



## SUCCESS STORY

at TORUN Group / Turkey

Name Ahmet TORUN  
Function Chairman of the Board

### INTRODUCTION TO OUR COMPANY

TORUN was founded in 2000 in Istanbul, Turkey. TORUN is a subcontracting company of machined items made of brass, aluminium and stainless steel. TORUN is specialized in high- and low-pressure die casting, machining and bar turning, cutting tool and forging die production, hot forging, automation and robotics. With its wide product range, TORUN supplies various customers active in the automotive, aerospace, defense industry, air conditioning and other large industrial sectors.

Servicing 170+ customers worldwide, TORUN Group generated sales of \$75M in 2018 with its 700+ skilled employees and state-of-the-art production facilities. Historically present in Turkey with a R&D center and two production facilities, TORUN Group has been continuously expanding its geographic footprint with manufacturing facility in Czech Republic, trade and logistics centers in Italy and Germany, and warehouses in Germany, Hungary, Italy, Czech Republic and in the US.

TORUN Group and its expert staff aim to be one of the most preferred suppliers in the category of high-quality precision metal products not only in Turkey but also in the world. To do so, TORUN Group relies on years of experience and dedicated staff who is continuously trained at the TORUM Academy.



### TORUN HPDC CAPABILITIES

The TORUN DIE CASTING branch was founded in 2016 and specializes in manufacturing aluminum and magnesium high-pressure die casting parts for the automotive, aerospace and defense industries. The aluminium modern high pressure die casting machines, equipped with FONDAREX vacuum systems, range from 600 to 1300 tons and are able to cast parts from 80 grams up to 8 kilograms.

Since 2019 TORUN DIE CASTING has also been casting complex magnesium parts with tight tolerances and critical visible surface with both hot and cold chamber die casting machines.

### HOW DO TORUN AND ITS CUSTOMERS BENEFIT FROM OPERATING VACUUM?

In TORUN DIE CASTING operations, vacuum has been used for a while to provide the end-users with the best quality castings. Over the past 20 years, complexity of the parts and market specifications have significantly increased. Customers require casting parts without air entrapped and with different walls thickness. To meet these highly demanding specifications, TORUN designs its dies by combining calculation and multiple simulations to achieve optimum results. In this pursuit of excellence, the expert staff of FONDAREX is supporting TORUN by performing application studies to ensure optimum integration and performance of the vacuum system in the high-pressure die casting machine.



## THE CASE STUDY

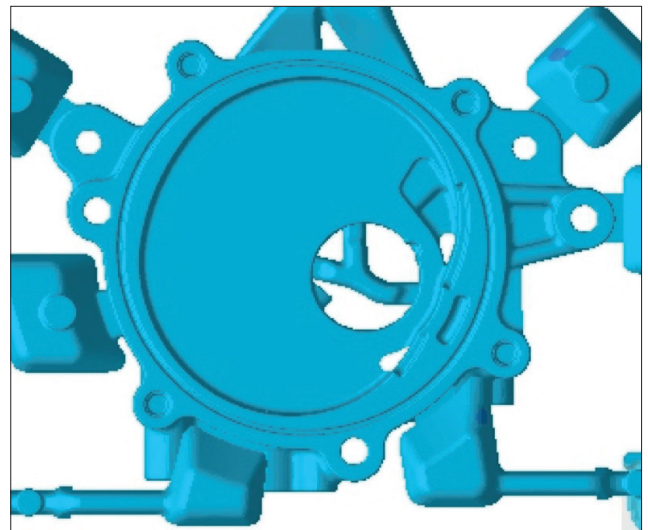
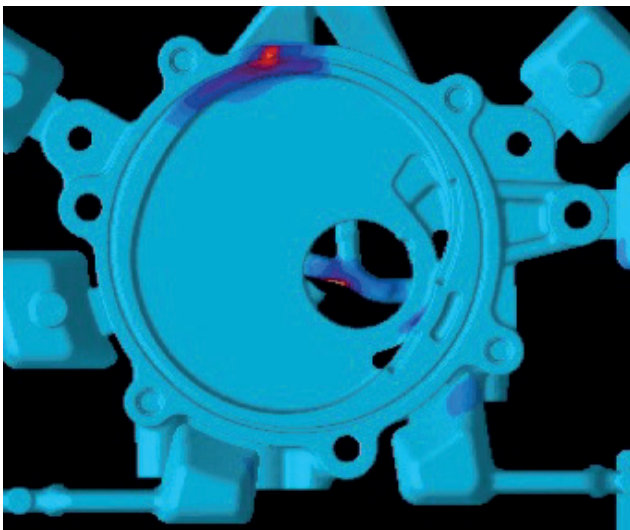
TORUN's aluminum housing part is casted by Vacuum Die Casting operation. Without vacuum, reaching both porosity requirement and desired mechanical strength values are almost impossible. To achieve that, FONDAREX vacuum units are in service at TORUN.

## WHY THE CHOICE OF FONDAREX AS PARTNER FOR VACUUM?

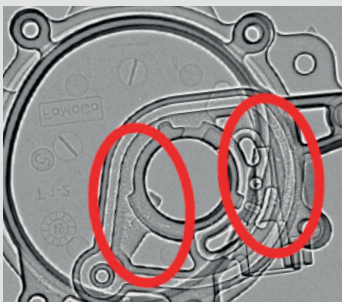
FONDAREX provides us with their leading vacuum technology and the effectiveness of their technical support.

**„THANKS TO THE FONDAREX VACUUM UNITS, VALVES AND CHILL-BLOCKS, WE CAN ACHIEVE THE BEST CASTING QUALITY IN THE MOST EFFICIENT MANNER TO SATISFY THE HIGH DEMANDING REQUESTS OF OUR CUSTOMERS.“**

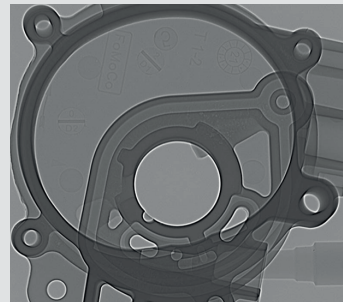
## SIMULATION OF ENTRAPPED AIR MASS



## X-RAY ANALYSIS



Without  
vacuum  
process



Vacuum  
operation  
activated