

## Machining resources and know-how

SEVA is the ideal partner for the custom machining of tools and/or special mechanical parts. Equipped with a diverse range of machinery, we machine complex shapes on hard materials of medium and large dimensions.



### Speciality

Turnkey projects, from the study of the foundry to the assembly through machining, all in an integrated digital chain.



### Skills

#### Custom machining

Our design office and our methods department study the project and proceed to the programming and simulations necessary to optimize the manufacturing process and guarantee the precision of each part produced. This design phase, which is crucial for the quality of the parts, is based on simulation of the machining paths (NC Simul) and the know-how of our experts. Once the studies have been validated, the part is machined on Computer Numerically Controlled (CNC) machines and, according to the needs, integrates the various required finishes: manual or automated polishing, fitting, welding, ...

#### Parts characteristics

	Maxi*
Unit weight (kg)	30 000
Length (mm)	4 000
Width (mm)	1 800
Diameter (mm)	1 000

\*Beyond the maximum: please contact us

#### Supported materials

Thanks to their high torque and rigidity, our machines are suitable for machining high-hardness materials (alloyed steels, stainless steels, nickel-based or cobalt-based superalloys, titanium...) whether they are produced within our specialized foundry or sourced from other suppliers (rough castings, forgings, rolled materials...). We also machine all other types of metal grades (aluminum, copper-based alloys, cast iron...).



### Design office resources

#### Integrated design office

Methods department, metallurgy laboratory, design, simulation tools, calculations, tests.

#### Softwares

Catia V5, Solidworks, Magma V6, Inventor, NC Simul, VX inspect, VX Model, Thermocalc.



### Machining resources

SEVA has a wide range of high-speed CNC (Computer Numerically Controlled) machines that can meet any type of requirements:



Milling  
3 and 5 axis



Turning



Multifunctional and robotized machining center  
Turning-milling



Electroerosion  
Wire or die-sinking



Polishing  
Manual or automated























Electron beam drilling



### Controls

Dimensional (conventional, three-dimensional, 3D scanning), structural (macrography, micrography (SEM)), NDT (roughness, liquid penetrant testing (LPT), US, radiography, waterproofing), spectrometry, mechanical controls (traction, low and high temperature creep), compression, shear, hardness, etc...

# Machining and tool removal devices

Brand	Type	Range (mm) Milling X-Y-Z Turning X-Z	Table dimension (mm)	Power	Max weight
<b>Milling</b>					
DROOP & REIN FRCN 	3 axis + angle drive	4 000 x 1 800 x 1 300	5 300 x 1 990	30 KW	30 000 Kg
TARKUS JOBS FRCN 	5 axis	3 300 x 2 100 x 1 000	3 500 x 1 500	35 KW	10 000 Kg
MAZAK FJV 60-120 	3 axis 5 faces + angle drive	3 200 x 1 400 x 660	3 000 x 1 250	30 KW	5 000 Kg
MAZAK VARIAXIS-FRCN 	5 axis	730 x 850 x 560	630 x 500	22 KW	500 Kg
HARTFORD HV70 	3 axis	1 530 x 800 x 620	1 700 x 750	15 KW	1 500 Kg
JOHNFOR SV-48H 	3 axis	1 220 x 710 x 630	1 300 x 700	16 KW	1 500 Kg
<b>Lathe milling machines</b>					
MAZAK Integrex 400	Robotized cell with two lathe milling machines robot-assisted by Fanuc R2000IC-210L	615 x 260 x 1 077	Ø 658 x 1 000	30 KW	400 Kg
MAZAK Integrex 400		615 x 260 x 1 077	Ø 658 x 1 000	30 KW	400 Kg
MAZAK Integrex - I630 V	Lathe milling machine	1 425 x 1 050 x 1 050	Ø 1 000 x 1 000	37 KW	550 Kg
MAZAK Integrex 1350 HST - 1500 	Dual spindle, dual turret Robot assisted by Fanuc M710 iD 45M Control machine Mitutoyo Mistar 555	1 585 x 300	Ø 670	30 KW	1 000 Kg
OKUMA LU45 M double tourelle 	Horizontal lathe, upper turret with motorized tool OKUMA LU45 M double tourelle	440 x 1 100	Ø 660	55 KW	500 Kg
<b>Turning</b>					
CAZENEUVE 	Horizontal lathe	295 x 1 710	Ø 580	22 KW	500 Kg
OKUMA LC50 Dual turret 	Horizontal lathe	800 x 650	Ø 800	55 KW	500 Kg
OKUMA LB15 	Horizontal lathe	212 x 1 000	Ø 340	15 KW	250 Kg
OKUMA LR45 Dual turret 	Horizontal lathe	380 x 1 550	Ø 570	45 KW	500 Kg
OKUMA LR45 Dual turret 	Horizontal lathe	380 x 1 550	Ø 570	45 KW	500 Kg
OKUMA LU45 Dual turret 	Horizontal lathe	440 x 1 100	Ø 660	55 KW	500 Kg
OKUMA LU45 Dual turret 	Horizontal lathe	440 x 1 100	Ø 660	55 KW	500 Kg
OKUMA LU400 Dual turret 	Horizontal lathe	420 x 330	Ø 420	180 KW	180 Kg
<b>Electro-erosion</b>					
SODICK AQ327L 	Wire EDM machine	370 x 270 x 250	606 x 396	15 KVa	350 Kg
SODICK AQ35L 	EDM machine	350 x 250 x 250	400 x 600	10 KVa	550 Kg
<b>Electron-beam drilling</b>					
FE1 STEIGERWALD 	Drilling	Ø800 x X500 x Z500	Ø1 000	120 KV 100 MA	250 Kg
FE2 STEIGERWALD 	Drilling	Ø800 x X500 x Z500	Ø1 000	120 KV 100 MA	250 Kg



: «Pont de Fer» SEVA site



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