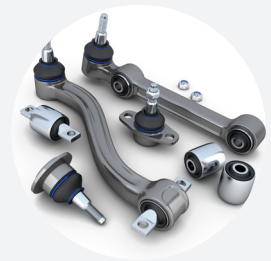




Direct quenching of hot forged parts

APPLICATION

- Replacing Q&T steels for **hot forged parts**.
- Components of small or medium thickness **with quenching and tempering characteristics**: suspension arms, steering housings, steering ball studs, connecting rods, camshafts...



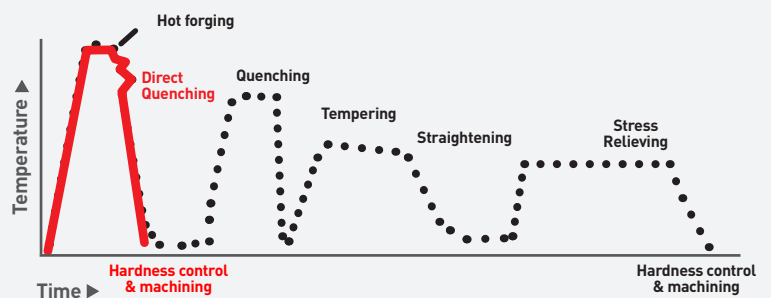
ADVANTAGES

Elimination of process steps

The required mechanical properties are obtained with a direct quenching after forging

Reduction of manufacturing costs

Increased productivity, advantage of the forging heat, lower risk of quenching cracks



APPLIED TECHNOLOGY

- Application of metallurgical knowledge to ensure the required characteristics with a direct quenching:
 - Good toughness and ductility associated with **low carbon content martensite**.
 - Addition of elements that **increase the hardenability** as Mn and Cr, in addition to an adequate level of active B.