



PROFILE

190 YEARS OF TRADITION, CRAFTSMANSHIP AND EXPERIENCE

VÍTKOVICE HEAVY MACHINERY is a traditional Czech company that originated at the birth of the metallurgic industry in Vítkovice. Along with the decision to establish an iron works in 1828 by the Archbishop Archduke Rudolph Johann of Habsburg, a machine shop was also established in Vítkovice to make steam engines, bridges, railway cars, mining tools and furnace machines.

Since then, our vision and experience in the area of heavy machinery and power industry have expanded over to investments and development projects on a global scale.

Thanks to the in-house steel production, the manufacturing portfolio includes products for a wide range of industrial fields, from complex engineering deliveries of investment units for the power, steel and mining industries, to precisely-machined forgings and castings for the power industry, shipbuilding, steelworking, cement, mining and oil&gas industries, as well as deliveries of raw ingots, forged bars and rolled tires for railway and tram vehicles.

COMPANY MILESTONES

1828

ESTABLISHMENT OF IRON WORKS

Proclamation issued by the Archbishop Archduke Rudolph Johann of Habsburg

1850

MACHINE SHOP ESTABLISHED

The company expanded its production portfolio to steam engines, mining machines, blast furnace equipment, profiles, beams, railway wheels and switches.

1876

APPOINTMENT OF PAUL KUPELWIESER AS CEO

Kupelwieser expanded the company's production capability by adding the copper and pipe rolling mills, production of naval armor plates and transformed Vítkovice into a city of unique architecture and advanced social structure.

1897

SHIPBUILDING PROGRAM

The first Vítkovice crankshaft was manufactured for the battle cruiser Habsburg belonging to the Austrian-Hungarian Navy.

1932

GREAT DEPRESSION

Despite the worldwide economic crisis, Vítkovice Machinery pulled off some remarkable projects such as a 234m bridge over the Old Dnieper river, a spherical gas tank in Prague-Libeň, as well as the rotary bridge over the Milgravis river.

1945

NATIONALIZATION

The Ministry of Industry issued the nationalization order on October 27, 1945 and changed the company's name into Vítkovické železářny ("Vítkovice Iron Works"), later changed to Těžká mechanika ("Heavy Machinery")

1957

PRODUCT INNOVATIONS

- First vacuum steel ingot cast
- First compound crank-type shaft manufactured

1967
–
1970

DELIVERY OF THE CENTURY

Heavy Machinery completed the delivery of the century involving a number of key components for the 3.6m KVARTO rolling mills for the Ždanov metallurgical plant (Russia).

1978

CIVILIAN NUCLEAR POWER PROGRAM

The first nuclear power plant components produced (steam generators and volume compensators).

1992
+
2003

ESTABLISHMENT OF VÍTKOVICE a.s.

January 31, VÍTKOVICE re-established as a joint-stock company.

VÍTKOVICE HOLDING

The majority of VÍTKOVICE, a. s. shares acquired by LAHVÁRNA OSTRAVA led by Ing. Jan Světlík

2019

VHM GOES IT ALONE

Dissolution of Vítkovice Group (2018). Arrival of a new investor CE Industries enables VHM to successfully emerge from its court-ordered insolvency proceedings and resume normal operations.

UNIQUE COMPLEXITY

STEELWORKS

Electric Arc Furnace technology is completed by secondary metallurgy equipment. Thanks to our ladle refinery process, we are able to meet even the most challenging demands of our customers. The steel quality and steel grade according to EN, ASME, PNAEG and other regulations and norms applied in the nuclear power sector are second to none. We produce 200,000 tons of steel per year and are capable of manufacturing ingots weighing of up to 200 tons.

FORGING SHOP

The 12,000-ton forging press is equipped with a state-of-the-art, 160-ton manipulator. This combination gives us a significant competitive advantage. One of the biggest open-die technologies in Europe enables us to produce shafts of up to 25 meters in length and rings of 6 meters in diameter with weight of up to 123 tons. Our high- quality heat treatment process includes annealing, quenching, and tempering.

FOUNDRY SHOP

Together with our in-house pattern shop we are one of the most respected producers of large sized castings in the continent. Our vast experience and unique know-how is accompanied by cutting edge software and computer aided modelling and design techniques. This progressive technology allows us to meet the strictest technological demands pushing the limits of engineering further than ever before. Our steel castings can be 14 x 8 x 4 meters in size and 170 tons in net weight.

MACHINING SHOP

Imagine 180 working machines located in 8 factory bays with a total area of 100,000 square meters! It is one of the biggest machining shops in Europe. Our machine portfolio holds lathes with a turning length of up to 30 meters, carousels with a machining diameter of up to 18 meters, and milling machines capable of machining pieces of up to 15 meters in length. The overall annual capacity of the machining shop is about 1 million production hours.

ASSEMBLY SHOP

27m vertical clearance and the lift capacity of 440 ton. Both enable us the freedom to assemble very large and complex industrial units with built-in pipelines for different pressure media, electrical wiring circuits and other necessary parts. MAG, TIG, ROS welding is completed by narrow gap welding technology at up to a depth of 360 mm.



120 MN
FORCE OF THE
LARGEST FORGE PRESS



850 m
PRODUCTION HALL LENGTH



200+ t
MAXIMUM INGOT
WEIGHT

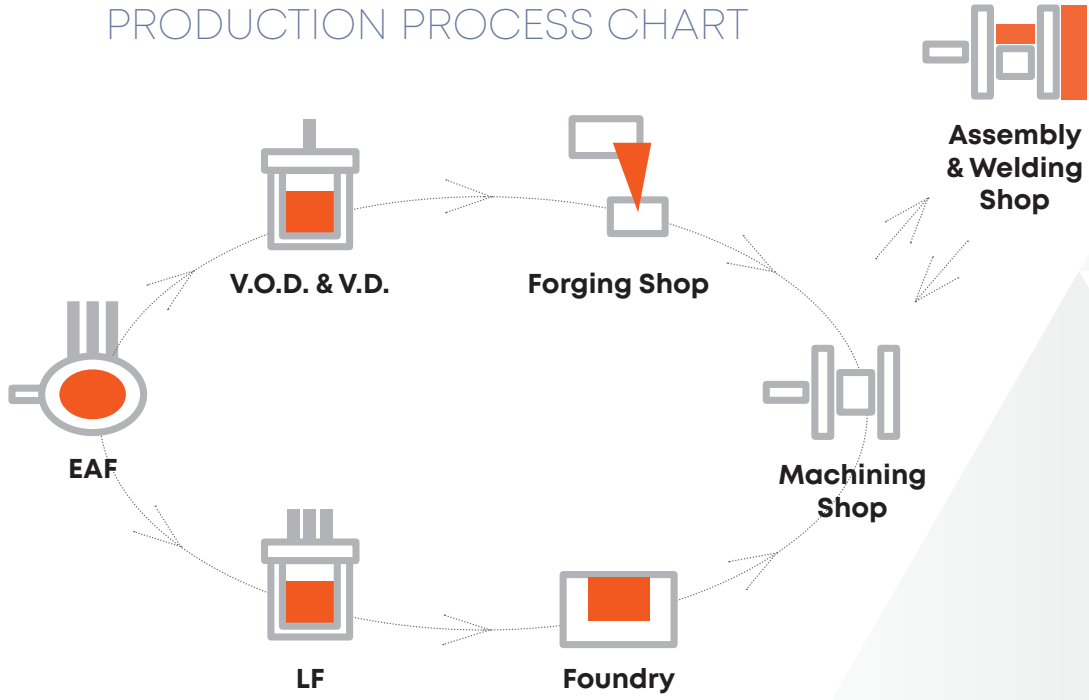


80,000 t
WORTH OF FORGINGS
ANNUALLY



170+ t
MAXIMUM CASTING
NET WEIGHT

PRODUCTION PROCESS CHART





PRODUCTS

INGOTS

EUROPEAN SPECIALIST IN THE FIELD



200 t
MAX. WEIGHT



45+
BASIC INGOT TYPES



4
SHAPES
Polygonal, circular, hollow, square

VHM is one of the most significant European ingot manufacturers. We are also one of the few European companies capable of producing ingots in sizes of up to 200 tonnes. The ingot portfolio is produced in a modernized steel mill with an annual capacity of 200 thousand tonnes of steel.

The entire steel production goes through secondary metallurgy equipment and technology, making the steel precisely according to customers' requests.

SPECIFICATIONS

MATERIALS	Steel – carbon structural; low, medium and high-alloyed, ferritic, austenitic, martensitic, duplex Over 3,500 material marks incl. modifications
INGOT SHAPES	Polygonal, circular, hollow, square
INGOT TYPES	Over 45 standard types
MAXIMUM WEIGHT	2.5 t to 200 tonnes (ingots up to 30 t are supplied for external customers)



FORGED BARS

QUICK AVAILABILITY AND TOP QUALITY



123 t
MAX. WEIGHT



3,000 mm
MAX. DIAMETER



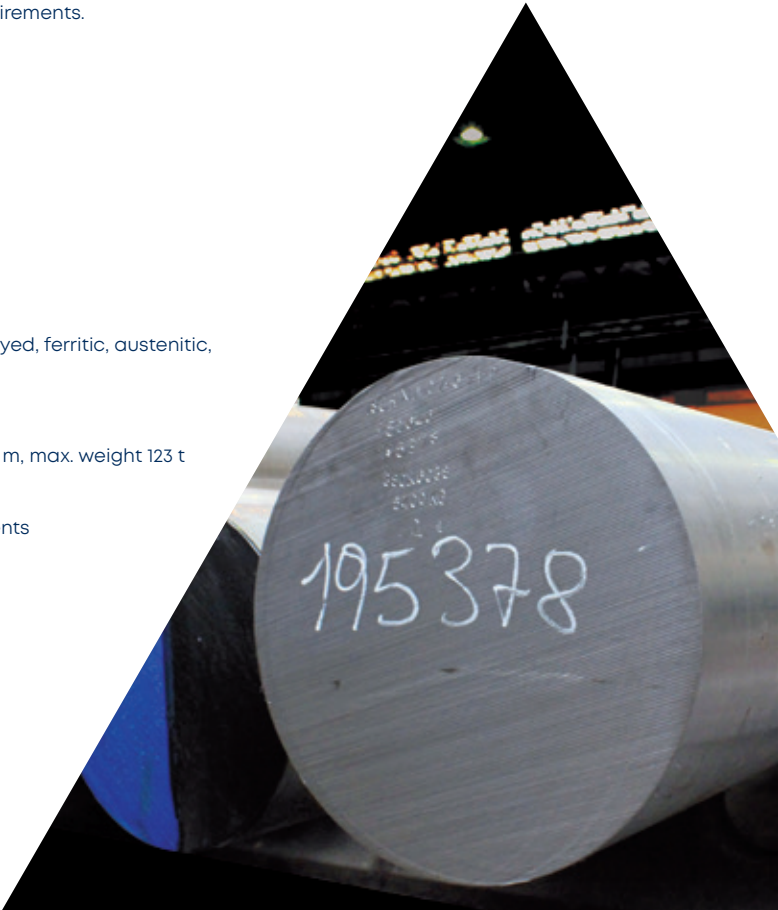
2
SHAPES
Circular and square shape

If you're looking for a reliable and experienced supplier of tens, hundreds or thousands of forged bars and blocks, VHM is the right partner for your business. Our modern and reliable production facilities allow us to produce and supply forged bars of various lengths, diameters and weights according to a wide range of international standards.

Forged bars are delivered both in forged and machined state, according to the customer's request. All this with a consistent shipping period in order to meet your demanding deadline requirements and material test requirements.

SPECIFICATIONS

MATERIALS	Steel – low, medium and high-alloyed, ferritic, austenitic, martensitic, stainless
BAR SHAPES	Circular, square
DIMENSIONS	Max. diameter 3 m, max. length 25 m, max. weight 123 t
STANDARDS	ASTM, AISI, DIN, JIS, UNS, IS and more according to requirements



ROLLED RINGS AND TIRES

RINGS FOR RAILWAYS AND INDUSTRY



1,800 mm
MAX. RAILWAY TIRE
DIAMETER



2,800 mm
MAX. OUTER DIAMETER
OF ROLLED RINGS



2,500 kg
MAX. WEIGHT OF ROLLED
RINGS

VHM is a traditional manufacturer and supplier of rolled rings and tires for railway vehicles in Central Europe. The key product in this area is specialized production of rolled rail tires for all types of railway vehicles – trams, locomotives, freight and passenger wagons.

Our rolled seamless rings are mainly used for industrial applications, such as bearing rings, crowns, flanges, crane wheels and other products of this category according to customers' requests and needs.

SPECIFICATIONS – ROLLED RAIL TIRES

MATERIALS	BI-B6, GOST, ClassDHT, S100L, Fe 740, N72, S85V and more
INNER DIAMETER (dØ)	460–1,800 mm
HEIGHT (H)	max. 160 mm
STANDARDS	Manufactured as per ISO 810-1

SPECIFICATIONS – ROLLED SEAMLESS RINGS

MATERIALS	11 523, 15 241, 17CrNiMo6, 30CrNiMo8, 42CrMo4 and more
OUTER DIAMETER (DØ)	max. 2,800 mm
INNER DIAMETER (dØ)	min. 280 mm
HEIGHT (H)	50–260 mm
WALL THICKNESS (s)	45–250 mm
WEIGHT	75–2,500 kg

Material composition and other production and testing parameters can be adapted to the customer's additional requests.



CASTINGS

TRADITION AND KNOW-HOW



120 years
LONG-STANDING
TRADITION



170 t
MAX. CASTING NET
WEIGHT



13,000 t
ANNUAL FOUNDRY
CAPACITY

Steel casting is among the oldest and most respected fields at VHM – after all, casting has more than a 120-year tradition in our company. The annual capacity of 13,000 tonnes worth of castings makes us one of the largest foundries in Europe in terms of weight and dimensions of produced castings. The castings are intended for metallurgy (rolling mills, pressing mills, forges, foundries), shipbuilding and power, cement, mining and oil industries.

We use MAGMA SOFT software to prepare and simulate the optimal production technology both in terms of weight optimization and ensuring the required internal quality of the castings. Thanks to the subsequent individual and professional preparation of casting moulds in our proprietary mould modelling and forming plants, we are able to achieve unique results and quality.

Our long-lasting tradition, modern technology and unique know-how allow us to deliver the most sophisticated orders.

BASIC SPECIFICATIONS

MATERIALS	Carbon, low and high-alloy steels
DIMENSIONS	max. 14,000 × 8,000 × 4,000 mm
NET WEIGHT	max. 170 t
SHIPMENT STATUS	Rough, rough machined, and/or finish machined for immediate usage

SUPPLIED INDUSTRIAL FIELDS



STEEL
INDUSTRY



HYDRO
POWER



CEMENT
INDUSTRY



SHIPBUILDING
INDUSTRY



OIL & GAS



ROLLING
MILLS



FORGINGS

EUROPEAN PIONEER AMONG FORGES



190 years
FORGING TRADITION
IN VHM



120 MN
LARGEST FORGE
PRESS FORCE



80,000 t
WORTH OF FORGINGS
ANNUALLY

VHM has been manufacturing and supplying forgings for over 190 years, making it one of the best known and most prestigious forging manufacturers on the market. Our forge is equipped with open-die forging presses rated at 120 MN, 60 MN and 16 MN, supplemented by the latest 160-ton manipulator. This makes for one of the largest free forging technologies in Europe, leading the market with over 80 kt of annual production capacity of forgings. Thanks to our proprietary steelworks, we are able to flexibly supply free forging material and offer an individual approach to meeting demanding delivery deadlines based on the customer's requests, as well as requirements in terms of the material type and chemical composition.

As far as the products of our forge are concerned, we produce and supply forgings in a wide weight and material range. The forged parts are delivered from raw state variants to fully machined, treated and paint-coated components ready for immediate usage.

Our forged products go on to be instrumental in virtually all fields of heavy industry – from products for nuclear and conventional power industry, wind and hydro plants, the cement and mining industry, shipbuilding, furnace and steel working industry to components for the oil industry.

Without any exaggeration, we can say that we really are world-class pioneers in the field.

BASIC SPECIFICATIONS

MATERIALS	Carbon, alloyed or stainless steels	
PRESSING EQUIPMENT	3 × Hydraulic press	120 MN
		60 MN
		16 MN
MANIPULATOR	Straightening press	100 MN
	Lifting capacity	160 t
	Clamp force	4,000 kNm
HEAT TREATMENT	Annealing, tempering, quenching and other special processes	
SHIPMENT STATUS	Rough, rough machined, and/or finish machined for immediate usage	

ASSORTMENT

	D	d	H	L	S	W
	(mm)	(mm)	(mm)	(mm)	(mm)	(kg)
OPEN-DIE FORGINGS	70÷2,800	–	–	max. 25,000	–	max. 123,000
RINGS	200÷6,000	max. 5,500	max. 1,500	–	min. 60	max. 123,000
DISCS AND CIRCULAR PLATES	200÷4,800	100÷850	min. 100	–	–	max. 90,000
HOLLOW BODIES	250÷2,800	160÷1600	–	max. 15,000	min. 80	max. 123,000

- D outer diameter
- d inner diameter
- H height
- L length
- S body thickness
- W weight

SUPPLIED INDUSTRIAL FIELDS



NUCLEAR
POWER



WIND AND
HYDRO POWER



CEMENT
INDUSTRY



SHIPBUILDING
INDUSTRY



OIL & GAS



STEEL MILLS AND
ROLLING MILLS





ONE-STOP SHOP

NUCLEAR POWER

NUCLEAR POWER IN EXPERIENCED HANDS



1978

START OF CIVILIAN
NUCLEAR POWER
PROGRAM



330 t

THE LARGEST
STEAM GENERATOR
MANUFACTURED



110 t

THE LARGEST PART FOR
A NUCLEAR POWER
ENGINE ROOM

The nuclear programme was launched at VHM in the 70s. Since 1978, which is the year of manufacture and delivery of the first steam generators and volume compensators, the portfolio of products for the nuclear power industry has been growing exponentially, focusing on the latest trends and reactor types.

Over the 40 years of being active in the nuclear power field, VHM has most importantly participated in deliveries for VVER-type reactors – namely VVER-440 V213 and VVER-1000 V320. Components manufactured by VHM can be found in nuclear plants across the world, for example, the Balakovska nuclear plant. Rostov nuclear plant, Kalinin nuclear plant, Hungarian Paks nuclear plant, Bulgarian Belene, Finnish Lovisia, Czech power plants in Temelín and Dukovany, Slovak power plants in Jaslovské Bohunice and Mochovce, as well as power plants in China (Tianwan) and India (Kudankulam). Since the 90s, the company has also been manufacturing parts for western-type nuclear plants.

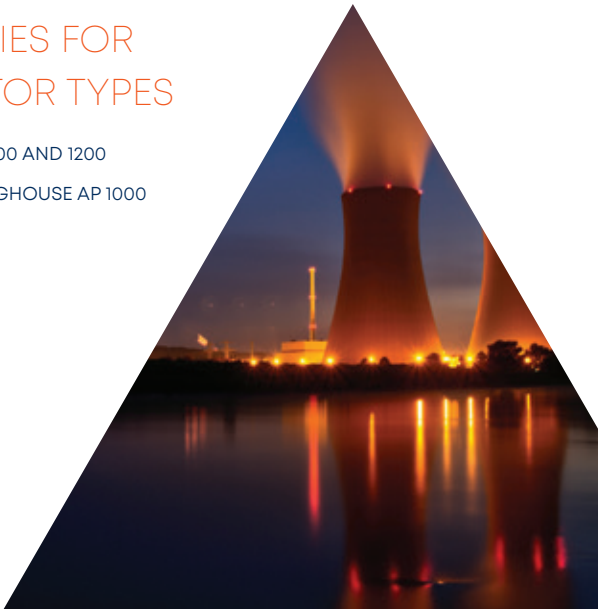
VHM continues to focus its activities in the field of nuclear power on strategic deliveries for existing and new power plant construction projects across the entire world, new reactor types (VVER 1200), as well as nuclear waste storage containers and parts thereof.

ASSORTMENT

- PLATES, BOTTOMS, SHELLS AND OTHER REACTOR COMPONENTS
- HIGH-PRESSURE AND LOW-PRESSURE HEATERS
- STEAM GENERATORS
- PRIMARY PIPING
- VOLUME COMPENSATORS
- NUCLEAR WASTE STORAGE CONTAINERS AND PARTS THEREOF
- AND OTHERS

SUPPLIES FOR REACTOR TYPES

- VVER 1000 AND 1200
- WESTINGHOUSE AP 1000
- EPR



HYDRO AND WIND POWER INDUSTRY

CLEAN NATURAL ENERGY



120 years

TRADITION OF MAKING
SHAFTS FOR THE HYDRO &
WIND POWER INDUSTRY



136 t

THE HEAVIEST SHAFT
MADE FOR WATER
TURBINES



600+ pcs

WIND TURBINE SHAFTS
MADE PER YEAR

Wind power, as well as hydro power, currently represents a significant, clean and most importantly renewable energy source. Utilizing natural elements such as wind and water flow, wind and hydro plants are able to transform their kinetic energy into electrical energy.

Thanks to the manufacturing precision of VHM, components for hydro and wind power plants are a strategic part of our production portfolio. Especially in the production and delivery of wind and hydro shafts, we are a significant and respected producer with over 120 years of tradition.

Monoblock shafts are the first of the main types of produced shafts, manufactured in weights of up to 80 tonnes. Welded shafts are the second main type. Utilizing unique "narrow gap welding technology", they can be manufactured in weights over 150 tonnes.

In a segment where any inaccuracy, quality issue or delay means major economic losses, we are considered as a respected and time-tested manufacturer, capable of meeting the strictest requirements of our partners.

ASSORTMENT

- ROTOR SHAFTS FOR WIND POWER GENERATORS – ONSHORE AND OFFSHORE VERSIONS
- TURBINE, GENERATOR AND INTERMEDIATE SHAFTS FOR HYDRO POWER PLANTS
- KAPLAN'S TURBINE HUBS
- FRANCIS'S TURBINE RUNNERS AND BANDS
- PUMP BODIES, INLET BALL VALVES, DEFLECTORS
- AND OTHERS



STEELWORKS, ROLLING MILLS & STEEL FORMING

BY STEEL WORKERS FOR STEEL WORKERS



190 years
OF EXPERIENCE WITH
STEEL WORKING
EQUIPMENT



371 t
MAX. CAST STEEL WEIGHT
– QUICK-SWAGE FRAME



1,600 t
THE HEAVIEST
STOCKING
WORKBENCH

Who could better understand the needs of steel manufacturing and processing companies than one that has been in the same business for almost two centuries?

Development, production and delivery of parts and components for the steel making and processing industry are our de facto “daily bread” and we can without a shadow of a doubt call ourselves a pioneer in this field.

The company's own know-how and years of experience have enabled VHM to deliver individual devices for specific nodes of metallurgy processes as well as turnkey constructions of entire metallurgy facilities.

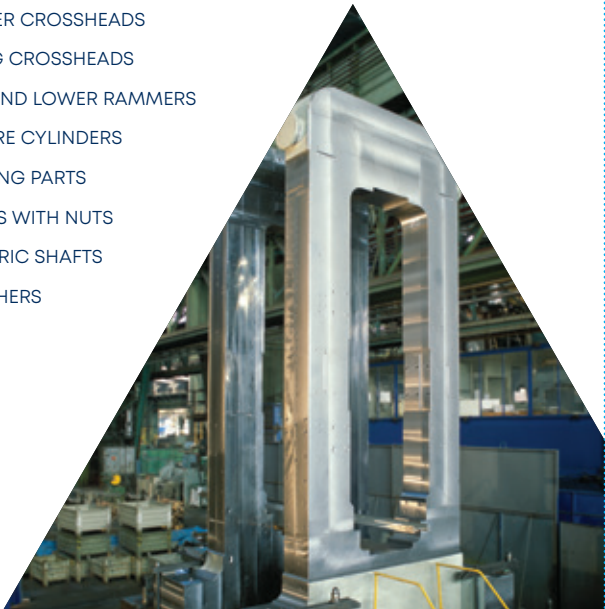
ASSORTMENT

STEEL INDUSTRY AND ROLLING MILLS

- MILL HOUSINGS
- EDGER MILL HOUSINGS
- BEARING BODIES
- SLAG POTS
- INGOT MOULDS
- CASTING PLATFORMS
- PILGRIM ROLLS, SMOOTH ROLLS, PROFILED ROLLS
- SLEEVED BACK-UP ROLLS, HYDRAULIC CYLINDERS
- LIFTING TABLES
- AND MANY OTHERS

METAL FORMING MACHINES

- UPPER AND LOWER CROSSHEADS
- CYLINDER CROSSHEADS
- MOVING CROSSHEADS
- UPPER AND LOWER RAMMERS
- PRESSURE CYLINDERS
- GEAR RING PARTS
- TIE RODS WITH NUTS
- ECCENTRIC SHAFTS
- AND OTHERS



CEMENT INDUSTRY

MATERIAL PROCESSING UNDER CONTROL



8,000 mm
MAX. OUTER DIAMETER
OF SUPPORTING RINGS



4,800 mm
MAX. MILL FACE
DIAMETER



155 t
MAX. CEMENT MILL
PRODUCT WEIGHT

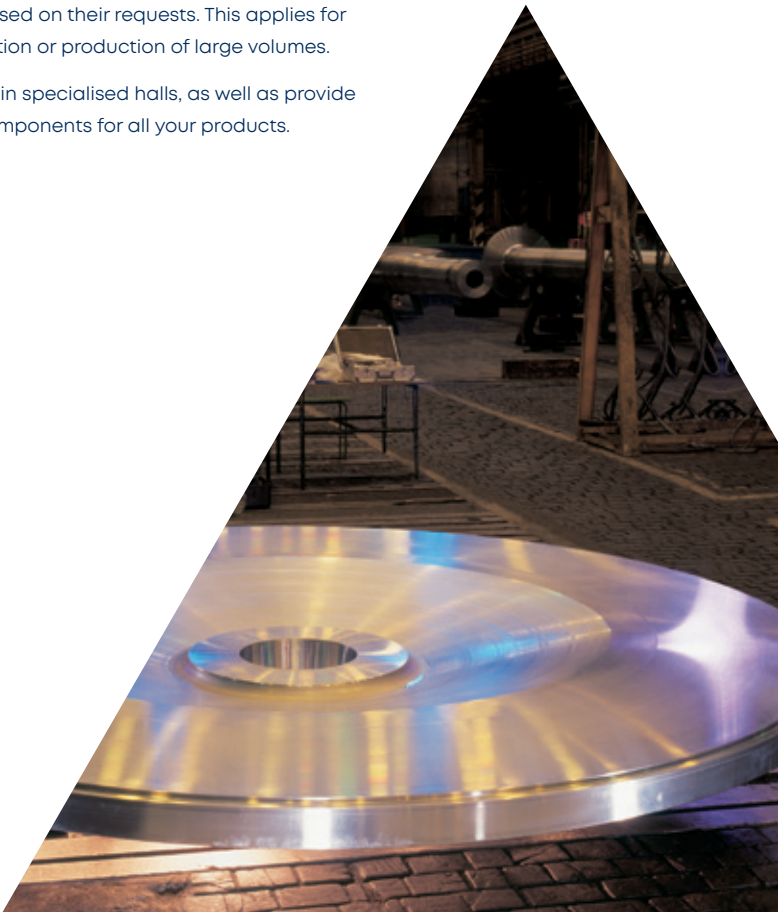
Supplying parts and units for the cement industry is a relatively recent addition to the VHM production portfolio. However, that makes the cement industry an even more promising area for production development to reap the benefits of VHM's wealth of experience from other fields, as well as fully utilize the potential of VHM's complex production process.

This allows us to provide cement industry customers with expert advice from the very start of the project and to recommend the most suitable product variants based on their requests. This applies for a wide variety of materials and dimensions, piece production or production of large volumes.

Last but not least, we are able to assemble complex units in specialised halls, as well as provide anti-corrosion treatment and shipping of all parts and components for all your products.

ASSORTMENT

- KILN TYRES AND SUPPORT RINGS
- MILL FACES AND DISCS
- INLET AND OUTLET MILL HEADS
- ROLLER CARRIERS
- ROLLER WITH AXES
- CEMENT MILL SHAFTS
- CRUSHER ROLL SHAFTS
- TWO OR FOUR PARTS GEAR RINGS
- AND OTHERS



SHIPBUILDING INDUSTRY

OVER 120 YEARS OF SHIPBUILDING TRADITION IN VÍTKOVICE



1897

FIRST DELIVERIES FOR
SHIPBUILDING INDUSTRY



25.5 m

MAX. RUDDER
SHAFT LENGTH



70 t

MAX. RUDDER
SHAFT WEIGHT

The ship part manufacturing tradition reaches back to 1897, which is when the first crankshaft was produced for the Habsburg battle cruiser of the Austro-Hungarian Kriegsmarine.

The current production portfolio is focused predominantly on utilizing our unique experience, know-how and sophisticated production technologies for the production of long parts for propeller drives. This is supplemented by the development and production of hollow and intermediate shafts.

Another strong area of production involves deliveries of rudder systems and their parts, such as rudder pintles and trunks, rudder stocks, rudder horns and ruder blade parts.

The production portfolio is supplemented by the production and deliveries of stern rollers for special AHTS vessels.

ASSORTMENT

- PROPELLER SHAFTS
- INTERMEDIATE SHAFTS
- HOLLOW SHAFTS
- RUDDER STOCKS
- RUDDER SYSTEMS AND PARTS THEREOF
 - RUDDER HORNS
 - RUDDER PINTLES
 - RUDDER BLADE PARTS



MINING AND QUARRYING

RELIABILITY UNDER THE ROUGHEST CONDITIONS



1952

DELIVERIES FOR
CONTINUOUS MINING
STARTED



10,000 m³/h

MAX. PERFORMANCE OF
THE MANUFACTURED
MINING UNIT

VHM has been a long-term and reliable supplier of castings, forgings and assemblies for the mining and quarrying industry for generations.

We started to develop and manufacture equipment for continuous mining in 1952. The first mining machine had a capacity of 1,050 m³/hr. Since then, we have made a number of excavators and stackers, which create technological units with capacities of up to 10,000 m³/hr.

Our long-term relationships with manufacturers of mining machines and equipment allow us to respond to the latest market requirements and offer both forged and cast parts in optimum quality according to the customer's needs while meeting all the technological and technical requirements – from heat treatment and testing to deliveries in the raw state or completely finished and ready to be installed immediately.

You can also rely on our specialized team of technology engineers when preparing the design of your mining products or entire engineering units.

ASSORTMENT

- SINGLE OR DOUBLE-DRUM HOISTS
- MINING WINDERS
- FRICTIONAL HOISTS
- SHAFTS AND BEARING HOUSINGS
- TRANSPORT AND SKIP CONTAINERS
- MECHANICAL PARTS OF EXCAVATORS AND STACKERS
- CRUSHER PARTS
- AND OTHERS



OIL & GAS

UNCOMPROMISED QUALITY

The Oil & Gas market is a nascent discipline in VHM's growing production portfolio. The vast experience and talent of our experts allow us to move the boundaries of forging and machining equipment. That is why we can offer our customers in the oil and gas processing industry products meeting the strictest requirements in terms of material composition, micro-structure, dimensional allowances and quality control.

Thanks to our extensive knowledge in multi-discipline project engineering, our production and project capabilities are set to meet the rapidly changing requirements of this specific field and market, from the processing of detailed project drafts, precise manufacturing and machining to turnkey deliveries to the installation points.

ASSORTMENT

- FORGINGS OF INDUSTRIAL VALVE COMPONENTS
- VALVES FOR OIL AND GAS PIPELINES
- FORGINGS OF WELLHEAD COMPONENTS
- PIPELINE CLAMPS FOR PIPELINE LEAK REPAIRS
- HYDRAULIC BOXES, RISERS
- OIL & GAS PROCESSING EQUIPMENT – HEAT EXCHANGERS, STORAGE TANKS, PRESSURE VESSELS

ENGINEERING & ASSEMBLY

SYNERGY OF TECHNICAL DISCIPLINES

This is one of the most complex and important segments of VHM's business, drawing on the company's entire technical knowledge and experience across all its disciplines.

The beginning of engineering deliveries dates back to the foundation of the company in the 19th century when it largely focused on the extension of the company's production capacities and upgrading.

VHM's turnkey projects have equipped the world's industrial sector with many key technologies over the years. Our know-how is continually developed and refined.

The basic and detailed engineering design is critically assessed and validated according to the results and experience from many accomplished projects.

GENERAL SCOPE INCLUDES

- Steelwork Engineering
- Metal-forming Engineering
- Open Cast Mining Engineering
- Metal Waste Processing Equipment

SCOPE OF SUPPLIES

- Pre-Studies, Studies & Consultancy for Capital Investments Projects
- Project Management, Commissioning & Training
- Turn-key Deliveries
- Manufacture of Core Components
- Manufacture of Spare Parts

QUALITY

PASSION FOR QUALITY

QUALITY ASSURANCE

We are dedicated to ensuring the continued excellence of our products, and services, the foundation of which is buttressed by VHM's quality system that is fully in compliance with major international quality, environmental, and safety standards and subject to continuous improvements.

CUSTOMER FOCUS

The functionality of our quality system is always demonstrable for customers whose standpoints regarding the level of product assurance quality parameters are all important. Dozens of customer audits that VHM undergoes annually just demonstrate the correct setup of our quality system.

SYSTEM CERTIFICATIONS

TYPE OF CERTIFICATION	CLASSIFICATION SOCIETY
EN ISO 9001:2015	TÜV
EN ISO 14001:2015	TÜV
OHSAS 18001:2007	TÜV

PROCESS CERTIFICATION

INGOTS AND STEEL PRODUCTION

APPLICATION FIELD	CLASSIFICATION SOCIETY
Steel and Semi-product Production	Lloyd's Register
Ingot Casting Forgings Heat Treatment	ClassNK
Ingot Casting Steel Castings	RINA

PRODUCT CERTIFICATIONS (SHIPBUILDING INDUSTRY)

APPLICATION FIELD	CLASSIFICATION SOCIETY
Forgings	ABS
Forgings	BV
Castings	LRS
Forgings	LRS
Castings	DNV GL
Forgings	DNV GL
Forgings	RINA
Forgings	ClassNK
Castings and Forgings	RMRS

RAILWAY TRANSPORT

APPLICATION FIELD	CL. SOCIETY
Railway Tires	DB
Railway Tires and Axles	ČD
Railway Tires and Axles	ZSSK

PRESSURE VESSELS

APPLICATION FIELD	CLASSIFICATION SOCIETY
PED AD2000	Lloyd's Register

NUCLEAR POWER INDUSTRY

OBLAST	CLASSIFICATION SOCIETY
Supplier's Qualification	ŠKODA JS

WELDING AND STEEL FRAMES

APPLICATION FIELD	CLASSIFICATION SOCIETY
EN 1090-1:2009+A1:2011	TÜV
EN ISO 3834-2:2005	TÜV
Service Provider	ABS

MORE THAN STEEL

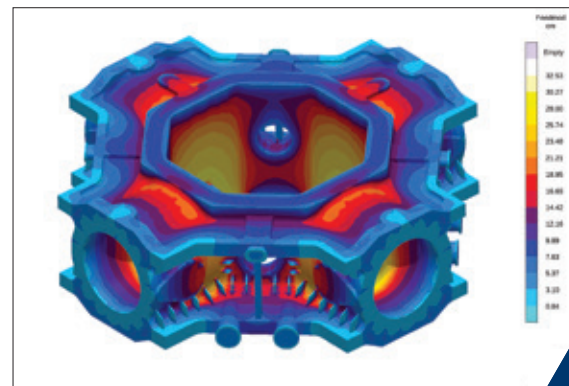
Our technologies, professional teams and their know-how, research and long industry traditions are ideal reasons for our clients to choose VHM as their solution provider to increase their competitiveness.

RESEARCH & DEVELOPMENT

Corporate knowledge is shared and continually developed through generations. A creative atmosphere and innovative teams are a cradle ground for new ideas. Our strongly balanced mix of seasoned senior engineers with a lifetime of experience and innovative young technical graduates provides us with a great platform to retain and further our intellectual capital. Customers appreciate our critical preproduction analysis and design optimization where we look to fulfil the concept's full potential.

WHAT WE USE:

- Finite Element Method (FEM)
- CAD/CAM services 2D a 3D modelling
- MAGMA SOFT for simulation of mould filling, cooling and solidification processes and optimization of heat treatment method for castings
- SYSWELD for heat treatment and welding simulation
- MasterKey MARC for simulation of the all thermo-mechanical processes in solid stage of steel
- I-DEAS for the preparation and verification of strength calculations



SERVICES

We understand that every customer's supply chain is unique. VHM, therefore, strives to create specific customized solutions to suit his dynamic requirements. From corrosion preservation, precision packaging over to train, sea or plane transportation arrangement.

OUR SERVICES:

- Product Preservation (oil, paint etc.)
- Customized Packaging
- Door-to-Door Transportation





VÍTKOVICE
HEAVY MACHINERY, a.s.

Ruská 2887/101, 703 00 Ostrava-Vítkovice
Czech Republic

T +420 595 956 878 | **E** info@vhm.company