1823

Skills and Proficiencies

Centrifugal casting Positive wax model is made using a negative silicon mould; several models are combined into a casting tree; casting tree is cast in plaster; wax is melted out, cavity is filled with liquid metal; centrifuge distributes liquid metal in mould; plaster mould destroyed during process.	• Elaborate technique suitable for small lot sizes and custom-made production • Reasonable mould costs • Silicone moulds reusable • Precise and neat, requires little refining • Optimal ratio of cost and precision
Sand casting Wax sample is pressed in sand and molten out; resulting cavity is grouted with liquid metal; single-use mould; labour-intense finishing.	• Very simple technique • Used for large and simple pieces • Very little detail • Rarely used by Lobmeyr
Die casting Liquid metal is grouted into a steel mould under high pressure; two-part or multi-part form; minimal finishing required (flash)	• Very expansive technique, • Reusable moulds • Very precise • Rarely used in chandelier manufacture
Turning Metal cylinder rotates around its longitudinal axis; steady blade cuts a contour along the axis; lathe types: entirely manual, mechanical contouring lathe, fully-automatic CnC lathe	• Method suitable for solid rotational objects • Great freedom of design and easy reproducibility (depends on lathe type) • Valuable, heavy pieces
Spinning Sheet metal disc rotates on a lathe; starting at the centre metal is pressed onto a wooden chuck; spinning dist is gradually curved by accurate force.	• Fairly economical method for hollow rotational objects • Models are reusable • Mould for converging shapes can be highly expansive
Embossing Stamp of steel used to hammer pattern into sheet metal; single patterns or repeating patterns.	• Very time-consuming • Requires considerable skil • Suitable even for very small numbers

Chasing Surface is processed extensively; puncheon (= small steel stamp) used to emboss large surfaces	• Very time-consuming • Requires considerable skill • Often imitated through casting • Creates a very lively look
Knurling Metal part turned in lathe; edge of patterned steel wheel pressed against rotating piece; craftsman hears and feels right moment to slew wheel across work piece; pattern is embossed into the metal	• Requires highly skilled craftsmen • Steel wheels are antiques themselves • Creates continuous pattern without border
Hammer stroke finish Sheet metal is beaten on a steel block using a small steel hammer; surface is extensively hammered; typical dented finish; also suitable for solid pieces of metal.	• Beautiful organic texture • Very time-consuming • Requires high skill and precision • Common in Jugendstil style
Repoussé Continuous hammer strokes warp sheet metal into desired shape; into or over wooden model, into a block of tar or freehand on an ambos.	• Suitable for individual pieces • Very time-consuming • Very elaborate technique, requiring considerable skill, experience and precision
Drawing: Positive and negative mould made of steel; sheet metal pressed between moulds with very high force.	• Low unit costs, high model costs • Suitable for serial production only •
Sanding and polishing: Technique is cornerstone of Lobmeyr's standard manufacturing techniques; sanding belts and discs made of sanding paper; sanding discs made of felt and flax; grinding compound made of minerals; seal surface, neaten traces of tools.	• Should always be carried out ("primes" the surface) • Required for solder joints, flashes, rough castings … • Often neglected despite great effectiveness
Filing: Filing by hand; suitable for small and filigree work pieces.	• Simple technique • Foundation of careful processing • Often neglected despite high effect