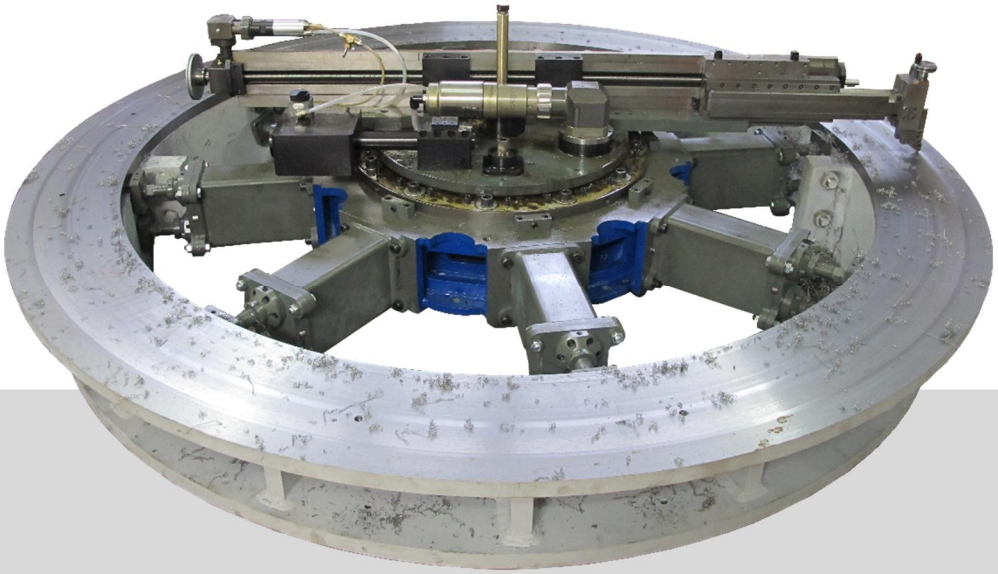
ARMATURA SERVIS

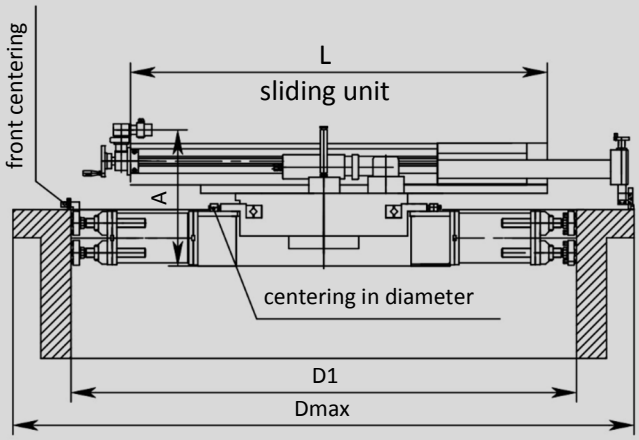
FFMM – 3000 / 4000 / 5000

FLANGE FACING MODULAR MACHINE

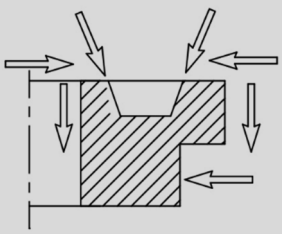


TECHNICAL SPECIFICATIONS

	FFMM-3000	FFMM-4000	FFMM-5000
Turning diameter (D, mm)	1200 - 3300	1700 - 4400	2000 - 5500
Feed (s, mm/r)	0 - 0,2	0 – 0,2	0 – 0,2
Speed (RPM, min^{-1})	5 - 15	5 – 15	5 – 15
Surface roughness (Ra)	1,6 – 5,5	1,6 – 5,5	1,6 – 5,5
Motor power (P, W)	3600	3600	3600
Torque (Mt, Nm)	2815	2815	2815
Motor drive	pneumatic	pneumatic	pneumatic
Air consumption (l/min)	3500	3500	3500
Tightening – internal (D1, mm)	1250 - 3000	1650 - 3800	1950 - 5000
Machine height (A, mm)	600	600	600
Sliding unit (L, mm)	1160	1720	2500



MACHINING CAPABILITIES



FFMM are modular portable machines for flange facing of large flanges. Mounted internally, they are used for different types of flange machining, making grooves for seals, preparation for welding or repair of the heat exchangers. They have a pneumatic drive and can machine flange diameter from 1200-5500 mm. All machines have a common turntable. According to requirements, the needed size of machine can be obtained by modification of the module.

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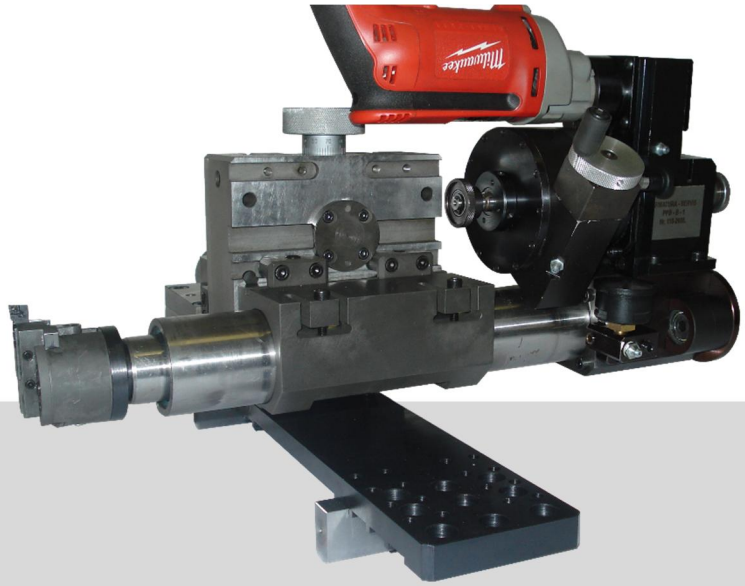
PPB

PORTABLE PRECISE LATHE



PPB machine has the option of axial and radial turning. It is a portable machine tool with a wide range of job applications:

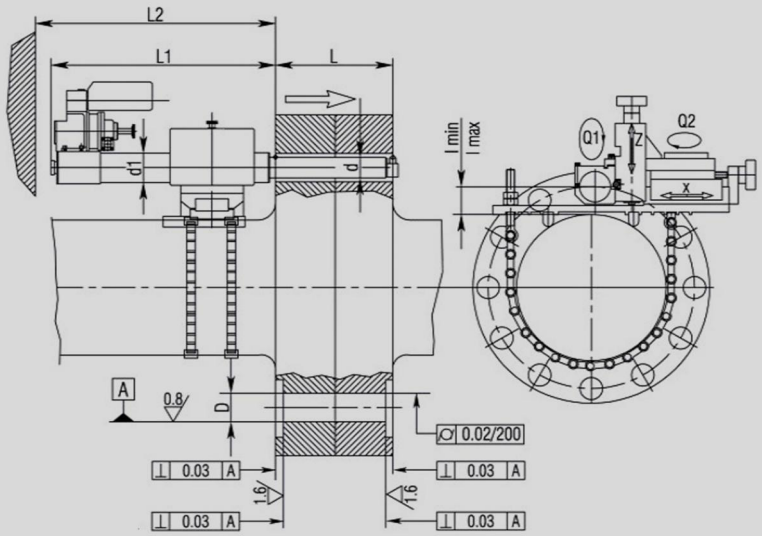
- turning holes (bores) on the couplings of steam turbines, gear boxes, generators etc.
- turning holes (bores) on the couplings of water turbines, gear boxes, generators, etc.
- turning holes (bores) at connections of the motor to the drive shaft and turning couplings of drive shafts to propeller on ships
- turning valve seats on the sealing surfaces (additional device is necessary)

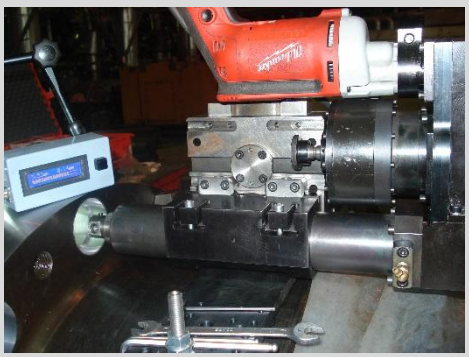
After turning we recommend honing of holes (bores) to achieve exceptional precision of surface 0,002 (additional device is necessary).

The great advantage of PPB-B portable machine tool is having bearings on only one side of the coupling (flange), which is often necessary because of the lack of available space on the other side of the coupling.

TECHNICAL SPECIFICATIONS

PPB model		PPB-0.5	PPB-1.0	PPB-2.0	PPB-2.5
Turning diameter, D		ø30 - ø50 mm	ø48 - ø70 mm	ø60 - ø90 mm	ø75 - ø110 mm
Turning length, L		180 mm	260 mm	310 mm	410 mm
Pino diamater, d		ø29 mm	ø45 mm	ø54 mm	ø63 mm
Machining quality		N6	N6	N6	N6
Machining precision		0.02/150 mm	0.02/200 mm	0.02/200 mm	0.02/200 mm
Facing, D1		ø80 mm	ø100 mm	ø150 mm	ø200 mm
Space needed for machine installation	L1	390 mm	520 mm	630 mm	740 mm
	l min	50 mm	50 mm	60 mm	65 mm
	l max	175 mm	175 mm	220 mm	220 mm
	d1	ø62 mm	ø62 mm	ø78 mm	ø85 mm
	L2	440 mm	570 mm	680 mm	790 mm



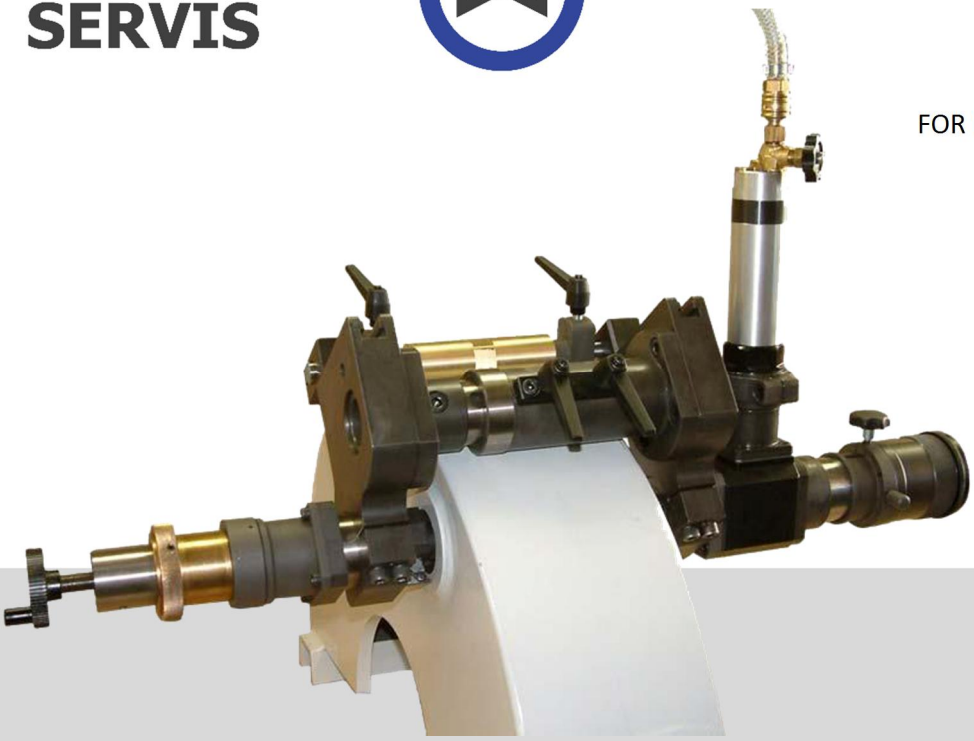


PPB machine in operation

ARMATURA SERVIS

KDM

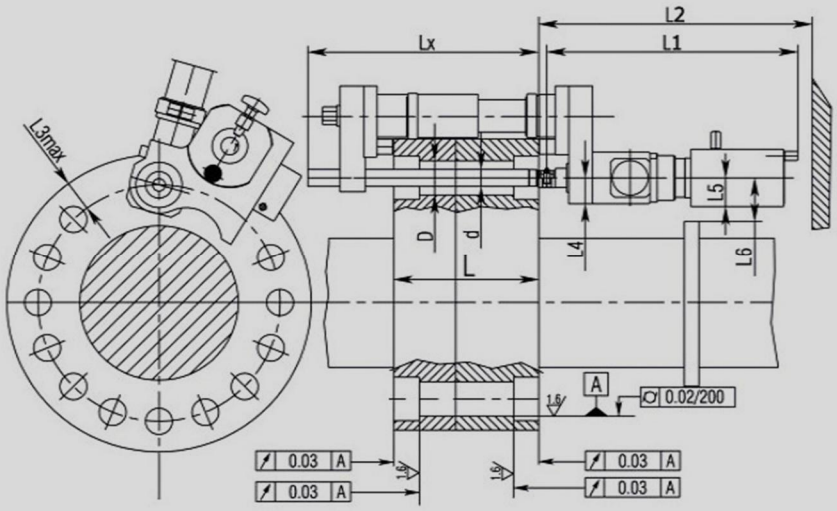
PORTABLE PRECISE MACHINE
FOR BORE TURNING ON A COUPLING



KDM is a portable machine for bore turning in a couplings of turbines, generators, ship shafts or bearing seats of large machinery / construction machinery. It is possible to perform machining of front side (radial turning). Best finishing quality is obtained by honing device.

TECHNICAL SPECIFICATIONS

KDM model	KDM - 05	KDM - 1	KDM - 2
Turning diameter, D	ø27 - ø37 mm	ø35 - 55 mm	ø50 - ø75 mm
Turning length, L	100-150 mm	160-220 mm	250-280 mm



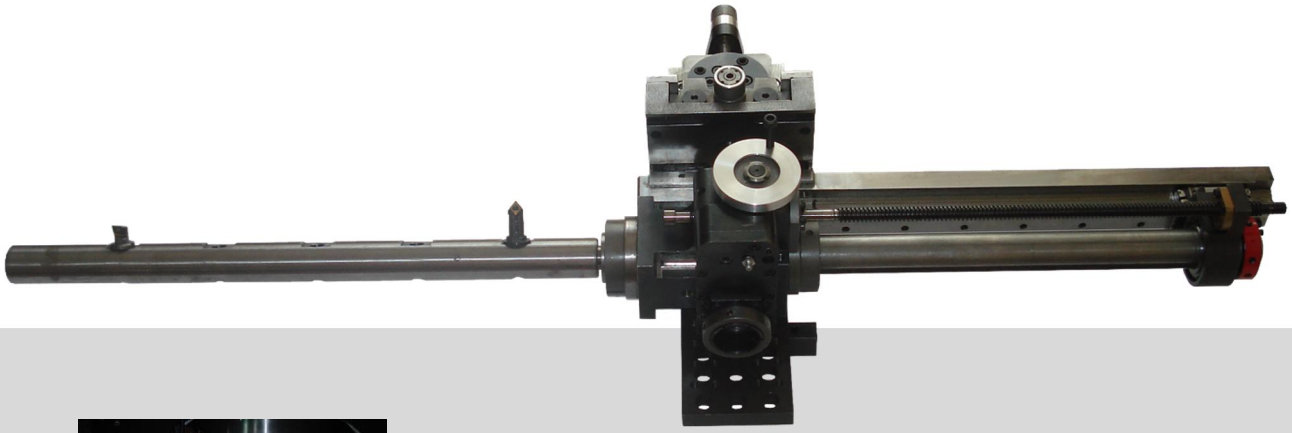
KDM-1 SPECIFICATIONS

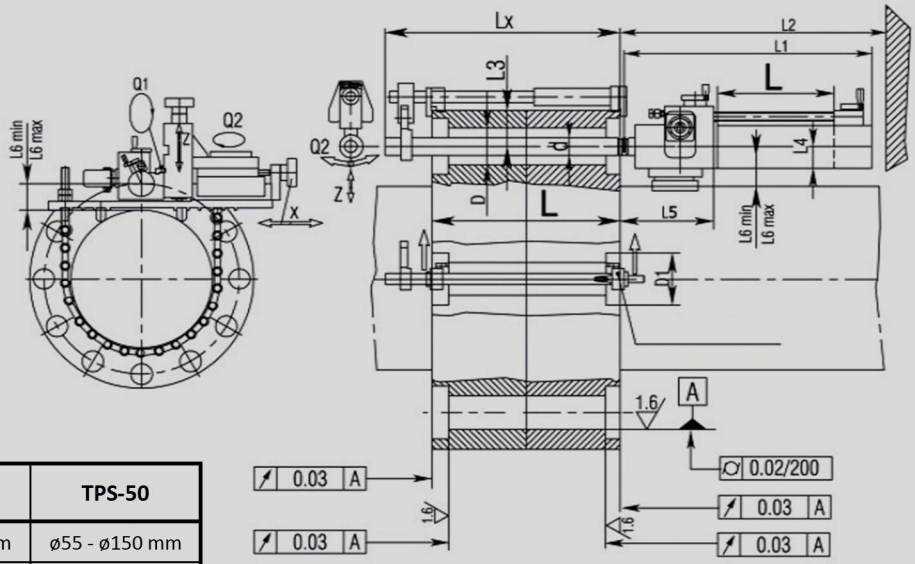
Turning diameter D	ø35 - ø55 mm
Turning length L	160-220 mm
Shaft diameter d	ø30 mm
Facing D1	ø38 - ø70 mm
Feed - axial	automatic
Feed - radial	manual
Machining quality	Ra 1,6
Lx	400 mm
L1	380 mm
L2	440 mm
L3	80 mm max
L4	40 mm
L5	45 mm
L6	50 mm
L7 max	40 mm
D1 min	60 mm

ARMATURA SERVIS

TPS

PORTABLE PRECISE MACHINE
FOR BORE TURNING ON A COUPLING





TECHNICAL SPECIFICATIONS

TPS model	TPS-30	TPS-40	TPS-50
Turning diameter D	ø35 - ø70 mm	ø48 - ø100 mm	ø55 - ø150 mm
Turning length	250 mm	400 mm	600 mm
Shaft diameter	ø32 mm	ø40 mm	ø50 mm
Facing D1	ø50 - ø80 mm	ø50 - ø150 mm	ø60 - ø180 mm
Feed - axial	manual, neutral, automatic		
Feed - radial	manual		
Machining quality	Ra 1,6		
Lx	600 mm	750 mm	950 mm
L1	580 mm	730 mm	930 mm
L2	610 mm	760 mm	960 mm
L3	100 mm max	100 mm max	100 mm max
L4	50 mm	50 mm	55 mm
l5	200 mm	200 mm	200 mm
L6 min	70 mm	70 mm	75 mm
L6 max	180 mm	180 mm	180 mm
	With honing machining quality is Ra 0,4		

TPS machine is used for:

- machining bores on couplings of turbines, generators and gearboxes
- machining shaft couplings on ships
- machining bearing seats on excavators and ships where great turning length is needed

It is possible to execute axial and radial turning. Machine can be operated horizontally or vertically. Centering of tool with a bore is checked by electronic reader. The machine is portable and easy to operate.