tesla Cybertruck producing Giga Press spotted in assembly at Giga Texas
The IDRA Giga Press, responsible for producing the Tesla Cybertruck frame in the near future, has been spotted being assembled on the...



NEWS
The IDRA Giga press heads to Tesla Giga Texas
IDRA Group's Giga press is now packaged and headed to Tesla Giga-Texas. In a post on LinkedIn, IDRA Group showed the new...



NEWS
IDRA finishes 9,000-ton Giga Press;

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October 11, 2023 06:33 AM

Ford, Hyundai test Tesla supplier's Giga Press

Tesla has pioneered the use of massive casting machines to make large single pieces of vehicle underbodies.

Reuters

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TRAVAGLIATO, Italy -- [Idra](#), an Italian aluminum casting machine maker and Tesla supplier, has added Ford, Hyundai and another European company to its customer base as more automakers explore this manufacturing technique.

Tesla has pioneered the use of [massive casting machines, also known as 'Giga Presses'](#), to make large single pieces of vehicle underbodies, streamline production and reduce the work even of robots.

Front and rear underbodies cast by Giga Presses are combined with battery packs to form a three-piece chassis for battery electric vehicles.

A 'Giga Press 6,100,' which produces a clamping force of over 6,000 tons, with the Ford brand printed on it, had been assembled and was being tested in Idra's plant in Travalgiato, near Brescia, northern Italy during an industry event organized by the company on Tuesday and Wednesday.

The machine will be installed in an R&D

WHAT IS A GIGA PRESS?

The term Giga Press was coined by Idra CEO Riccardo Ferrario for the first order of an OL 5500 CS HPDC machine in May 2019, the Italian company said in a release announcing that the term had been added to online encyclopedia Wikipedia.

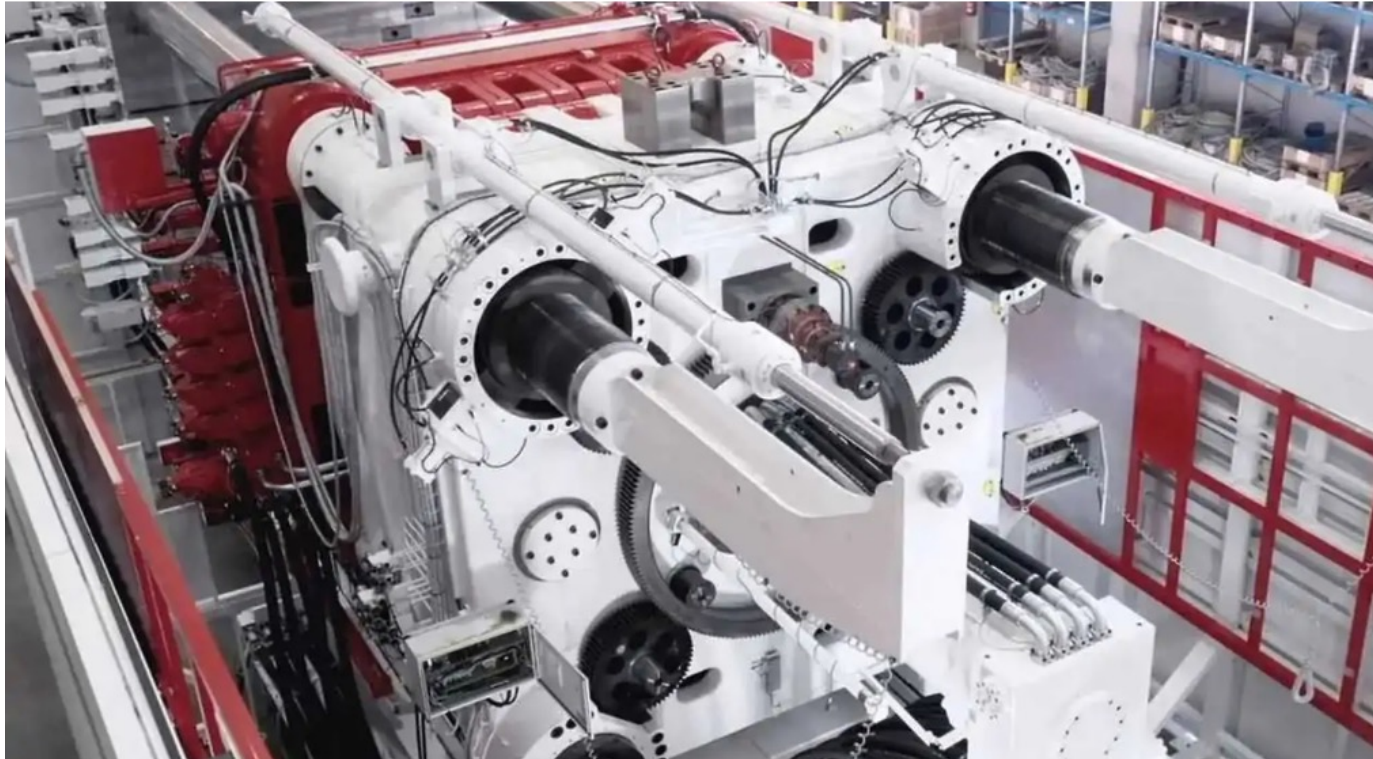
The Giga Press: Tesla's Game-Changing Manufacturing Process Goes Mainstream - published by InsideEvs

<https://insideevs.com/news/673158/tesla-giga-casting-manufacturing-becomes-mainstream/>

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The Giga Press: Tesla's Game-Changing Manufacturing Process Goes Mainstream

Half a dozen carmakers are adopting giga casting after Tesla to reduce costs and simplify manufacturing.



Jun 21, 2023 at 1:11pm ET

42



By: **Suvrat Kothari**   

In a recent technical briefing session, Toyota announced a raft of new technologies as it catches up to other carmakers in electric vehicle expansion plans. One of them is giga casting, wherein select car body parts are constructed from two or three main components, simplifying the manufacturing process and reducing costs.

Tesla was the first to widely use the giga press, and multiple carmakers have attempted to emulate the approach. Geely **uses the technique** for the Zeekr 009 MPV and General Motors is reportedly using it for its upcoming flagship EV, the **Cadillac Celestiq**. Volvo and Hyundai have **similar plans** as well.

A giga press is a high-pressure die-casting machine that injects molten aluminium into casting molds. Tesla is believed to have first used it on the Model Y, **reportedly** replacing assemblies consisting of 70 parts, with just two to three huge castings.

Ford, Hyundai turn to Italian casting machine maker IDRA - published by Reuters

[Ford, Hyundai turn to Italian casting machine maker IDRA | Reuters](#)



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Ford, Hyundai turn to Italian casting machine maker IDRA

By **Giulio Piovaccari**

October 11, 2023 12:01 PM GMT+2 · Updated 22 days ago



TRAVAGLIATO, Italy, Oct 11 (Reuters) - Idra, an Italian aluminium casting machine maker and Tesla supplier ([TSLA.O](#)), has added Ford ([F.N](#)), Hyundai ([005380.KS](#)) and a European company to its customer base as more carmakers explore this manufacturing technique.

Tesla has pioneered the use of massive [casting machines](#), also known as 'gigapresses', to make large single pieces of vehicle underbodies, streamline production and reduce the work even of robots.

Front and rear underbodies cast by gigapresses are combined with battery packs to form a three-piece chassis for battery electric vehicles (BEVs).

A 'gigapress 6,100', which produces a clamping force of over 6,000 tons, with the Ford brand printed on it, had been assembled and was being tested in IDRA's plant in Travalgiato, near Brescia, northern Italy during an industry event organised by the company on Tuesday and Wednesday.

An even bigger press, the 9,000, IDRA's largest and newest model -- the size of a small house or a tennis court -- was being tested nearby but without the client's name printed on it.

A source close to the matter, however, said it would be shipped to Hyundai group, adding both it and the one for Ford would initially be used only for R&D purposes.

The source said IDRA was also about to sign a supply contract for two 9,000 presses with a premium automaker in Europe, its first with a European group.

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Idra e Comau, tecnologia italiana per la produzione globale di veicoli elettrici

Dopo Tesla, l'azienda bresciana ha guadagnato come clienti anche Ford e Hyundai. Per la cinese Nio, la società del gruppo Stellantis ha sviluppato un sistema per 1 milione di pezzi l'anno fra motori, inverter e scatole del cambio

MATTIA ECCELI

12 Ottobre 2023 alle 07:00 | 2 minuti di lettura

In Italia si producono sempre meno auto, ma la tecnologia italiana della bresciana Idra e della torinese Comau consentirà di fabbricare milioni di veicoli elettrici a livello globale. La Idra, che ha realizzato le grandi stampanti per alluminio impiegate inizialmente da Tesla, secondo Automotive News ha guadagnato nuovi clienti. Ossia due fra i maggiori costruttori al mondo: l'americana Ford e la coreana Hyundai. A questi si aggiunge anche un'altra casa automobilistica europea premium. A quanto pare Volvo Cars avrebbe richiesto due Giga Press 9.000 per i propri impianti in Europa Occidentale.

FORD ACQUIRES GIGA PRESS MACHINE CURRENTLY USED BY TESLA - published by Ford Authority

[Ford Acquires Giga Press Machine Currently Used By Tesla \(fordauthority.com\)](https://fordauthority.com/ford-acquires-giga-press-machine-currently-used-by-tesla/)

FORD ACQUIRES GIGA PRESS MACHINE CURRENTLY USED BY TESLA

By Brett Foote
October 11, 2023 10:40 am



5



In the relatively young yet burgeoning and hyper-competitive world of all-electric vehicles, Ford – along with essentially every other automaker – is working to make its EVs profitable, which isn't expected to happen until 2026. In the meantime, Ford's EV-focused Model e unit is expected to lose around \$3 billion this year, all while CEO Jim Farley admits that the prices of those vehicles remain far too high for consumers' taste. In recent months, the automaker has hired a variety of talent from the likes of Tesla and Apple as it works to right that proverbial ship, and now, The Blue Oval has taken another page from Tesla's playbook after acquiring the same type of giga press machine that the EV-only automaker is currently using, according to Reuters.

These new giga press machines come from an Italian company called IDRA, and are used to create massive pieces of a vehicle's underbody, which helps save time and cuts down on the costs associated with manufacturing. Tesla was the first automaker to begin utilizing this gigantic press recently, which creates front and rear underbodies, which can then be combined with a battery pack to form a three-piece chassis of sorts.

A giga press 6,100 – which has over 6,000 tons of clamping force – was spotted at IDRA's plant in Travergiato with Ford's logo printed on it, though for now, that unit is being tested before it's shipped to the automaker. Nearby, a larger, giga press 9,000 was also undergoing testing, but that unit didn't have any company logo present on it, though sources indicate that it was purchased by Hyundai.

Ford, Hyundai Join Tesla in Embracing Idra's Giga Press Tech



Ford and Hyundai's latest association with Idra's Giga Press in Travalgiato, Italy.

Related Stories

[NHTSA Expands Investigation into Ford SUVs for Engine Failures](#)

[EcoPro BM, SK on, and Ford Invest \\$886M in Canadian EV Battery Material Plant](#)

[Ford Transitions BlueCruise to Subscription-Based Model; Standard Hardware on New Vehicles](#)

Italian firm Idra, recognized for Tesla collaborations, recently secured Ford, Hyundai, and another European firm as clientele, spotlighting their pioneering Giga Presses.

Ford, Hyundai Embrace the Giga Press Technology

During an industry event, Idra showcased its latest achievements. According to [Reuters](#), a 'Giga Press 6,100,' with a clamping force exceeding 6,000 tons, proudly displayed the [Ford](#) brand. This particular press, currently being tested at Idra's Travalgiato facility near Brescia, Italy, will soon be shipped to an R&D facility in Detroit.

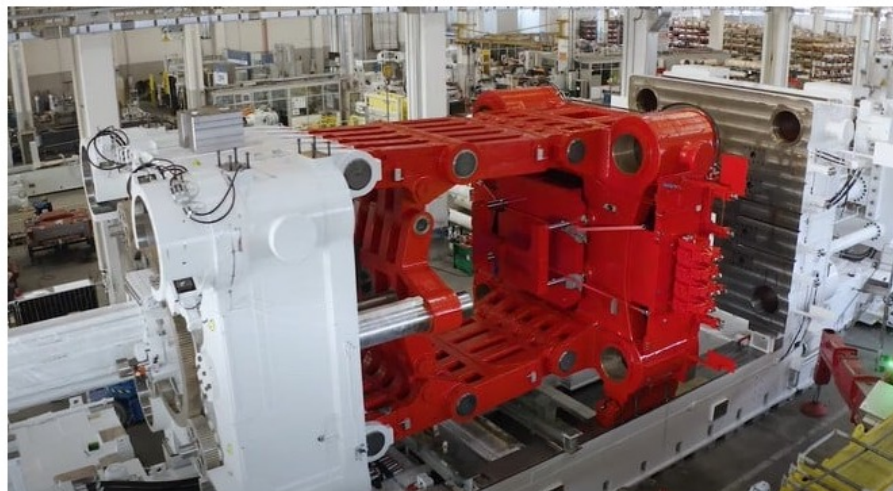
A source said Idra was also about to sign a supply contract for two 9,000 presses with a premium European automaker, its first with a European group. Sources said Volvo had purchased two Idra Giga Presses for their new Eastern European plant.



Ford e Hyundai scelgono le Giga Press italiane di Idra



14 Ottobre 2023 7



Tesla ha portato alla ribalta la nuova tecnologia produttiva **del megacasting** che permette di realizzare grandi parti del telaio in pezzi unici. Si tratta di una soluzione che consente di razionalizzare il processo di costruzione di una vettura, semplificandolo e rendendolo più veloce.

Il successo della casa automobilistica americana ha portato altri costruttori del settore auto ad interessarsi alla tecnologia del megacasting resa possibile, nel caso della società di Elon Musk, dalle **Giga Press realizzate dall'azienda italiana Idra**. A quanto pare, anche Hyundai e Ford hanno deciso di sperimentare l'utilizzo di questa tecnologia produttiva.

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[Toyota: "Abbiamo tempo e idee per recuperare Tesla" \(insideevs.it\)](#)

Home > Toyota > News

Toyota: "Abbiamo tempo e idee per recuperare Tesla"

La Casa giapponese risponde alle preoccupazioni degli azionisti per i ritardi sull'auto elettrica: pronto un piano per il rilancio



Toyota ha un approccio all'auto elettrica un po' controverso. Non ne è contraria, anzi. Ma non la vede come soluzione per tutti i mali e ha sempre preferito lavorare su una serie di tecnologie per arrivare alla neutralità carbonica.

E così, essendo impegnata su più fronti, è in ritardo su quello delle zero emissioni a batteria. Tanto che gli **azionisti**, in un recente incontro, hanno sollevato qualche perplessità, facendo diretto riferimento a **Tesla**, leader mondiale per vendite e con un ultimo trimestre che ha visto consegne record.

La risposta di Toyota

Nella prima metà del **2023**, Toyota ha venduto **4,15 milioni di auto**, ma solo lo 0,19% era 100% elettrico. Facendo i conti: **78.850 unità**. Tesla, di vetture elettriche (fa solo quelle del resto) ne ha vendute **888.000**.

I vertici nipponici si sono affrettati a spiegare che, considerando i modelli ibridi, di gran lunga i più diffusi del brand, a livello di elettrificazione la Casa non è mal posizionata. E il tempo per recuperare sull'elettrico puro c'è, così come la volontà. Toyota, in effetti, ha dato una bella accelerata in questo senso.

La sfida del lavoro - PresaDiretta 09/10/2023 - published by RAI 3

https://youtu.be/eOOKMOMAQcs?si=Q9nby_5GXJGS5HYR



La sfida del lavoro - PresaDiretta 09/10/2023



La sfida del lavoro - PresaDiretta 09/10/2023



La sfida del lavoro - PresaDiretta 09/10/2023



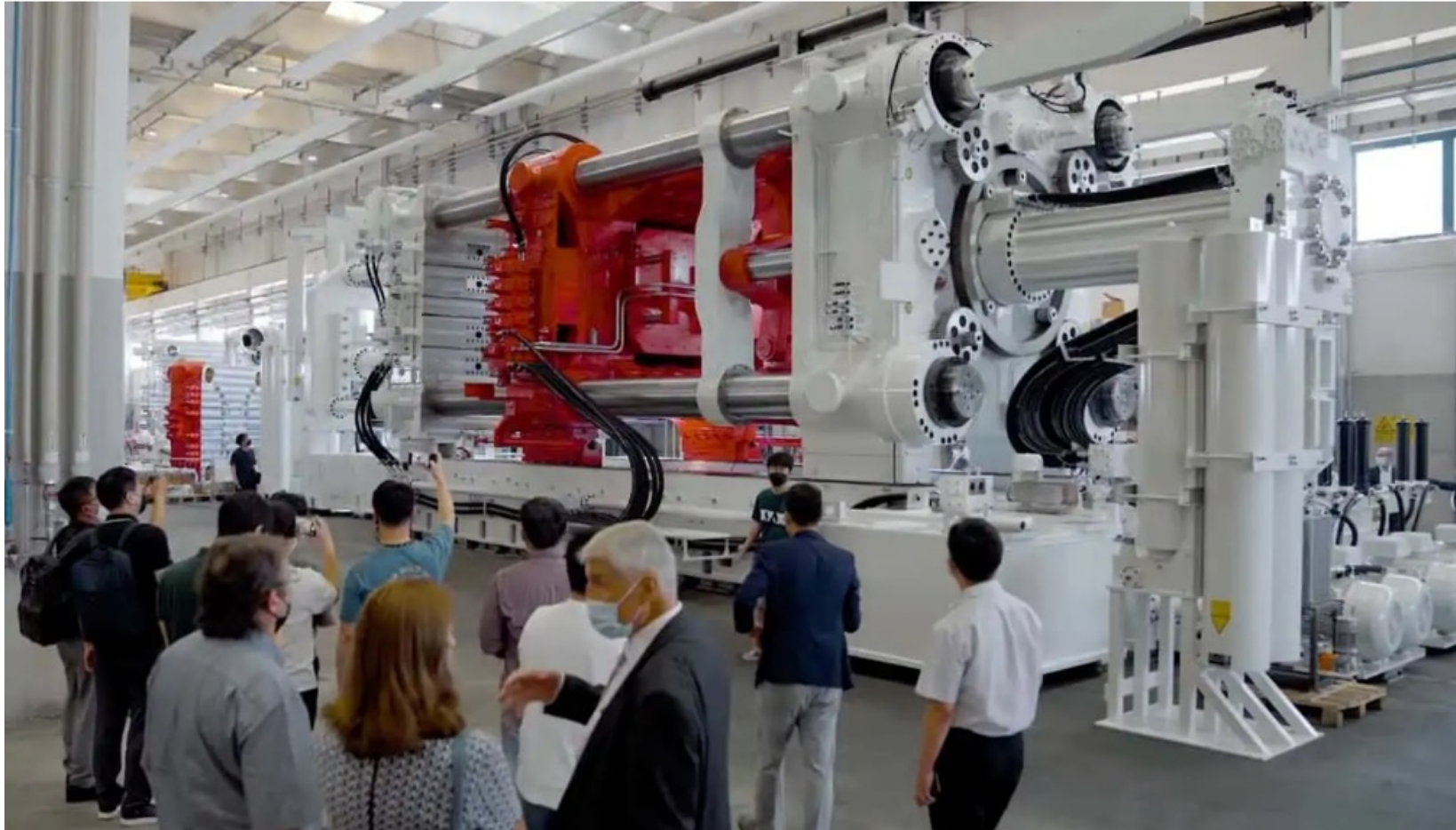
La sfida del lavoro - PresaDiretta 09/10/2023

Ford, Hyundai Follow In Tesla's Footsteps By Buying IDRA Giga Presses: Report - published by Insideevs

<https://insideevs.com/news/691142/ford-hyundai-follow-tesla-footsteps-by-buying-idra-giga-presses/>

Ford, Hyundai Follow In Tesla's Footsteps By Buying IDRA Giga Presses: Report

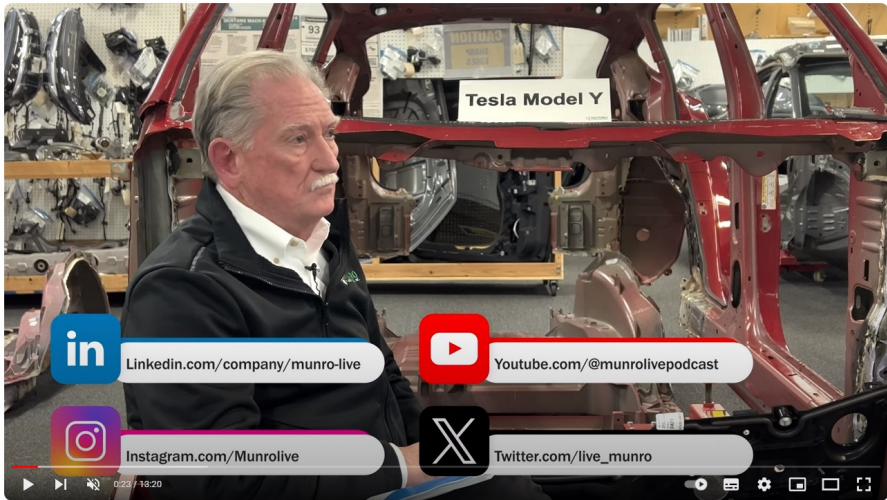
Ford, Hyundai, and a premium carmaker from Europe are all said to have bought Giga Presses from Tesla supplier IDRA Group.



Press Review

Why Sandy is Captivated By Castings: IDRA Conference Recap - published by Sandy Munro Live

<https://www.youtube.com/watch?v=q7ExWZwuuCI>



Why Sandy is Captivated By Castings: IDRA Conference Recap



John Stokes
IDRA Srl
Marketing & Sales Manager

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Why Sandy is Captivated By Castings: IDRA Conference Recap



Why Sandy is Captivated By Castings: IDRA Conference Recap

Thixo Screw, Note Taper ¹⁹



Strip off Gates, Parts Are Ready No Need To Finish!

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Why Sandy is Captivated By Castings: IDRA Conference Recap

The wind of change will come, and we must be ready - published by Foundry-Planet GmbH

<https://www.foundry-planet.com/d/the-wind-of-change-will-come-and-we-must-be-ready/>



Euroguss 2024 › Foundry Corporate News

25. October 2023



THE WIND OF CHANGE WILL COME, AND WE MUST BE READY

2nd INTERNATIONAL FORUM ADVANCED LIGHT METAL SOLUTIONS by FSA

Reading time: 5 min



Thomas Fritsch, Chief Editor

The second edition of the Advanced Light Metal Solutions Forum was an extraordinary gathering of brilliant minds, dedicated professionals and great guests. It was more than just an event; It was an inspiring convergence of innovative ideas and future possibilities under the leitmotif Advanced Light Metal Solutions - For a sustainable, decarbonized Automotive Industry.

Exciting presentations and intensive exchange with a view to an eco-friendly automotive industry

Seven years after the first edition, the Forum was the ideal platform for the 150 participants from 18 countries to make new and promising connections, to get in touch with customers and to consolidate fruitful relationships with the members of the FSA - Foundry Star Alliance. The strength and vibrancy of the industry network was confirmed through meetings and multiple interactions.

The interaction with industry experts and visionaries at Villa Baiana was a unique experience with meaningful discussions on innovative applications, emerging trends, sustainability and decarbonization in the automotive sector. The collective knowledge shared and the team spirit at the forum were remarkable.

The presentations and discussions also revolved around the development of so-called giga-castings in die casting and the entire peripheral equipment, but in addition, alternatives for e-mobility, for example made of steel, were also highlighted.

Keynote speakers such as Roberto Vavassori impressively showed how the energy turnaround can be successfully shaped, but also how much effort and energy will be necessary, especially if one takes the geopolitically different competitive conditions as a basis.

IT/USA - Idra Group completes and delivers Giga Press for Tesla Cybertruck - published by Foundry-Planet GmbH

<https://www.foundry-planet.com/d/it-usa-idra-group-completes-and-delivers-giga-press-for-tesla-cybertruck/>



Foundry Daily News

20. October 2022



IT/USA - IDRA GROUP COMPLETES AND DELIVERS GIGA PRESS FOR TESLA CYBERTRUCK

Tesla plans to start building the Cybertruck in the first quarter of 2023.

Tesla commissioned a 9,000-ton die casting press from Italy-based specialists at IDRA Group, the only company that took up the challenge to try to create such a mammoth piece of equipment. Now the company say sit has completed assembly and testing of this gargantuan press and it reportedly has already arrived in the United States.

The press is truly spectacular to see such a big piece of machinery in action, especially since it has massive visible moving parts. IDRA posted a video announcing the completion of this particular press and notes that “this innovation revolutionizes the manufacturing of the car body structure, reducing substantially assembly time and costs... IDRA was the first company to receive production orders for 9.000 ton machines that can be used for SUV and small truck markets.”

It is believed that this particular 9,000-ton press will be used to create Tesla Cybertruck frames by die-casting aluminum and this seems to be confirmed by IDRA itself as per the YouTube video description excerpt added above that mentions light trucks. IDRA has already supplied Tesla with Giga Presses, which is now in operation and is able to create an entire Model Y frame from just two separate stampings, far reducing the number of individual parts needed.

For reference, just the rear part of a Model Y frame was made out of 70 separate pieces before the the introduction of the Giga Press, and now that has been reduced to 1. Apparently, this allowed Tesla to eliminate some 300 robots that helped put all those 70 parts together, thus speeding up the car building process, while also reducing complexity and manufacturing cost.

It is speculated that the Cybertruck will be made up of three large structural components: the rear section, the bed and the frontal crash structure. According to its initial estimations, Tesla was looking to start building the Cybertruck in 2021, but plans have changed and it has now moved its production start to early 2023.

AUTOMOTIVE

Volvo Installs Two Giga-Casting Presses at Its Plant in Slovakia

December 18, 2023, 9:00 am



Volvo Cars is expanding its vehicle manufacturing operation in Košice, Slovakia. The company placed an order with Idra Srl for the supply of two 9,000 tons giga-casting press machines for the production of aluminum components, which will position the company's Košice plant as a strategic hub for giga-cast components. Volvo is among a number of other car manufacturers that are investing in giga-casting or mega-casting technology globally.

The 9,000 ton giga-press is among the largest die casting machines in Europe, representing a remarkable leap forward in automotive manufacturing technology. This cutting-edge equipment will enable the production of complex and lightweight vehicle components with precision and efficiency, paving the way for enhanced vehicle performance and safety. These large castings reduce the amount of components that need to be joined together, which helps to reduce vehicle weight.

Furthermore, this collaboration underscores Volvo's commitment to sustainability in European manufacturing. The giga-casting process is said to be inherently eco-friendly, reducing waste and energy consumption — which perfectly aligns with the company's dedication to sustainable practices.

Idra's innovative development of giga-presses represents a pivotal role in revolutionizing automotive manufacturing. The company's expertise and forward-thinking approach have been instrumental in the development and implementation of the giga-press technology.

This collaboration with Volvo exemplifies Idra's dedication to driving progress in the industry and highlights the importance of partnerships in achieving shared goals. The cooperation between the two companies, as well as the support of local stakeholders in Slovakia, has been key to the project's progress. Together, Volvo and Idra are forging the path to a more sustainable and technologically advanced future for European automotive manufacturing.

Italy's Idra wins Volvo Cars contract for largest casting machine

The contract, the value of which was not given, is for two 9,000 ton Giga Press machines -- which are the size of a small house or a tennis court. Idra is a Tesla supplier and has recently added Ford and Hyundai to its customer base as more carmakers explore this manufacturing technique. It is owned by China's LK Industries.



Reuters

Updated On Nov 9, 2023 at 08:14 AM IST



Idra, an Italian-based aluminium casting machine maker, has won a contract with Volvo Cars to install two of its largest presses at a new site in the Slovakian town of Kosice, it said on Wednesday.

The contract, the value of which was not given, is for two 9,000 ton Giga Press machines -- which are the size of a small house or a tennis court.

Idra is a Tesla supplier and has recently added Ford and Hyundai to its customer base as more carmakers explore this manufacturing technique. It is owned by China's LK Industries.

Volvo inks deal for enormous, Tesla-style giga press - published by Electrec

<https://electrek.co/2023/11/09/volvo-inks-deal-for-enormous-tesla-style-giga-press-for-its-next-gen-evs/>

Volvo inks deal for enormous, Tesla-style giga press

 Jennifer Mossalgue | Nov 9 2023 - 1:30 am PT |  12 Comments



Following in Tesla's footsteps, Volvo has just signed a contract with Italian **giga press maker IDRA** to install two of its largest presses at a new site in Slovakia. The giga presses – what will likely be a reconfigured version of the same Giga Press 9000 that is making **Tesla's Cybertruck** – are the world's largest, the size of a small house and producing a clamping force of more than 9,000 tons.

While no word has been given on the value of the contract, Volvo has signed up for two 9,000-ton giga press machines for its factory in Košice, Slovakia. Volvo is in the process of building a \$1.25 billion factory there that will be capable of making 250,000 EVs a year. Production for its next-gen EVs is slated to start in 2026.

Chinese-owned IDRA, the company that makes Tesla's giga presses, has also signed deals with Ford and Hyundai last month, the same time the company hinted at a "premium European automaker" as being a new customer. Now that mystery has been solved. Volvo, like other legacy automakers, has been exploring the cutting-edge technology pioneered by Tesla in hopes of ramping up EV production while saving on energy outputs.

Tesla's giga-casting technology, a production method that involves stamping out larger chassis components rather than casting numerous smaller parts and drilling and spot-welding them together, has been a game changer – and while it has its critics in terms of quality risk, it reduces total production costs to help compensate for battery packs costs, which make up anywhere from **25% to 40% of the total cost** of an BEV. Tesla **reported** lowering production costs by 30% after adding the giga-casting to production lines in 2020.

IDRA said it has signed orders for 25 presses globally, with 21 already sent out to customers. Tesla has reportedly already received 14 presses, including **two 9000 models** for its new Cybertruck production plant in Austin.

Volvo, headquartered in Sweden and owned by China's Geely, is working toward its goal of making half of its global vehicle sales from battery-powered cars by 2025. By 2030, the company aims to be an electric-only automaker. To facilitate this, Volvo has announced an investment of more than

Volvo Joins the Gigacasting Revolution - published by NADCA

https://www.diecasting.org/web/news/web/news_announcements/volvo_joins_the_gigacasting_revolution.aspx



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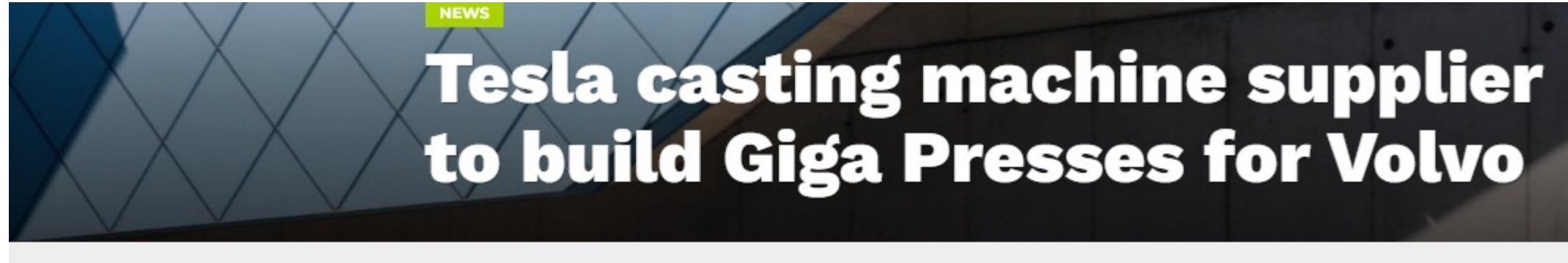
Volvo Joins the Gigacasting Revolution

Per Dan Mihalascu from InsideEVs.com - A growing chorus of automakers and car industry experts will tell you that giga presses – the high-pressure die-casting machines for car body assembly pioneered by Tesla – will be the key to cranking out future electric vehicles cheaply and in huge volumes. Now, it looks like Volvo is the latest automaker to join the gigacasting revolution.

Last month, we learned that Ford and Hyundai had bought giga presses from Italy's IDRA Group, the same company that supplies Tesla with massive die-casting machines that churn out large pieces of vehicle underbodies for the Model Y and Cybertruck. The report from Reuters noted that there was a third automaker that bought two giga presses. While nothing was confirmed at the time, unnamed sources told the news agency that the company could be Volvo Cars. It turns out the report was accurate because IDRA Group confirmed the transaction on its LinkedIn page yesterday. The company said it was awarded a contract by Volvo Cars for two 9,000-ton giga press machines – the largest model IDRA makes – that will be installed at the automaker's future electric vehicle factory in Košice, Slovakia.

"These state-of-the-art machines are set to revolutionize the automotive manufacturing industry and position the brand's new plant in Košice as a strategic hub for Giga Casting," IDRA said in a statement.

Press Review



By [Zachary Visconti](#) 

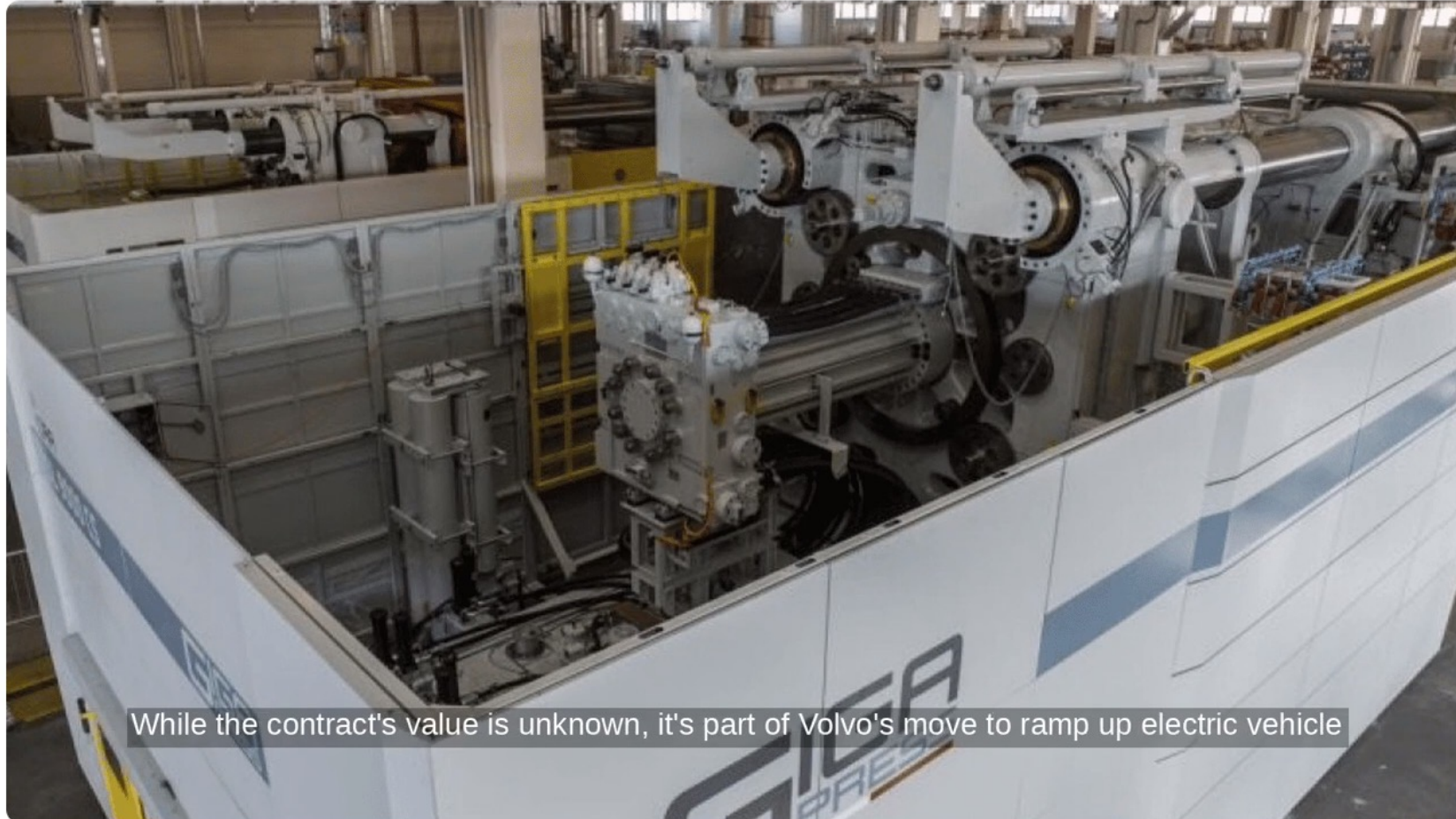
Posted on November 11, 2023

Tesla's Giga Presses continue to catch on with other automakers shifting to electric vehicles (EVs), as the company's casting machine supplier has just announced a new contract with Volvo.

Italian casting machine manufacturer IDRA announced a partnership with Volvo in a [press release](#) this week, with the company set to install two 9,000-ton Giga Presses at the automaker's Košice, Slovakia factory. The casting machines, originally developed for Tesla, have also been adopted recently by [Ford](#), [Toyota](#) and [Volvo owner Geely](#).

Volvo Acquires Tesla-Like Giga Press for Future Evs - published by YouTube

<https://auto.economictimes.indiatimes.com/news/passenger-vehicle/italys-idra-wins-volvo-cars-contract-for-largest-casting-machine/105081923>



While the contract's value is unknown, it's part of Volvo's move to ramp up electric vehicle

"Volvo Acquires Tesla-Like Giga Press for Future EVs"

 UON News EV
671 Abonnenten

Abonnieren

 1



 Teilen

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13.11.2023 | Automobilproduktion | Nachricht | Nachrichten

Idra beliefert Volvo mit Gigapressen

verfasst von: [Christiane Köllner](#)

Zwei 9.000-Tonnen-Gigapressen von Idra kommen bei Volvo Cars zum Einsatz. Geliefert werden sie in die Slowakei.



Gigapress von Idra
© Idra S.r.l.

Der italienische Maschinenbauer Idra Srl hat von Volvo einen Auftrag zur Installation von zwei 9.000 t schweren Gigapress-Maschinen auf der Greenfield in Kosice, Slowakei, erhalten. Die Druckgussmaschinen sollen das Volvo-Werk in Kosice als strategisches Zentrum für Giga-Casting positionieren.

Giga-Casting oder auch [Mega-Casting](#) genannt ist ein Druckgussverfahren zur Herstellung von



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www.idragroup.com