Request for Quotation

Scrap Recovery Device

for A5U FUEL BOTTOM REINFORCEMENT

for the Blanking Line 5

at Cassino Cold

Stamping Press Line Engineering

Stamping Process Engineering Division (SPE)

Table of Contents

1. Preface

As part of the A5U project assigned to the Cassino plant, one scrap has to be recovered during the blanking of the side panel blank on the Blanking Line 5 at Cassino Cold stamping plant.
This specification describes the needs for the design, manufacturing, delivery, and commissioning of a scrap recovery device.

We expect that all items of the present specification are taken into consideration when elaborating the bid to be submitted. Hence submitted bids can only be processed if they are complete. Moreover, the offer must contain a detailed description as well as system drawings.

Any deviations from the specification should be marked in writing, stating the line number concerned.

The bidder is welcome to suggest any improvements that reduce the cost and improve the function of the equipment.

We can only accept quotations from bidders who present corresponding references of the respective equipment.
If the contractor has no technical service centre (for mechanical and electrical matters) in Italy, an after-sales-service plan will be required. The plan must include a contract certification with a service company and information of the timing for support, phone numbers etc.

For any technical questions, related to the design, please contact the responsible department Stamping Press Line Engineering (SPLE) at Ruesselsheim:

Philipp Leonard Einhaus
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Mail: philippleonard.einhaus@stellantis.com

Timing

Delivery and installation at plant Cassino Hot	CW 50/24
Final acceptance	CW 10/25

Together with the offer the contractor shall provide a detailed timing chart showing his milestones.

2. Guidelines and Standards to be observed

The scrap recovery device has to be CE certified, a risk analysis is required, while residual risks shall be remedied as best as possible.
The contractor commits to work (design, installation, and documentation) according to the following guidelines and standards:

- Machinery Directive 2006/42/EG including amendments.
- Electrical Equipment Directive 2014/35/UE
- Italian Aw Decree 81/8 and integration (health and safety at work)
- Fiat Standard 9.70106/00 ed.2008 “Regulations for the supply of industrial machinery”
- Norm CGA.02 "General conditions of purchase"
- Norm 9.01110 last edition "General conditions of contract"
- All current valid European community standards and laws as well as all current National standards, laws, and regulations
- All valid harmonized European Standards, ISO, EN and IEC norms
- Risk analyses according EN ISO 14121-1 including calculation of Probability of dangerous failures according EN ISO 13849-1, discovering and documentation of dangers, selection and implementation of safety categories depends on each case on a risk assessment
- Compliance of all used equipment and material with Italian regulations and technical regulations (Safety of Machinery and Equipment, EMC, etc.)
- Only silicone free material must be used.

It is the Supplier's responsibility to carry out the work in full compliance with the regulations in force referred to the FIAT 123-07 procedure. It is the Supplier's obligation to verify on site the possibility of carrying out the requested work, to assess the extent and/or any difficulties that require other specific works or means, assessing the burden and considering it in the offer phase after reporting in the offer technique. To carry out the work, the Contractor must have work equipment and vehicles that are perfectly suitable for the work to be performed and comply with the accident prevention regulations set forth in the contents of the Fiat procedure 123-07

attachment S1. Regarding internal provisions, companies and self-employed workers are required to obtain information from the Technical Services about the presence of any risks in the area of operation and provide their Collaborators with the appropriate means of protection in compliance with current regulations. The use of equipment, third-party scaffolding and workshop overhead cranes is prohibited, unless explicitly and specifically authorised. All manoeuvres on equipment in service must always be performed in the presence of the Customer's personnel. The works may be developed according to the contractor's criteria, considering the Client's needs and timing.

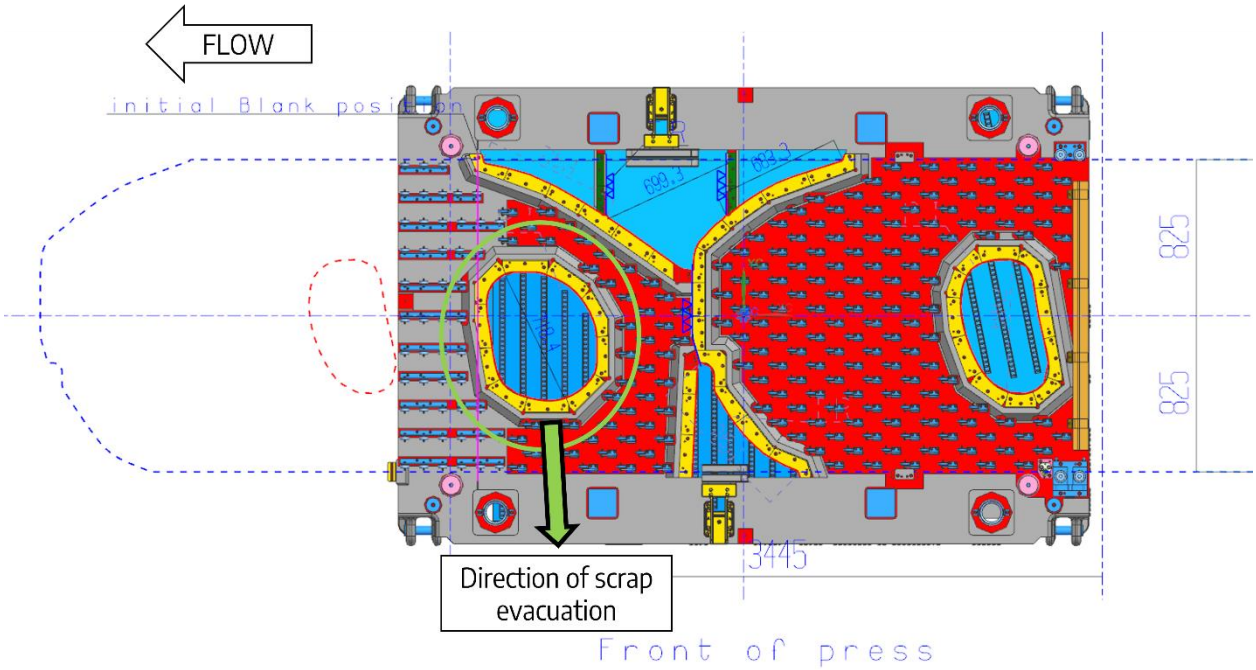
Note: Parts and components of the contractor can only be used if they can be procured without any problem in Italy.

3. Scope of delivery

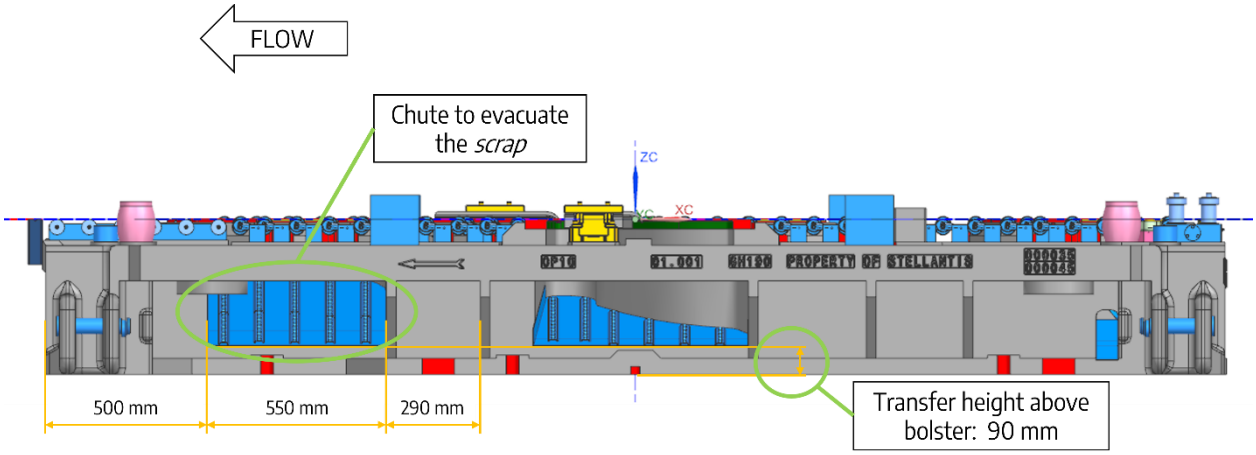
Process description:

The Blanking Line 5 is located in the Cold stamping plant of Cassino. For additional pictures please refer to the attachments.

During the blanking of the A5U sidepanel on this blanking line several scraps are cut from the blank and fall into scrap chutes in the front and rear of the moving bolster. The picture below shows a top view of the blanking die. To increase the material utilization rate the front door scrap (circeled in green; now referred to as *the scrap*) has to be recovered for further processing.

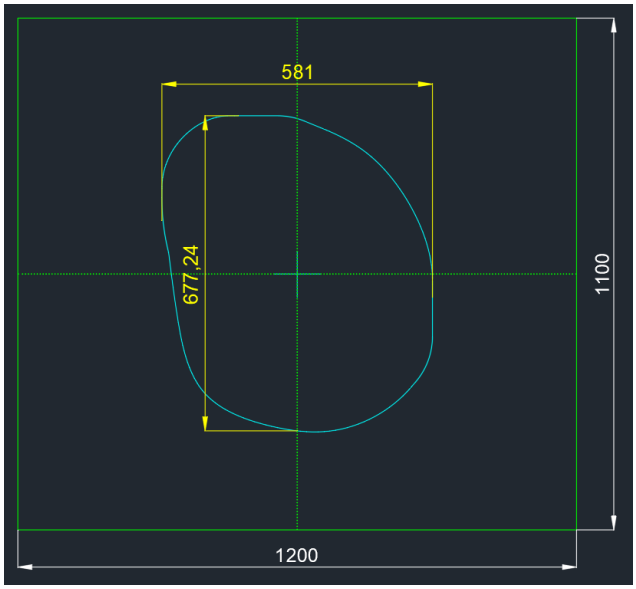


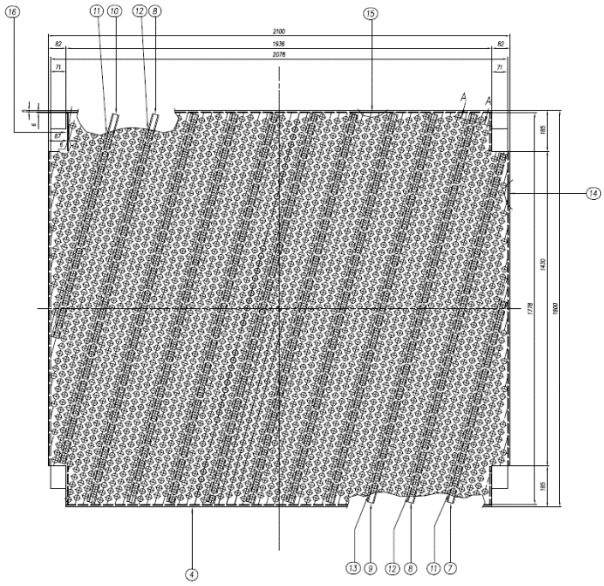
Cut off from the blank *the scrap* falls onto the roller tracks inside the die. Powered by gravity it moves to the front of press.



The scrap recovery device must take over *the scrap* at this handover point, convey it through the lifting gate and stack it on a blank pallet outside the press.

Multiple scraps must be stacked on a new pallet type with a footprint of 1200x1100. The left picture shows the dimension of *the scrap* and its position on this pallet. The right picture shows a comparable pallet type with a different footprint of 2100x1800.





Scrap recovery device

Our request consists in the manufacturing and the integration of a scrap recovery device identical in its design to that which is in operation in Mulhouse. Necessary adjustments for the recovery of only 1 scrap whose dimensions and position on the pallet are indicated in the previous pictures must be taken into account.

Furthermore, and deviating from the template the complete scrap recovery device must be craneable.

The studies attached to this specification do not consider the latest improvements carried out on the Mulhouse site, a visit to Mulhouse will therefore be as beneficial as a visit at Cassino.

Pictures show the scrap recovery conveyor at Mulhouse…

… and the rotating device.

<u>Option 1: Sliding plate</u>

Please offer a passive sliding plate (roller tracks, etc.) as an alternative to the active conveyor (identical to/adapted from Mulhouse). The sliding plate takes over *the scrap* at the edge of the die. Powered by gravity the blank moves through the lifting gate and is guided onto the blank stack.

Hardware modification

Any hardware modifications required for the integration of the Scrap Recovery Device to the line is part of scope. Please check the attachments for further pictures and consider a visit to Cassino.

This particularly concerns the modification of the lifting gate.

Controls integration

All PLC changes (including safety PLC) and modifications of the HMI that are required for production with the scrap recovery device are part of scope.
For HMI please copy the concept of Mulhouse or offer a simpler alternative as this conveyor will only be used for the A5U sidepanel blanking die.
For reference, please see parameter No. 4 “With Scrap Recovery Device” in the below screenshot of the HMI at Mulhouse.

Media Supply and interfaces

The supplier must install the necessary sockets at the front of the press:

- Power supplier (CEE 400 V)
- Interface between press and conveyor (HARTING socket)

For example, in Mulhouse P76XS11 + P76XS12:

Inventory of documentation

An inventory of the line documentation is part of scope. It shall ensure that all the documents required for the project are in line with the existing documents.

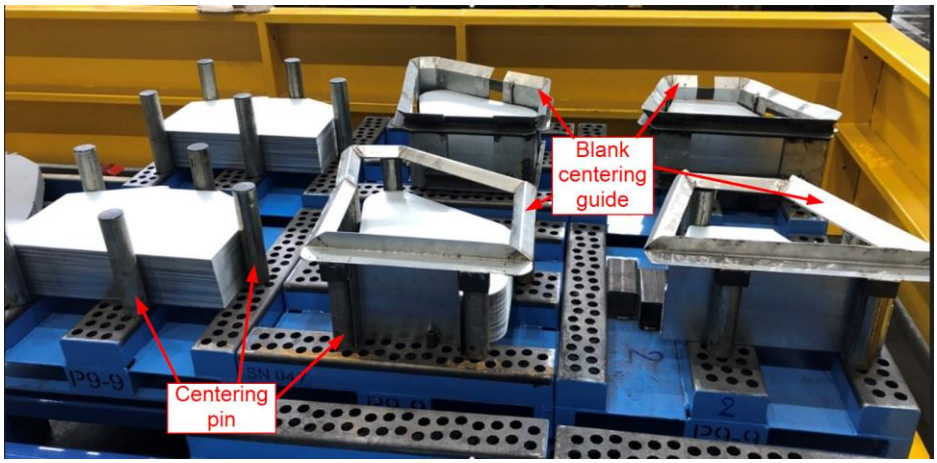
Production assistance

One week of commissioning and start up assistance during day shift (early shift or late shift) is part of the scope.

Blank centering guides for blank pallets

The purpose of the blank centering guides is to reliably centre the recovered blanks to create an even stack.
On blank pallets each blank is secured with centering pins. The centering guide is put on top of the pins and guides the blank that was handed over from the conveyor belt.

Blank centering guides for three blank pallets are part of the scope.



4. Documentation

The following documentation has to be delivered for the mechanized station:

- Documentation of the mechanical and electrical equipment (2 Italian copies in ring folders).
- Documentation of the mechanical and electrical equipment (5 Italian copies on CD as PDF files with links).

Content:

- Bill of materials
  - Wear and spare part list entered into the FALCON IMR template
- CE declaration of conformity and use
- Risk analysis
  - SISTEMA file to validate the suitability of the technical solution
- Operator manual
- Electrical diagrams
- Pneumatical diagrams
- Backup of PLC and HMI

5. Training requirements

The training is part of the scope of supply and has to be offered in Italian/English. During this training the staff shall be informed about all relevant aspects for safely operating and maintaining the equipment.

6. Delivery

Delivery of the complete equipment, freight and packing paid, to the place of installation, including complete installation and commissioning, finish painting and start of operation.
If a mobile crane should be required for assembly, this must be organised by the supplier.
Any kind of transportation or lifting aids (e.g. fork lifter trucks) can't be placed at the contractor's disposal. Additional costs for transportation and installation are not acceptable.
An overhead crane with a carrying capacity of 32 tons can be used in case of availability. A claim for using the overhead crane doesn't exist.

7. Project Management and Project Execution

The contractor has to:

- Nominate one project leader for the complete project
- Guarantee that the named personnel accepted by the customer will be available for the entire duration of the project
- Organize and control the executed work
- Integrate all planning activities between the contractor, SPLE and the press shop
- Provide the timing schedule and update it, if necessary
- Provide methods to evaluate and control the progress in accordance with the given schedule
- Make sure that all changes after ordering have to be approved in writing by Stellantis
- Establish the qualification of the sub contractors
- Show potential cost savings
- Hand over a complete documentation at the end of the project of all delivered equipment and changes

Stellantis will organize an official acceptance according to FCA procedure, which is required for the payment.

8. Translation

The project language is English / Italian. All main documents shall be provided in English / Italian. In addition, all technical information, drawings, operation manual and maintenance manual shall be translated into English and Italian.

9. Pricing and terms of payment

All prices are fixed and shall be indicated in your manufacturing home currency.

Item	Costs
Scrap recovery device	
Total	

Date _____ Signature _____ Printed name _____