Machining resources and know-how

SEVA is the ideal partner for the custom machining of tools and/or special mechanical parts. Equiped 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)	1 300

*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 V5, 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...

Parc machines usinage et enlèvement de matière
Machining and tool removal devices

Marque / Brand	**Type** / Type	**Courses** / Range (mm) : **Fraisage** / Milling : X-Y-Z **Tournage** / Turning : X-Z	**Dimensions table** / Table dimension (mm)	**Puissance** / Power	**Poids max. admissible sur table** / Max weight allowed on platen
Fraisage/ Milling					
DROOP & REIN FRCN	3 axes + renvoi / 3 axis + angle drive	4 000 x 1 800 x 1 300	5 300 x 1 990	30 KW	30 000 Kg
HARTFORD HV70	3 axes / 3 axis	1 530 x 800 x 620	1 700 x 750	15 KW	1 500 Kg
JOHNFORD SV-48H	3 axes / 3 axis	1 220 x 710 x 630	1 300 x 700	16 KW	1 500 Kg
MAZAK VARIAXIS-FRCN	5 axes / 5 axis	730 x 850 x 560	630 x 500	22 KW	500 Kg
MAZAK FJV 60-120	3 axes 5 faces + renvoi / 3 axis 5 faces + angle drive	3 200 x 1 400 x 660	3 000 x 1 250	30 KW	5 000 Kg
TARKUS FRCN	5 axes / 5 axis	3 300 x 2 100 x 1 000	3 500 x 1 500	35 KW	10 000 Kg
Tours-Fraiseuses / Lathe milling machines					
MAZAK Integrex 400	Cellule robotisée 2 tours-fraiseuses asservis par robot Fanuc R2000IC-210L / 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	Tour-fraiseuse / Lathe milling machine	1 425 x 1 050 x 1 050	Ø 1 000 x 1000	37 KW	1 500 Kg
Tournage/ Turning					
Vertical / Vertical					
BERTHIEZ	Tour vertical / Vertical lathe	1 350 x 802	Ø 1 300	50 KW	2 000 Kg
DIEDESHEIM Bi-broche / Dual-spindle	Tour vertical / Vertical lathe	500 x 550	Ø 600	30 KW	500 Kg
Horizontal / Horizontal					
CAZENEUVE	Tour horizontal / Horizontal lathe	295 x 1 710	Ø 580	22 KW	500 Kg
OKUMA C50 double tourelle / Dual turret	Tour horizontal / Horizontal lathe	800 x 650	Ø 800	55 KW	500 Kg
OKUMA LB15	Tour horizontal / Horizontal lathe	212 x 1 000	Ø 340	15 KW	250 Kg
OKUMA LR45 double tourelle / Dual turret	Tour horizontal / Horizontal lathe	380 x 1 550	Ø 570	45 KW	500 Kg
OKUMA LR45 double tourelle / Dual turret	Tour horizontal / Horizontal lathe	380 x 1 550	Ø 570	45 KW	500 Kg
OKUMA LU45 double tourelle / Dual turret	Tour horizontal / Horizontal lathe	440 x 1100	Ø 660	55 KW	500 Kg
OKUMA LU45 double tourelle / Dual turret	Tour horizontal / Horizontal lathe	440 x 1100	Ø 660	55 KW	500 Kg
OKUMA LU400 double tourelle / Dual turret	Tour horizontal / Horizontal lathe	420 x 330	Ø 420	180 KW	180 Kg
Electro-érosion/ Electro-erosion					
SODICK AQ327L	Erosion fil / Wire EDM ma chine	370 x 270 x 250	606 x 396	15 KVa	350 Kg
SODICK AQ35L	Erosion enfonçage / EDM ma chine	350 x 250 x 250	400 x 600	10 KVa	550 Kg
Machines spéciales/ Special machines					
Polissage/ Polishing					
MAP GM 2000	Machine à polir / Polishing machine	2 000 x 1 850 x 800	1 670 x 1 530		2 000 Kg
Percage au faisceau d'electrons/ Electron-beam drilling					
FE1 STEIGERWALD	Perçage / Drilling	Ø800 x X500 x Z500	Ø1 000	120 KV 100 MA	250 Kg
FE2 STEIGERWALD	Perçage / Drilling	Ø800 x X500 x Z500	Ø1 000	120 KV 100 MA	250 Kg

SEVA
SAINT-GOBAIN

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