

## SMS group GmbH Machine Park Mönchengladbach Location





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# 1 Drilling machines

## 1.1 FPT Spirit 340 (BW2 + BW3)

Characteristic		Value
Year built		2014
Control system		Siemens 840 D SL
Table type		Sliding rotary table
Plate size [mm]		28,000 x 3,000
Plate load [t/m²]		15
Table size [mm]		3,000 x 3,500
Tool holder		SK 50
Max. table load [t]		120
Work area	X [mm]	28,000
	Y [mm]	4,000
	Z [mm]	1,500
Workpiece collision circle diameter [mm]		4,244
Main spindle power [kW]		70
Main spindle speed [rpm]		2,650
Unit power [kW]		70
Unit torque [Nm]		4,146
Units		<ul style="list-style-type: none"> <li>• Sleeves Ø 180 mm</li> <li>• Facing slide Ø 630 mm</li> <li>• Orthogonal head</li> <li>• Angle head 411 mm</li> </ul>



Annual capacity: 2 x 6,000 hours | Shift model: 3 shifts



## 1.2 Scharmann Heavy Cut 4.1

Characteristic		Value
Year built		2008 (retrofit)
Control system		Siemens 840 D
Table type		Sliding rotary table
Plate size [mm]		16,000 x 7,000
Plate load [t/m <sup>2</sup> ]		20
Table size [mm]		4,500 x 4,500
Max. table load [t]		120
Tool holder		SK 50 / SK 60
Work area	X [mm]	10,000
	Y [mm]	4,000
	Z [mm]	1,300
Workpiece collision circle diameter [mm]		6,300
Spindle diameter [mm]		200
Main spindle power [kW]		90
Main spindle speed [rpm]		800
Unit power [kW]		40
Unit torque [Nm]		400
Units		<ul style="list-style-type: none"> <li>• Universal head</li> <li>• Angle head</li> </ul>



Annual capacity: 1 x 3,000 hours | Shift model: 2 shifts

## 1.3 TOS WH 10 CNC

Characteristic		Value
Year built		2013
Control system		Siemens 840 D SL
Table type		Sliding rotary table
Table size [mm]		800 x 800
Max. table load [t]		3
Tool holder		SK 50
Work area	X [mm]	1,250
	Y [mm]	1,100
	Z [mm]	940
Workpiece collision circle diameter [mm]		1,100
Spindle diameter [mm]		100
Main spindle power [kW]		20
Main spindle speed [rpm]		1,800
Units		• Universal milling head



Annual capacity: Machine used as required | Shift model: 1 shift (training workshop)

## 2 Portal drilling machines

### 2.1 Schiess Vertimaster VMG 4 with vertical rotary table

Characteristic		Value
Year built		2008
Control system		Siemens 840 D
Table type / chuck		Plate / faceplate
Portal [mm]		5,500 x 4,600
Plate		22,000 x 4,000
Rotary table diameter [mm]		4,000
Tool holder		SK 60 / SK50 / Capto C8
Max. workpiece weight on plate [t]		180 - standard crane 240 - special measures
Max. workpiece weight on faceplate [t]		80
Work area	X [mm]	26,000
	Y [mm]	6,300
	Z [mm]	3,000
Main spindle power [kW]		110
Main spindle speed [rpm]		2,500
Rotary table speed [rpm]		110
Unit power [kW]		100
Unit torque [Nm]		9,000
Units		<ul style="list-style-type: none"> <li>• Universal head</li> <li>• Angle heads</li> <li>• Drilling heads</li> </ul>



Annual capacity: 1 x 6,000 hours | Shift model: 3 shifts



## 3 Machining centers

### 3.1 Bimatec Soraluce FR 9000 (BAZ1)

Characteristic		Value
Year built		2014
Control system		Siemens 840 D SL
Table type		Sliding rotary table
Table size [mm]		1,600 x 1,600
Tool holder		SK 50
Max. table load [t]		4.978 (8)
Work area	X [mm]	2,200
	Y [mm]	1,750
	Z [mm]	2,200
Workpiece collision circle diameter [mm]		2,500
Main spindle power [kW]		84
Main spindle speed [rpm]		3,750
Unit power [kW]		46
Unit torque [Nm]		1,020
Units		<ul style="list-style-type: none"> <li>• Sleeves Ø 130 mm</li> <li>• Orthogonal head</li> <li>• Drilling head</li> <li>• Henninger head</li> </ul>



Annual capacity: 1 x 6,000 hours | Shift model: 3 shifts



## 3.2 Bimatec Soraluce FR 9000 (BAZ2)

Characteristic		Value
Year built		2014
Control system		Siemens 840 D SL
Table type		Sliding rotary table
Table size [mm]		1,600 x 1,600
Tool holder		SK 50
Max. table load [t]		4.978 (8)
Work area	X [mm]	2,200
	Y [mm]	1,750
	Z [mm]	2,200
Workpiece collision circle diameter [mm]		2,500
Main spindle power [kW]		84
Main spindle speed [rpm]		3,750
Unit power [kW]		46
Unit torque [Nm]		1,020
Units		<ul style="list-style-type: none"> <li>• Sleeves Ø 130 mm</li> <li>• Orthogonal head</li> </ul>



Annual capacity: 1 x 6,000 hours | Shift model: 3 shifts

### 3.3 Bimatec Soraluce PM 5000 HSC (BAZ3)

Characteristic		Value
Year built		2014
Control system		Siemens 840 D SL
Table type		Sliding table
Portal [mm]		3,080 x 1,770
Table size [mm]		2,200 x 1,600
Tool holder		SK 50
Max. table load [t]		4.978 (8)
Work area	X [mm]	2,200
	Y [mm]	1,750
	Z [mm]	2,200
Main spindle power [kW]		46
Main spindle speed [rpm]		4,000
Spindle diameter [mm]		170
Unit power [kW]		46
Unit torque [Nm]		1,524
Units		<ul style="list-style-type: none"> <li>• Orthogonal head</li> <li>• Drilling head (150 mm)</li> <li>• Drilling head (480 mm)</li> <li>• Angle head (410 mm)</li> <li>• Angle head (852.5 mm)</li> </ul>

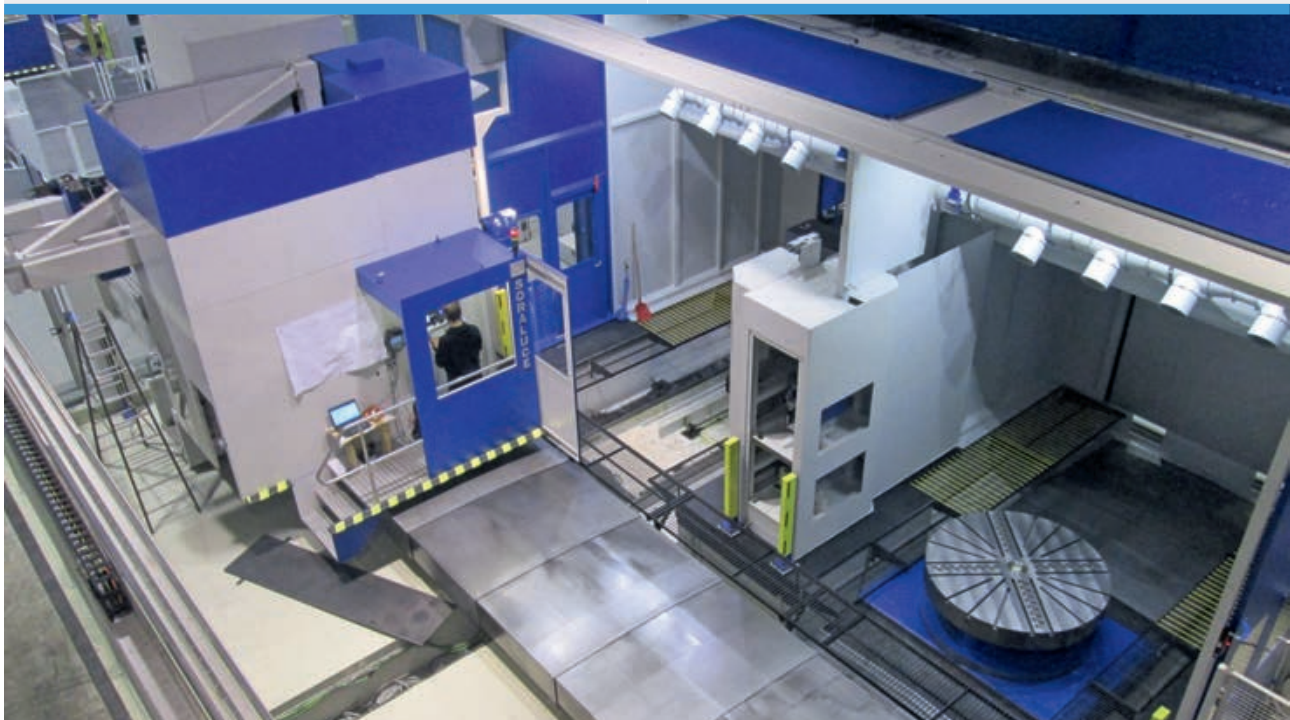


Annual capacity: 1 x 6,000 hours | Shift model: 3 shifts



## 3.4 Bimatec Soraluce FP 8000 with vertical rotary table (BAZ4)

Characteristic		Value
Year built		2014
Control system		Siemens 840 D SL
Table type		Sliding rotary table
Table size [mm]		1,600 x 1,600
Rotary table diameter [mm]		1,800
Tool holder		SK 50
Workpiece weight for milling [t]		4.978 (8)
Workpiece weight for turning [t]		4.978 (15)
Work area	X [mm]	2,200
	Y [mm]	1,750
	Z [mm]	2,200
Workpiece collision circle diameter [mm]		2,500
Main spindle power [kW]		43
Main spindle speed [rpm]		4,000
Unit power [kW]		43
Unit torque [Nm]		900
Units		<ul style="list-style-type: none"> <li>• Orthogonal head</li> <li>• Lathe tool holder</li> </ul>



Annual capacity: 1 x 6,000 hours | Shift model: 3 shifts

## 4 Turning/milling centers

### 4.1 Weingärtner MPMC 10000

Characteristic		Value
Year built		2013
Control system		Siemens 840 D SL
Chuck [mm]		Ø 800
Faceplate [mm]		Ø 1,000
Tool holder		Capto C8
Max. workpiece weight [t]		16 with steady rest / 10 between points
Work area	X [mm]	1,350
	Y [mm]	800
	Z [mm]	10,950
Swing diameter bed/sliding carriage [mm]		1,240
Swing diameter steady rests [mm]		1,000
Main spindle power [kW]		131
Main spindle speed [rpm]		1,250
Milling spindle power [kW]		46
Milling spindle torque [Nm]		1,200
3-point steady rests [mm]		Ø 150 – 1,000



Annual capacity: 1 x 6,000 hours | Shift model: 3 shifts



## 4.2 WFL M40 G with counter spindle

Characteristic		Value
Year built		2013
Control system		Siemens 840 D SL
Main spindle chuck [mm]		Ø 315
Counter spindle chuck [mm]		Ø 200
Tool holder		Capto C6
Max. workpiece weight [t]		1
Work area	X [mm]	600
	Y [mm]	250
	Z [mm]	3,000
Swing diameter bed [mm]		520
Swing diameter sliding carriage [mm]		350
Main spindle power [kW]		37
Counter spindle power [kW]		29
Main spindle speed [rpm]		3,300
Counter spindle speed [rpm]		4,000
Milling unit power [kW]		15
Milling unit torque [Nm]		190



Annual capacity: 1 x 6,000 hours | Shift model: 3 shifts

## 5 Lathes

### 5.1 Tacchi HD/4 1500 x 9000 Series 230 L

Characteristic		Value
Year built		2015
Control system		Siemens 840 D SL
Chuck [mm]		Ø 2,200
Faceplate [mm]		Ø 2,400
Tool holder		Capto C8
Max. workpiece weight [t]		90 with steady rest / 60 between points
Work area	X [mm]	1,150
	Y [mm]	500
	Z [mm]	9,000
Swing diameter bed [mm]		2,400
Swing diameter sliding carriage [mm]		2,100
Main spindle power [kW]		129
Main spindle speed [rpm]		320
Milling unit power [kW]		28
Milling unit torque [Nm]		2,200
C steady rests [mm]		Ø 200 – 600 Ø 500 – 900
Closed steady rest [mm]		Ø 700 – 1,000
Open bridge steady rests [mm]		Ø 2,200



Annual capacity: 1 x 6,000 hours | Shift model: 3 shifts



## 6 Vertical lathes

### 6.1 DST VC 2400/200 MC V

Characteristic		Value
Year built		2014
Control system		Siemens 840 D SL
Faceplate [mm]		Ø 2,000
Tool holder		Capto C8
Max. tool weight [t]		17
Work area	X [mm]	±1,800
	Y [mm]	±1,200
	Z [mm]	1,500
Swing diameter [mm]		2,500
Main spindle power [kW]		120
Main spindle speed [rpm]		315
Milling unit power [kW]		37
Milling unit torque [Nm]		1,230
Units		<ul style="list-style-type: none"> <li>• Universal head</li> <li>• Drilling head</li> <li>• Angle milling head</li> <li>• Grinding spindle</li> </ul>



Annual capacity: 1 x 6,000 hours | Shift model: 3 shifts

## 7 Radial drilling machines

### 7.1 Weiler VO75

Characteristic		Value
Year built		2014
Control system		Siemens
Table type		Plate + tombstone fixture
Work area	Lever adjustment [mm]	950
	Drill sliding carriage [mm]	1,614
	Spindle stroke [mm]	380
	Drilling spindle/plate [mm]	2,000 / 670
	Plate size [mm]	2,300 x 1,100
	Slewing range	360°
Spindle power [kW]		7.5
Spindle speed [rpm]		11.2 – 2,000 (16 gear stages)
Spindle feed [mm/revolution]		0.035 – 2.8
Drill diameter max [mm]		90
Thread diameter max		M85 x 4
Additional equipment		Eroding unit



Annual capacity: Machine used as required | Shift model: 1-shift (Assembly)



## 7.2 Weiler VOM 50

Characteristic		Value
Year built		2018
Control system		Siemens
Table type		None
Work area	Lever adjustment [mm]	1,250
	Slide carriage travel [mm]	1,200
	Spindle stroke [mm]	350
	Drilling spindle/plate [mm]	1,555 / 305
	Spindle stroke [mm]	350
	Slewing range	+/- 90°
	Rotation range	360°
Spindle power [kW]		4
Spindle speed [rpm]		16 – 800 (15 gear stages)
Spindle feed [mm/revolution]		0.05 – 0.5
Drill diameter max [mm]		65
Thread diameter max		M48
Frequency-controlled, continuous control		



Annual capacity: Machine used as required | Shift model: 1-shift (Assembly)

# Workshop assembly Mönchengladbach Location







## Overview

- Complete (sub-assembly) assembly incl. electrical systems and pipes
- Maximum assembled height up to 15 m
- 6,500 m<sup>2</sup> assembly area
- Heavy component assembly for components up to 180 tons
- Transport of up to 200 tons possible (using mobile cranes)
- Workshop assembly incl. functional tests and trial runs under operational conditions:
  - Hydraulic test rig with pump pressures up to 600 bar
  - Test runs up to 12,000 rpm
  - Electrical tests up to 1,600 A
  - Electrical BUS system test
- Surface finishing of the components (painting and preservation)



## Assembly control

- Seamless completion within workshop assembly area up to transfer to shipping department
- Handling of assembly orders taking into account material availability and available capacities
- Regular controlling and reporting on orders in hand using assembly processing codes
- Coordination and steering of shop floor management
- Shop floor management is an effective on-site support tool. Everybody involved in the upstream and downstream processes as well as managers come together in one place. That ensures faster decisions and direct implementation of solutions

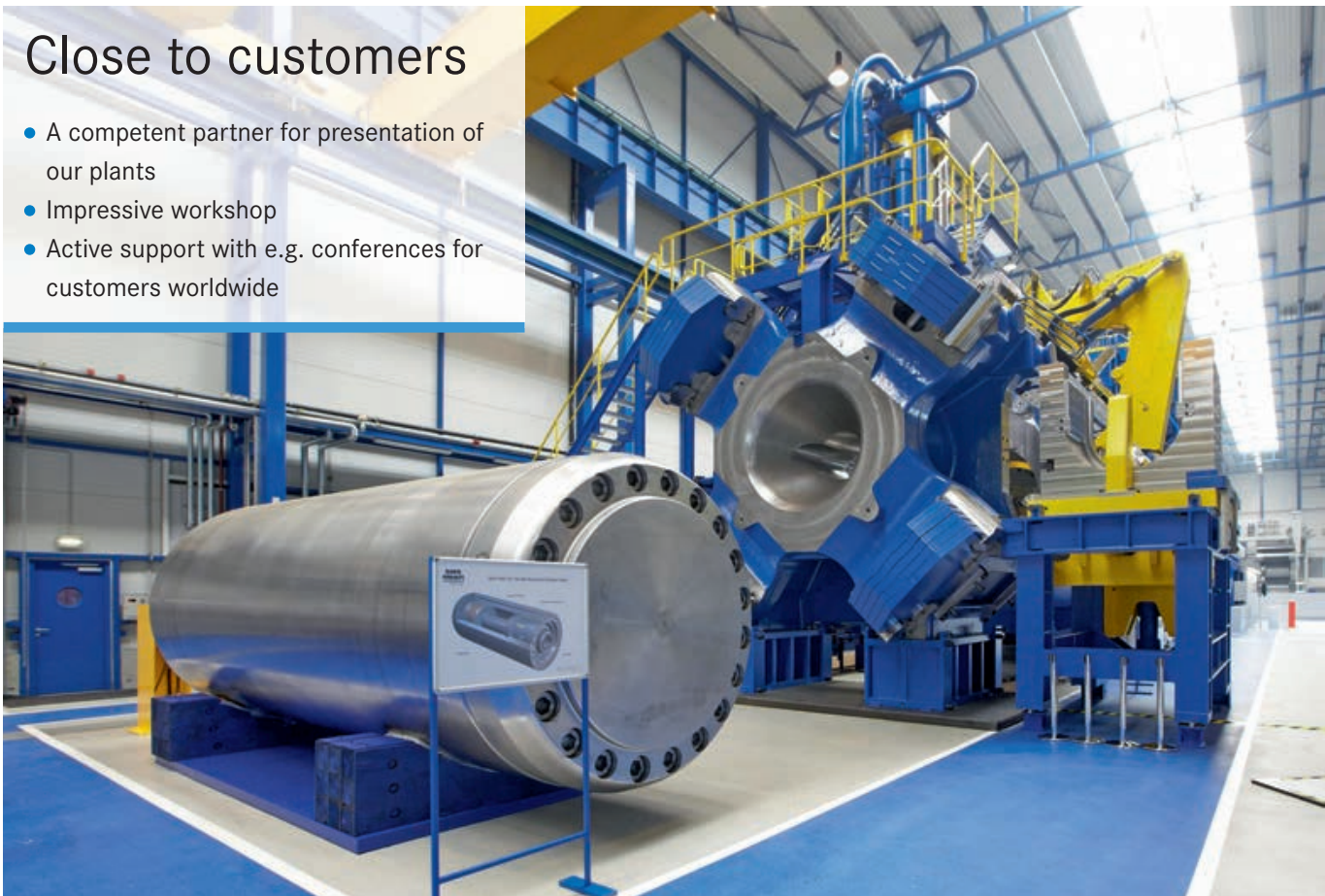






## Close to customers

- A competent partner for presentation of our plants
- Impressive workshop
- Active support with e.g. conferences for customers worldwide





Example: joining a screw (90 t)  
and nut for a screw press







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