

## Chemical analysis

C%	Si%	Mn%	P%	S%
0.50 - 0.57	0.15 - 0.35	0.40 - 0.70	max 0.025	max 0.035

## Mechanical Properties

$\Phi$ mm	Tensile Strength $R_m\ N/mm^2$	Yield Point $R_{p0.2}\ N/mm^2$	Elong. A5%
$\varnothing \leq 19.05^*$	700-850	min. 475	min. 10
$19.05 < \varnothing \leq 101.6^{**}$	610-760	min. 340	min. 16
$\varnothing > 101.6^{**}$	min. 560	min. 275	min. 16

\* cold drawn    \*\* hot rolled

## Corresponding standards

A-LINE	EN	DIN 17212	BS	AFNOR	ASTM
A-LINE WZ	–	Cf53	070M55	XC48TS	1050

## Surface Roughness

The surface roughness (Ra) is maximum 0.20  $\mu m$ .

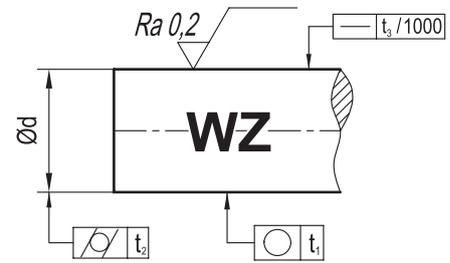
## Diameter tolerance

Class "L" is standard; other tolerances can be supplied upon request.

## Tolerance Range according to ISO 286-2 Table for Class "L" (inch)

Size (inch)	Size (mm)	upper (inch)	lower (inch)
1/4"	6.35	-0.0005	-0.001
3/8"	9.525	-0.0005	-0.001
1/2"	12.7	-0.0005	-0.001
5/8"	15.875	-0.0005	-0.001
3/4"	19.05	-0.0005	-0.001
1"	25.4	-0.0005	-0.001
1" ¼	31.75	-0.0005	-0.001
1" ½	38.1	-0.0006	-0.0011
2"	50.8	-0.0006	-0.0013
2" ¼	57.15	-0.0007	-0.0015
2" ½	63.5	-0.0007	-0.0015
3"	76.2	-0.0008	-0.0017





## Surface Hardness

Steel grade Cf53: 62±2 HRC

## Hardness depth, roundness, parallelism, straightness

Shaft Diameter d	Shaft Diameter d	Weight per metre	Shaft part number	Standard length	Hardening depth Rht DIN 6773	Standard tolerance Class "L"	Roundness (circular) t1	Parallelism (cylindric) t2	Straightness t3
inch	mm	kg		inch	mm	inch	inch	inch	inch/m
1/4	6.35	0.25	WZ 6	237	0.019 - 0.031	-0.0005/-0.001	0.0002	0.0002	0.008
3/8	9.525	0.56	WZ 9	237	0.027 - 0.039	-0.0005/-0.001	0.0002	0.0002	0.008
1/2	12.7	0.99	WZ 12	237	0.031 - 0.047	-0.0005/-0.001	0.0002	0.0003	0.008
5/8	15.875	1.55	WZ 15	237	0.043 - 0.059	-0.0005/-0.001	0.0002	0.0003	0.008
3/4	19.05	2.24	WZ 19	237	0.047 - 0.059	-0.0005/-0.001	0.0002	0.0004	0.008
1	25.4	3.97	WZ 25	237	0.059 - 0.066	-0.0005/-0.001	0.0002	0.0004	0.008
1¼	31.75	6.22	WZ 31	237	0.059 - 0.074	-0.0005/-0.001	0.0003	0.0004	0.004
1½	38.1	8.95	WZ 38	237	0.062 - 0.078	-0.0006/-0.0011	0.0003	0.0004	0.004
2	50.8	15.91	WZ 50	237	0.086 - 0.102	-0.0006/-0.0013	0.0003	0.0004	0.004
2¼	57.15	20.13	WZ 57	237	0.086 - 0.102	-0.0007/-0.0015	0.0003	0.0005	0.004
2½	63.5	24.85	WZ 63	276	0.086 - 0.102	-0.0007/-0.0015	0.0003	0.0005	0.004
3	76.2	35.78	WZ 76	276	0.086 - 0.102	-0.0008/-0.0017	0.0003	0.0005	0.004

## Packaging

Bars are degreased and oiled, placed in bundles that are wrapped in wax paper and raffia.

On request with additional cost

- Wooden boxes



Our products packaging is recyclable

## Marking

Each batch has a label showing: manufacturing date, product name, diameter, tolerance range, number of bars, heat No. to facilitate full traceability.

## Certifications

ISO 9001

ISO 14001

OHSAS 18001