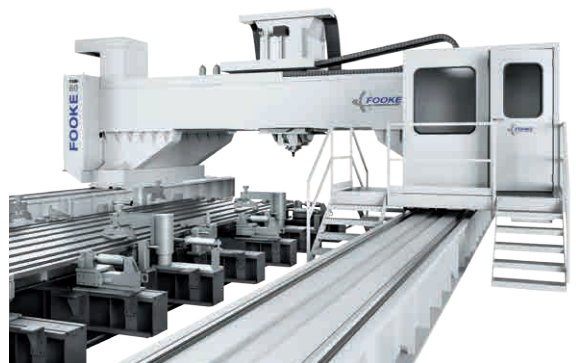
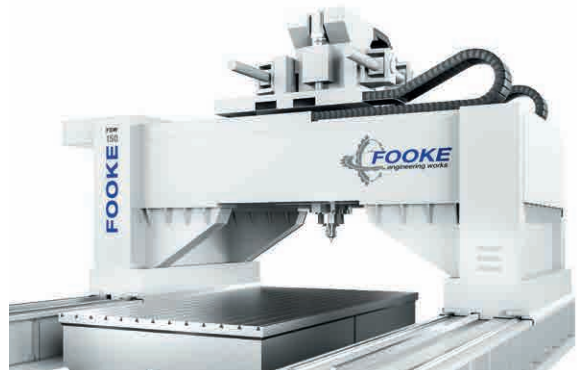




FOOKE FSW 35



FOOKE FSW 60



FOOKE FSW 150



FRICTION-STIR WELDING MACHINE

FOOKE FSW 35

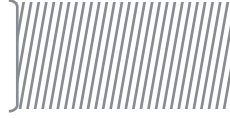
35 kN
MAXIMUM AXIAL FORCE



5-AXIS SIMULTANEOUS
OPERATION



WELD SEAM
TRACKING



FRICTION-STIR WELDING MACHINE

FOOKE FSW 35

TECHNICAL DATA

Traverse paths

X-axis:	up to 60,000 mm
Y-axis:	up to 4,500 mm
Z-axis:	up to 1,000 mm

A-axis

(Pivoting angle): 90° (± 45°)

B-axis

(Pivoting angle): 60° (± 30°)

Feed rate

X-axis:	5 - 40,000 mm/min
Y-axis:	5 - 30,000 mm/min
Z-axis:	5 - 10,000 mm/min
A-axis:	up to 5°/sec
B-axis:	up to 5°/sec

Acceleration

up to 1.0 m/sec²

Pivoting torque (simultaneously)

A-axis:	up to 20,000 Nm
B-axis:	up to 15,000 Nm

Feed force (simultaneously)

X-axis:	up to 17,500 N
Y-axis:	up to 17,500 N
Z-axis:	up to 35,000 N

HIGHLIGHTS

- Maximum axial force of up to 35 kN
- Welding depth of up to 12 mm (6xxx)
- Welding rate up to 3,000 mm/min
- Feed rate up to 40 m/min
- 5-axis simultaneous operation during FSW-Process
- Load and temperature symmetrical construction
- Position controlled process
- Force controlled process
- „stand-alone“ machine or retrofit solution for ENDURA® 1000

FEATURES

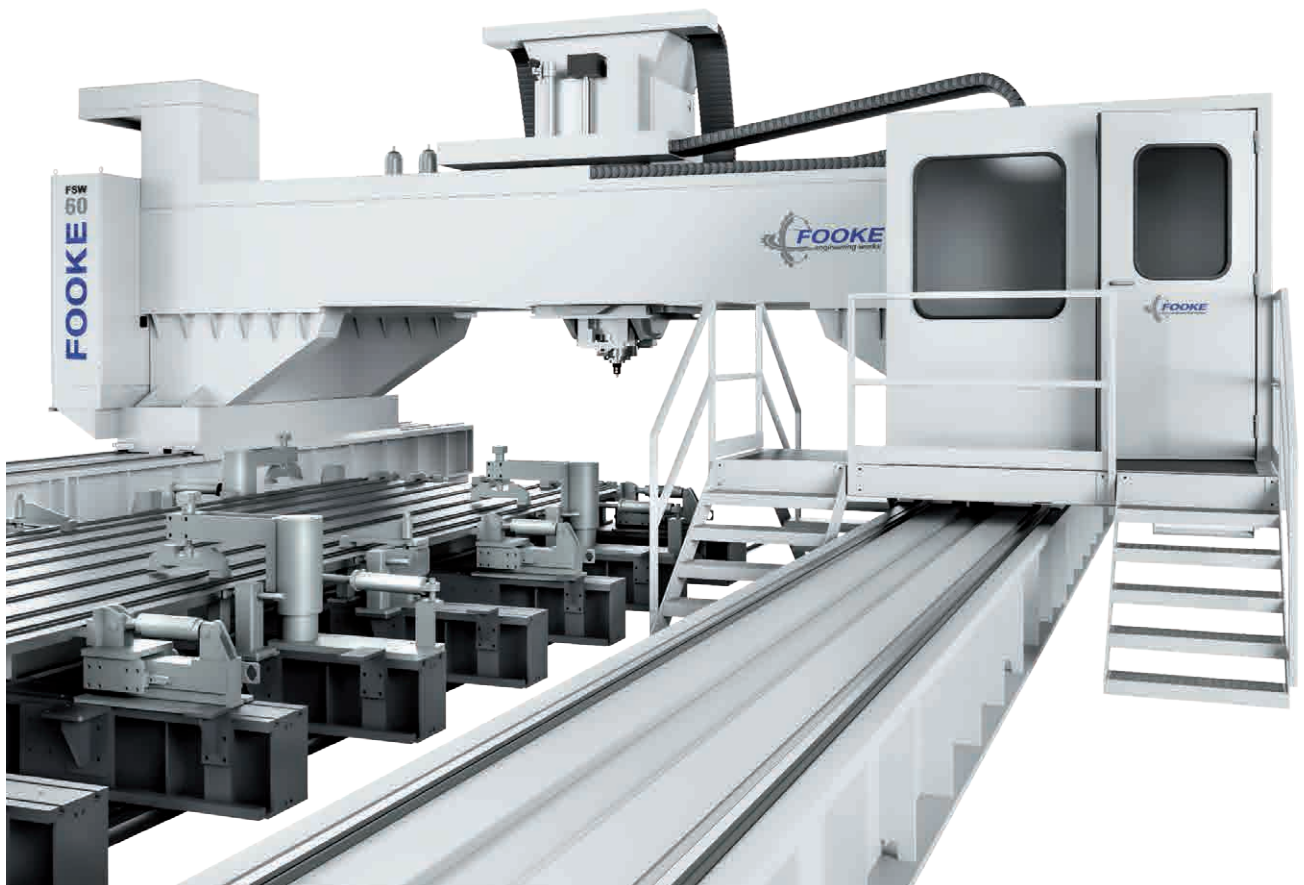
- FSW tool development
- Customized clamping strategies
- FSW-process optimization
- High power reserves in all NC axis
- Highly rigid structure
 - > Little flexibility
 - > Stable FSW-process
 - > Excellent, reproducibility of high-quality seams



FRICTION-STIR WELDING MACHINE

FOOKE FSW 60

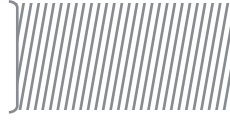
60 kN
MAXIMUM AXIAL FORCE



5-AXIS SIMULTANEOUS
OPERATION



WELD SEAM
TRACKING



FRICTION-STIR WELDING MACHINE

FOOKE FSW 60

TECHNICAL DATA

Traverse paths

X-axis:	up to 60,000 mm
Y-axis:	up to 4,500 mm
Z-axis:	up to 1,000 mm

A-axis

(Pivoting angle): 90° (± 45°)

B-axis

(Pivoting angle): 60° (± 30°)

Feed rate

X-axis:	5 - 40,000 mm/min
Y-axis:	5 - 30,000 mm/min
Z-axis:	5 - 10,000 mm/min
A-axis:	up to 15°/sec
B-axis:	up to 15°/sec

Acceleration

up to 1.0 m/sec²

Pivoting torque (simultaneously)

A-axis:	up to 24,000 Nm
B-axis:	up to 15,000 Nm

Feed force (simultaneously)

X-axis:	up to 30,000 N
Y-axis:	up to 30,000 N
Z-axis:	up to 60,000 N

HIGHLIGHTS

- Maximum axial force of up to 60 kN
- Welding depth of up to 20 mm (6xxx)
- Welding rate up to 3,000 mm/min
- Feed rate up to 40 m/min
- 5-axis simultaneous operation during FSW-Process
- Load and temperature symmetrical construction
- Position controlled process
- Force controlled process

FEATURES

- FSW tool development
- Customized clamping strategies
- FSW-process optimization
- High power reserves in all NC axis
- Highly rigid structure
 - > Little flexibility
 - > Stable FSW-process
 - > Excellent, reproducibility of high-quality seams



FRICTION-STIR WELDING MACHINE

FOOKE FSW 150

150 kN
MAXIMUM AXIAL FORCE



3+1-AXIS OPERATION



WELD SEAM
TRACKING



FRICION-STIR WELDING MACHINE FOOKE FSW 150

TECHNICAL DATA

Traverse paths

X-axis:	up to 60,000 mm
Y-axis:	up to 4,000 mm
Z-axis:	up to 1,000 mm

B-axis

(Pivoting angle):	40° (± 20°)
-------------------	-------------

Feed rate

(Continuously variable feed rates)

X-axis:	5 - 20,000 mm/min
Y-axis:	5 - 20,000 mm/min
Z-axis:	5 - 10,000 mm/min
B-axis:	up to 5°/sec

Acceleration

up to 1.0 m/sec²

Pivoting torque

B-axis:	up to 75,000 Nm
---------	-----------------

Feed force

X-axis:	up to 75,000 N
Y-axis:	up to 75,000 N
Z-axis:	up to 150,000 N

HIGHLIGHTS

- Maximum axial force of up to 150 kN
- Welding depth of up to 50 mm (6xxx)
- Welding rate up to 3,000 mm/min
- Feed rate up to 20 m/min
- 3+1-axis operation
- 4-axis simultaneous operation up to 60 kN
- Load and temperature symmetrical construction
- Position controlled process
- Force controlled process

FEATURES

- FSW tool development
- Customized clamping strategies
- FSW-process optimization
- High power reserves in all NC axis
- Highly rigid structure
 - > Little flexibility
 - > Stable FSW-process
 - > Excellent, reproducibility of high-quality seams



www.fooke.de