Ergonomic design
We base our work on the capabilities of the hand. In this work we cooperate closely with specialists in ergonomic design and medical professionals who know how materials and surfaces must be adapted to suit the skin and the muscles.

The Original since 1892
Bahco was the first in the world to introduce the adjustable wrench. It was patented as early as 1892 and has been copied since then by almost every tool manufacturer in the world. We have continuously made many improvements and, after more than one hundred years, we are still ahead of our competitors when it comes to assortment, quality and ergonomics.
And there is more to come...
100 million wrenches!
More than 100 million people all over the world cannot be wrong! To date more than 100 million wrenches have been manufactured by us and used by tradesmen and others.

Made in Sweden
"Made in Sweden" has become synonymous with the highest quality in every respect. Our adjustable wrenches are built up from only five parts – yet it takes more than 70 different tasks before they, after inspection and approval, are delivered to a customer.
Once upon a time ... there was a blacksmith in a small town in a small country in northern Europe. He earned his living by helping farmers in the surroundings to keep their machinery in good shape.

In those days ... both tools and bolts were made by hand, and there were no standardised sizes and dimensions. For every bolt he tackled he had to find a spanner to fit amongst the many tools he carried.

The blacksmith ... got the brilliant idea to replace all his spanners with just one – and the adjustable wrench was born and patented.

The year was 1892 ... the town was Enköping in Sweden and the man’s name was Johan Petter Johansson. He started a factory for the new wrench and many other inventions. In cooperation with a tool and machinery company in Stockholm, B. A. Hjorth & Co., the products became a sales success all over the world under the trademark Bahco.

This was the start ... of something really big – The Bahco Group – today with more than 2,500 employees in more than 40 countries.

So more often than not, it is the simplest ideas that are best at solving problems!

Bahco was the first in the world to introduce the adjustable wrench. It was patented as early as 1892.
We design our adjustable wrenches together with professionals

Tools ergonomically designed after scientific studies
Bahco guarantees that every handtool that carries the Ergo symbol has been subjected to a unique scientific, 11-point test programme for ergonomics and function. The test programme includes exhaustive tests with users from different professions and trades. The group’s task is to test a prototype series of the new tool under normal working conditions. The test results are then carefully analysed by experts in medicine, ergonomics and industrial design.

After modifications, another user test is carried out before the design is finally patented and the tool is approved for manufacture. The test programme ensures that each Ergo tool has several unique qualities, which increase its usefulness and the pleasure of using it while radically reducing the risk of painful and costly work-related injuries.

Each point in the programme is very extensive. Below is a brief description. If you would like to know more, please visit our website www.bahco.com.

Professional of many kinds in many countries are involved in the testing of prototypes during the three user tests included in the Bahco ergonomic test programme.

Some of the factors we

Bahco adjustable wrenches have always been considered the benchmark for high quality. They also embody efficiency and high productivity while providing many health and safety benefits.
The 11 points of the unique scientific Bahco ergonomic test programme

1. **Market analysis**
   - Which tools are most popular and why?

2. **Preliminary specifications**
   - Factors that we take into consideration.

3. **Background research**
   - We investigate and learn from our own experiences and external sources.

4. **Prototype design**
   - A dozen prototypes, all ergonomically designed according to the latest findings.

5. **User test No.1**
   - We select, measure and film hundreds of hands at work.

6. **Prototype evaluation and modification**
   - User preferences give us the clues we need.

7. **User test No. 2**
   - The new prototypes are tested by an even wider selection of users.

8. **Final design recommendations**
   - Manufacturing of the true-to-life prototype.

9. **Product specifications**
   - Bahco produces manufacturing specifications.

10. **User test No. 3**
    - Preparation for launch. The new tool is approved and marked with the Ergo symbol.

11. **Follow-up**
    - Five years later – what do users think?

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**take into consideration**

- Fixed or moving tool?
- Work environment?
- Temperature?
- Humidity?
- Viability?
- International standards?
- Additional accessories required?
- Accessories used when for what?
- Size of the tool?
- Different sizes?
- Ideal shape?
- Maximum/minimum weight?
- Variations in legislation?
- Most suitable materials?
- Appropriate performance parameters?
- Force resistance?

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Ergonomic design improves human safety, health, comfort and efficiency.

Bahco has received many design awards for Ergo products as well as for the Ergo concept itself.
The Bahco
Ergo 90 series

Adjustable wrenches

- Stronger than the demands set by ISO standards – whichever drive direction is used
- Improved accessibility as the adjustable moving jaw does not fall out, even at maximum opening
- Parallel jaw faces for safer grip
- Scale for pre-setting jaw opening and for measuring bolt heads and nuts, metal thickness, etc.
- Jaws angled at 15° to give good access in confined spaces

Combination adjustable wrenches

- The toothed jaw is induction hardened and will bite into even the hardest material
- One-piece forged steel handle for extra strength
- With the pipe centered in the notch you can measure the pipe diameter
- By reversing the movable jaw you can use the tool as a standard adjustable wrench for nuts and bolts
- Extra coarse serration and a generous opening for the adjustable knurl makes it easy to set the jaw width, even when gloves are worn

The Ergo 90 series has more functions and advantages than any other adjustable wrench. The ergonomic design of the handle, jaws and grip
- makes it possible to use the hand strength in its best and most efficient way.
- gives the best and safest grip in different work positions.
- protects against unnecessary and costly work injuries.

Ergonomic design of the handle, jaws and grip
This will make the work easier and safer for tradesmen who want to do a good job with the highest precision even for the most demanding jobs. Behind the ergonomic design lies the unique Bahco 11-point test programme, including scientific studies of tests made by professional users. Read more about ergonomics on pages 6-7. If you would like to know more, please visit our website www.bahco.com.

Our big invention just got bigger – the Ergo 9029 and 9031!

The Ergo type 9029 and 9031 are new big inventions from Bahco. They have already been a success with many tradesmen in countries all over the world. They are both big inventions but still small enough to fit in a back pocket. Only 6 inches/170 mm and 8 inches/218 mm long but with extraordinary jaw widths!

And of course the same ergonomic design features as the rest of the Ergo series.

Extra width to grip large nuts
9029: 32 mm/1 1/4 in
9031: 38 mm/1 1/2 in

Good accessibility in confined spaces
Good accessibility in confined spaces
9029: 6 inches/170 mm
9031: 8 inches/218 mm

Fits in a pocket

Light weight,
9029: 220 g
9031: 340 g

The grip sleeve is designed to distribute the pressure evenly in the hand, thus reducing the risk of work-related injuries.

The grip sleeve is very resistant to a wide range of temperatures – from -40 °C to +100 °C.

The grip sleeve material is a thermoplastic isomer, which gives the best hold under all working conditions.

The grip sleeve is suited to the way in which the hand works and strain can therefore be reduced.

The grip sleeve gives a warm grip when it’s cold and a cool grip at high temperatures.

No sharp edges that can injure the hand.

The soft, high-friction surface of the sleeve offers a firm grip even when the handle is oily and dirty.

The soft, high-friction surface of the sleeve offers a firm grip even when the handle is oily and dirty.

Good balance between head and handle makes the adjustable wrenches very comfortable and easy to work with.

The wrenches are available as:
- black phosphated for normal use
- chromium-plated when better rust protection is needed.
The Bahco 80 series

The 80 series represents our traditional adjustable wrenches – all classic best-sellers and a must in every well-equipped professional’s toolbox. Behind the design lie scientific studies of tests made by professional users. Bahco adjustable wrenches are

Adjustable wrenches

- Stronger than the demands set by ISO standards – whichever drive direction is used
- Slim line design with narrow, thin jaws combining accessibility with strength
- Parallel jaw faces for safer grip
- Scale for pre-setting jaw opening and for measuring bolt heads and nuts, metal thickness, etc.
- Improved accessibility as the adjustable moving jaw does not fall out, even at maximum opening

Combination adjustable wrenches

This wrench can not only be used for ordinary nuts, but also for pipes, rounded nuts and bolts

- With the pipe centered in the notch you can measure the pipe diameter
- The toothed jaw is induction hardened and will bite into even the hardest material

Jaws angled at 15° to give good access in confined spaces

By reversing the movable jaw you can use the tool as a standard adjustable wrench for nuts and bolts
designed to use the hand strength in the best way, give a good and safe grip and protect against work injuries. This makes the work easier and safer for professionals who want to do a good job with high precision.

The handle is extra wide and rounded to distribute pressure evenly in the hand, thus reducing the risk of work-related injuries.

Smooth and rounded forging with no sharp edges that can injure the hand.

Extra coarse serration and a generous opening for the adjustable knurl makes it easy to set the jaw width, even when gloves are worn.

The wrenches are available as:
- black phosphated for normal use
- chromium-plated when better rust protection is needed.

Good balance between head and handle makes the adjustable wrenches very comfortable and easy to work with.

One-piece forged steel handle for extra strength.
**Special adjustable wrenches**

**Bahco 10**

- Jaws angled at 15° to give good access in confined spaces
- Stronger than the demands set by ISO standards – whichever drive direction is used
- Scale for pre-setting jaw opening and for measuring bolt heads and nuts, metal thickness, etc.
- Parallel jaw faces for safer grip
- Improved accessibility as the adjustable moving jaw does not fall out, even at maximum opening

**Bahco 31**

- Narrow, thin jaws for better access
- Large jaw opening in relation to the length

**Bahco 86**

- Extra coarse serration and a generous opening for the adjustable knurl makes it easy to set the jaw width, even when gloves are worn
- Wide jaw opening opens up to 63 mm

**Bahco 87**

- Wide jaw opening opens up to 85 mm
- Parallel jaw faces for safer grip
No sharp edges that can injure the hand

The wrenches are available as black phosphated for normal use

A thin, flat end to ease tyre removal

One end shaped with toothed jaws for loosening rounded nuts and bolts, working with round objects, etc.

The toothed jaw is induction hardened and will bite into even the hardest material

614 mm long wrench gives maximum leverage

Adjustable wrenches for large size nuts and bolts and really tough work.

770 mm long wrench gives maximum leverage

The wrenches are available as black phosphated for normal use

The forged handle of special steel gives the maximum strength, max. torque 300 Nm
# Selection tables

## The Bahco Ergo 90 series

<table>
<thead>
<tr>
<th>Design</th>
<th>Type</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Spare parts</th>
<th>Set</th>
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<td>308 34</td>
<td>17.6</td>
<td>730</td>
<td>8073-2</td>
</tr>
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</table>

| Chromium-plated (C) in consumer packaging  |       |            |        |             |     |
| 9029 C                                      | 6     | 170 32     | 12.8   | 220         | 9029-2 | 9029-95 |
| 9031 C                                      | 8     | 218 38     | 13.0   | 340         | 9031-2 | 9031-95 |
| 9070 C                                      | 6     | 158 20     | 11.3   | 139         | 8070-2 | 8070-95 |
| 9071 C                                      | 8     | 208 27     | 12.9   | 272         | 8071-2 | 8071-95 |
| 9072 C                                      | 10    | 257 31     | 15.2   | 425         | 8072-2 | 8072-95 |
| 9073 C                                      | 12    | 308 34     | 17.6   | 730         | 8073-2 | 8073-95 |

| Black (phosphated) with reversible sliding jaw (P) in consumer packaging |       |            |        |             |     |
| 9070 P                                      | 6     | 158 21     | 11.3   | 139         | 9070-2 | 8070-95 |
| 9071 P                                      | 8     | 208 28     | 12.9   | 272         | 9071-2 | 8071-95 |
| 9072 P                                      | 10    | 257 33     | 15.2   | 430         | 9072-2 | 8072-95 |
| 9073 P                                      | 12    | 308 35     | 17.6   | 745         | 9073-2 | 8073-95 |

| Chromium-plated (C) with reversible sliding jaw (P) in consumer packaging |       |            |        |             |     |
| 9070 P C                                    | 6     | 158 21     | 11.3   | 139         | 9070-2 | 8070-95 |
| 9071 P C                                    | 8     | 208 28     | 12.9   | 272         | 9071-2 | 8071-95 |
| 9072 P C                                    | 10    | 257 33     | 15.2   | 430         | 9072-2 | 8072-95 |
| 9073 P C                                    | 12    | 308 35     | 17.6   | 745         | 9073-2 | 8073-95 |

C = Chromium-plated  P = Combination adjustable wrenches

## The special series

| Black (phosphated) with flat end for tyre removal in consumer packaging |       |            |        |             |     |
| 10 P C                                      | 6     | 155 19     | 11.0   | 120         | 10-2 | 10-95 |

| Black (phosphated) with toothed jaw in consumer or industrial packaging (IP) |       |            |        |             |     |
| 31 P C                                      | 8     | 205 32     | 13.5   | 270         | 31-2 | 31-95 |
| 31 IP                                       | 8     | 205 32     | 13.5   | 270         | 31-2 | 31-95 |

| Black (phosphated) for large size nuts and bolts and really tough work |       |            |        |             |     |
| 86 P C                                      | 24    | 614 63     | 29.0   | 3165        | 86-2 | 86-95 |
| 87 P C                                      | 30    | 770 85     | 33.0   | 5700        | 87-2 | 87-95 |

IP= Bulk packaging, without header cards
### The Bahco 80 series

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<th>Spare parts</th>
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<td>B mm</td>
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<td>305</td>
<td>35</td>
</tr>
</tbody>
</table>

C = Chromium-plated  IP= Bulk packaging, without header cards  P = Combination adjustable wrenches

### Dimensions

![Dimension Diagram]

### Spare Parts

1) Sliding jaws, black/chrome
2) Adjustable knurl, pin and spring