



MULTISPINDLE DEEP
DRILLING MACHINES
AND SPECIAL DEEP
DRILLING AND MILLING
CENTERS



SAMAG

TBM_{roto} – FIT 2 PERFORM

THE MULTISPINDLE DEEP DRILLING MACHINE OF THE TBM roto SERIES ARE DESIGNED FOR PERMANENT PRODUCTION PROCESSES. THEY ARE PARTICULARLY PERSISTENT, EXTREMELY STURDY AND GUARANTEE HIGHEST PRECISION: 24/7/365!

TBM roto – Deep drilling machine for serial production

- To process machines of rotationally symmetric workpieces, like gear shafts, camshafts, steering rods, common rails, standard elements...
- Customized solutions, automation, handling, workpiece part clamping, workpiece part cleaning...
- Long-life machines with highest precision due to counter rotation of the workpiece
- Additional units, functions or modules available
- Optimized accessibility to all components for service and maintenance



TBM 1 roto
4 drilling spindles, drilling depth 200 mm



TBM 2 roto
2 drilling spindles, drilling depth 550 mm



Series		TBM 1 roto	TBM 2 roto	TBM 3 roto
Drilling method		Gun drilling	Gun drilling	Gun drilling
Drilling diameter min. / max.	[mm]	1.5 – 12.0	2.5 – 18.0	4.0 – 25.0 (32 ¹⁾)
Number of drilling spindles		1-4	1-4	1-4
Drilling depth	[mm]	200 / 400	800 / 1,200	800 / 1,200 / 1,600
Tool holder [DIN]		HSK-C 50 (16 x 80)	HSK-C 80 (25 x 100)	HSK-C 80 (25 x 100)
Spindle distance	[mm]	160	160	160
Spindle drive power (S1) 100 % ED	[kW]	3.3	5.5	7.0
Spindle drive power (S6) 40 % ED	[kW]	5.0	7.7	10.0
Spindle speed max., stepless	[rpm]	16,000	10,000	6,000
Rapid traverse	[m/min]	10	10	10

1) option



TBM 2 roto
4 drilling spindles, drilling depth 800 mm



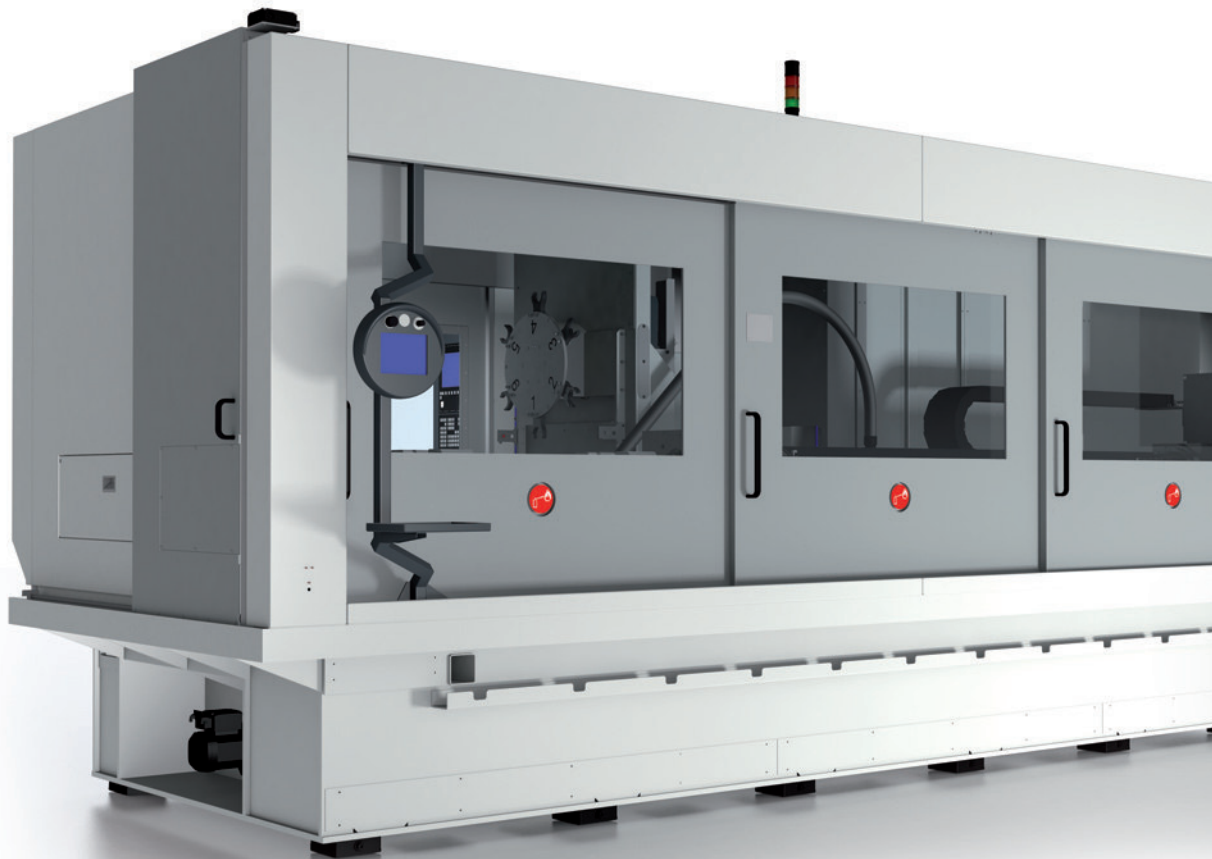
TBM 3 roto
4 drilling spindles, drilling depth 1,200 mm

TBM_{flex} – FIT 2 PERFORM

WITH OUR UNIVERSAL
DEEP DRILLING AND
MILLING CENTERS OF
TYPE TBM flex A HIGHLY
FLEXIBLE SPECIAL MODEL
RANGE FOR YOUR SPE-
CIAL WORKPIECES IS
AVAILABLE. BASED ON
OUR TBM flex TECHNO-
LOGY WE WILL FIND A
SOLUTION FOR YOUR
SPECIAL TASKS –
GUARANTEED!

**TBM flex – Special deep drilling and
milling centers – Deep drilling and
milling in one machine**

- Modular system for drilling and milling
- For single part and small series production
- Skiving and roller burnishing possible
- Machining of forklift forks, telescopic forks,
aircraft landing gear parts, special screws,
special cylinders





TBM 2 flex
1 drilling spindle, drilling depth 1,600 mm
1 milling spindle, 6 tool positions

Series

TBM 2 flex

Technical data drilling unit

Machining method		Gun drilling / BTA
Drilling diameter min. / max.	[mm]	6 – 25 / 25 – 56 (65 ¹⁾)
Number of drilling spindles		1
Drilling depth	[mm]	1,600
Spindle holder [DIN]		55026-A
Tool holder [DIN]		55028-A, Flange Size 3, No. 6
Spindle drive power (S1) 100 % ED	[kW]	17
Spindle drive power (S6) 40 % ED	[kW]	25
Spindle speed max., stepless	[rpm]	4,000
Rapid traverse Z1	[m/min]	10

Technical data milling unit

Max. thread size		M45 x 1.5
Number of milling spindles		1
Tool holder [DIN]		HSK 63 / SK 40
Spindle drive power (S1) 100 % ED	[kW]	9
Spindle drive power (S6) 40 % ED	[kW]	13
Spindle speed max., stepless	[rpm]	6,000
Rapid traverse Z2, X, Y	[m/min]	30
Tool positions / tool weight	[kg]	6 / 3.5

Travels

X-axis	[mm]	1,200
Y-axis	[mm]	320
Z-axis	[mm]	2,500
Z2-axis	[mm]	550

CNC table

Table size	[mm]	1,600 x 400
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1) option

TBM^{mono} — FIT 2 PERFORM

OUR TBM mono IS
THE SPECIALIST FOR
SINGLE PARTS AND
SMALL SERIES. SPECIAL
FEATURES: VERY SMALL
DRILLING DIAMETER
WITH LARGE DRILLING
DEPTH AT THE SAME
TIME!

- Sturdy long-life machine for single part and small series production
- Very good accessibility to the machining unit and to the workpiece clamping
- Crane loading possible
- Up to 3 travelling tool steady rests
- Optimized accessibility to all components for service and maintenance
- Crane hook machine, therefore short installation times



Baureihe		TBM 1 mono
Machining method		Gun drilling
Drilling diameter min. / max.	[mm]	4 – 12.5
Number of drilling spindles		1
Drilling depth	[mm]	1,500
Tool holder [DIN]		HSK-C80
Spindle drive power (S1) 100 % ED	[kW]	3.7
Spindle drive power (S6) 40 % ED	[kW]	5.5
Spindle speed max., stepless	[rpm]	6,000
Rapid traverse X / Z	[m/min]	10 / 10
Travel paths X / Z	[mm]	200 / 1,500
Table size	[mm]	1,200 x 350



TBM 1 Mono
1 drilling spindle, drilling depth 1,500 mm