

Stainless steel
experience at time
disposal



**Swiss
Steel**
Group



On demand services: cutting, specific traceability, stress relieving

Swiss Made

“Tailor-made watch products” solutions

- Stress relieving heat treatment on bars for very precise parts (Bezel...).
- Bars cut to length (350mm to 1,300mm) with copy of marking on the section.
- End finishes adapted to the machining process.
- Optimized packaging for machine storage and loading.

“Specific bar loader” solutions

- Bars for LNS Quick Load from 350 to 1,300mm.
- Bars for Tornos MultiSwiss 6x14 of 1,500mm.
- Bars deburred, chamfered and/or pointed.

“Custom lengths” solutions

- Billets or bars sawing Ø 3 to 70mm within a length range from 6 to 4,000mm.
- Chamfered 30° or 45°.

Services provided by Ugitech Suisse SA:

8 Route de Sorvillier
Case postale 154 CH-2735 Bévillard
Phone.: +41 32 491 66 11
E-mail: info@ugitech.ch
www.ugitech.ch

Tailor made services ex-mill Ugitech SA

- Sawing, cutting to length
- Heat treatment
- Marking (laser, hard stamping, ink) on section or on line marking
- Packaging
- Traceability
- Customer-dedicated stock items
- End finishes



Swiss Steel Group

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The information and data presented here in are typical or average values and are not a guarantee of maximum or minimum values. Only the information reported on our material certificates is to be considered as relevant.

Applications specifically suggested for material described herein are made for the purpose of illustration only to enable the reader to make its own evaluation and are not intended as warranties, either express or implied, of fitness for any purposes.

U[®] Villi[®] - www.imprimerie-villiere.com
Thuria - Horlogerie_EN – 04-2023
D16032EN

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A variety of grades to meet individual needs



Watch case
Size range 20 to 80mm

Ugitech designation (EN)	Other designation	Remelted	Main Specs	Machinability	Corrosion resistance	Sealing & cleanliness	Polishability	Scratch resistance Hardness
Austenitics								
UGIMA® 4404	316L			█	█	█	█	█
UGI® 4435 ICH	316LMo			█	█	█	█	█
UGI® 4435 IRH	316LMo			█	█	█	█	█
UGI® 4441 HUP	316LVM	ESR	ISO 5832-1	█	█	█	█	█

Watch strap
Size range 1.0 to 18mm available in drawn wires, bars and shaped wire

Ugitech designation (EN)	Other designation	Remelted	Main Specs	Corrosion resistance	Cleanliness	Polishability	Scratch resistance Hardness	Yield Strength
Austenitics								
UGIMA® 4404	316L			█	█	█	█	█
UGI 4435 ICH	316LMo			█	█	█	█	█
UGI® 4435 IRH	316LMo			█	█	█	█	█
UGI® 4441 HUP	316LVM	ESR	ISO 5832-1	█	█	█	█	█
UGI® 4472 HUP (diam < 14mm)		ESR	ISO 5832-9	█	█	█	█	█
UGI® 4455 HUP	XM 19	ESR		█	█	█	█	█
Cobalt-based alloys								
UGIALLOY® PHYNOX®		VAR	ISO 5832-7	█	█	█	█	█
UGIALLOY® KC35N		VAR or ESR	ISO 5832-6	█	█	█	█	█

PHYNOX® is a registered trademark of Aperam

Watch movement
Size range 1.0 to 15mm

Ugitech designation (EN)	Other designation	Remelted	Main Specs	Machinability	Abrasion resistance Hardness	Seizure resistance	Non-magnetic
Austenitics							
UGIMA® 4305	303			█	█	█	█
UGIMA® 4570	303Cu			█	█	█	█
UGIMA® 4404	316L			█	█	█	█
UGIMA® 4598	316LCu			█	█	█	█
UGI® 4435 ICH	316LMo			█	█	█	█
UGI® 4435 IRH	316LMo			█	█	█	█
UGI® 4441 HUP	316LVM	ESR	ISO 5832-1	█	█	█	█
UGI® 4472 HUP		ESR	ISO 5832-9	█	█	█	█
UGI® 4455 HUP	XM 19	ESR		█	█	█	█
Martensitics							
UGI® 4116N			EN 10088-3	█	█	█	█
UGI® 4197	420F MOD		ASTM F899	█	█	█	█
Maraging Steel							
UGIALLOY® DURIMPHY®		VAR		█	█	█	█
Cobalt-based alloys							
UGIALLOY® PHYNOX®		VAR	ISO 5832-7	█	█	█	█
UGIALLOY® KC35N		VAR or ESR	ISO 5832-6	█	█	█	█

PHYNOX® and DURIMPHY® are a registered trademark of Aperam

Sizes ranges, certified packagings and controls

Bars	Size range	Surface finish	Tolerances	Packaging
Round bars ex-mill	1 ≤ Ø < 20	Ground, drawn	h7, h8, h9	– Wooden boxes for all ground products (on request for other surface finishes) – Strapping around alveolar polypropylene fabric (Akilux)
	20 ≤ Ø ≤ 80	Turned, polished and ground	h9, h10	
Round bars ex-stock	1.8 ≤ Ø < 20	Ground, drawn	h7, h8, h9	– Customer-specific packaging on request
	20 ≤ Ø ≤ 80	Turned, polished and ground	h9, h10	

Drawn wires	Size range	Surface finish	Tolerances	Packaging
Round wire	1 – 15mm	Matt	Up to ISO 6 according to application	Coils, carriers, bars up to 15mm
Shaped wire	2 to 70mm²	Bright finished	To within 0.01mm, standard deviation 0.002mm	Coils

Certified inspection possibilities as per ISO 17025

Nature of test	Measured characteristics	Method reference
Physical-chemical analysis	Chemical Analysis	X-ray fluorescence, spectrometry, combustion and infrared absorption
Grain size determination	Grain size index	NF EN ISO 643 ASTM E112
Determination of non-metallic inclusion content	Inclusion content	ISO 4967*, ASTM E45
Detection of metallurgical defects by chemical attack	Micrographic observation	ASTM A604 / 604M
Determination of delta ferrite	Delta ferrite content	AMS 2315
Mechanical properties: Tensile test	Rp02, Rm, A %, Z % HRC, HB, HV	ISO6992-1, ASTM E8 / E8M
Mechanical properties: Hardness test		ISO 6506-1, ISO 6507-1, ISO 6508-1

* Cleanliness contains control according to DIN 50602 applicable to specific watchmaking requirements (on demand)