## WIRE GUIDE AND STAIGHTENTING ROLLER

A... / AT...



## ▼ Feature and Characteristics

Field of Application: The straightening of cables, strips andwires is performed in steps with successive stages until the final product is obtained. To rationalize the handling between the different steps the material is stocked on reels or on bobbins and takes forms which are not natural.

For every production step, it is therefore necessary to carry out the inverse process by taking the material off its support. At that moment, the straightening operation takes place. It may be divided into three steps:

- ♦ The straightening, consisting of putting the material back into its original shape. The operation is carried out by the first straightening rollers.
- ♦ The removal of the residual constraint in the material, due to the winding on the bobbin. This operation is performed by the rollers located in the central part of the straightener.
- ♦ The forming of the wire carried out by the last rollers on the straightener, generally placed at an angle of 90 compared to the angle of the first rollers.

Often it is necessary to combine these three steps. That is the reason why the straightener uses 5, 7, 9, 11 or even 13 rollers placed in two planes.

The manufacturing precision of the roller has a major influence on the quality of the final product (wires) as well as on the service life of the rollers. It is therefore essential thatthe rectified "V" notch on the outer ring has the same geometric characteristics and precision as the rest of the bearing. For this reason, the notch on a C&H roller is precisely machined prior to bearing assembly. Grinding this notch on an assembled standard bearing isrisky, as the bearing may be damaged. An acceptable uniformity and geometrical precision can thus not be guaranteed. The service life of the roller is much shorter andthe quality of wire drawing suffers accordingly. Among numerous applications using thread guides and straightening rollers, C&H has managed to make a name for itself in the field of specialized wire drawingcompanies, producing steel cables for the tire industry.

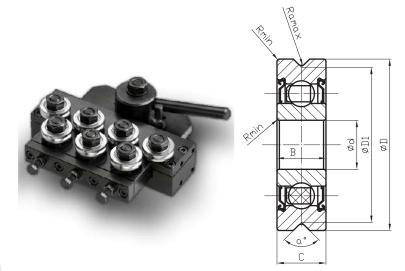
The following machines use the same type of special rollers:

- Machine tools for fiberglass cables (lawn mowers)
- Machines for spring manufacturing
- Machines for metal wires
- Machines for spooling, un-spooling and rewinding
- Fine and high precision wire drawing

## C&H BERRING

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- Material: High quality bearing steel -100Cr6
- ◆ Shields and Seals ( suffix ):
  ZZ double metal shields
  2RS double NBR seals
- ◆ Tolerance Class: P0, P6, P5
- A Single row deep groove ball bearing
  AT- double row deep groove ball bearing



| C&H    | Dimensions(mm) |    |      |     |    |        |     |       | Load Ratings(N) |      | Limiting Speed(r/min) |       | Weight |
|--------|----------------|----|------|-----|----|--------|-----|-------|-----------------|------|-----------------------|-------|--------|
|        | d              | D  | D1   | В   | С  | Ra max | а   | R min | Cr              | Cor  | ZZ                    | 2RS   | ≈(Kg)  |
| A4M00  | 4              | 14 | 12.8 | 5.4 | 5  | 0.5    | 135 | 0.2   | 1070            | 420  | 27000                 | 18000 | 0.010  |
| A507   | 5              | 21 | 19   | 6   | 6  | 0.5    | 90  | 0.3   | 2200            | 890  | 22000                 | 13000 | 0.011  |
| A603   | 6              | 21 | 19   | 6   | 6  | 0.5    | 90  | 0.3   | 2200            | 890  | 22000                 | 13000 | 0.011  |
| A801   | 8              | 22 | 20.7 | 7   | 7  | 0.5    | 90  | 0.3   | 3300            | 1370 | 20000                 | 11000 | 0.012  |
| A806   | 8              | 26 | 23   | 7   | 7  | 0.5    | 90  | 0.3   | 3300            | 1370 | 20000                 | 11000 | 0.019  |
| A1001  | 10             | 30 | 27   | 8   | 8  | 0.5    | 90  | 0.3   | 4570            | 1970 | 17000                 | 9000  | 0.031  |
| A1002  | 10             | 35 | 31   | 9   | 9  | 0.5    | 90  | 0.6   | 6000            | 2680 | 16000                 | 7600  | 0.046  |
| A1500  | 15             | 47 | 41   | 11  | 11 | 0.5    | 90  | 0.6   | 7600            | 3700 | 13000                 | 6100  | 0.104  |
| A1501  | 15             | 40 | 36.1 | 11  | 11 | 0.5    | 100 | 0.6   | 7600            | 3700 | 13000                 | 6100  | 0.075  |
| AT8E00 | 8              | 25 | 20.4 | 14  | 14 | 0.7    | 70  | 2.0   | 5090            | 2600 | 20000                 | 11000 | 0.034  |