

**alkitronic® X<sup>H</sup>-SERIES**



**H-AX**

Hydraulic  
Torque Wrench

## Applications

- Hydraulic torque wrench with two hydraulic hose system for tightening or loosening heavy bolt connections.
- **alkitronic® H-AX** convertible type torque wrench up to 35,650 ft.lbs (49,000 Nm).
- Drive element with interchangeable hexagon link from 14 to 145 mm.

## Advantages

- **Simple handling** and low weight.
- **Economic construction** with few single components.
- **High efficiency** with minimum maintenance requirements and low costs.
- **Hard-wearing, ergonomically shaped housing design**, made of high-density aluminium alloy.
- **Highly flexible** due to simple, fast changing of the hexagon links.
- **Trouble-free support** without affecting the torque accuracy by lateral force.

## alkitronic® specials

- **Convenient, secure and reliable** individually pivoting joint couplings (360°). Capable of withstanding up to 4x higher maximum operating pressure.
- **Robust ratchet with fine teeth** for high torque accuracy and a max. stroke of 28°.
- **Constructive precise** guided drive element.
- **alkitronic® H-AX** developed for applications in restricted space and difficult to access areas: **Drive element and hexagon link** in line, **extremely flat** and flush design.



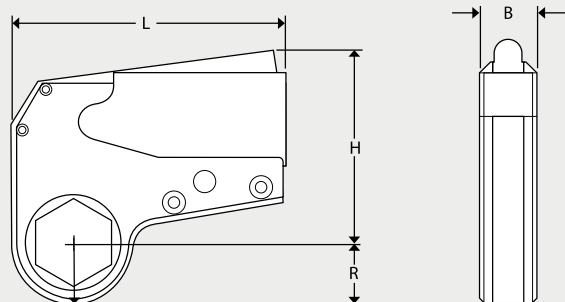
## Technical Data

Type		H-AX 1	H-AX 2	H-AX 4	H-AX 8	H-AX 16	H-AX 32 ***
Torque range (approx.)*	Nm	60-770	260-2600	540-5400	1150-11900	2150-22900	4450-49000
	ft.lbs	45-560	192-1928	395-3950	830-8630	1560-16600	3220-35650
Hexagon	AF ** mm	14-32	27-55	36-70	55-95	80-115	95-145
Radius (approx.) from-to	R mm	19-25	26-42	34-52	46-79	63-87	82-109
Width	B mm	24	38	47	58	70	92
Length	L mm	111	167	203	253	330	390
Height	H mm	83	103	144	180	194	278
Weight (approx.)	kg	0.5	1.6	3.5	6.6	13	18

\*) When loosening a bolted connection, up to 20% higher torque may be required (loosening torque). We will gladly advise you in detail.  
Ask us about: \*\*) other AF sizes \*\*\* models with larger torque range.

Important for the exact reproducibility of the specified torque is a pressure of max. 700 bar. Repeatability  $\pm 3\%$ . For a fast, safe and reliable operation of the hydraulic torque wrenches we recommend our **alkitronic® NOVA** or **alkitronic® VELOX** hydraulic pumps (700 bar pressure, can be used worldwide in all mains grids 100-253 V / 45-66 Hz).

Model **alkitronic® H-AX**



**alkitronic® H-AX**, when fitting a flange in plant construction.

**alkitronic®**  
HOME OF TORQUE POWER

**alkitronic® products**  
Made in Germany by

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**H-AT**

Hydraulic Torque Wrench



## Application

- **Hydraulic torque wrenches** with two hydraulic hose systems for tightening or loosening heavy bolt connections.
- **alkitronic® H-AT** hydraulic torque wrenches from 80 up to 53,100 ft.lbs (110 up to 72,000 Nm) for threads of M14 and larger.
- **No checking needed:** High repeatability  $\pm 3\%$  for the same bolting process.

## Advantages

- **Robust and ergonomic:** Hard-wearing, ergonomically shaped housing design made of high strength Aluminium-Titan-Alloy.
- **Simple and low weight:** Easy handling and low weight. Simply replug the square drive from tightening to loosening.
- **Durable and safe:** Bevelled torsion-resistant, highly-loaded one piece design. Higher work-safety due to a advanced and sustainable design.
- **High economic efficiency:** Long operating life, reliable bolting, low maintenance.

## alkitronic® specials

- **alkitronic® H-AT** developed for flexible applications in restricted space, <sup>1</sup> support arm incrementally adjustable (see drawing below).
- **High flexibility:** Convenient, secure and reliable pivoting one-piece joint couplings. Pivotal in two levels (360° horizontally, 180° vertically).
- Robust, rough toothed ratchet for **high torque accuracy**.
- **Solid, precise, especially powerful:** Unique design of the drive pawl.

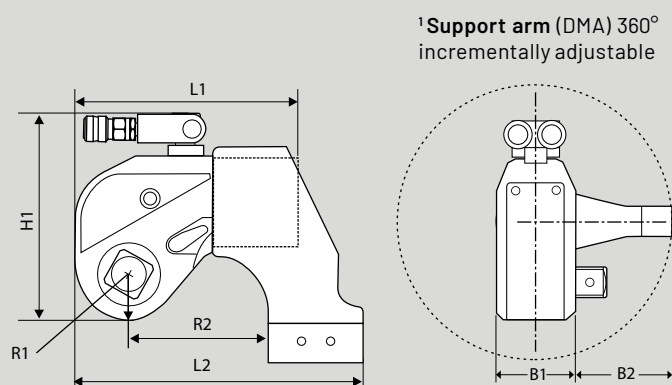


## Technical Data

Type		H-AT 1	H-AT 2	H-AT 3	H-AT 5	H-AT 8	H-AT 10	H-AT 20	H-AT 25	H-AT 35	H-AT 50
Torque range (approx.)	Nm	110-1120	180-1840	450-4510	750-7530	1080-10780	1550-15520	2660-26660	3470-34730	4860-48600	7200-72000
	ft.lbs	80-826	133-1357	332-3326	553-5554	797-7951	1143-11447	1962-19663	2559-25615	3585-35845	5310-53100
Square drive size		3/4"	3/4"	1"	1 1/2"	1 1/2"	1 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Height	H2	mm	108,1	131	176,5	199	217	232	270	297	341
Length	L1	mm	110,8	144,5	178	210,5	222	245,5	307,5	323	400
Length	L2	mm	139,3	173	229	270,5	293	317,5	383,5	401	516
Radius	R	mm	20,5	26	34	39	47	51	59	66	81
Radius	R2	mm	68,3	85	114	137	153	154	186	199	259
Width	B1	mm	42	50	68	80	90	100	120	137	160
Width	B2	mm	54	66,5	89,5	100	120	128	153	159,5	178
Weight (approx.)	kg	mm	1.8	2.5	5	8	11	15	26.5	35	50

Important for the exact reproducibility of the specified torque is a pressure of max. 700 bar. Repeatability  $\pm 3\%$ . For a fast, safe and reliable operation of the hydraulic wrenches, we recommend our **alkitronic® NOVA** or **alkitronic® VELOX** hydraulic pumps (700 bar pressure, can be used worldwide in all mains grids 100-253 V / 45-66 Hz).

### Model alkitronic® H-AT



**alkitronic® H-AT**  
Use in a wind power plant

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# X Driver Systems

Hydraulic Wrenches



# thinnest, fastest and most versatile

## X Driver Hydraulic Wrench System

The **alkitronic®** Norwulf **X DRIVER SYSTEM** - the most revolutionary hydraulic torque wrench system ever created. The profiles are totally flat with no extrusions that create hangups. The design with a smaller cylinder bore but longer levers, creates less stress on all parts. Easier to get into confined areas and around nuts in hard to access spaces. With the durability of solid steel design, fewer parts, and clean-lined construction.

## X Driver

- Hydraulic power head with two hydraulic hose system.
- Slimmest design - one piece piston construction.
- Only one high pressure o-ring - easily changed with four bolts.
- Novel swivel design - 360° or 360 x 360 with one piece add on.
- The power head locks into the separate drives without pins or screws.
- All alloy steel construction - only true convertible tool.
- Ready for optional handle.

## A Drive (hex link)

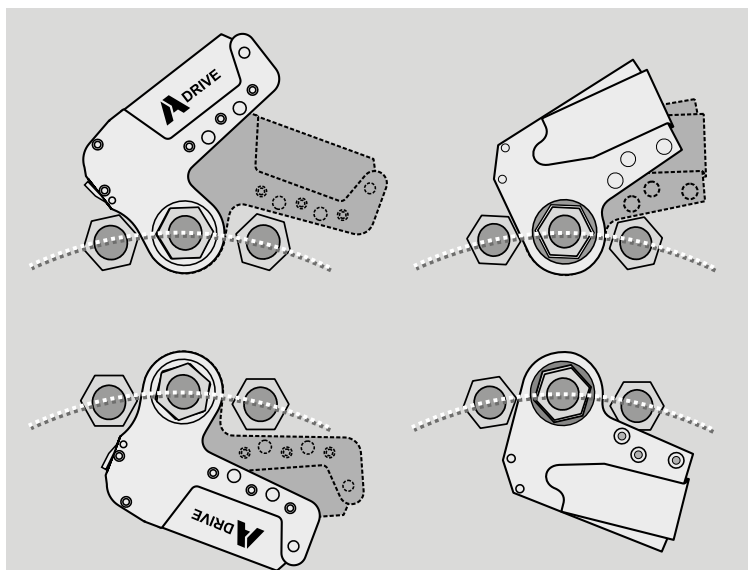
- Slimmest design - no loose shroud - totally enclosed.
- Reaction arm/pad ready with 2 pin holes.
- Patented reaction pawl easily disengaged with screw.
- Fewer parts. Other hex links have many moving parts, increasing breakdowns and need for complex repairs.
- Deepest reach on the market - fits all flanges.
- Upon testing, the A-Drive is 10-50% faster than other hydraulic wrenches.

## V Drive (square drive)

- Push through drive with ball locks.
- Fastest 40° stroke making tool up to 30% faster per stroke.
- Most versatile, patented reaction arm. Arm never needs to come off tool for resetting, unlike competitors. Adjusts in all directions with posi lock locator buttons. Totally unique design.
- Thinnest width square drive tool on the market - totally enclosed.
- Optional solid reaction arm available.

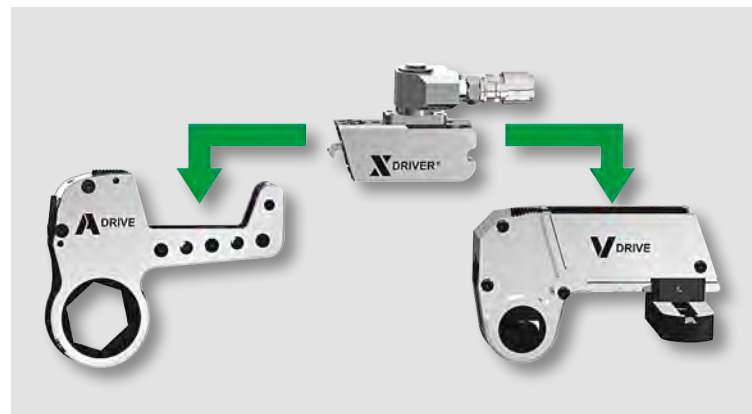
## Specifications

A prerequisite for exact reproducibility of the specified torque ranges is an operating pressure of 100 to 700 bar. Repeatability +/- 3%.



### A-Drive and X-Drive fits more applications than any other wrench.

The patented design curve creates the longest throat reach, allowing the widest approach angle to fit the tool on the nut, easily, without jogging or manually moving the ratchet. This curve makes the X-Drive the fastest to fit in the industry, on both in-line and inverted applications.



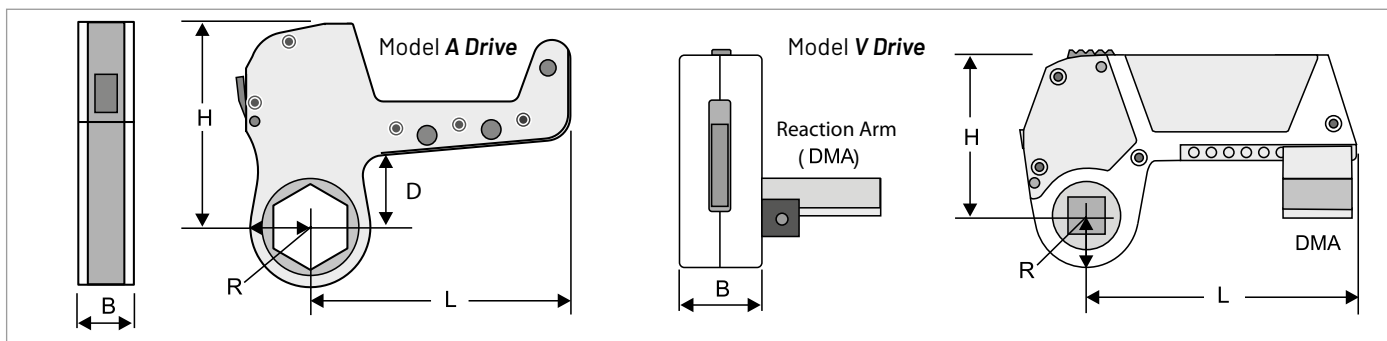
**The hydraulic wrench is so advanced it's not only a tool, it's an entire system.** The X-Drive locks into drives which fully protect the cylinder from reaction points. The X-Drive pivots inside the drives, in-line, to prevent side load and tension to the cylinder, for safety and endurance.



### Application Example: A-Drive when fitting a flange coupling in plant construction.

**Hands-Free a Drive Safety:** The catch lever holds the tool against the reaction point on the piston retract, preventing the operator from holding the tool against the reaction area during tool kick-back on the retract stroke.

## Technical Data



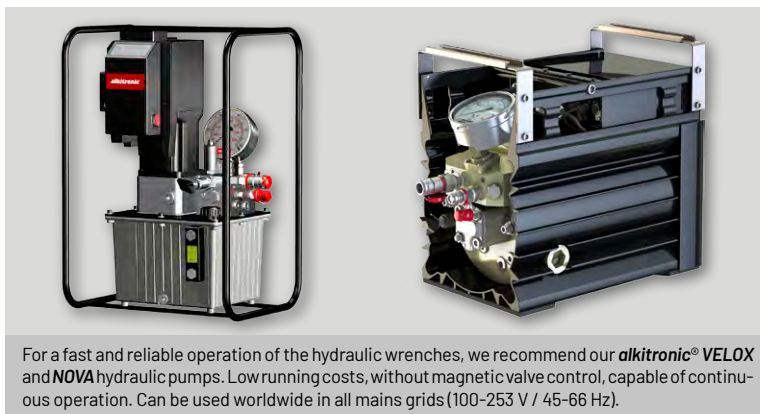
### Models A Drive (Hex. link)

A Drive + X Driver		Type	A - 2	A - 4	A - 8	A - 16	A - 32	A - 64		
Torque range *		Nm	335-2240	805-5370	1560-10400	2690-17920	6600-44000	12450-83000		
Torque range *		ft.lbs	247-1652	594-3961	1151-7671	1984-13217	4868-32453	9183-61217		
Height	H	mm	104	139	174	208	278	347		
Length	L	mm	134	178	223	267	356	446		
Distance	D	mm	38	51	63	76	102	127		
Width	B	mm	29	38	48	57	76	95		
Weight (approx.)		kg / lbs	2.3 / 5.0	5.0 / 11.0	10.5 / 23.5	17.0 / 37.5	33.0 / 72.5	76 .0 / 167.0		
Type A 2-			SW 27	SW 32	SW 36	SW 41	SW 46	SW 50	SW 55	SW 60
Radius (approx.) R		mm	25	28	31	33	36	39	42	45
Type A 4-			SW 46	SW 50	SW 55	SW 60	SW 65	SW 70	SW 75	SW 80
Radius (approx.) R		mm	39	42	45	48	50	53	56	58
Type A 8-			SW 55	SW 60	SW 65	SW 70	SW 75	SW 80	SW 90	SW 100
Radius (approx.) R		mm	49	53	56	59	63	66	70	73
Type A 16-			SW 70	SW 75	SW 80	SW 90	SW 100	SW 105	SW 115	SW 125
Radius (approx.) R		mm	61	62	65	70	75	81	87	93
Type A 32-			SW 90	SW 100	SW 105	SW 115	SW 125	SW 135	SW 145	SW 155
Radius (approx.) R		mm	77	82	88	93	99	104	110	115
Type A 64-			SW 125	SW 135	SW 145	SW 155	SW 165	SW 175	SW 185	SW 195
Radius (approx.) R		mm	105	111	116	122	127	133	138	144

\*) When loosening a bolted connection, up to 20% higher torque may be required (loosening torque). We will gladly advise you in detail.

### Models V Drive (Square drive)

V Drive + X-Driver	Type	V - 2	V - 4	V - 8	V - 16	V - 32	V - 64
Torque range *	Nm	265-1760	625-4174	1225-8155	2115-14100	5015-33420	9790-65280
Torque range *	ft.lbs	195-1298	461-3079	904-6015	1560-10400	3699-24649	7221-48148
Square drive		3/4"	1"	1 1/2"	1 1/2"	2 1/2"	2 1/2"
Height	H mm	83	111	139	166	222	277
Length (approx.)	L mm	140	190	240	290	390	490
Radius	R mm	25	34	42	51	68	85
Width	B mm	41	55	69	83	110	138
Weight (approx.)	kg / lbs	2.7 / 5.9	6.1 / 13.5	12.0 / 26.5	20.7 / 45.5	43.0 / 94.5	86.0 / 189.0



For a fast and reliable operation of the hydraulic wrenches, we recommend our **alkitronic® VELOX** and **NOVA** hydraulic pumps. Low running costs, without magnetic valve control, capable of continuous operation. Can be used worldwide in all mains grids (100-253 V / 45-66 Hz).





## YOUR PLUS FOR MORE PERFORMANCE

### Increased quality

Premium production  
Highest quality materials  
Long product life cycles  
Since 1984 experience in bolting technology  
Made in Germany – international patents

### Increased precision

Precise, customer-specific torques  
High repeatability  
Reliability in permanent operation  
Dokumentation of tightening results  
Automatic shut-off

### Increased productivity

Quicker tightening without reworking  
No environmentally caused failures (IP54, ATEX)  
High work safety  
Easy to use: clear, simple instructions  
Low maintenance and cost efficient

### Better service

Technical advice on site  
Training offers  
Manufacturer's calibration and certification  
Lifecycle support  
Spare part and repair service

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Hydraulic Wrenches and Pumps



Manual Torque Multiplier