Cutting Technology

- Individual solutions
- Solid execution
- Great performance

Cord machining
- Cord cutting lines

Sheet metal processing
- Punching machines for expanded metal

Cutting technology
- Bending technology
- Service concepts
  - Maintenance contracts
  - Replacement parts
  - Retrosfits

Sheet metal processing
The first step to a good cut

The name FISCHER stands for precision, quality and reliability. We specialize in the right technology for specific uses and supply customized solutions to industrial customers around the world. We go beyond the usual market standards and set new standards with our custom-built machinery.

Pedigree with future: our first guillotine shear went into production 65 years ago. Since then, we have grown with each new challenge and have become a world-wide presence with our innovative technology concepts. Since our earliest days in business, we have focused on machine construction by experts – a standard for quality which you can also count on in the future.

From individual guillotine shears up to customized configured large cutting centres, we are the partner you can rely on. Benefit from our expertise and our more than 65 years of experience in the development of sheet metal processing machines.

Special solutions made in Germany

Variety and precision are our success duo - whether for large industrial production facilities or demanding partial solutions.

Precision at the push of a button

Our goal: user friendly and absolutely precise. We offer all levels of automation – from manual handling systems right up to fully automated systems.

You are simply a cut above the rest!

Our excellent know-how permits the most precise cutting technology and the highest cutting quality. Simple and easy to operate.

FISCHER Cutting Technology

Sheet metal processing

Quality knows no compromises.

After thoroughly analysing your ideas, we create an individual manufacturing solution. We call this FISCHER Quality.

Solutions made to order

We see ourselves as tailors for outstanding concept solutions. For us, success means meeting your expectations 100 percent.

Always a good cut

We align the blade’s geometry according to your actual requirements. Naturally, we also offer you the sharpening services you need.

From wafer-thin to extremely thick

From 0.02 mm for foil up to 150 mm for e.g. rolling mills as sample shears or hot cutting equipment, our machines cut with the highest possible precision and speed.

FISCHER Cutting Technology

Sheet metal processing

Quality and innovation from experienced hands

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FISCHER Cutting Technology

Quality and innovation from experienced hands
FWS- FISCHER Angle Shears

From postage stamp size up to large scale
Cut for cut a finished part. As a leader in technology, we develop tailor-made angle shears which reliably and precisely cut with mechanical or hydraulic drives.

Your advantage: one cut, two work steps; rational sheet metal processing. Software ensures the optimal layout. In addition, we offer convenient handling options and the connection of stacking systems. Your solution is only a discussion away.

FWS-FISCHER Angle Shears
Performance categories:
Material thickness: from max. 4 to 12 mm; for mild steel min. 0.4 mm
Untrimmed size: metal plates of 1550 x 3050 mm; if need be, also larger
Finished parts: from 30 x 30 mm to 1240 x 1540 mm with one stroke; up to 4000 mm in recutting mode

Drive options:
• Mechanical or hydraulic
Expansion options:
• Automatic raw material handling system
• Hydraulic blade clamping
• Automatic finished part stacking system
• According to customer requirements

Grippers
Thought through in detail
Hydraulic grippers with material recognition ensure secure gripping. The raw metal plate is clamped on its entire length and can be processed without being re-gripped: precise, exact fit, perfect.

Individual, rational, compact: FWS angle shears can be optimally adapted to your workflow.
Focused efficiency for large-scale operation

Specially built cutting centres with angle shears are suitable for use in large-scale industrial applications. Principally used for the manufacture of rectangular parts of different measurements and numbers of pieces, e.g. for air conditioning technology, agricultural machinery and vehicle manufacture as well as in the iron and steel trade.

A plus for cutting centres is that they can be integrated into fully automated manufacturing processes. A connection to work preparation, coiling systems or high rack storage is possible anytime.

FSZW-FISCHER Cutting Centres with Angle Shears

Available performance categories:
- Material thickness: from max. 4 to 12 mm; for mild steel min. 0.4 mm
- Untrimmed size: metal plates of 1550 x 3050 mm; if need be, also larger
- Finished parts: from 30 x 30 mm to 1240 x 1540 mm with one stroke; up to 4000 mm in recutting mode

Drive options:
- Mechanical or hydraulic

Expansion options:
- Surface protection for processing and stacking
- According to customer requirements

Loader
Always well placed
Sheet metal stacks are automatically processed. The vacuum can be created by the Venturi principle or by a vacuum pump. The blow-off function ensures a reliable depositing of the parts on the feeder table. Parts can optionally be put in reserve.

Gripper feeder
Well gripped every time
Exact feeding of the raw metal plate with the gripper feeder

Example FSZW 4/1200/1500-1570E
- Up to 4 mm mild steel
- Cutting Optimizer
- Automatic X/Z loader system and X/Y feeder system
- Automatic cut gap adjustment
- Hydraulic blade clamping
- Material removal
- Scrap disposal
- Six stacking positions with different stacking depths
- Manual removal station for parts up to 4 m long
- Four further manual removal places
- Connection to work preparation, coiling system, high rack storage area

FSZW-FISCHER Cutting Centres with Angle Shears

Side pusher
Further processing made easy
The side pusher ensures the precise stacking of the finished parts, thereby guaranteeing optimal handling of the sheet metal stack at subsequent equipment.

Double sheet recognition
Error recognized, reject banished
To avoid production errors, the machine automatically recognizes whether metal sheets are stuck together or if an incorrect material thickness has been applied.

Gripper feeder
Well gripped every time
Exact feeding of the raw metal plate with the gripper feeder
Synergy effects for your workflow

Particularly in highly specialized manufacturing processes, meticulous planning, efficient processing and low reject rates are decisive. The FSZ cutting centres are the ideal complement for your workflow. As compact performance systems, they can be flexibly adapted to the requirements of your equipment and can be expanded to ensure trouble-free processing of your raw parts. In discussions with you, our expert consultants will explore the best options for your equipment. Individuality means: your solution is always based on your specifications.

FSZ-FISCHER Cutting Centres

Performance categories:
Material thickness: from max. 4 to 150 mm; for mild steel min. 0.4 mm
Untrimmed size: metal plates of 1550 x 3050 mm; if need be, also larger
Finished parts: depending on need

Drive options:
- Mechanical or hydraulic

Expansion options:
- Automatic raw material handling
- Feeder system (also with turntable) to prevent errors during transfers
- Shears with automatic cut angle and cut gap adjustment depending on the material and material thickness
- Scrap management with scrap chopper
- Finished part removal with stacking positions
- Other options as required by the customer

Example FSZ 4/6000
- Up to 4 mm mild steel; cutting length of 6000 mm
- X/Z axes loader
- Shears with continuous holding-down clamp to prevent markings on the finished parts
- Automatic cut gap and cut angle adjustment
- Scrap management with small part carts
- Multiple stacker with manual stacking depth and width adjustment

Getting ahead by performance
- Precision: fully automatic handling of the raw and finished parts
- Effectiveness: comparatively low operating costs
- Efficiency: high availability and output

Feeder
Firm grip
To securely and precisely grip raw metal sheets, we have developed an precise gripper feeder.

Sheet metal processing
Punching machines
Cutting technology
Bending technology

Competent, constructive, close to the customer: FISCHER is a strong and innovative partner.
FSZ-
FISCHER Cutting Centres

High quality and large scale. It can be done!
Whenever absolute cutting precision is required in fully and partially automated manufacturing processes, cutting centres are your ideal partner to improve cutting performance. In this way, both large numbers of pieces and very exacting cutting quality can be attained.

It is the combination of quality with quantity that make FSZ cutting centres so appealing. They are used to rationalize work production steps especially in such industrial sectors as the manufacture of aircraft, vehicles, agricultural machinery, and electrical appliances as well as in the iron and steel trade and domestic technique.

Loading test of the stacking unit
We thoroughly test all components of the system.

Thick sheet metal
A powerful piece
The automated machining of thick sheet metal is also our specialty.

Feeder
Ideal fit for optimal results
The gripper feeder guarantees reliable gripping of the sheet metal plates and their exact positioning at the cutting edge.

Example
FSZ 16/4100
• Up to 16 mm mild steel; cutting length of 4100 mm
• Two material preparation tables
• X/Y/Z/R loader
• Gripper feeder
• Shears with automatic cut gap and cut angle adjustment
• Scrap management and removal belt
• Multiple stacker for stacking with the edges exactly aligned and up to a corner load of 10 t

Your production situation, our special solution: FISCHER concepts are never ready made.

Your production situation, our special solution: FISCHER concepts are never ready made.
SK- 
FISCHER Shears with Mechanical Drive

Sharp cuts in serial production

Our SK shears with mechanical drive have found employment in the metal-working industry as well as in the cutting of high-tensile technical plastics and laminates. When push comes to shove, only special shears can meet the high demands these materials place on them. Many are integrated in the production lines of well-known manufacturers.

As stand-alone concept or integrated into your coil system, we offer shears in the appropriate version. The material fixing before the cut, the exact cut gap adjustment and the linear guides for blade bars and holding-down clamps guarantee the highest cutting precision especially for applications with high numbers of cycles.

SK-FISCHER Shears with mechanical drive

Available performance categories:
Material thickness: from 0.02 mm to 20 mm
Cutting length: up to 3000 mm; if need be, also longer

Expansion options:
• Automatic stepless cut gap adjustment
• Hydraulic blade clamping to reduce downtimes
• Swivel undercarriage for the manufacture of trapezoidal metal sheets
• “Flying” shears
• Individually developed control including interfaces to your system’s PLC
• Other options as required by the customer

Three good, convincing reasons
• Precision: finely adjustable cut gap
• Efficiency: faster blade change by hydraulic blade clamping
• Integration: the control of the stroke/rotational movement of the crankshaft can be adapted to your system

Example
SKQS 3/1500
• Cutting performance up to 3 mm stainless steel
• Cutting length: 1500 mm
• Drive with frequency-controlled gear motor
• Continuous holding-down clamp, pneumatically positively-controlled
• Holding-down clamp with replaceable plastic strips
• Machine table with brush strips to protect surfaces
• Brush roll behind the cutting line as material support
• Constructive adaptation on the periphery of the existing line equiment
• Including control and switch cabinet in coordination with the coiling system

SK 8/3000
• Cutting performance up to 5 mm molybdenum, cutting length: 3000 mm
• Very short cutting time: TDC/BDC/TDC approx. 1.2 seconds.
• Motor rear stop adjustment
• Continuous holding-down clamp with replaceable inserts
• Support table with rollers
• Rectangular front stop and lay-on arms
• Vertical lower blade adjustment
• For cutting of high-tensile materials in red-hot condition

SK 3/1850
• Cutting performance from 0.5 mm to 3 mm mild steel, cutting length: 1850 mm
• Drive with servo geared motor
• Continuous, pneumatic positively-controlled holding-down clamp with replaceable plastic strips
• Swivel undercarriage with servo geared motor for the manufacture of trapezoidal metal sheets
• Integrated in a press line for the manufacture of car body panels

SKQ 3/1600-1800
• Cutting performance to 3 mm mild steel, cutting length: 1800 mm
• Drive with frequency-controlled gear motor
• Continuous, pneumatic positively-controlled holding-down clamp with replaceable plastic strips
• Surface protection of the material to be cut
• Integrated in a cooling system for cutting aluminium bands to length
• Including shears control and switch cabinet in coordination with the coiling system

SKK 13/1600
• Cutting performance up to 13 mm polycarbonate, cutting length: 1650 mm
• Drive with servo geared motor
• Continuous holding-down clamp, pneumatically positively-controlled
• Holding-down clamp with replaceable plastic strips
• Holding-down clamp, can be regulated
• Automatic cut gap adjustment
• Upper blade-2-cutters
• Lower blade-4-cutters
• Hydraulic blade clamping
• With counter support behind the cutting line

SK 13/1600
• Cutting performance up to 13 mm polycarbonate, cutting length: 1650 mm
• Drive with servo geared motor
• Continuous holding-down clamp, pneumatically positively-controlled
• Holding-down clamp with replaceable plastic strips
• Holding-down clamp, can be regulated
• Automatic cut gap adjustment
• Upper blade-2-cutters
• Lower blade-4-cutters
• Hydraulic blade clamping
• With counter support behind the cutting line

Strong all-rounder at your side: perfect for coil and sheet metal plate systems

Examples
SK 8/3000
• Cutting performance up to 5 mm molybdenum, cutting length: 3000 mm
• Very short cutting time: TDC/BDC/TDC approx. 1.2 seconds.
• Motor rear stop adjustment
• Continuous holding-down clamp with replaceable inserts
• Support table with rollers
• Rectangular front stop and lay-on arms
• Vertical lower blade adjustment
• For cutting of high-tensile materials in red-hot condition

SK 3/1850
• Cutting performance from 0.5 mm to 3 mm mild steel, cutting length: 1850 mm
• Drive with servo geared motor
• Continuous, pneumatic positively-controlled holding-down clamp with replaceable plastic strips
• Swivel undercarriage with servo geared motor for the manufacture of trapezoidal metal sheets
• Integrated in a press line for the manufacture of car body panels
A real cutting devil
From serial production for automobile suppliers to made-to-order production in a handicraft workshop – guillotine shears are used in all areas of sheet metal processing and for all technical plastics. Special accessories and individual machine solutions take your special requirements into consideration.

Your application is the most important requirement for us. Solving customer’s problems is our strength: so that every cut is precise, efficient and just as the customer wants.

DHS-FISCHER Shears with hydraulic drive
Available performance categories:
Material thickness: from 0.02 mm up to 150 mm mild steel
Cutting length: from 1250 mm to 6000 mm; if need be longer

Expansion options:
- Automatic cut gap and cut angle adjustment
- Continuous holding-down clamp for surface protection of the parts
- Inclination of the rear stop for trapezoidal metal sheets; can be raised up for cutting of longer metal sheets
- Pneumatically actuated material support
- Material removal behind the shear
- Other options as required by the customer

Special requirement, special solution
A semi-automatic loader system with vacuum pick-up device and material preparation table ensures convenient handling of the raw sheet metal plates.

Example DHS UG 3/2500:
- Shears for straight cutting with minimal cutting burrs; deviation < 0.04 mm
- High-dimensional accuracy of the cutting edges; ideal for laser welding
- Robot controlled material feeding and removal
- Integrated into systems for the manufacture of tailored blanks

Example DHS 6/1250:
- For stainless steel sheets up to 4 mm thickness and 1250 mm cutting length
- With brush table as surface protection

Example DHSS 10/1250:
- For cutting of stainless steel sheets up to a thickness of 8 mm
- Raw plate dimensions: 1250 mm x 2000 mm
- Up to 45 strokes/min

Just for your system: Individual solutions of the highest standard
Small but good!
That has been the philosophy of our company since the beginning – and we will follow it in the future.

Traditional values – the solid basis of our company’s success
We have always developed individual and highly specialized solutions for our customers and are now among the world’s best suppliers in our field.

Our highly motivated team guarantee our success: Our 360 employees possess outstanding expert knowledge along with tried-and-true practical know-how.
In-house training courses and regular further training ensure that we will be able to master the challenges in the ever more complex world of machine construction.

Your advantage: well-thought-out concept solutions and solid implementation.

More than 65 years of FISCHER-Maschinenfabrik – your specialist for special solutions
After more than 65 years, our company has reached the high point of its development.

Again and again we score points in sheet metal processing with our customer-specific systems.
We have also set an industry standard with our innovative, fully developed and reliable technology, which is why we are also the world market leaders for steel cord cutting systems.
This has led to our company becoming one of the world’s market leaders for cord and sheet metal machining systems.
FISCHER is known around the world as being synonymous for excellence in the cord and sheet metal machining – a reputation we owe to our traditional values: experience, quality, individuality.

Would you like to know more about what we can do for you? Contact us!

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