



CASE STUDY

INVESTMENT CASTING

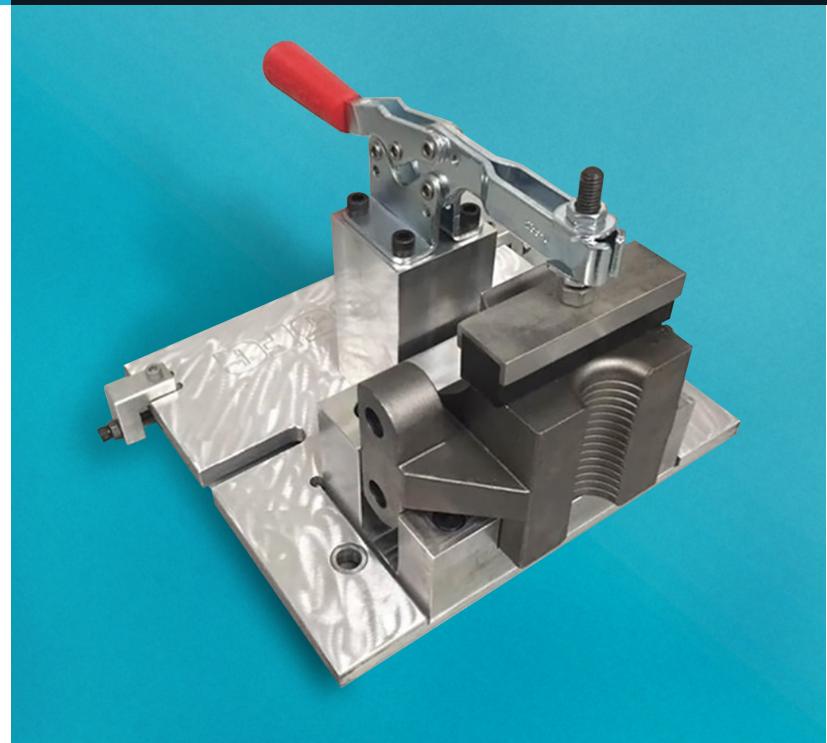
Size: 32 lbs | Alloy: CF8M

*Notes: This one-piece casting eliminated the need for costly and time-consuming fabrication.

Pipe Pushing Block

The original casting design had a feature that was too thick creating clearance issues when assembled with the mating part. The permanent fix for the casting would be to modify the tool, but due to costliness of the tool modification as well as the time frame in which it could be completed, the client was not able to modify the tool.

TPM suggested the design and creation of a grinding fixture built in house at TPM that would be used for grinding the excess material off of the part after the casting process was completed via a TPM grinding machine. The fixture was 3D modeled and designed by a TPM engineer through the use of SolidWorks CAD, built via the TPM in house tooling center, and tested for fit and functionality before the production investment casting order was complete. This removed any



downtime of the production order associated with tooling work. The picture above shows the fixture built at TPM with the appropriate casting inserted.

TPM saved client time and money by building the grinding fixture in-house via TPM's tool center. Saved the client the cost of modifying the wax mold, provided functional parts, without having to wait for tooling to be built, and helped the client provide parts to his customer on-time.