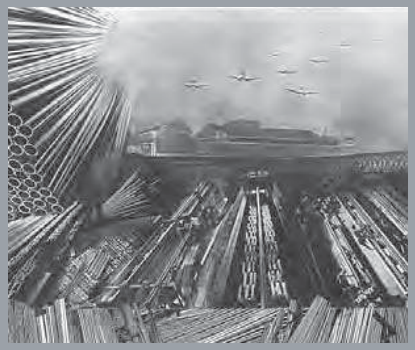
2024
TUBES LINE

COLUMBUS

The Soul of Cycling since 1919

#ColumbusTubing
#Steelisreal



In 1919, as Europe emerged from the ashes of the Great War, a twenty-seven year old Angelo Luigi 'A.L.' Colombo signed the lease on a small factory and so began the production of steel tubes. With demand for bicycles running high, their makers were amongst his first customers – Edoardo Bianchi, Umberto Dei, Atala, Giovanni Maino. With his tubing well-proven in the bicycle industry, Angelo Luigi saw strength in creativity and diversity and was soon supplying material for the tubular frames of seaplanes and road vehicles, as well as for furniture and ski-poles. Italy was at the forefront of aviation in the 1920s, and Colombo enjoyed a strong relationship with Caproni, manufacturing the tubing that formed the backbone of their famous aircraft. In 1927 Colombo became part of aviation history, with De Pinedo and Balbo's transatlantic planes having airframes constructed from Colombo tubing – the same tubing that was, at that time, used to fabricate race-winning Moto Guzzi motorcycle chassis.

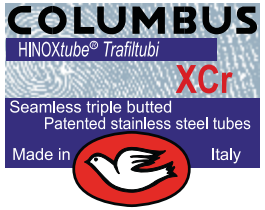
To give increased strength and reduced weight, Colombo began experimenting with 'butted' tubes – with variable wall thickness along their lenght.

Three years later, in 1930, Angelo Luigi created the brand name 'Columbus', which was initially only associated with tubular chromed-steel furniture. After an initial trial period, in which Columbus exhibited at the VI Triennale in Milan, Angelo Luigi obtained exclusivity of supply to EMBRU for the production of Marcel Breuer's iconic furniture designs. Shortly afterwards, Columbus furniture was in high demand – for offices, universities and schools as well as homes. The best rationalist architects of the time - Figini, Pollini, Terragni, Pagano, Pucci, Faccioli - crafted designs for Columbus, bringing innovation to the furniture industry and further reinforcing the reputation of Columbus as leaders in modernist design. Later in the 1930s, the Columbus name, along with 'Aelle' and 'Tenax' was first applied to special sets of bicycle tubes – the Columbus tubes being drawn from Chrome Molybdenum steel and the fork blades being elliptical, laying down standard characteristics that remain commonplace to this day. Never satisfied, Colombo worked to the maxim "Curiosity is a prelude to knowledge" and continued to experiment in the fields of mechanics and metallurgy.

Colombo even designed and built their own butting machines to manufacture the tubes with tapering wall thickness – reinforcing the tubes at the joints where stresses are greatest.

Colombo supplied tubes for racing car chassis, and Colombo's son, Gilberto, designed chassis for the immortal Italian manufacturers Lancia, Maserati and Ferrari. Fangio ('El Maestro'), Ascari and 'Gigi' Villoresi were carried to victory on Colombo chassis. Some of the tube profiles created at this time will find their application onto bicycle frames in the following years.

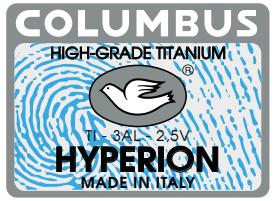
'Columbus', a new company dedicated to the development and production of specialist tubes for bicycle frames, is formed in 1977. Antonio Colombo, youngest son of Angelo Luigi, leaves his position as President of A.L. Colombo to devote himself entirely to the new-born Columbus. Extensive experience gained from cycle, aircraft and automobile testing was the driving force of the business: Columbus, reinforced by the fact that the Italian artisans who use Columbus tubes are admired and known all over the world, were determined to conquer international markets. Since that time continuous uninterrupted research, highlighting the parts of the frame subjected to the highest stress, has helped to improve stiffness and strength and increase resistance to deformation and breakage. Among the notable innovations are the taper-gauge elliptical fork blades, the conical helix tube butting, 'Air' – the first fully-aerodynamic tube set, and 'Max' – offering the advantages of differing oversize tube profiles to bicycle designers and riders. Parallel to an increasingly diverse production line, manufacturing 900 different types of tubes all of controlled origin and guaranteed quality, comes a growing competitive sector. For record attempts on the track, Columbus have developed super-light tube sets for the greatest champions: Coppi, Anquetil, Baldini, Rivière, Bracke, Ritter, Merckx, Moser, Oersted. The doctrine of intelligent experimentation and technological progress continues to be themain focus of the new Columbus, independent from A.L. Colombo since 1978. From research conducted in collaboration with the most prestigious research institutions, and through sophisticated tests carried out on the road and in the laboratory, Columbus continues to develop new materials and designs; new tube sets used by the top riders: from Gimondi to Merckx, Hinault to Argentin, Lemond and Roche, till nowadays new-generation hi-performance oveersized steel tube-sets and carbon fibre monocoque forks, frames and components.



XCr

Stainless, Seamless, Performance

- The jewel of the crown, top-range tubeset
- The only biphasic stainless seamless tube family available in the cycling industry
- Tripled & Double butted tube reinforces
- High corrosion resistance in long-term periods in every use and weather condition
- Seamless-technology, improved stiffness and mechanical properties
- Reduced thickness, up to 0.4mm for an extremely reduced weight
- Exceptional resistance to Stress Corrosion Cracking
- No need to be painted or clear-coated after polishing
- Ultra smooth surface (Ra<0,4)
- Excellent weldability
- Made in Italy



HYPERION

The New Era of Titanium

- Triple butted Grade 3Al - 2,5V alloy
- Cold-Drawn Seamless Grade 9
- Columbus' cold-drawing technology improves the mechanical properties of Hyperion tubes compared to other Titanium tubes available on the market, with a +22% increase in UTS relative to non-butted tubes
- Higher UTS compared to non internally-butted Ti tubes
- Wide range of special shapes and bends, from the Columbus new and old archives of custom sections
- Columbus' special proprietary drawing-lubricant provides extra-clean tubes out "of the box", without residual oils. This allows builders to prepare tubes for welding more quickly
- Made in Italy

SPIRIT HSS

High Strength Shaped

- Triple butted OMNICROM alloy
- Cold-Drawn Seamless Tube
- Exceptional mechanical properties
- Special HSS shaping, designed to optimize tube strength according to the orientation of its local solicitations
- High tensile strength, superior resilience and incredible fatigue resistance
- Visual Quality Control inspection and hand marking of each tube
- Unpaired strength/weight ratio
- Made in Italy

SPIRIT

Top-Performance Road-Race

- Triple butted OMNICROM alloy
- Cold-Drawn Seamless Tube
- Reduced thickness, up to 0.38mm
- Exceptional mechanical characteristics
- High tensile strenght, superior resilence and incredible fatigue resistance
- Excellent tube-surface finishing and highly controlled alloy-composition, regular and close to nominal, for an excellent weld bead
- Visual Quality Control inspection and marking of each tube
- Incomparable strength/weight ratio
- Made in Italy

LIFE

Oversize, Lightness, Resistance

- Triple butted OMNICROM alloy
- Cold-Drawn Seamless Tube
- Wide range and great freedom in frame-design & tubeset-composition
- Excellent resistance/weight ratio, wide range of shapes & bends
- Over-sized tubes available for the DT (Ø42mm) and the ST (Ø35mm)
- Exceptional mechanical characteristics
- High breaking load, superior tenacity and incredible fatigue endurance
- Wide range of specifications: road-race, gravel, urban and mtb
- Made in Italy

MAX

The Revolutionary Tubeset

- Triple butted OMNICROM alloy
- Cold-Drawn Seamless Tube
- The very first and only original patented non-round tubeset of the cycling history
- Tubes shapes oriented according to localized specific stress-direction
- Elliptical and oriented oversized sections for an increased momentum of inertia
- Maximized stiffness, reduced thickness, weight and power-dispersion
- Made in Italy

SL

Super Leggera - The 'Soul of Cycling'

- Double butted OMNICROM alloy
- The most famous Columbus round set
- Hi-performance, imperial dimensions
- Exclusive laminated tapered fork blades swaged on shaped-mandrels for an improved structure and lightness
- Wide range with multiple diameters and thicknesses and reinforces
- Meets both lugged and Tig-welded frame needs
- Evergreen specifications updated to new technologies and alloys
- Double butted seamless tubes, cold worked and stress relieved
- Made in Italy

ZONA

All-Purpose Hi-Resistance tubes family

- Triple / Double butted 25CroMo4 alloy seamless tubeset
- Moderate weight and high strenght
- Multiple possible shapes, triangle & stays
- Increased wall-thicknesses and butted lenghts in strategic tube areas
- Perfect solution for offroad and training purpose
- Great to mix with lighter Columbus sets for an improved resistance
- Good resistance to heating during welding process
- Great reliability and fatigue life
- Made in Italy

Tubesets


COLUMBUS
ACCIAIO CrMo
CROMOR OR
DOPPIO SPESSORE
COLUMBUS
TUBI SPECIALI RINFORZATI DSB
ACCIAIO NIVACROM
COLUMBUS
TUBI SPECIALI RINFORZATI
ACCIAIO NIVACROM
COLUMBUS
GRAIN SIZE CONTROLLED
CYBER
COLUMBUS
TUBI SPECIALI RINFORZATI
ACCIAIO
EVOLUT
CYBER
Size Controlled
COLUMBUS
TUBI PROFILATI RINFORZATI
ACCIAIO CrMo CYCLEX
GILCO MS DESIGN
DOPPIO SPESSORE
COLUMBUS
7005 ALLOY
AIRPLA
Triple Butted Tubes
Solution Treated
COLUMBUS
HINOXtube® Trafiltubi
Seamless triple butted
Patented stainless steel tubes
Italy
ACCIAIO NIVACROM
NIVA OR
DOPPIO SPESSORE
COLUMBUS
NIOBIUM STEEL ALLOY
SPIRI
Progressive Butted H.S.L.A.
Fine Grain Niobium Dop
COLUMBUS
NIOBIUM STEEL ALLOY
SPIRIT KEIRI
Progressive Butted H.S.L.A.
Fine Grain Niobium Doped
COLUMBUS
TUBI SPECIALI RINFORZATI
ACCIAIO CrMo
BRAIN
COLUMBUS
TUBI SPECIALI RINFORZATI
ACCIAIO NIVACROM
MAX
COLUMBUS
TUBI SPECIALI RINFORZATI
ACCIAIO NIVACROM
OFF ROAD
TRIPLO SPESSORE
COLUMBUS
7005 ALLOY
ALUTHRO
Seamless Drawn Tubes
T6 Hardening
COLUMBUS
THERMACROM ALLOY
ULTI
Triple Butted Tubes H.T.C.
High Temperature Conditione
COLUMBUS
TUBI SPECIALI SUPERBUTTED
SLX NEW
COLUMBUS
CYCLEX ALLOY
BRAIN
Double Butted Tubes
COLUMBUS
HINOXtube® Trafiltubi
XCr
Seamless triple butted
Patented stainless steel tubes
Made in
Italy
COLUMBUS
TUBI SPECIALI RINFORZATI
ACCIAIO CrMo
ARA OR
COLUMBUS
6000 ALLOY
STARSHI
Hyperlite Triple Butted Tubes
Stress Corrosion Resistant
COLUMBUS
TUBI SPECIALI RINFORZATI
ACCIAIO CrMo CYCLEX
SL
DOPPIO SPESSORE
COLUMBUS
Zirconium and Scandium doped
Supertight tubes Hot cracking
COLUMBUS
NIVACROM® ALLOY
GEN
Double Butted Tubes D.S.
Differential Shape
COLUMBUS
ALLUMINIO
ALTEC OR
COLUMBUS
NIOBIUM STEEL ALLOY
SPIRIT KEIRIN
Progressive Butted H.S.L.A.
Fine Grain Niobium Do
COLUMBUS
THERMACROM ALLOY
FOCO KEI
Triple Butted Tubes H.T.C.
COLUMBUS
NIVACROM® ZONA ALLOY
COLUMBUS
TUBI SPECIALI SUPERBUTTED
SLX
COLUMBUS
TUBI SPECIALI RINFORZATI
SSP
SPIRIT SUPER PISTA
COLUMBUS
NIOBIUM STEEL ALLOY
Triple Butted H.S.L.A.
Fine Grain Niobium Doped
Made in
COLUMBUS
TUBI SPECIALI RINFORZATI
ACCIAIO NIVACROM
EXTRA EL LEGGERI
DOPPIO SPESSORE
COLUMBUS
TUBI SPECIALI RINFORZATI
7005
COLUMBUS
TUBI SPECIALI RINFORZATI
ALTEC
Triple Butted Tubes
Heat Treated-Controlled Ageing
Italy
COLUMBUS
7000 ALLOY
STARSHI
Hyperlite Triple
Limit
COLUMBUS
TUBI RINFORZATI GARANTITI
SPECIALE
ACCIAIO

COLUMBUS XCr

XCr è un acciaio speciale inossidabile dalla formulazione innovativa.
Caratteristica esclusiva ed unica nel settore del ciclo della nuova serie XCr Columbus, sono i tubi inossidabili senza saldatura, realizzati partendo da una billetta forata meccanicamente e trafilata a freddo innumerevoli volte fino ad ottenere ridottissimi spessori finali. In questo modo le elevate caratteristiche meccaniche dei tubi sono uniformi e costanti su tutta la sezione circolare del tubo.
Grazie alla particolare composizione chimica di questa nuova lega, la struttura cristallina non viene alterata durante il processo di saldatura del telaio, garantendo le massime prestazioni anche nei punti di giunzione.
Caratteristiche meccaniche: UTS=1450MPa, Ys=1000MPa, Ap5: >10%
Materiale d'apporto suggerito per saldatura TIG: APX4S
Materiale d'apporto per saldobrasatura: T99 (Ag 56% Cu 22% - Zn 17%)

XCr is an innovative, high grade, stainless seamless steel tubing set.
Exclusive and unique characteristic for the whole bike industry of the new Columbus XCr set, is that the stainless steel tubes are seamless, made starting from a solid billet, machine-perforated and cold drawn countless times, to obtain the final required thickness.
In this way the very high mechanical characteristics are uniform and constant in the whole round section of the tube.
Thanks to the special chemical composition of this new alloy, the grain structure is not altered by welding during the frame construction.
The maximum characteristics are granted also in the joint areas.
Mechanical characteristics: UTS=1450MPa Ys=1000MPa, Ap5: >10%
Suggested filler material for TIG welding: APX4S
Suggested material for brazing: T99 (ag 56% Cu 22% - Zn 17%)

COLUMBUS Omnicrom

NEW!

A distanza di 30 anni dagli studi fatti da Columbus e l'Istituto di Saldatura di Parigi che portarono a brevettare le leghe Cyclex e Nivacrom, siamo oggi ad un nuovo traguardo nella storia degli acciai ad alta prestazione, siamo oggi pronti per presentare OMNICROM.

Le performance del telaio in acciaio sono direttamente influenzate dalle caratteristiche e qualità dei materiali e componenti utilizzati: senza sottovalutare la bontà della geometria e del progetto, grande importanza e' da attribuirsi alla qualità dei tubi e della saldatura, con speciale riferimento alle ripercussioni che essa ha sui tubi utilizzati.

Columbus da sempre presta particolare attenzione alla resistenza dei propri tubi agli stress termici e alle trasformazioni che avvengono durante la fase di saldatura.
Con l'introduzione di OMNICROM, Columbus inaugura una nuova era del tubo in acciaio: prestazioni senza precedenti e grandissima capacità di lavorazione.

OMNICROM e' il punto di arrivo di un lungo percorso.
Tutto parte dalle più aggiornate leghe di acciaio al Cromo-Molibdeno con basso tasso di Carbonio, utilizzate nel moderno ambito aeronautico, figlie delle prime ricerche delle acciaierie AL Colombo.
Dall'esperienza sviluppata negli anni da Columbus nel campo delle competizioni motor e ciclo con leghe cromolly, OMNICROM si arricchisce dei benefici del Vanadio e di un accurato controllo del processo produttivo: la miglior scelta per il rider, la miglior scelta per il telaista.

Caratteristicha distintiva di OMNICROM sono la strettissima tolleranza nella composizione della lega, affinata e rifusa per garantire la regolarità della struttura, la resistenza allo snervamento, l'ottima saldabilità e l'elevata resilienza.

La purezza dell'acciaio OMNICROM si traduce in assenza di inclusioni, tramite un attento controllo degli elementi del metallo, annullando eventuali comportamenti anomali della lega, dovuti ad impurità ed irregolarità presenti nella struttura del cristallo.

30 years have passed since Columbus and The Institute of Welding of Paris collaborated on a research study which lead to obtaining patents on Cyclex and Nivacrom alloys. Today marks a new milestone in the history of high-performance alloys. Today we present OMNICROM.

The performance of a steel frame is, undoubtedly, directly influenced by the characteristics and quality of the materials and components used: in combination with the quality of the geometries and the project, big importance belongs to the quality of the material and of the welds, with particular attention paid to the effect they have on the tubes used for the realization of the frame.

Columbus has always paid particular attention to the resistance the tubes have to the thermal stress and transformations they are typically exposed during the welding phase. With the introduction of OMNICROM, Columbus ushers forth a new era of steel tubing; unprecedented performance and excellent processing capacity.

OMNICROM is the culmination of a long journey.
It all starts with the latest low-carbon Chromium-Molybdenum Steel alloys used today in the aerospace industry, descendants of the first research done at AL Colombo's steel mill.
Putting to use all the experience Columbus has gained within the competitive motorcycle and cycling industry developing Chromoly alloys, OMNICROM benefits from being enriched with Vanadium combined with a highly controlled production process: the best choice for riders, the best choice for framebuilders.

OMNICROM's distinctive feature are the strict tolerance of the alloycomposition, refined and re-fused to grant the regularity of the structure, an increased yield strength, excellent weldability and elevated resilience.

OMNICROM's purity translates into excluding inclusions, through careful control of the metal elements, eliminating any abnormal behavior of the alloy caused by these impurities and consequently irregularities within the crystal structure.

COLUMBUS Omnicrom

La centenaria esperienza di Columbus nei processi di trafilatura a freddo, assieme alle straordinarie proprietà di OMNICROM, permettono di raggiungere un'elevata regolarità della struttura cristallina del metallo. Il controllo della lega sin dal momento della solidificazione in colata, si traduce in maggiore capacità di assorbire il calore e lo stress della saldatura e mantenere stabili e inalterate le proprietà meccaniche anche dopo saldatura.

OMNICROM si lavora con grande facilità, ha un comportamento regolare e prevedibile durante la saldatura, si presta a realizzazioni TIG, saldo-brasatura fillet e a congiunzioni, grazie all'elevata temperatura di transizione (Ac3=980°) che ne preserva inalterata struttura e performance anche dopo le lavorazioni piu' esasperate.

Le prestazioni di OMNICROM sono superiori agli acciaio sino ad oggi brevettati da Columbus, grazie alla speciale composizione della lega, e all'innalzamento delle proprietà meccaniche ottenuto tramite la maggior deformabilità a freddo del tubo, realizzata per trafilatura, ottenuta grazie alle qualità di questa speciale lega.

Caratteristiche meccaniche:
UTS=1300MPa, Ys≥920 MPa, Ap5>15%.
Materiale d'apporto per TIG:
OK TIGROD 13.12 (AWS 5.28 ER 80S-G)
Materiale d'apporto per saldobrasatura:
Castoline Silver Alloy 38230

Columbus OMNICROM è utilizzato nei triangoli Spirit, Spirit HSS, Max, SL e Life.

The extraordinary properties of OMNICROM and a century of experience in cold drawing steel allows Columbus to achieve an elevated degree of crystal structure regularity. The crystal structure is controlled since casting solidification and grants a greater capacity to absorb the heat and stress of the welding process, maintaining the tube's mechanical properties stable and unaltered.

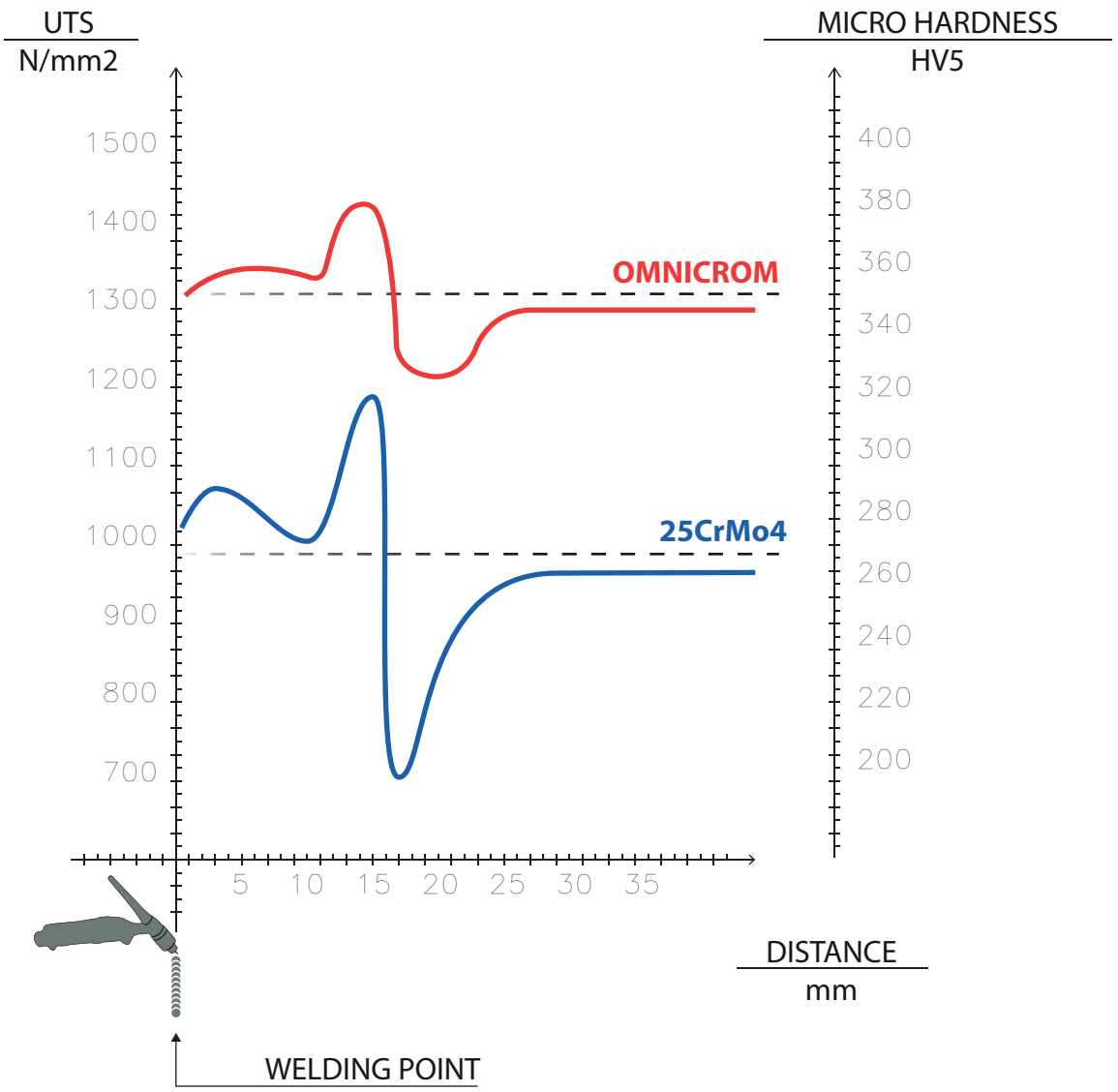
Thanks to its high transition temperature (Ac3=980°), OMNICROM is easy to work with. It has a smooth, predictable behavior during welding and lends itself perfectly to TIG welding, as well as fillet and lug brazing maintaining an unaltered structure and performance even after undergoing the most extreme processes.

OMNICROM's performance is superior to steel alloys patented up to this day by Columbus. This superior performance is thanks to the special alloy composition and improved mechanical properties, which are obtained through the increased plastic deformation of the tubing achieved through cold-drawing, made possible thanks to a special alloy formula.

Mechanical characteristics: UTS=1300MPa, Ys≥920 MPa, Ap5>15%.
Suggested material for TIG welding: OK TIGROD 13.12 (AWS 5.28 ER 80S-G)
Suggested material for brazing: Castoline Silver Alloy 38230

Columbus OMNICROM is utilized for the production of the Spirit, Spirit HSS, Max, SL and Life main-triangles.

COLUMBUS Omnicrom



MECHANICAL CHARACTERISTICS COMPARISON OF COLUMBUS TUBES

- XCR
- OMNICROM
- NIOBIUM
- 25CRMO4
- CROMOR

THE VALUES ARE FOR HOMOGENEOUS SECTIONS OF COLD-DRAWN STRESS-RELIEVED TUBING FROM THE MAIN TRIANGLE

	N/mm²
XCR	**1450**
OMNICROM	**1300**
NIOBIUM	**1250**
25CRMO4	**900**
CROMOR	**750**

The new Omnicrom alloy will soon be featured on all the Columbus top-range main-triangles, including Spirit, Spirit HSS, SL, MAX, and Life tubesets.

COLUMBUS 25CrMo4

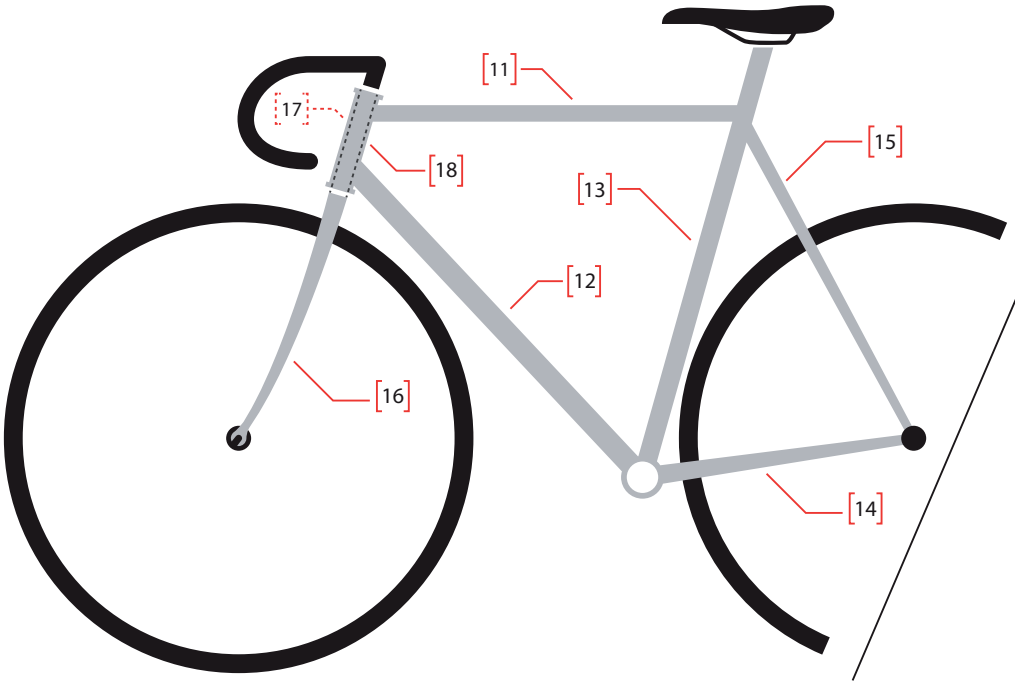
Acciaio 25CrMo4 senza saldatura: grazie al Cromo l'acciaio resiste egregiamente al surriscaldamento dovuto alla saldatura, infatti, i grani non si ingrossano e le prestazioni meccaniche non vengono alterate. Brasatura o saldatura sono dunque ben sopportate. Questo acciaio, allo stato crudo malleabile, garantisce elevate caratteristiche meccaniche.
Caratterisitche meccaniche: UTS=900MPa, Ys=800MPa, Ap5 =12%
Materiale d'apporto per saldatura TIG: OK TIGROD 13.12 (AWS 5.28 ER 80S-G)
Materiale d'apporto per saldobrasatura: Castoline Silver Alloy 38230
Columbus 25CrMo4 è utilizzato nelle serie tubi Zona, 29r e FAT.

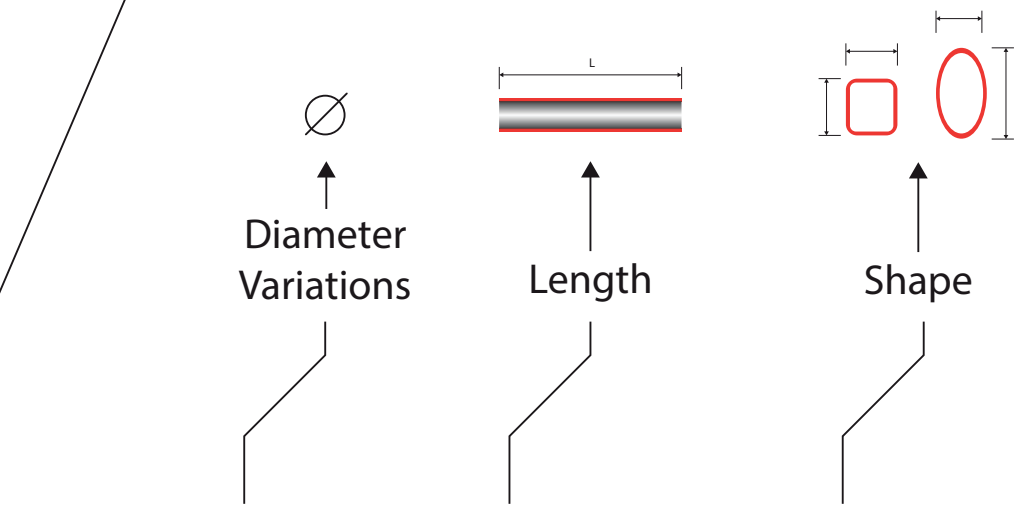
25CrMo4 seamless steel: the chemical composition of this steel, specifying a higher percentage of Chromium, gives to the material good resistance properties to overheating. The formation of carbides prevents the grain enlargement: the steel maintains its properties during brazing and welding, even in the malleable raw state it features excellent mechanical characteristics.
Mechanical characteristics: UTS=900MPa, Ys=800MPa, Ap5 =12%
Suggested filler material for TIG welding: OK TIGROD 13.12 (AWS 5.28 ER 80S-G)
Suggested material for brazing: Castoline Silver Alloy 38230
Columbus 25CrMo4 is utilized for the production of the Zona, 29r and FAT tubesets.

COLUMBUS Cromor

Columbus Cromor e' un acciaio 25CrMo4, saldato e trafilato a freddo su mandrini sagomati a spessore variabile.
Cromor e' prodotto partendo da uno sbozzato calibrato che ha già a sua volta subito due passaggi di trafilatura, prima di essere rinforzato a spessore variabile.
Caratteristiche meccaniche: UTS=750MPa, Ys=700MPa, Ap5 ≥ 12%
Materiale d'apporto per saldatura TIG: OK TIGROD 13.12 (AWS 5.28 ER 80S-G)
Materiale d'apporto per saldobrasatura: Castoline Silver Alloy 38230

Columbus Cromor is a 25CrMo4 steel, seamed and cold drawn, butted to variable thicknesses using shaped mandrills. Cromor steel is produced starting from a calibrated tube which has already received two drawing processes, before being reinforced in all the possible variable thickness offered by the range.
Mechanical characteristics: UTS=750MPa, Ys=700MPa, Ap5 ≥ 12%
Suggested material for TIG welding: OK TIGROD 13.12 (AWS 5.28 ER 80S-G)
Suggested material for brazing: Castoline Silver Alloy 38230





[SLF][L][13][635][112][A]

Family

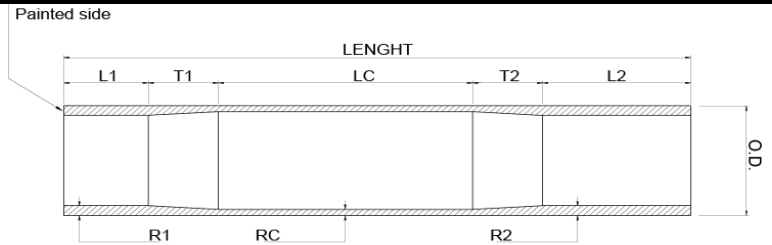
Variations

		ITA	ENG
		11 - TO	11 - TT
XCR	XCr	12 - TQ	12 - DT
SP	Spirit	13 - TV	13 - ST
SL	HSS/SL	14 - PO	14 - CS
SLF	Life/HSS	15 - PV	15 - SS
ZON	Zona	16 - FF	16 - FB
CR/CX	Cromor	17 - CN	17 - FS
FBR	Disc Blade	18 - ST	18 - HT

Columbus Bicycle Steel Tubes are hi-precision tubes manufactured using a cold-drawing hardening process, subject to a final stress-relieve heat treatment in order to release the internal tensions and optimize the crystalline structure of the alloy and its elements.

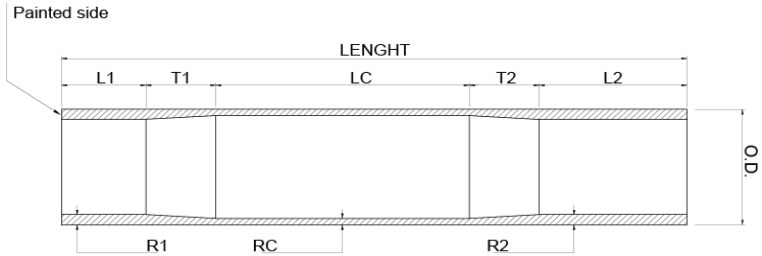
COLUMBUS
TUBE-CODE LEGEND

MAIN TUBES - double / triple butted



CODE	O.D.	LENGTH	THICKNESS			BUTTED LENGTHS					FAMILY
			R1	RC	R2	L1	T1	LC	T2	L2	
XCRL11570	31,7	570	0,6	0,4	0,6	40	40	330	40	120	XCr
XCRL11600	31,7	600	0,6	0,4	0,6	40	40	380	40	100	XCr
XCRL11600W		*= XCRL11600 + "W" shape*									XCr
XCRS11600	31,7	600	0,7	0,5	0,7	60	40	350	40	110	XCr
XCRL12650	35	650	0,65	0,45	0,65	40	40	430	40	100	XCr
XCRS12670	35	670	0,7	0,5	0,7	60	40	385	40	145	XCr
XCRA12670	38	670	0,65	0,45	0,65	40	40	450	40	100	XCr
XCRA12670Z		*= XCRA12670 + "Z" shape*									XCr
XCRA12670MAX		*= XCRA12670 + "MAX" bi-oval shape*									XCr
XCRG12670	42	670	0,6	0,45	0,6	60	40	410	40	120	XCr
XCRC11600	28,6	600	0,75	0,45	0,75	100	40	320	40	100	XCr
XCRC12650	31,7	650	0,75	0,45	0,75	100	40	320	40	150	XCr
SPTL11570	31,7	570	0,6	0,4	0,6	50	40	370	40	70	Spirit
SPTL11570112AW		*= SPTL11570 + "AW" 27x33,5mm shape*									Spirit
SPTA12635	38	635	0,6	0,4	0,6	50	40	425	40	80	Spirit
SPTA12635112AZ		*= SPTA12635 + "AZ" shape*									Spirit
SPLM11600	28,6	600	0,75	0,45	0,75	100	40	320	40	100	Spirit FL
SPLM12650	31,7	650	0,75	0,45	0,75	100	40	350	40	120	Spirit FL
SPKI11580	25,4	580	0,8	0,5	0,8	55	30	305	30	160	Spirit Keirin
SPKI12640	28,6	640	0,8	0,5	0,8	90	30	390	30	100	Spirit Keirin
SL2I11600	25,4	600	0,8	0,5	0,8	100	40	320	40	100	SL
SL2I12650	28,6	650	0,8	0,5	0,8	100	40	320	40	150	SL

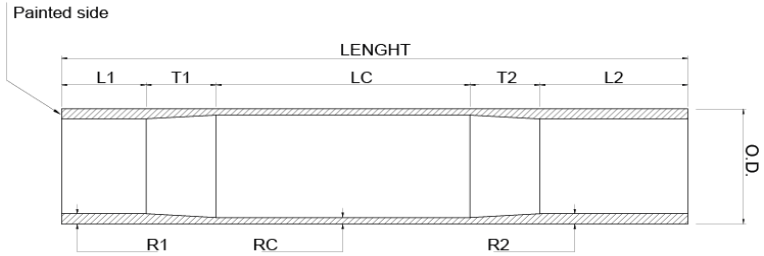
MAIN TUBES - double / triple butted



CODE	O.D.	LENGTH	THICKNESS			BUTTED LENGTHS					FAMILY
			R1	RC	R2	L1	T1	LC	T2	L2	
SLFL11600125*	31,7 / 28,6	600	0,65	0,45	0,65	40	40	380	40	100	Spirit HSS
SLFL11600OV125*		*= SLF11600125 + ovalized HT side 28,7x34,6mm*									Spirit HSS
SLFL11560125*	31,7 / 28,6	560	0,65	0,45	0,65	40	40	340	40	100	Spirit HSS
SLFL11560OV125*		*= SLF11560125 + ovalized HT side 28,7x34,6mm*									Spirit HSS
SLFG11600	35	600	0,65	0,45	0,65	60	40	385	40	75	Spirit HSS
SLFG11600125*	35 / 31,7	600	0,65	0,45	65	60	40	385	40	75	Spirit HSS
SLFG11600125001	35/28,6	600	0,7	0,5	0,7	100	40	320	40	100	Spirit HSS
SLFG12640	44	640	0,6	0,45	0,6	50	40	360	40	150	Spirit HSS
SLFG12670	44	670	0,6	0,45	0,6	90	40	380	40	120	Spirit HSS
SLFG12640GX		= SLFG12640 + "GX" shape									Spirit HSS
SLFG12640HX		= SLFG12640 + "HX" shape									Spirit HSS
SLFG12640Y01		= SLFG12640 + "YO1" shape									Spirit HSS
SLFM11600	28,6	600	0,7	0,45	0,7	50	40	370	40	100	Life
SLFL11560	31,7	560	0,65	0,45	0,65	40	40	340	40	100	Life
SLFL11560W01		*= SLFL11560 + "W01" shape*									Life
SLFL11560112AW		*= SLFL11560 + "112AW" shape*									Life
SLFL11600	31,7	600	0,65	0,45	0,65	40	40	380	40	100	Life
SLFL11600W01		*= SLFL11600 + "W01" shape*									Life
SLFL11600112AW		*= SLFL11600 + "112AW" shape*									Life
SLFA12670002	38	670	0,9	0,6	0,9	150	40	260	40	180	Life
SLFH12670002	42	670	0,9	0,6	0,9	150	40	260	40	180	Life
SLFM12650125*	31,7 / 28,6	650	0,65	0,45	0,65	60	40	360	40	150	Life
SLFL11600125001	31,7/28,6	600	0,8	0,6	0,8	100	40	260	40	160	Life
SLFM12630	31,7	630	0,7	0,45	0,7	70	40	380	40	100	Life
SLFL12650	35	650	0,65	0,45	0,65	60	40	390	40	120	Life
SLFA12670	38	670	0,65	0,45	0,65	40	40	450	40	100	Life
SLFA12670131		*= SLFA12670 + "MAX" bi-oval shape*									Life
MAXL11600	31,7	600	0,7	0,4	0,7	100	40	320	40	100	MAX
		TT double oval shaped 37,6x26,1mm									
MAXL12650	35	650	0,8	0,5	0,8	125	45	310	45	125	MAX
	DT bi-oval oval shaped 40,3x30mm										

(*): Tapered tubes. Thickness before tapering.

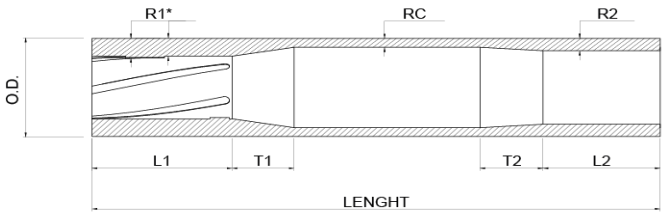
MAIN TUBES - double / triple butted

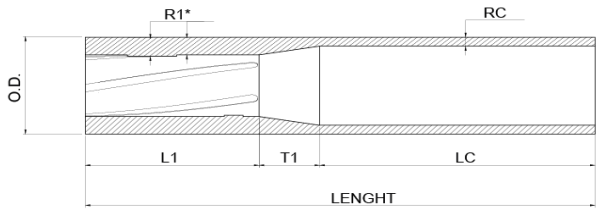


CODE	O.D.	LENGTH	THICKNESS			BUTTED LENGTHS					FAMILY
			R1	RC	R2	L1	T1	LC	T2	L2	
ZONM12650	31,7	650	0,7	0,5	0,7	60	40	360	40	150	29'r
ZONL11600125	31,7/28,6	600	0,9	0,6	0,9	100	40	260	40	160	Zona
ZONL12670002	35	670	0,9	0,6	0,9	150	40	260	40	180	Zona
ZONL12750001	35	750	0,8	0,5	0,8	125	40	340	40	205	29'r
ZONA12750	38	750	0,7	0,5	0,7	60	40	410	40	200	29'r
ZONA12750001	38	750	1	0,5	0,8	270	40	300	40	100	29'r
ZONA12750001110E**	38	750	1	0,5	0,8	270	40	300	40	100	29'r
ZONH12750	42	750	0,7	0,5	0,7	60	40	410	40	200	29'r
ZONI11600	25,4	600	0,8	0,6	0,8	100	40	320	40	100	Zona
ZONM11600	28,6	600	0,7	0,5	0,7	50	40	370	40	100	Zona
ZONM11560	28,6	560	0,7	0,5	0,7	50	40	330	40	100	Zona
ZONM11600001	28,6	600	0,8	0,5	0,8	95	40	320	40	105	Zona
ZONI12650	28,6	650	0,8	0,6	0,8	100	40	320	40	150	Zona
ZONL11600	31,7	600	0,7	0,5	0,7	60	40	350	40	110	Zona
ZONL11560	31,7	560	0,7	0,5	0,7	60	40	310	40	110	Zona
ZONM12670	31,7	670	0,8	0,5	0,8	100	40	370	40	120	Zona
ZONL12670	35	670	0,7	0,5	0,7	60	40	410	40	120	Zona
ZONL12670001	35	670	0,8	0,5	0,8	125	40	340	40	125	Zona
ZONA12670	38	670	0,7	0,5	0,7	60	40	410	40	120	Zona
ZONH12670	42	670	0,7	0,5	0,7	60	40	410	40	120	Zona
CRMI11600	25,4	600	0,9	0,6	0,9	95	60	230	60	155	Cromor
CRMI12640	28,6	640	0,9	0,6	0,9	85	60	320	60	115	Cromor
CRRM11600	28,6	600	0,9	0,6	0,9	85	60	280	60	115	Cromor
CRMM12640	31,8	640	0,9	0,6	0,9	85	60	320	60	115	Cromor

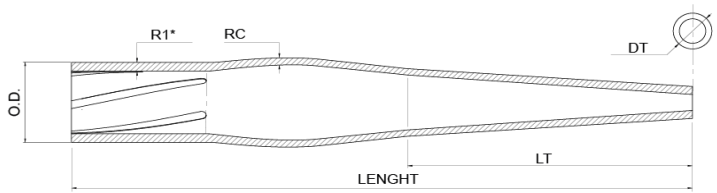
(*): Tapered tubes. Thickness before tapering. (**): Bended DT for MTB fork clearance.

SLX PROJECT





MAIN-TUBES CODES	O.D.	LENGTH	THICKNESS			BUTTED LENGTHS					FAMILY
			R1	RC	R2	L1	T1	LC	T2	L2	
SLXI12650	28,6	650	0,9*	0,6	0,9	105	50	270	50	175	SLX
SLXI13635	28,6	635	0,8*		0,6	150	50	435			SLX

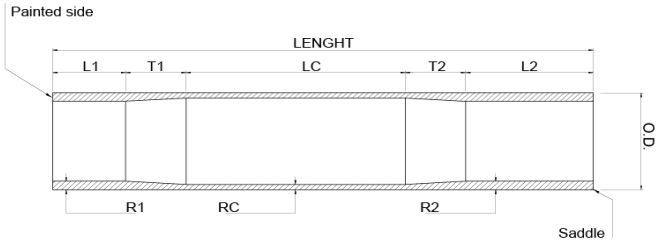


CHAINSTAY CODE	O.D.	LENGTH	THICKNESS*								FAMILY
			R1	RC		oval		LT		DT	
SLXI14OV410	22,2	410	0,8*	0,6		100		297,5		12,5	SLX

(*) plus 0,2mm of additional SLX spiral-reinforce

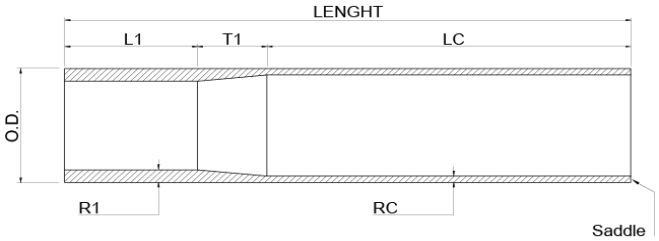
The original SLX tubeset is only available as a 8-tubes full-set, featuring the special SLX downtube, seat-tube and chainstays, completed by the 25.4mm SL top-tube, SL seat-stays and 31,7mm steerer.

SEAT TUBES - double / triple butted



CODE	O.D.	LENGTH	THICKNESS			BUTTED LENGTHS					FAMILY
			R1	RC	R2	L1	T1	LC	T2	L2	
XCRM13650A	33	650	0,65	0,45	0,65	100	40	270	40	200	XCr
741FD33		*Columbus CNC aluminum front derailleur clamp ø33 for XCRM13650A tube*									
SPTI13620	28,6	620	0,7	0,4	0,6	175	40	295	40	70	Spirit
SLFI13560	28,6	560	0,75	0,4	0,6	130	30	210	30	160	Life
SLFI13635	28,6	635	0,75	0,4	0,6	130	30	285	30	160	Life

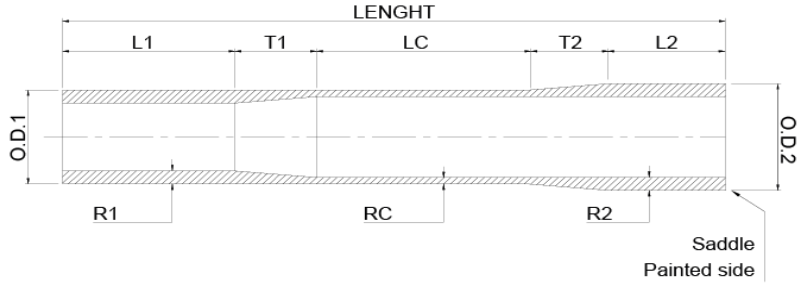
SEAT TUBES - single butted



CODE	O.D.	LENGTH	THICKNESS		BUTTED LENGTHS			FAMILY
			R1	RC	L1	T1	LC	
XCRC13635	28,6	635	0,8	0,6	150	40	445	XCr
XCRM13635	31,7	635	0,7	0,5	100	40	495	XCr
XCRS13650	31,7	650	0,7	0,5	150	40	460	XCr
SPLI13635	28,6	635	0,8	0,6	150	40	445	Spirit / SL
SPKI13635	28,6	635	0,8	0,6	150	40	445	Spirit Keirin
SL2I13635	28,6	635	0,8	0,6	150	40	445	SL
SLFL13635	35	635	0,7	0,5	135	40	460	Life
SLFM13635	31,7	635	0,8	0,5	150	40	445	Life
MAXL13635*	31,7 / 28,6	635	0,8	0,5	150	40	445	MAX
ZONI13635	28,6	635	0,8	0,6	150	40	445	Zona
ZONM13635	31,7	635	0,8	0,6	150	40	445	Zona
CRMI13640	28,6	640	0,9	0,6	95	70	475	Cromor

(*): Tapered at saddle side, oval 37,2 x 26,4 at BB side, thickness before tapering

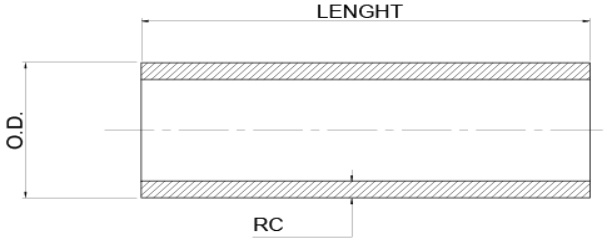
SEAT TUBES - external butted



CODE	O.D.	O.D.2	LENGTH	THICKNESS			BUTTED LENGTHS					FAMILY
				R1	RC	R2	L1	T1	LC	T2	L2	
SLFM13520001	31,7	32,5	520	0,7	0,5	0,9	160	40	170	40	110	Spirit HSS
SLFM13580001	31,7	32,5	580	0,7	0,5	0,9	160	40	240	40	100	Spirit HSS
SLFM13635001	31,7	32,5	635	0,7	0,5	0,9	160	40	315	40	80	Spirit HSS
SLFM13710001	31,7	32,5	710	0,7	0,5	0,9	160	40	240	40	230	Spirit HSS
ZBSRID27,2			*Alloy reduction sleeve for 27,2mm seat-tube pre-slotted*									
ZBSRIDSP27,2			*Alloy reduction sleeve for 27,2mm seat-tube non-slotted*									
SLFI13520001	28,6	29,4	520	0,8	0,6	1	150	40	210	40	80	Life
SLFI13635001	28,6	29,4	635	0,8	0,6	1	150	40	325	40	80	Life
ZON113550	28,6	29,8	550	0,8*	0,6	1,2	245	40	150	40	75	29'r
ZON113550110F			= ZON113550 + R800 bend for rear wheel clearence									29'r
ZON113620	28,6	29,8	620	0,8*	0,6	1,2	245	40	220	40	75	Zona
ZON113640	28,6	29,8	640	0,8*	0,6	1,2	245	40	220	40	95	Zona
ZON113520002	31,7	32,5	520	0,7	0,5	0,9	160	40	170	40	110	Zona
ZON113580002	31,7	32,5	580	0,7	0,5	0,9	160	40	240	40	100	Zona
ZON113635002	31,7	32,5	635	0,7	0,5	0,9	160	40	315	40	80	Zona
ZON113715	28,6	29,4	715	0,8	0,6	1	150	40	215	40	270	Zona
ZON113600002	32,7	33,5	600	0,9	0,6	1,1	245	40	145	40	130	Zona
ZON113560001	32,7	33,5	560	0,7	0,5	0,9	160	40	240	40	80	Zona
ZON113635001	32,7	33,5	635	0,7	0,5	0,9	160	40	315	40	80	Zona
ZON113550002	32,7	32,9	550	0,7	0,5	0,9	245	40	145	40	80	Zona
ZON113550001	32,7	33,5	550	0,7	0,5	0,9	245	40	145	40	80	Zona
741FD33			*Columbus CNC aluminum front derailleur clamp ø33 for ZON113635001 & ZON113550001 tubes*									

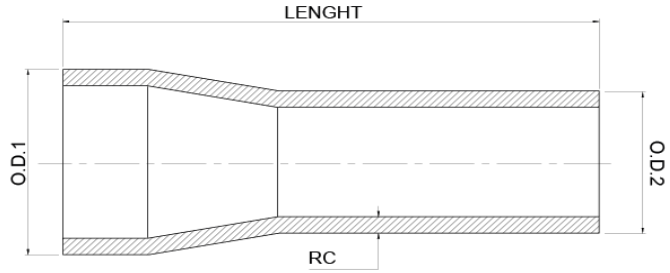
(*): Thickness can be 1,05mm in the first 15mm of R1

HEAD TUBES



CODE	O.D.	LENGTH	THICKNESS RC		FAMILY
XCRC18250	31,7	250	1		XCr
XCRK18250	36	250	1,1		XCr
XCRK18600	36	600	1,1		XCr
ZXCRCALUP		*36mm AISI 316L braze-on cup for integrated headset - upper - O.D. 45mm*			
ZXCRCALDOWN		*36mm AISI 316L braze-on cup for integrated headset - lower - O.D. 45mm*			
XCRH18240	38	240	0,8		XCr
ZXCRCAL38UP		*38mm AISI 316L braze-on cup for integrated headset - upper - O.D. 45mm*			
ZXCRCAL38DOWN		*38mm AISI 316L braze-on cup for integrated headset - lower - O.D. 45mm*			
XCRX18250	46	250	1,1		XCr
CYRA18600	38	600	0,8		Spirit
CYRA18240	38	240	0,8		Spirit
ZCALA28.6UP		*38mm steel braze-on cup for integrated headset - upper - 42mm x 45° - O.D. 45mm*			
ZCALA28.6DOWN		*38mm steel braze-on cup for integrated headset - lower - 42mm x 45° - O.D. 45mm*			
CYRG18600	46	600	1,1		Spirit HSS
CYRG18240	46	240	1,1		Spirit HSS
SL0I18600	31,7	600	1		SL
CYRK18600	36	600	1,1		Zona
CYRK18200	36	200	1,1		Zona

TAPERED HEAD TUBES



CODE	O.D.	O.D.2	LENGTH	THICKNESS* RC		FAMILY
CYRT18250	56	46	250	1		Spirit HSS
CYRT18250002	56	46	250	1 - 0,9	*CNC Machined Light-Weight*	Spirit HSS
ZCALT46UP			*Braze-on cup for integrated headset - upper - 42mm x 45°*			Spirit HSS
ZCALT56DOWN			*Braze-on cup for integrated headset - lower - 52mm x 45*			Spirit HSS
CYRG18245001	46	36	245	1,1		Spirit HSS
CYRU18250	52	46	250	1		Spirit HSS
XCRU18250	52	46	250	1		XCr
ZCALX46UP			*Stainless Braze-on cup for integrated headset - upper - 42mm x 45°*			XCr
ZCALX52DOWN			*Stainless Braze-on cup for integrated headset - lower - 49mm x 45°*			XCr

(*): Thickness before tapering

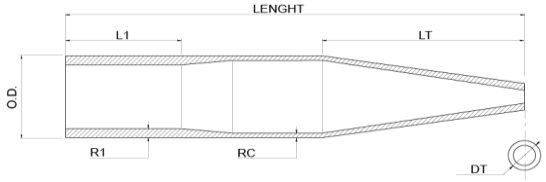
OTHER PARTS

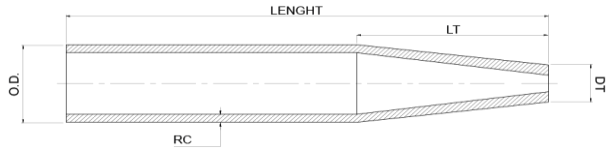
CODE	O.D.	LENGTH		FAMILY
ZSMJXCR	40	68	*Hinox BB shell - english thread - Ø40mm X 68mm*	XCr
ZXCRROD		*Welding rod for XCR Ø 1mm L.1000mm*		XCr
ZXCRROD16		*Welding rod for XCR Ø 1,6mm L.1000mm*		XCr

EXPANDERS, HEADSETS, AXLES

COLUTPR	COLUMBUS STAR-NUT for 1-1/8" Aluminum-Steerer Forks
KGAPCAP25.4C	COLUMBUS EXPANDER for 1" Carbon-Steerer Forks
KGAPCAP28.6C	COLUMBUS EXPANDER for 1-1/8" Carbon-Steerer Forks (Length 40mm)
KGAPCAP28.6CL	COLUMBUS EXPANDER for 1-1/8" Carbon-Steerer Forks (Length 60mm)
KGAPCAP28.6CLCR	COLUMBUS EXPANDER for 1-1/8" Carbon-Steerer Forks (Length 60mm - Dynamo Internal Routing)
ZV7STEERKITF	COLUMBUS COMPASS Integrated HeadSet 1-1/2" CARBON
ZV7STEERKITG	COLUMBUS COMPASS Integrated HeadSet 1-1/2" CARBON CERAMIC
733SS30	COLUMBUS COMPASS Integrated HeadSet 1-1/4" CARBON
ZV7STEERKITH	COLUMBUS COMPASS Integrated HeadSet 1-1/8" CARBON
ZV7STEERKITI	COLUMBUS COMPASS Integrated HeadSet 1-1/8" CARBON CERAMIC
733SSSIX	COLUMBUS COMPASS Integrated HeadSet 1-1/2" MTB
737SS34	COLUMBUS COMPASS External HeadSet 1-1/4" TAPERED
737SS44	COLUMBUS COMPASS Semi-Integrated HeadSet 1-1/4" CYLINDRIC
737SS47	COLUMBUS COMPASS Semi-Integrated HeadSet 1-1/2" CYLINDRIC
738TAN2	COLUMBUS 12mm Thru-Axle compatible with Columbus Futura Disc / Futura Gravel Forks
738TA132L15	COLUMBUS 12mm Thru-Axle compatible with Columbus Futura Cross Fork
739TA150	COLUMBUS 15mm Thru-Axle compatible with Columbus Futura Adventure Fork
737LECO1	COLUMBUS 12mm Switch-Lever allen-key for COLUMBUS 12mm Forks Thru-Axles
ZSC300	SEAT CLAMP COLUMBUS Ø 30mm
ZSC325	SEAT CLAMP COLUMBUS Ø 32,5mm
ZSC340	SEAT CLAMP COLUMBUS Ø 34mm

CHAIN STAYS

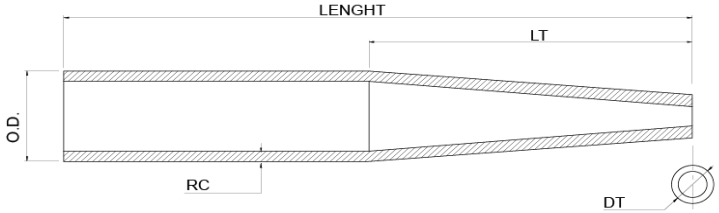




CODE	O.D.	LENGTH	THICKNESS*								FAMILY
			R1	RC		oval		LT		DT	
XCR114OV410	24	410		0,7		*Round / oval*		250		13,6	XCr
XCR114OV410001	24	410		0,7		18 x 28,5		250		13,6	XCr
XCR 114OV425133CR**	24	425		0,7		18 x 28,5		250		13,6	XCr
XCR114OV450	24	450	0,9	0,7		18*30	*Road Disc Bend*	150		16	XCr
XCR114OV450003	24	450	0,9	0,7		18*30	*Gravel Disc Bend*	150		16	XCr
XCRC114OV410001	24	410		0,7		18 x 28,5		290		12,5	XCr
SL0I14OV	22,2	410		0,7		*Round / oval*		300		12,5	SL
SLF114OV410	24	410	0,7(100)	0,5		16 x 30		80		13,2	Life
SLF114OV410133E	24	*= SLF114OV410 + Road "S" bend*									Life
SLF114OV410133CR****	24	410	0,8 (150)	0,6		16 x 30		80		13,2	Life
SLF114OV410001	24	410	0,7(100)	0,5		16 x 30		290		12,5	Life
SLF114OV410112AJ		*= SLF114OV410001 + Shape "AJ" 18 x 25.6*									Life
SLF114OV41001133E		*= SLF114OV410001 + Road "S" bend*									Life
SLF114OV410001CR	24	410	0,8 (150)	0,6		16 x 30	*290mm Taper - Cyclocross "S" bend*			12,5	Life
SLF114OV450DX	24	450		0,9		16 x 30	*150mm taper - Road Disc bend*			16	Disc
SLF114OV450SX	24	*= SLF14OV450DX + Flat Mount Lug Squash*									Disc
SLF114OV450DX001	24	450	0,9			16 x 30	*150mm taper - Gravel Disc bend*			16	Disc
SLF114OV450SX001	24	*= SLF14OV450DX001 + Flat Mount Lug Squash*									Disc
SLF114OV450DX002	24	450	0,9	0,7		18*30	*Road Disc Bend*	150	right	16	Disc
SLF114OV450DX003	24	450	0,9	0,7		18*30	*Gravel Disc Bend*	150	right	16	Disc
SLF114OV450SX002	24	450	0,9	0,7		18*30	*Road Disc Bend*	150	left	16	DIsc
SLF114OV450SX003	24	450	0,9	0,7		18*30	*Gravel Disc Bend*	150	left	16	DIsc
739DBE53		*Stainless Steel Flat Caliper Disc Clamp Mount (for -SX and -SX001 chainstays)*									Disc
MAXL14OV	28	410		0,6		18,5 x 36		230		14	MAX
ZONI14TO410	22,2	410		0,7		*Round*		300		12,5	Zona
ZONI14OV410	22,2	410		0,7		*Round/Oval 17 x 26*		300		12,5	Zona
MMXI14OV410	22,2	410		0,7		17,7 X 26		300		12,5	MAX
ZONI14TO420SX	22,2	420		0,7		*Pressed*		160		16	Zona
ZONI14OV420DX	22,2	420		0,7		19,5 x 25,5		160		16	Zona
ZON114TO425	24	425	0,8 (130)	0,6				290		12,5	Zona
ZON114OV425	24	425	0,8 (130)	0,6		16 x 30		290		12,5	Zona
ZON114V10425		*= ZON114OV425 + 10° single bend*									Zona
ZON114V12425		*= ZON114OV425 + 12° single bend*									Zona
ZON114OV425133		*= ZON114OV425 + MTB "S" bend*									Zona
ZON114OV425133CR		*= ZON114OV425 + Cyclocross "S" bend*									Zona
ZON114OV425133E		*= ZON114OV425 + Road "S" bend*									Zona
ZON114OV470MTB	24	470	1	0,7		18*30	*MTB Bend*	250-290		12,5	Zona
ZON114OV470FAT	24	*470*		*0,9*		*20 x 27*		*290*		*12,5*	Zona
ZON114OV440	24	440	0,9 (150)	0,6		16 x 30		290		12,5	Zona
ZON114OV440C10		*= ZON114OV440 + 10° single bend*									Zona
ZON114OV44029		*= ZON114OV440 + 29" double bend*									29'r
ZON114OV47029***	24	470	0,9			16 x 30		290		12,5	29'r

(*): Thickness before tapering. (**): Cyclocross "S" bend. (***):Triple bended for 29" tire clearence. (****): Cyclocross "S" bend.

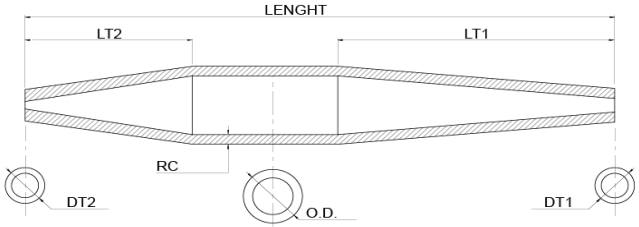
SEAT STAYS



CODE	O.D.	LENGTH	THICKNESS* RC	oval		LT		DT	FAMILY
XCR615560	16	560	0,5			80		12,5	XCr
XCR615560133CR		*= XCR615560 + Cyclocross "S" bend*							XCr
XCRC615560	16	560	0,7			290		12,5	XCr
FCK415600	14	600	0,7			300		10,5	Spirit Keirin
SL0415560	14	560	0,7			300		10,5	SL
SLF715560	17	560	0,5			80		11,8	Life
SLF715560133E		*= SLF715560 + Road "S" bend*							Life
SLF715560112AI		*= SLF715560 + Shape "112AI" 15 x 19 (shaped 230mm from the tip)*							Life
SLF715560001112AI	17	560	0,5	*Shape "112AI" 15 x 19 full lenght*		200		12,5	Life
SLF715OV560	17	560	0,5	12,5 x 20		190		12,5	Life
MAX615OV560	16	560	0,7	12,5 x 18		300		12,5	MAX
ZON615560MTB	16	560	0,75	250		Straight	12,5		Zona
ZON615560	16	560	0,7			300		12,5	Zona
ZON615560133		*= ZON615560 + MTB "S"bend*							Zona
ZON615560133CR		*= ZON615560 + Cyclocross "S"bend*							Zona
ZON615560133E		*= ZON615560 + Road "S"bend*							Zona
ZON915560	19	560	0,6			250		12,5	Zona
ZON915560133		*= ZON915560 + MTB "S" bend*							Zona
ZON915560133CR		*= ZON915560 + Cyclocross "S" bend*							Zona
ZON915560133E		*= ZON915560 + Road "S" bend*							Zona
ZON91556029		*= ZON915560 + 29" Double bend*							29'r
ZON915560FAT	19	560	0,6			250		12,5	Zona

(*): Thickness before tapering (**):Double bended for 29" tire clearence

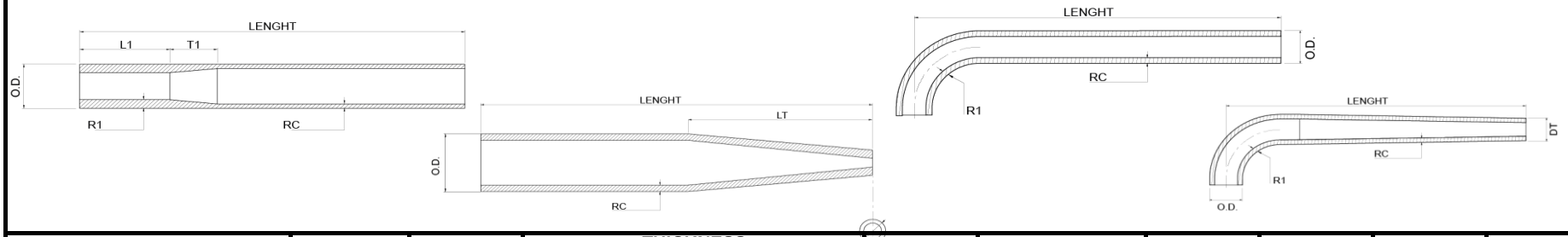
BICONICAL SEAT STAYS



CODE	O.D.	LENGTH	THICKNESS* RC	DT2	LT2		LT1	DT1	FAMILY
SL0415550101	14	550	0,7	10,8	140		300	10,5	SL
SL0415500101	14	500	0,7	10,8	140		300	10,5	SL
SL0615550101	16	550	0,7	10,8	140		300	12,5	SL
SL0615500101	16	500	0,7	10,8	140		300	12,5	SL

(*): Thickness before tapering

FORK BLADES



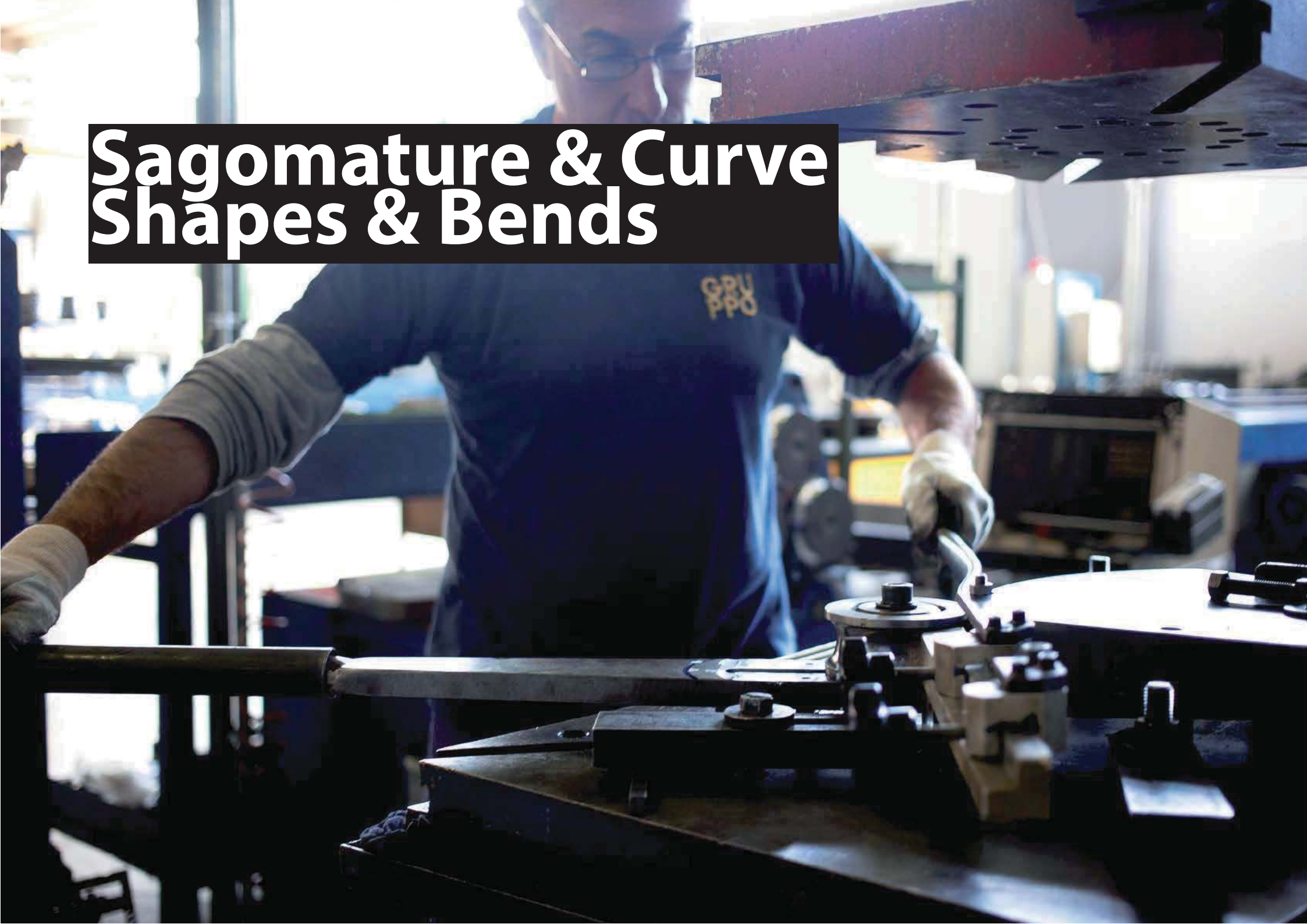
CODE	O.D.	LENGTH	THICKNESS			oval	R1	T1	LT Taper Length	DT Tip Ø	FAMILY
			R1	RC	R2						
SL0I16V1**	24	390		0,9		28x19	100		290	12,5	SL
SL0I16T1**	24	390		0,9			100		290	12,5	SL
MAXL16V2390*	28	390	0,9		0,6	***	120	40	230	14	MAX
CRMI16V1*	24	390		0,9		28x19	100		290	12,5	Cromor
CRMI16T1*	24	390		0,9			100		290	12,5	Cromor
CRMI16V1450*	24	450		0,9		28x19	120		290+40	12,3	Cromor
FBRL16T520DSK	28,6	520	1,2		1		220	40		28,6	Disc
FBRL16T520DSK001	28,6	520	1,2		1		220	40	275	18,3	Disc
FBRL16U400DSK****	28,6	400	1,2		1		220	40		28,6	Disc
FBRL16U440DSK001****	28,6	440	1,2		1		220	40	275	18,3	Disc
FBRL16U500DSK	28,6	500	1,2		1			-	28,6		Disc
FBRN16T420DSK001	24	420	1,2		1,2	*28*19 + 45mm rake*			270-290	16	Disc
FBRN16T420DSK002	24	420	1,2		0,9	*28*19 + 45mm rake*			270-290	16	Disc
FBRN16U420DSK001	24	420	1,2		1,2	*28*19 + 45mm rake*			270-290	16	Disc
FBRN16U420DSK002	24	420	1,2		0,9	*28*19 + 45mm rake*			270-290	16	Disc
FBRN16T465DSK	25,4	465	1,2		0,9		200	40		25,4	Disc
FBRN16T465DSK001	25,4	465	1,2		0,9		200	40	220	14	Disc
FBRN16U410DSK****	25,4	465	1,2		0,9		200	40		25,4	Disc
FBRN16U410DSK001****	25,4	465	1,2		0,9		200	40	140	18	Disc
FBRN16U410DSK002****	25,4	465	1,2		0,9		200	40	220	14	Disc

(*):Thickness before tapering. (**):Laminated fork blade with constant thickness. (***):MAX shape 35,8 x 18,5. (****) Unicrown

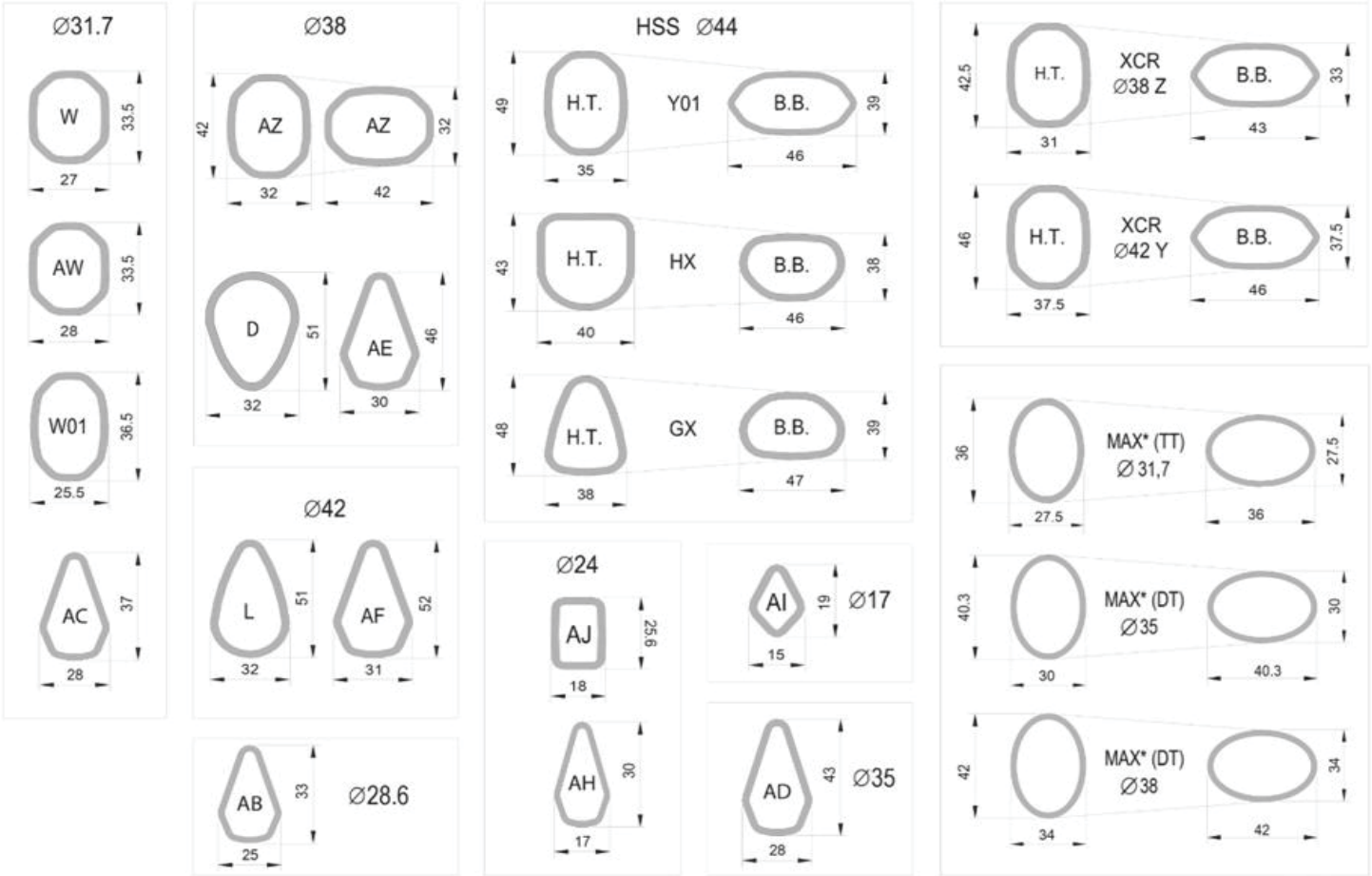
FORK STEERERS

CODE	O.D.	LENGTH	THICKNESS		
			R1	RC	
BRNI17180	25,4	180	2,3	1,55	*Threaded, with helicoidal reinforcement*
BRNI17210	25,4	210	2,3	1,55	*Threaded, with helicoidal reinforcement*
BRNI17240	25,4	240	2,3	1,55	*Threaded, with helicoidal reinforcement*
BRNI17270	25,4	270	2,3	1,55	*Threaded, with helicoidal reinforcement*
BRNI17300	25,4	300	2,3	1,55	*Threaded, with helicoidal reinforcement*
BRNI17320TL	25,4	320	2,3	1,55	*Threadless, with helicoidal reinforcement*
BRNM17350TL	28,6	350	2	1,55	*Threadless, with helicoidal reinforcement*
SPTZ17320	28,6	320	2	1,2	*Threadless*

Sagomature & Curve Shapes & Bends



SHAPES


Ø31.7
W
33.5
27
AW
33.5
28
W01
36.5
25.5
AC
37
28
Ø38
AZ
42
32
AZ
32
42
D
51
32
AE
46
30
Ø42
L
51
32
AF
52
31
AB
33
25
Ø28.6
HSS Ø44
H.T.
49
35
Y01
B.B.
39
46
H.T.
43
40
HX
B.B.
38
46
H.T.
48
38
GX
B.B.
39
47
Ø24
AJ
25.6
18
AH
30
17
AI
19
15
Ø17
AD
43
28
Ø35
H.T.
42.5
31
XCR
Ø38 Z
B.B.
33
43
H.T.
46
37.5
XCR
Ø42 Y
B.B.
37.5
46
36
27.5
MAX* (TT)
Ø 31,7
27.5
36
40.3
30
MAX* (DT)
Ø35
30
40.3
42
34
MAX* (DT)
Ø38
34
42