



... move with the times

Wescast is a foundry group and largest global manufacturer of cast exhaust manifolds and turbocharger housings for passenger cars and light trucks. With a European market share of 38%, **Wescast** is a key player in this industry.



When GEMCO engineered and built the **Wescast Hungary Autoipari Zrt** foundry in 2000/2001, in Oroszlány, Hungary, the facility with greensand moulding line and a capacity of 73.000 MT/Y was destined to produce larger series of CGI and SiMo metal castings. However, under [often] changing market demands, **Wescast'** customers also need to be served with smaller series and -very subject to trend- customers also ask for special steels/alloys. Their focus on continuous improvement includes researching new materials in order to achieve higher standards in product quality. At present the portion of special alloys is increasing in overall production and is being produced on a secondary line for smaller series. However, it is expected that in the future the demand for special steels will further increase up to 40-50%.

Wescast, Oroszlány, as built in 2001. Foundry and machining facility, produces: Exhaust Manifolds, Turbocharger Housings, Integrated Turbo-Manifolds

The changing market conditions imply that **Wescast** take the required measures so to optimize its production facilities and to reinforce its strong reputation. **Wescast** asked GEMCO not only because it built the foundry and would therefore be very familiar with the plant and because of its broad experience in the field of material traceability and handling but also, and maybe foremost, because GEMCO approached the subject with a very open mind and presented new idea's for this line.

Due to the increasing level of special alloys being produced in the foundry there is a growing necessity for optimization of separation of the different [return] metals -in order to avoid contamination- and its traceability. Also, since the secondary line was not originally designed for higher production speeds and capacity - it was originally designed as a sample line- it is now subject to review the line's shake-out, the casting cooling system, the shotblaster and de-gating, tramp- and return material handling, all in order to fulfill the sought after increased speed and capacity on that line.

After Gemco - always in close cooperation with Wescast - defined and evaluated the solution for the After-Cast Process, the "separation of tramps and return", resulted in:

- 2 sand flows (one for special steels and one for iron)
- 2 casting flows with gentle shakeout, sand screening and casting cooling/ shotblasting (iron and steel)
- 2 specific tramp metal separating systems (iron and steel)
- separate steel return handling system, including traceability of returns in scrap storage

The optimization works are [to be] performed in a live environment. The realization is done in phases. Project "GEMCO 1" of this transition has been completed, encompassing: new shakeout, sand- and tramp-transport, and a new separation system.

