

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

| Φ mm | Tensile Strength Rm N/mm ² | Yield Point Rp0.2 N/mm ² | Elong. A5% |
|----------------|--|--|---------------|
| Ø ≤ 18* | 700-850 | min. 475 | min. 10 |
| 18 < Ø ≤ 100** | 610-760 | min. 340 | min. 16 |
| Ø > 100** | min. 560 | min. 275 | min. 16 |

* cold drawn ** hot rolled

Corresponding standards

| A-LINE | EN | DIN 17212 | BS | AFNOR | ASTM |
|-----------|----|-----------|--------|--------|------|
| A-LINE WV | — | Cf53 | 070M55 | XC48TS | 1050 |

Chrome Layer:

12±5 µm

Surface Roughness

The surface roughness (Ra) is maximum 0.20 µm.

Chrome layer hardness

The Chrome Layer hardness is 900 HV 0.1 min

Diameter tolerance

Diameter tolerance ISO h7 is standard; other tolerances can be supplied upon request.

Tolerance Range according to ISO 286-2

Table for ISO h7 in µm

| Size (mm) | upper | lower |
|-----------|-------|-------|
| >4-6 | 0 | -12 |
| >6-10 | 0 | -15 |
| >10-18 | 0 | -18 |
| >18-30 | 0 | -21 |
| >30-50 | 0 | -25 |
| >50-80 | 0 | -30 |
| >80-120 | 0 | -35 |

Packaging

A-LINE WV is supplied with the following packaging options:

- White Plastic Sleeve

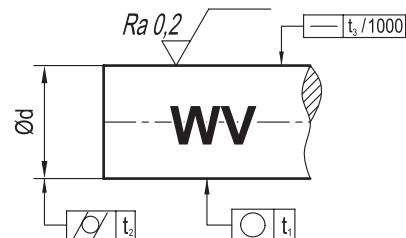
On request with additional cost: • Wooden boxes

Marking

Each shaft is marked outside over the plastic sleeve with: manufacturing date, product name, diameter, tolerance range, heat No. to facilitate full traceability.



Our products packaging is recyclable



Hardness depth, roundness, parallelism, straightness

| Shaft Diameter d | Weight per metre | Shaft part number | Standard length | Hardening depth Rht DIN 6773 | Standard tolerance ISO h7 | Roundness (circular) t1 | Parallelism (cylindric) t2 | Straightness t3 |
|---------------------|------------------------|-------------------------|--------------------|---------------------------------------|---------------------------------|-------------------------------|----------------------------------|--------------------|
| mm | kg | | mm | mm | µm | µm | µm | mm/m |
| 4 | 0.10 | WV 4 | 4000 | 0.5 - 0.8 | 0/-12 | 6 | 10 | 0.16 |
| 5 | 0.16 | WV 5 | 4000 | 0.5 - 0.8 | 0/-12 | 6 | 10 | 0.16 |
| 6 | 0.23 | WV 6 | 6000 | 0.5 - 0.8 | 0/-12 | 6 | 10 | 0.16 |
| 8 | 0.40 | WV 8 | 6000 | 0.6 - 0.9 | 0/-15 | 6 | 10 | 0.16 |
| 10 | 0.62 | WV 10 | 6000 | 0.7 - 1.0 | 0/-15 | 6 | 10 | 0.12 |
| 12 | 0.89 | WV 12 | 6000 | 0.8 - 1.2 | 0/-18 | 8 | 12 | 0.12 |
| 14 | 1.21 | WV 14 | 6000 | 0.9 - 1.3 | 0/-18 | 8 | 12 | 0.12 |
| 15 | 1.39 | WV 15 | 6000 | 1.0 - 1.4 | 0/-18 | 8 | 12 | 0.12 |
| 16 | 1.58 | WV 16 | 6000 | 1.1 - 1.5 | 0/-18 | 8 | 12 | 0.1 |
| 18 | 2.00 | WV 18 | 6000 | 1.1 - 1.5 | 0/-18 | 8 | 12 | 0.1 |
| 20 | 2.47 | WV 20 | 6000 | 1.2 - 1.5 | 0/-21 | 9 | 12 | 0.1 |
| 22 | 2.98 | WV 22 | 6000 | 1.2 - 1.5 | 0/-21 | 9 | 12 | 0.1 |
| 24 | 3.55 | WV 24 | 6000 | 1.4 - 1.6 | 0/-21 | 9 | 12 | 0.1 |
| 25 | 3.85 | WV 25 | 6000 | 1.5 - 1.7 | 0/-21 | 9 | 12 | 0.1 |
| 28 | 4.83 | WV 28 | 6000 | 1.5 - 1.8 | 0/-21 | 9 | 12 | 0.1 |
| 30 | 5.55 | WV 30 | 6000 | 1.5 - 1.9 | 0/-21 | 9 | 12 | 0.1 |
| 32 | 6.31 | WV 32 | 6000 | 1.5 - 1.9 | 0/-25 | 11 | 15 | 0.1 |
| 35 | 7.55 | WV 35 | 6000 | 1.5 - 1.9 | 0/-25 | 11 | 15 | 0.1 |
| 40 | 9.87 | WV 40 | 6000 | 1.6 - 2.0 | 0/-25 | 11 | 15 | 0.1 |
| 45 | 12.50 | WV 45 | 6000 | 1.6 - 2.0 | 0/-25 | 11 | 15 | 0.1 |
| 50 | 15.40 | WV 50 | 6000 | 2.2 - 2.6 | 0/-25 | 11 | 15 | 0.1 |
| 55 | 18.64 | WV 55 | 6000 | 2.2 - 2.6 | 0/-30 | 12 | 15 | 0.1 |
| 60 | 22.20 | WV 60 | 7000 | 2.2 - 2.6 | 0/-30 | 12 | 15 | 0.1 |
| 65 | 26.03 | WV 65 | 7000 | 2.2 - 2.6 | 0/-30 | 12 | 15 | 0.1 |
| 70 | 30.20 | WV 70 | 7000 | 2.2 - 2.6 | 0/-30 | 12 | 15 | 0.1 |
| 75 | 34.70 | WV 75 | 7000 | 2.2 - 2.6 | 0/-30 | 12 | 15 | 0.1 |
| 80 | 39.50 | WV 80 | 7000 | 2.2 - 2.6 | 0/-30 | 12 | 15 | 0.1 |
| 90 | 49.92 | WV 90 | 7000 | 2.2 - 3.2 | 0/-35 | 14 | 17 | 0.2 |
| 100 | 61.62 | WV 100 | 7000 | 2.2 - 3.2 | 0/-35 | 14 | 17 | 0.2 |
| 120 | 88.73 | WV 120 | 7000 | 2.5 - 4.0 | 0/-35 | 14 | 17 | 0.2 |

Surface Hardness

Steel grade Cf53: 62±2 HRC

Certifications

ISO 9001

ISO 14001

OHSAS 18001