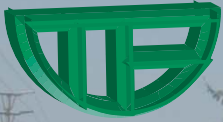


# Paris Metal Manufacturing Ltd.

APPLYING SOLIDWORKS® SOFTWARE AND 3DQUICKPRESS® TO IMPROVE PRODUCTIVITY

<http://www.pmml.com.hk>



from left  
Andrew So, Director of PMML  
Icarus Li, Manager of ICT



CAD Support delivered by Vincent Li, ICT

## ▶ Company

Paris Metal Manufacturing Limited is a Hong Kong based company manufacturing precision metal stamping dies and parts. Established in 1984, the company strives hard to continuously improve the business to satisfy their customers' needs. In 1991, Paris Metal expanded their business and set up a new plant in Guangdong, China. Based on their faith of continuous improvement in quality, their customers expressed their trust and lead them to be a more competitive company.

Paris Metal provides precision metal stamping parts to different industries like toys, watches, electric appliances, electronic consumer products, medical products, clothing, etc. To reduce the cost for their customers, they have developed proprietary automatic and semi-automatic production lines and equipments. Apart from metal stamping parts Paris Metal also manufactures precision stamping dies for local and foreign customers. Their design and engineering teams work with innovative ideas and design multi-material stamping dies for automatic assembly optimization.



## The need for change driven by management

## ▶ Management shares the vision

Director of Paris Metal, Andrew So said, "From Year 2000 onward, we received 3D files from customers more and more. To serve them better, we decided to use 3D to do tool design directly on their 3D product data. It was only a matter of time when we needed to upgrade ourselves to use 3D to roll out metal dies. We chose April 2010 to focus the company resources on using 3D plus SolidWorks® Enterprise Product Data Management System (EPDM). Today there are not many 3D die designers in the China employment market. We need to train up young engineers to use the systems ourselves. The reason why we chose SolidWorks® as the 3D platform because of the availability of 3DQuickPress on this platform. The two combined to be a more preferable and usable 3D tool design system in our context.



After 5 months of using 3DQuickPress, it brings us much convenience in the planning and verifying the tool design. Whenever design changes occur, the automatic propagation of changes from part to tool drawings save us a lot of time. It allows our engineers to focus on design than 2D drafting which used to spend them tremendous time. Three projects have been completed and we identified more projects which will reveal the true power of 3D tool design through practicing 3DQuickPress.

One thing I need to mention. The support from ICT makes notable difference. Our 3D experience was minimal. Applying 3D tool design plus the implementation of SolidWorks® EPDM posed a major challenge to Paris Metal. The non-stop dedicated support delivered by ICT's technical team brought our tooling engineers confidence to finish the jobs all in SolidWorks®-3DQuickPress platform. In our trade, confusion of engineering data is very common caused by frequent design changes and customer modification. There is lot of data related to the tooling. SolidWorks® EPDM just fits in this important role. It consolidates all the engineering data in a single portal in the company network. Everyone can share the data he needs to accomplish his job. This reduces a lot of errors thus overall tooling cost can be reduced."

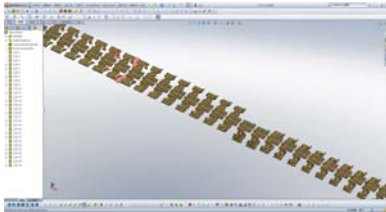
### Implementation Approach

Assistant General Manager Mr. Xian-You He added, "We chose engineers who have no background in 3D die design nor metal tooling experience. This will also allow us to have a full understanding on the whole learning process. After using 3DQuickPress, we found a die typically requires 6 to 7 times trial out now needs only 2 to 3 times for a young tooling engineer. At the early stage of using 3DQuickPress we needed to learn 3D design and build up our factory custom libraries, this led to longer time than 2D. After we finished this stage, we are enjoying tool design especially dealing with frequent changes. Also we have more time to seek for better tool design than wasting time on 2D drafting. In regards of implementing SolidWorks® EPDM, we managed to have the quick start within a month. Of course, to make the system completely fit into our factory environment, it will take longer. After the last 6 months of applying 3DQuickPress in SolidWorks® EPDM environment, we have 20% of our jobs completed by 3D design. According to this trend, we may foresee the figure will reach to 80% by next 2 years."

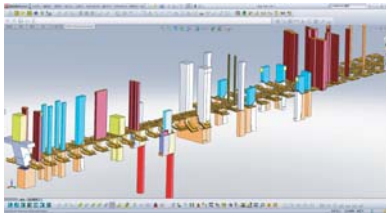
- ▶ Imported CAD model from other systems



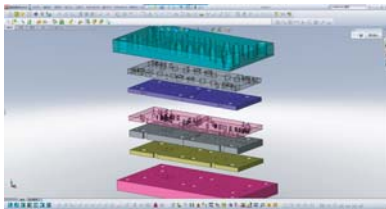
- ▶ Strip layout design



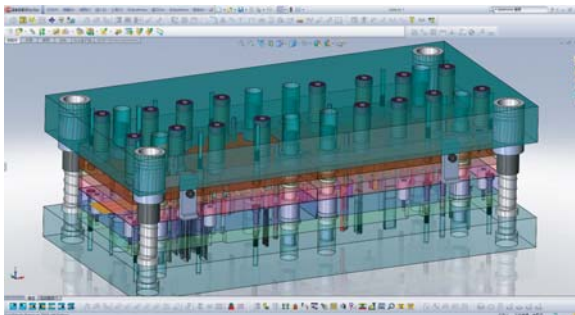
- ▶ Punch design



- ▶ Die set design



- ▶ Complete 3D die design with all details



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