



**DONAUFLEX 135**  
**DONAUFLEX 145**

**RAPID RADIAL DRILLING MACHINES**

[www.donau-wzm.de](http://www.donau-wzm.de)



# DONAU FLEXIBLE DRILLING



Since 1955 **DONAU** is manufacturing rapid radial drilling machines. Thousandfold proven machines from **DONAU** are presenting a fine quality and innovative solutions from the market leader in this sector.

Machine tools from **DONAU** are offering a maximum of innovation. More than 14.000 Rapid Radial drilling machines are serving daily in many different branches of industry around the world.

Our machines have proven themselves in a wide range of applications in the automotive industry, in the machine building industry, the tool and the industry and in many other manufacturing industries and workshops.

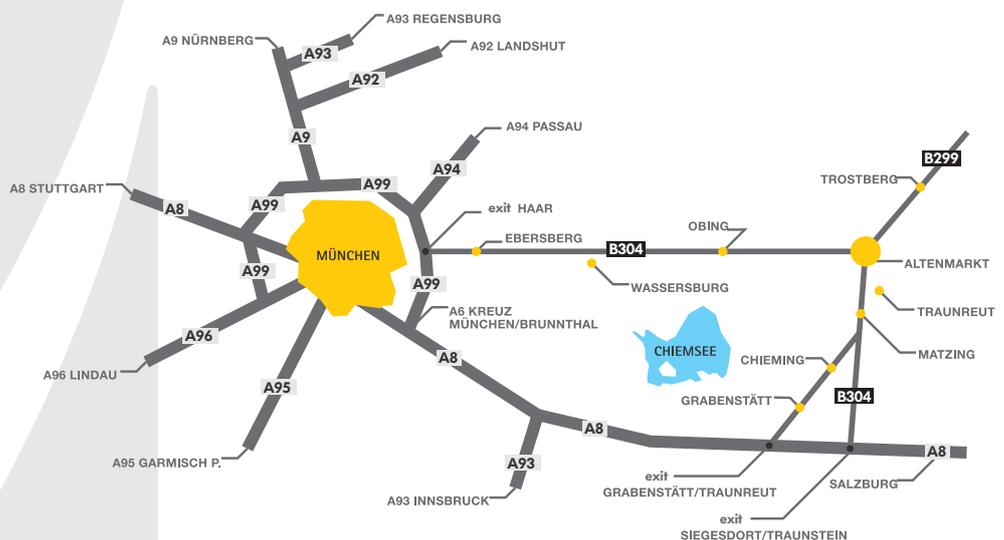
**DONAU** is developing and producing innovative CNC-controlled and manually operated Rapid Radial drilling machines.

Since September 2008 Engineering and Development, Production and Assembly, as well as Marketing, Sales and Service are originating at the **ALZMETALL** Factories based in Altenmarkt/Alz.

We are driven to deliver Precision, Performance and Quality in all our products. For this, **DONAU** is also using advanced know-how of their parent company **ALZMETALL**.

**ALZMETALL** is a Company with international standing and worldwide activities. For more than 6 decades it is leading in Drilling technologies in Milling technologies and in Casting technologies.

Our in-house foundry is not only producing grey-cast iron and spheroidal castings for our own machine tools, but is also a quality supplier for other Machine Tool manufacturers in Germany and abroad.



# DONAUFLX RAPID RADIAL DRILLING MACHINES

Efficiency is not a matter of a sole machining solution, but the result of many intelligent solutions

**DONAUFLX** are the proven series of rapid radial drilling machines for manual operation with multiple options up to digital position readouts in X, Y and Z-axis.



## ADVANTAGES AND FEATURES

Up to 3 fixed working stations are delivering a maximum of flexibility for machining of large and small workpieces as well as very long workpieces.

Swivel tables are useful for drilling and tapping workpieces at angular positions.

Long travels and workpiece heights up to 1500mm are guaranteed.

Easy-sliding simultaneous movement in 3 axes, straight to the drilling or tapping position.

The self-centering drill head is positioning itself exactly into the center holes.

Concentric facing is made possible with a self-centering taper into the drill hole.

The self-centering position accuracy is allowing core hole drilling, facing and tapping in series work and is therefore avoiding frequent tool changes.

The **DONAUFLX**-Range is designed to modern ergonomics for a non-fatigue machine operation.

The working table height of 905 mm and the always optimal position to the spindle head, make it easy for the operator to stand upright and to have a best possible view on the machining process.

Low Axis friction force of approx. 35 N are easing substantially the sliding movements in radial and angular directions, in order to move the tool fast and precise in any working position.

# MACHINE DATA



TYPE	DONAUFLEX 135	DONAUFLEX 145
<b>MACHINING CAPACITIES:</b>		
Drilling capacity (plain) E 335 (St 60)	max. Diam. 35 mm	max. Diam 45 mm
Drilling capacity (plain) EN-GJL 200 (GG 20)	max. Diam. 42 mm	max. Diam. 55 mm
Tapping capacity E 335 (St 60)	max. M 30	max. M 36
Tapping capacity EN-GJL 200 (GG 20)	max. M 36	max. M 45
<b>WORKING RANGE</b>		
Radial arm travel	max. 1050 mm	max. 1050 mm
Column height adjustment (W-axis)	max. 450 mm	max. 450 mm
Spindle travel (Z-axis)	max. 165 mm	max. 195 mm
Distance spindle nose to table surface	min. 50 mm	min. 40 mm
[Distance spindle nose to Floor plate surface]	max. 665 mm [min. 850 mm] [max. 1465 mm]	max. 710 mm [min. 840 mm] [max. 1510 mm]
Drilling radius	min. 490 mm max. 1540 mm	min. 540 mm max. 1590 mm
Angular movement	max. 330° Degrees	max. 330° Degrees
<b>WORKING TABLE</b>		
Clamping surface	1200x750 mm [1800x600 mm]	1200x750 mm [1800x600 mm]
T-slots accord. to DIN 650 in X, 18 H9	5x dist. 125 mm [4x dist. 125 mm]	5x dist. 125 mm [4x dist. 125 mm]
Machine table height	900 mm	900 mm
At the reverse side of the machine and at the left side of the machine base, each 2 T-slots	18 H12	18 H12
Operation / Control	by hand [Graph.display of drill pattern, position readout]	by hand [Graph.display of drill pattern, position readout]
<b>MAIN SPINDLE DRIVE</b>		
AC-Motor	frequency-controlled	frequency-controlled
Driving capacity (100 % intermitted duty)	max. 4 kW	max. 5,5 kW
Torque (100 % intermitted duty)	max. 160 Nm	max. 250 kW
Spindle speed range, stepless variator	20 - 3200 min <sup>-1</sup>	15 - 2800 min <sup>-1</sup>
Morse taper	MT 4	MT 4 [SA 40 DIN 69871]
Tool change	by hand	by hand
<b>ADVANCE FEED DRIVE</b>		
AC-Servo drive		
Advance feed speed (Z-Axis)	0,02 - 0,7 mm/rev	0,02 - 0,7 mm/rev
Advance feed force (Z-axis)	max 7 500 N	max 12 000 N
<b>LENGHT MEASURING SYSTEM IN X-, Y-, Z- AND W-AXIS</b>		
	without [indirect]	without [indirect]
<b>OUTER MACHINE DIMENSIONS</b>		
Height, min.	appr. 2650 mm	appr. 2650 mm
Height, max.	appr. 2765 mm	appr. 3000 mm
Width, min.	appr. 1200 mm	appr. 1200 mm
Width, max.	appr. 1800 mm	appr. 1800 mm
Depth, min.	appr. 1922 mm	appr. 1974 mm
Depth, max.	appr. 2810 mm	appr. 2890 mm
<b>MACHINE WEIGHT</b>		
	appr. 2140 kg	appr. 2600 kg

# OPTIONS



Floor Plate (Pos. 2.10) with swivable cube (Pos. 2.80) at the reverse side, with swivable table (Pos. 2.40) aside



Floor Plate (Pos. 2.10) at the reverse side of the machine, with swivable table (Pos. 2.40) aside



Intermediate plate (Pos.2.50) with T-Slot plate (Pos. 2.20) at the reverse side, with swivable table (Pos. 2.40) aside



T-Slot plate (Pos. 2.20) with workpiece



Angular table (Pos. 2.30) at the reverse side of the machine, with swivable table (Pos. 2.40) aside



Splash and chip guard (Pos. 11.30), vertically movable, 2-piece unit. Either side can be moved down



Coolant device, Type A (Pos. 10.20)



Drawer in the working table (Pos. 2.120)

## DONAUFLEX 135 DONAUFLEX 145

### OPTIONS:

- Coolant device
- Floor Plate
- T-Slot plate
- Angular table
- Swivable table
- Intermediate table
- Clamping cube
- Machine table, enlarged
- Electronic 3-D Touch Probe
- 3-Axes Position Display with Techno-Control
- Tool clamping Taper SA 40 <sup>1)</sup>
- Special machine lacquering
- Service-Solutions

<sup>1)</sup>Only for DONAUFLEX 145

# 3-AXSES-POSITION DISPLAY WITH TECHNOLOGY-COMPUTER

## FUNCTIONS - MODERN DATA COMMUNICATION

The display alternatively can be switched between machine coordinates (radius, angle) and workpiece coordinates

Entering of drilling coordinates (X, Y, Z) with graphical support (circle, frame, etc.). Remaining distance readout by machine coordination

The display alternatively can be switched between remaining distance and the absolute position

Zero setting of X, Y or Z in any position simply by pushing a button

Entering of a Zero offset, without changing the Axis orientation

Touch-Probe interface

Calculated alignment on the basis of existing holes

Setting the X-, Y-, or Z-readout value to Zero by probing edges

Zero setting of the X, Y, or Z-readout value with determination of a circle center point

Circle hole pattern calculator

Saving in memory up to 50 Drill pattern programs (max. 1000 lines) by Teach-In

Print out of Programs and actual positions

Serial Interface V 24/RS 232 C

**AUTOMATIC CLAMPING WITHIN A POSITION WINDOW FOR RAPID AND PRECISE MANUAL POSITIONING [OPTION]**

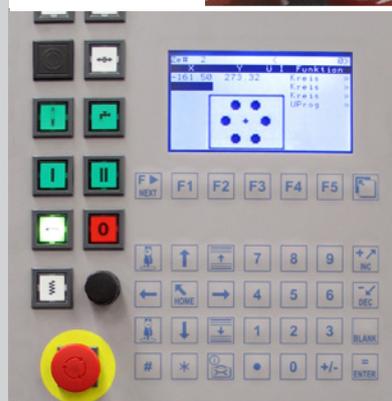


**PRACTICALITY IN USE,  
ADVANTAGEOUS IN OPERATION**

## Multi-functional, ergonomic and sophisticated

A perfectly configured neat position display with Encoder measurement in the X-, Y- and Z-Axis in the radial arm and the spindle head is available in the **DONAU FLEX** range [option]

A clear, splash water protected and well readable graphical display together with operating keyboard of the drill head







**DONAU ALPHA**



**DONAU MERIC**



**DONAU PORT**

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