

TECHNICAL INFORMATION SHEET STEWAL

SOFTWARE

CAD: 3D development and design: solids and surfaces Kinematic presentation of designed mechanism	Software for REVERSE ENGINEERING of digitised 3D point clouds
CAM: Machining of 2 1/2D and 3D surfaces Pluri-axial machining	Software for the optimal dynamic calculation and manufacturing of CAMS .

MACHINERY

TURNING	#	maximum Ø through spindle	maximum Ø from sledge	maximum Ø from bed	distance between centers
Conventional turning	4	51 mm	300 mm	575 mm	1500 mm
CNC turning	2	78 mm	260 mm	475 mm	1500 mm
CNC turning/milling 7ax.	1	51 mm	520 mm	540 mm	1005 mm
CNC turning/milling 5ax. + Bar-feeder + robot	1	80 mm	680 mm	500 mm	629 mm

MILLING	#	horizontal travel	transversal travel	vertical travel
Conventional milling	4	from 300 to 1100 mm	from 300 to 700 mm	to 500 mm
CNC milling 3 axes	2	700 mm	500 mm	450 mm
HSC milling 3 axes	1	800 mm (2 palettes)	440 mm	485 mm
CNC milling 4 axes	1	600 mm	450 mm	450 mm
Machining center 4 axes	1	2000 mm (2 palettes)	750 mm	400 mm
CNC milling 5 axes	2	up till 800 mm	up till 630 mm	up till 630 mm (without Nc tabel)
HSC milling 5 axes	1	400 mm (18 palettes)	240 mm	350 mm
Engraving machine	1	travel: 150 x 300mm		

EDM	#	horizontal travel	transversal travel	vertical travel	tank dimensions
Die Sinking EDM	1	320 mm	250 mm	420 mm	820x450x300 mm
CNC die sinking EDM	1	500 mm	350 mm	500 mm	1070x530x350 mm
CNC wire cut EDM	1	350 mm	250 mm	256 mm	800x700x600 mm
EDM-drilling	1	max. dimens. of workpiece 660 x 360 x 240 mm		holes from 0,3mm up to 3mm, 250 mm depth	

GRINDING	#	longitudinal travel		transversal travel		
Plane grinding	1	800 mm		550 mm		
Profile grinding	3	610 mm		200 mm		
Cylindrical grinding	2	max. interior Ø : 150mm	max. exterior Ø : 360mm	distance between centers: 1000mm		
Coordinate grinding	1	dist. spindle-table	longitudinal	transversal	Max. stroke	Max. vertical travel
		505 mm	400 mm	254 mm	75 mm	370 mm
Honing	1	Range of diameters: from 1,5 to 73 mm		maximum length: 37 to 487mm		

DRILLING	#	longitudinal	transversal	Max. range
Deep hole drilling	1	600 mm	400 mm	600 mm
Electric tapping arm	1			M2 - M16

MISCELLANEOUS	#		MISCELLANEOUS	#	
Laser welding	1	YAG pulse laser 800x300x600mm P=120W electrical (Argon-TIG) and acetylene welding furnace (interior dimens. 210x350x500mm)	Sandblast+shot-peening	1	pressure from 2 to 6 kg
Welding	1		Polishing	1	
Hardening	1		Sawing	3	up till Ø 400 mm

PLASTIC INJECTION	#	max. injection volume	closing pressure	max. dimensions of mould
Klockner Ferromatic	1	87 grams	60 tons	315 x 315 mm
Metalmecanica	1	372 grams	200 tons	508 x 770 mm

METROLOGY

3D coordin. measuring mach. (CMM)	1	range : 900x1000x600mm, max.weight 1200kg – measuring head upto 5 axes with tracer for continuous scanning	height gauge (trimos)	1
3D coordin. measuring mach. (CMM)	1	range: 700x600x450mm, max. weight:500kg	Roughness control (Ra/Rz)	1
Optical CMM (camera)	1	range: 300x300x150mm, max. weight:12kg	Hardness control (HRC)	1
3D digitalisation scanner	1	range <400mm, resolution 0.1mm, precision 0.03mm	Profile projector	1