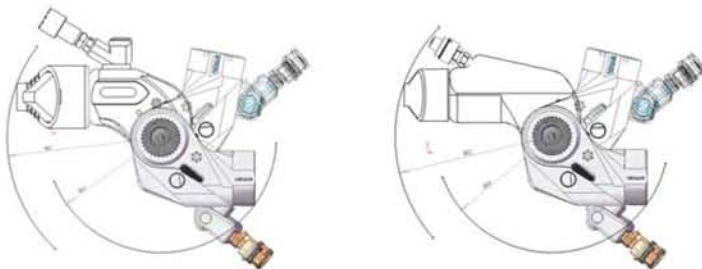




The multi-functional system from HYTORC[®] *The universal AVANTI TorcTensioner*

- The first system that enables safe remote and *hand-free operation*.
- The first system without a reaction arm.
- The first system with accessories conforming to ASME regulations.
- The first system for calibrated torque and & bolt-load (stretch to load).
- The first reaction arm system, which can be positioned 360° around the square drive (with or without a reaction arm).
- The first system with a bolt-load precision of $\pm 5\%$
- The first system with a guaranteed time optimization of more than 50%.
- The first system with a guaranteed tight flange connection and malfunction-free start-up.



Compact, ergonomic design and torque output of up to 190,000 Nm.

Axially positioned support arm around the square drive (HYTORC patent).

Single-piece tool housing, without teeth on the cylinder side.

360° positioning of the reaction arm around the square drive.

Hydraulic hose connection rotatable by 360° and can be folded by 120° over the rotation axis.

Safety screw and plug coupling for high output.

Indirect torsion retaining latches.

Universally deployable and pre-fitted for use with DISC™, CLAMP™, SmartDISK™ and SmartSTUD™, for bolt connections without a reaction arm.

For torque, torque-angle and yield point controlled bolting methods.

TwinTORC Dual bolting method, for quick tightening of two bolts at the same time.

The smallest space requirements of all hydraulic square drive torque tensioners.

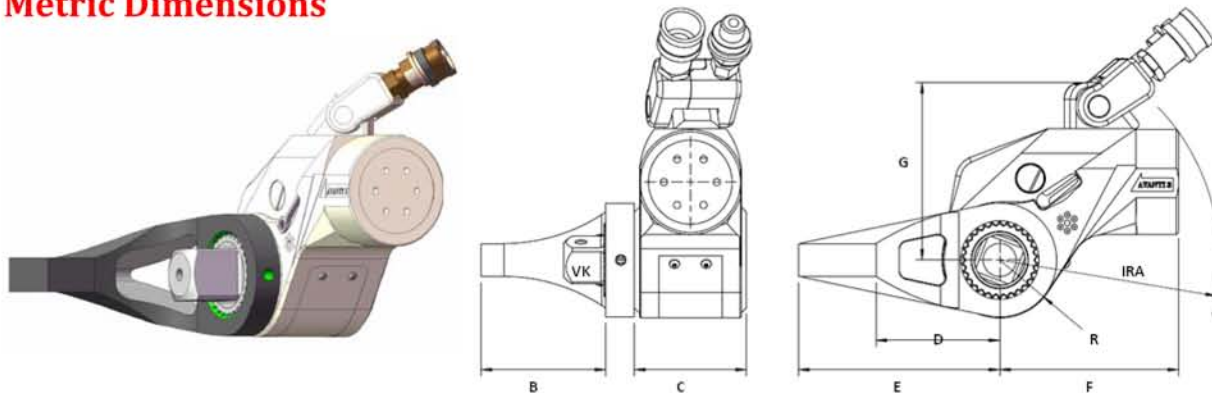
The AVANTI™-TorcTensioner hydraulic square drive torque wrenches are the newest generation from HYTORC®, which can be used for ALL assembly procedures according to VDI 2230. In addition, the new tensioning method can be used for assembly without a reaction arm, such as DISC™, CLAMP™, SmartDISK™ or SmartSTUD™, and with the AVANTI™-TorcTensioner. **One set fits all!**

The tool is unique for its kind and has a 360° adjustable bolting and rotating shaft, offering the smallest radius of all hydraulic torque tensioners.

In combination with a variety of hydraulic pump units, the AVANTI™ torque-angle control tensioning method can be used, as well as a yield-point control tensioning.

All of this is available with an uninterrupted documentation of all bolting processes.

Metric Dimensions



HYTORC	Bolt-Load ¹ P _v max. [kN]	Torque ²		Square drive VK (inches)	Radius R (mm)	Space requirement IRA (mm)	Weight kg
		Nm min.	Nm max.				
AVANTI - 0.7	320	156	1,060	3/4"	25.1	93.9	1.8
AVANTI - 1	400	271	1,780	3/4"	28.7	110.7	2.0
AVANTI - 3	720	592	3,960	1"	38.1	144.8	4.1
AVANTI - 5	1,300	1,110	7,550	1-1/2"	45.7	174.4	6.6
AVANTI - 8	1,600	1,591	10,730	1-1-/2"	50.0	197.5	9.0
AVANTI - 10	2,000	2,546	15,200	1-1/2"	57.2	217.7	12.2
AVANTI - 20	3,000	3,818	24,750	2-1/2"	66.0	259.5	21.2
AVANTI - 35	4,500	6,855	47,120	2-1/2"	81.0	320.8	37.4
AVANTI - 50	5,500	10,323	68,830	2-1/2"	100.3	363.0	57.8
AVANTI - 130	12,000	17,985	191,610	3-1/2"	134.9	529.4	225.0

HYTORC	Height ³ B (mm)	Width C (mm)	Radius ³ D (mm)	Radius ³ E (mm)	Length F (mm)	Height ⁴ G (mm)
AVANTI - 1	61.9	55.4	69.9	112.5	91.2	91.4
AVANTI - 3	81.9	73.7	81.5	132.5	117.9	116.8
AVANTI - 5	95.9	85.9	151.9	245.9	141.2	134.1
AVANTI - 8	117.9	98.0	152.9	256.9	160.0	157.2
AVANTI - 10	122.9	110.0	190.5	298.5	176.8	167.9
AVANTI - 20	142.0	128.8	177.5	290.5	211.8	192.5
AVANTI - 35	175.9	158.2	184.3	446.3	260.6	229.4
AVANTI - 50	206.5	178.8	294.5	465.5	294.4	255.5
AVANTI - 130	232.1	215.9	442.5	657.9	442.4	376.6

¹ The tensioning force refers to the strength class [10] at R_{p0.2}, when utilizing DISC with a DISC.08 dry lube spray.

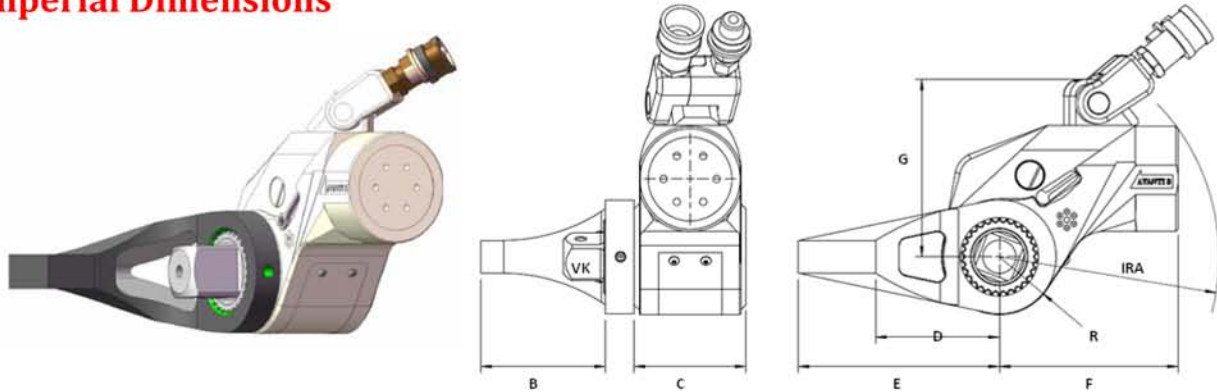
² The values for torque are indicative. A calibration will be carried out before delivery, including a certificate.

³ Standard dimensions, which can be changed, depending on the application.

⁴ Dimension in case of an applied swivel, parallel to the cylinder shaft.

We reserve the right to make technical changes.

Imperial Dimensions



HYTORC	Bolt-Load ¹ P _v max. [lbs]	Torque ²		Square drive VK (inches)	Radius R (inches)	Space requirement IRA (inches)	Weight Lbs.
		Ft.lbs. min.	Ft.lbs. max.				
AVANTI - 0.7	320	113	767	3/4"	25.1	93.9	1.8
AVANTI - 1	400	196	1,284	3/4"	28.7	110.7	2.0
AVANTI - 3	720	592	3,960	1"	38.1	144.8	4.1
AVANTI - 5	1,300	1,110	7,550	1-1/2"	45.7	174.4	6.6
AVANTI - 8	1,600	1,591	10,730	1-1-1/2"	50.0	197.5	9.0
AVANTI - 10	2,000	2,546	15,200	1-1-1/2"	57.2	217.7	12.2
AVANTI - 20	3,000	3,818	24,750	2-1/2"	66.0	259.5	21.2
AVANTI - 35	4,500	6,855	47,120	2-1/2"	81.0	320.8	37.4
AVANTI - 50	5,500	10,323	68,830	2-1/2"	100.3	363.0	57.8
AVANTI - 130	12,000	17,985	191,610	3-1/2"	134.9	529.4	225.0

HYTORC	Height ³ B (inches)	Width C (inches)	Radius ³ D (inches)	Radius ³ E (inches)	Length F (inches)	Height ⁴ G (inches)
AVANTI - 0.7	60.9	45.5	96.6	146.6	77.5	80.5
AVANTI - 1	61.9	55.4	69.9	112.5	91.2	91.4
AVANTI - 3	81.9	73.7	81.5	132.5	117.9	116.8
AVANTI - 5	95.9	85.9	151.9	245.9	141.2	134.1
AVANTI - 8	117.9	98.0	152.9	256.9	160.0	157.2
AVANTI - 10	122.9	110.0	190.5	298.5	176.8	167.9
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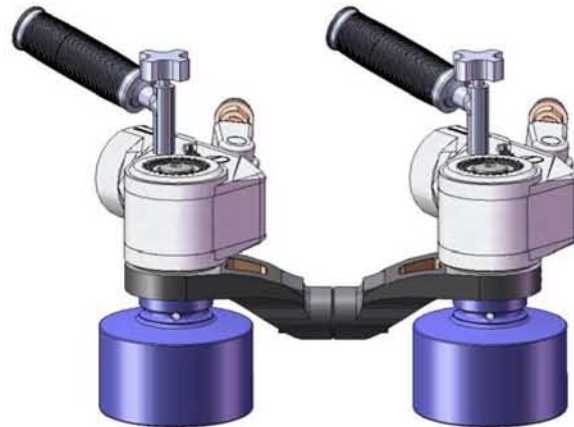
² The values for torque are indicative. A calibration will be carried out before delivery, including a certificate.

³ Standard dimensions, which can be changed, depending on the application.

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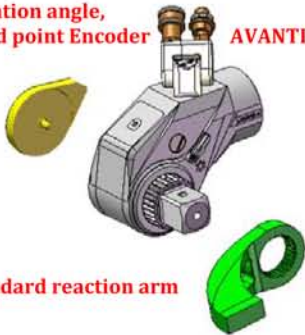
Safety reaction fixtures



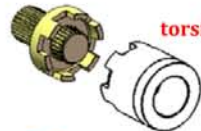
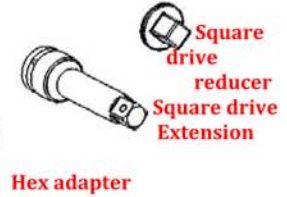
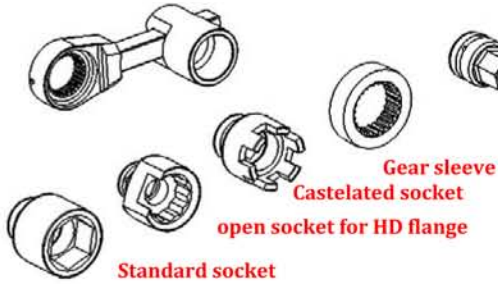
Safe tensioning and loosening of two bolts at the same time, without a reaction arm!

Accessory possibilities

Rotation angle,
Yield point Encoder AVANTI



Standard reaction arm



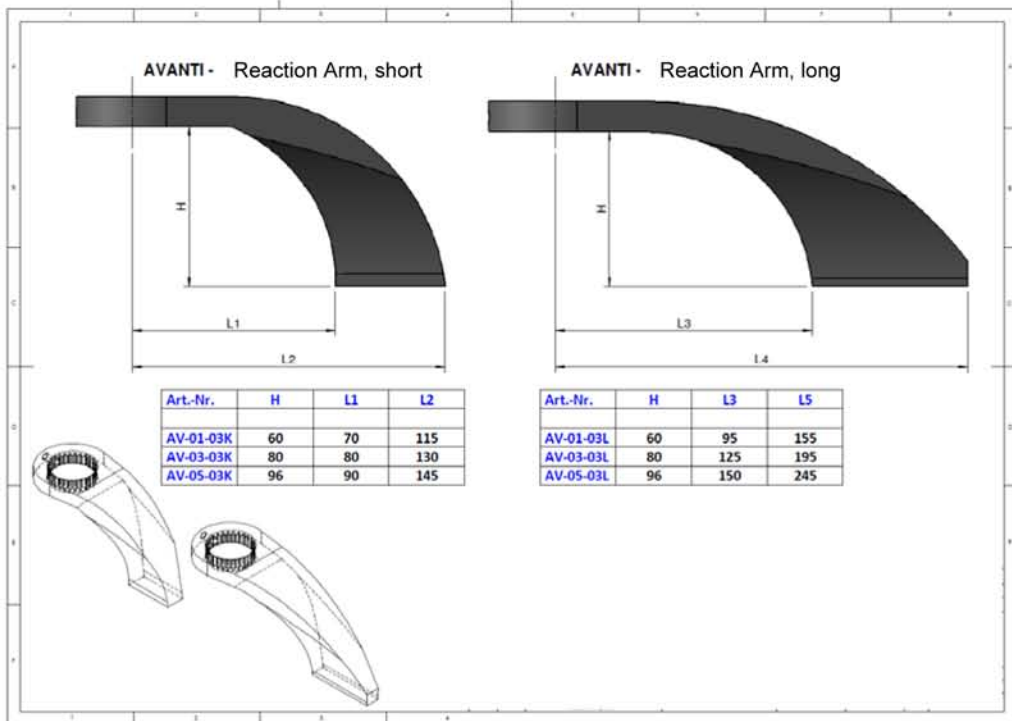
torsion and side-load free CLAMP NUT™ expansion nut drive

CLAMP expansion nut, precision of tensioning force $\pm 5\%$



side-load free DISC socket drive

DISC reaction washer, precision of tensioning force $\pm 10\%$



Typical applications



AVANTI-1 on an excavator



AVANTI-SIMULTORC for hex bolt



AVANTI-3 with Wind Cup Reaction Fixture



AVANTI-5 with DISC on a LIEBHERR 256HC at BKL



AVANTI-3 in an amusement park



AVANTI-5 with side-load-free axial extension