Production facilities
at the Hanover plant

Körting

THE EJECTOR COMPANY

Highest quality due to in-house manufacturing

Based on engineering expertise and experience since 1871

The company

IN-HOUSE PRODUCTION AT THE HANOVER PLANT

Combined with extensive experience and far-reaching engineering expertise, Körting Hannover GmbH fulfils the highest demands on quality through in-house production. With an eye on optimal customer orientation, high-quality products or pressure devices can be realised with state-of-the-art manufacturing technologies. The entire company is certified in accordance with DIN EN ISO 9001 and, in addition to other international approvals, has HP0 / DIN EN ISO 3834-2 approval from TÜV NORD for the manufacture of pressure tanks.

High quality is achieved by concentrating on core skills. The constant continuing training of qualified personnel ensures cutting-edge production processes, which play a central role in the quality of Körting products. In the close relationship between production and development, Körting creates the ideal prerequisites for highest quality and reliability. The quality management system ensures a regular review of the processes of all departments in the company.

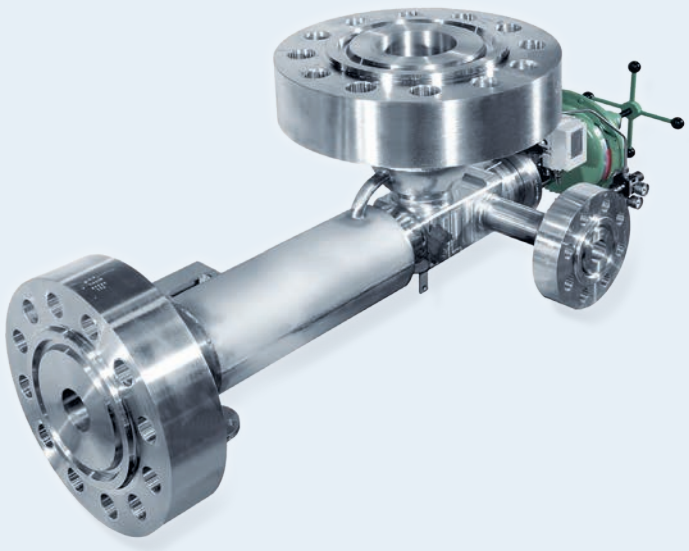
The certifications, which are part of the Körting philosophy, are an acknowledgement of this commitment and demonstrate the consistently high level of work in all areas of the company.

Certificates and approvals (selection):

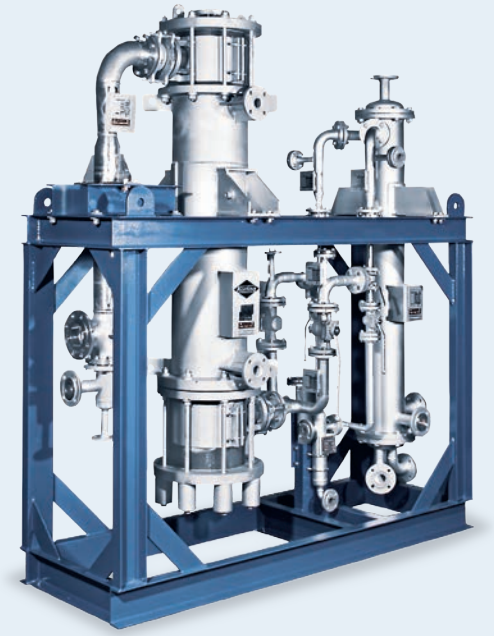
- TÜV Cert DIN EN ISO 9001
- AD 2000 HP0/DIN EN ISO 3834-2
- DGRL 2014/68/EU
- ASME Certification Mark
- Manufacture License of Special Equipment People‘s Republic of China

You can find these and many other certificates at **koerting.de/en/certificates-and-licenses.html**

HP ejector made of highly corrosion-resistant duplex stainless steel for use in an UREA production plant



Two-stage steam jet vacuum system with surface condensers made of graphite and Hastelloy



PRODUCTION FACILITIES

Körting Hannover GmbH also offers its extensive know-how as a contract manufacturer. This brochure provides an insight into the production facilities at the Hanover plant.

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COMPANY GROUNDS

The head office of Körting Hannover GmbH is located at Badenstedter Straße 56 in 30453 Hanover.

Route planner

You can find the fastest way to us via Google Maps:

google.com/maps

OUR SERVICES:

- **Mechanical processing**
- **CNC flame cutting**
- **Sheet metal forming / rolling**
- **Welding / pickling of CrNi steel**
- **Non-destructive testing / pressure tests**
- **Surface treatment**

BUILDING CAPACITIES

All manufactured products can be stored temporarily in the 3 500 sq. m warehouse on request.

Floor space (sq. m)		Door dimensions (m)	Crane capacities (t)	Hook height (m)
Equipment manufacturing prefabrication	2 500	4 x 4	20	6.5
Mechanical production	3 500	4 x 4	5	5
Equipment manufacturing final assembly and shipping	7 000	3 x 4	5	4

LOADING OPTIONS

Transport of products can be handled by forwarding agencies by truck, sea freight or air freight.

Type	Component dimensions max. (m)	Lifting force (t)
Bridge crane	3.5 x 4 x 20	20

Mechanical processing

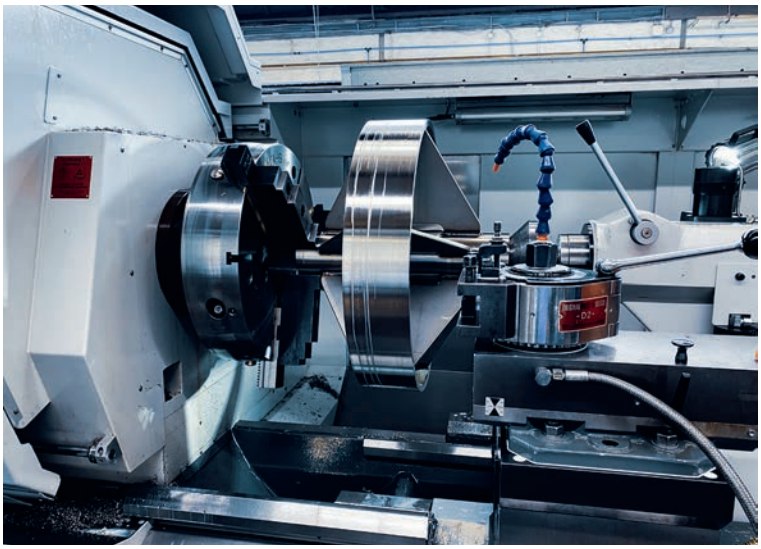
CHIP REMOVAL

Ferrous and non-ferrous alloys as well as different types of plastics can be processed by turning, milling and drilling on various CNC machines.
The 5-axis CNC lathes are equipped for complete machining. In addition, the complete machining of welded assemblies on a carousel lathe and boring mill is possible. Further drilling and milling centres and cycle-controlled machining equipment are also used.

Universal milling and turning machining centre DMG – DMU 125 FD	(mm)
X-axis	1 250
Y-axis	1 000
Z-axis	1 000
Turning Ø external clamping	max. 1 300
Turning Ø internal clamping	max. 1 300

Various CNC lathes	Max. workpiece dimensions	(mm)
Mazak Integrex | Mori DMG e500 HII	Turning Ø Turning length	max. 800 max. 3 000
Okuma Multus B400 - C2000 B400II - W1500 DMG MORI CTX beta 2000	Turning Ø Turning length	max. 630 max. 2 000

Various cycle-controlled lathes		(mm)
e.g. Weiler E130	Turning Ø Turning length Bezel Ø	max. 1 300 max. 4 500 max. 600



PLASMA AND FLAME CUTTING

The CNC controlled flame cutting machine as well as optimised positioning of the parts according to a nesting program ensure a minimal amount of waste material.

Cutting method
Oxy-fuel flame cutting up to 100 mm sheet thickness
Plasma with swirl gas technology: • Kjellberg Fine Focus 800 up to 40 mm sheet thickness • Kjellberg Hi Focus 160 i up to 20 mm sheet thickness Plasma gases: Air, O_2, Ar/H_2, Ar/H_2/N_2 Swirl gases: Air, N_2
O_2 = oxygen Ar = argon H_2 = hydrogen N_2 = nitrogen
Cutting area
Width 3 000 mm
Length 6 000 mm

SHEET METAL FORMING

Presses and bending machines can be used to produce cylinders (e.g. container shells) and cones with different taper ratios.

Swivel bending machine	Sheet size: max. 1 500 mm - Sheet thickness: max. 3 mm
Hydraulic presses	Pressing force: 200 t
3-roll bending machines with interchangeable cylindrical and conical top roller	Shell size: with Lmax = 2 500 mm with Di > ø 2 000 mm → t = 50 mm thick with Lmax = 2 500 mm with Di > ø 440 mm → t = 32 mm thick with Lmax = 3 000 mm with Di > ø 385 mm → t = 12 mm thick with Lmax = 1 000 mm with Di > ø 385 mm → t = 16 mm thick

Welding

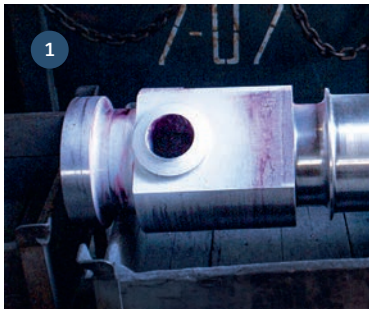
The trained personnel from Körting Hannover GmbH includes certified, qualified and experienced welders and welding engineers, welding technicians as well as master welders. Numerous procedure tests are used for a wide range of materials.

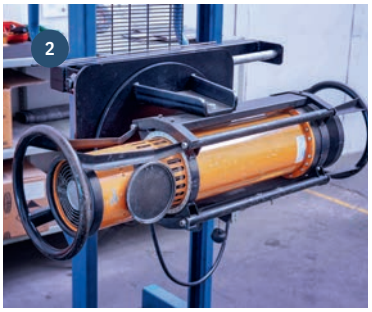
Thanks to the HP0 / DIN EN ISO 3834-2 approval, Körting Hannover GmbH is qualified to weld pressure tanks and also to test them itself.

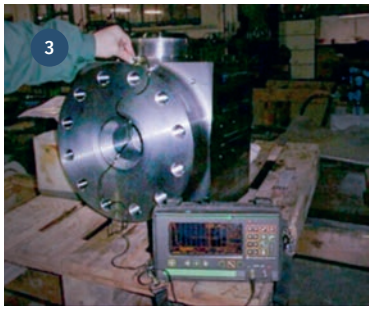
Welding procedure
Automatic welding machines (UP)
MMA
MAG
TIG + TIG hot wire
TIG cold wire mechanised
Hot gas extrusion welding/butt welding → for polypropylene (PP)

Non-destructive testing

By means of radiographic testing according to DIN EN ISO 17636-1, the weld seams can be tested by our own testing personnel (up to level 3).
The Körting Testing Department inspects the manufactured products in accordance with the guidelines and specifications using the procedures listed below. This involves close cooperation with TÜV NORD and other service providers.







Testing method
1) Dye penetrant method
2) Radiographic method with X-ray tube or isotope
3) Ultrasonic testing method
4) Hydrostatic test up to 1 000 bar

Surface treatment

PICKLING

As a basic requirement for corrosion resistance, the welded CrNi steel assemblies are pickled and passivated.

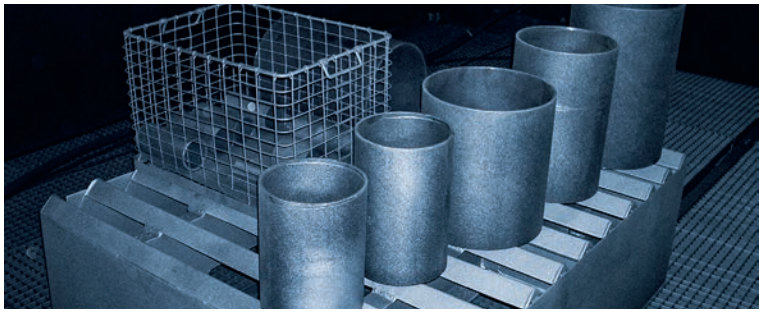
Immersion pickling is carried out in a solution of sulphuric acid and hydrofluoric acid. The pickling time is 30 – 60 minutes at room temperature, depending on the material.

Pickling bath	(mm)
Length	4 000
Width	1 800
Height	1 600
Avg. fill level	800

Composition	
15 vol% HNO_3	
5 vol% HF	(rest H_2O)

BLASTING

In the blasting plant, workpieces are blasted with aluminium corundum or alternatively with glass beads. This is used to prepare another surface coating such as spray painting or as a final surface treatment for CrNi steel parts.

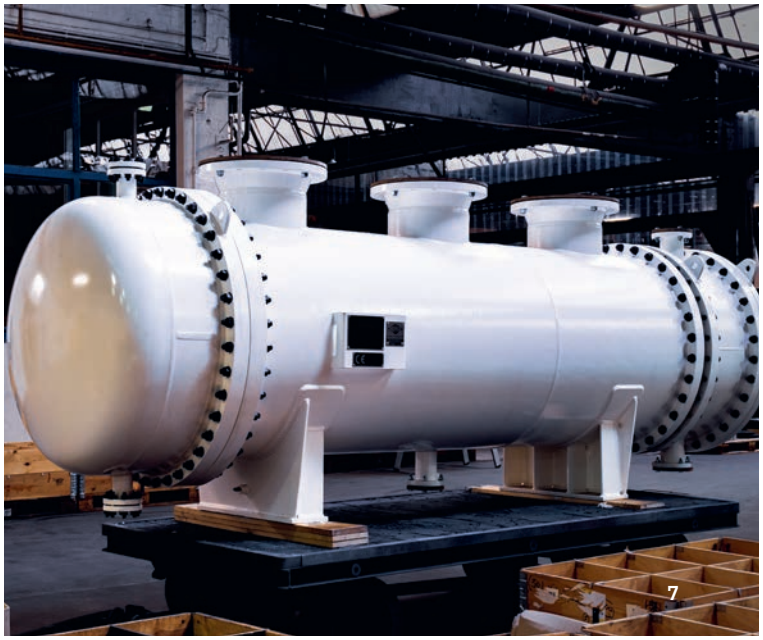


Blasting plant	(mm)
Length	8 900
Width	2 800
Height	2 500

PAINTING

Hand-applied and spray painting, rust protection primers and paint coats in compliance with the required layer thicknesses.

Paint shop	(mm)
Length	6 000
Width	4 000
Door W x H	2 450 x 2 980



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