

hydratight®

TORQUE SOLUTIONS



Who we are

One Company, Total Support, Complete Solutions

Over many years, Hydratight has provided world-class bolted joint solutions and continues to set international standards in joint integrity for its customers on a global scale.

Hydratight works in partnership with the world's leading OEMs using the latest computer technology and market leading development facilities. We continue to push back the boundaries of technology to provide fast, accurate and reliable solutions to critical assembly problems.

Our people are the key to our success: qualified, competent and innovative people, working closely with our customers ensuring a total understanding of their requirements.

One Company - Meets Standards

Totally committed to safety and quality, all Hydratight products and services are designed, manufactured and carried out within a management system in accordance with ISO 9001: 2008 (Quality Management), ISO 14001: 2004 (Environmental Management) and OHSAS 18001:2007 (Occupational Health and Safety)

Our extensive bolting and machining services include:

- Torque and tension bolting equipment
- Portable machining equipment
- Product sales, rental and technical support
- Product service and training
- Special designs and alternative sizes are available upon request



INVESTOR IN PEOPLE



Torque Products

At Hydratight we have a strong reputation for our range of hydraulic torque wrenches - based on a steel alloy, they are strong, reliable and designed with the user in mind. We design and manufacture all of our hydraulic wrenches at our manufacturing facility in Antigo, North America. This facility is purpose-built for the manufacturing of

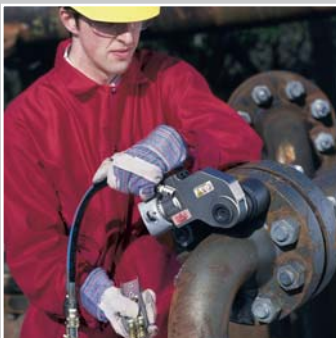
torque equipment to ensure we maintain full control throughout the build process. We also offer a choice of interchangeable tools; with the square drive being replaced by a low profile cassette to provide increased flexibility, or a dedicated square drive and low profile option so that weight and size can be optimal.



For videos and technical data on all our bolting and machining solutions go to www.hydratight.com

Torque: RSL Series

The Hydratight RSL series of lightweight hydraulic torque wrenches has been designed to tighten and loosen nuts and bolts for professional applications across the oil & gas, powergen and industrial markets.



One Company - Meets Standards

Safe

- Innovative design that completely encloses all moving parts and eliminates pinch points

Fast

- 30 – 35 degrees of operating stroke provides added productivity while avoiding “tool lock on” which is common with some torque wrench designs

Versatile

- Interchangeable head design
- Power head / square drive combination for flexible use with standard impact quality sockets
- Power head / hex head combination for limited height in line solutions
- Wide range of hex sizes available for all applications
- 360 degree movement of reaction arm with simple dial lock for rapid change
- For use topside and subsea

Compact

- Designed to give optimum strength to weight and torque to weight ratios
- Minimum nose radius for trouble-free tool fit

Durable

- Simple robust design with a minimum of moving parts
- Proven to perform even in the harshest environments
- RSL2 – RSL20 model bodies and reaction arms are manufactured from high strength stainless steel. Reaction arms are available in weld-able cast steel. RSL30 bodies are made from high strength steel and reaction arms are made from high strength aluminum

Dependable

- ISO certified with just three moving parts for reduced maintenance and a three year warranty

Available as:

- Individual modules – power head, square drive head or low clearance hex heads
- Complete Tools:
- Square Drive Set (SDS) – power head, square drive wrench head, reaction arm
 - Hex Wrench Set – power head, hex wrench head, reaction arm
 - PARKER quick connections as standard, but high flow CEJN connections also available

Accessories

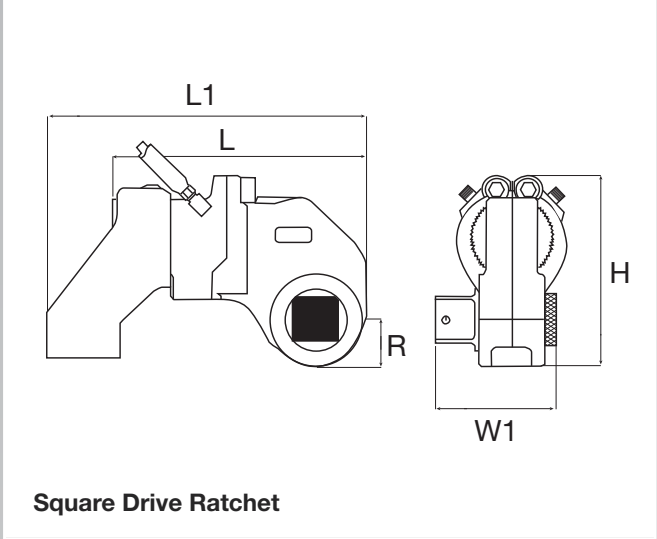
Square Drive Wrench

- Sockets – full range of hex, bi-hex, castellated and special made to order
- Direct-drive hexagon bits for socket head screws
- Direct-drive sockets, peg drive sockets, allen head driver

Hex Wrench

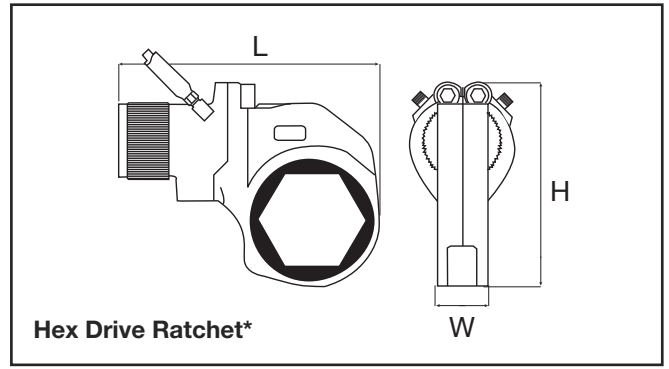
- Inserts – full range of hex, bi-hex and special made to order
- Hexagon reducing inserts, made to order reaction arms, hose swivels – individual multi-position

The hex wrench head has only three moving parts, while the square drive wrench head has just one moving assembly (square drive) and two moving parts. The power head can be fitted with either a square drive wrench or a low profile hex wrench (cassette), and it can be easily connected to Hydratight's full range of air or electric powered pumps (consoles).



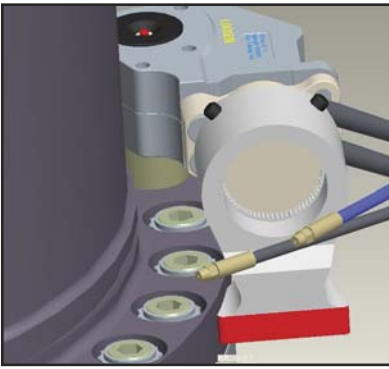
Square Drive Ratchet

Square Drive Dimensions and Specifications																						
Model	Wrench Head	Max. Torque Output		Sq. Drive Size	W		W1		H		L		L1		R		Weight					
		lb-ft	N-m		in	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg	lb	kg	lb
	Wrench Head	lb-ft	N-m	in	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg	lb	kg	lb	kg
RSL2	Sq. Drive	1408	1909	3/4	1.25	32	2.30	58	4.48	114	6.29	160	7.45	189	0.94	24	3.98	1.81	0.50	0.23	2.53	1.15
RSL4	Sq. Drive	3080	4176	1	1.50	38	2.88	73	5.57	141	7.67	195	10.30	262	1.25	32	5.69	2.58	2.28	1.03	4.75	2.15
RSL6	Sq. Drive	5303	7190	1 1/2	1.75	45	3.71	94	6.42	163	9.27	235	11.67	296	1.52	39	9.00	4.08	3.96	1.80	9.08	4.12
RSL8	Sq. Drive	7862	10659	1 1/2	2.40	61	4.14	105	6.65	169	9.47	241	11.78	300	1.52	39	10.80	4.90	4.32	1.96	11.25	5.10
RSL14	Sq. Drive	11154	15123	1 1/2	2.50	64	4.63	118	7.93	201	11.20	284	12.40	315	1.88	48	11.63	5.28	6.54	2.96	16.62	7.54
RSL20	Sq. Drive	18843	25548	2 1/2	3.25	83	6.38	162	9.48	241	13.46	342	18.97	482	2.50	64	20.10	9.12	15.90	7.21	29.04	13.17
RSL30	Sq. Drive	28002	37965	2 1/2	3.50	89	6.54	169	10.35	263	14.09	358	21.07	536	2.50	64	21.34	9.68	11.00	4.99	36.75	16.67



Hex Wrench Dimensions and Specifications												
Hex Wrench Model and Housing	Max. AF Size		Max Torque Output		R		L		W		H	
	mm	in	N-m	lb-ft	mm	in	mm	in	mm	in	mm	in
RSL2H014	22	7/8	433.9	320	20.1	0.79	152.4	6.00	31.8	1.25	110.0	4.33
101	27	1 1/16	867.7	640	24.1	0.95	153.7	6.05	31.8	1.25	114.3	4.50
104	31	1 1/4	867.7	640	26.2	1.03	155.4	6.12	31.8	1.25	116.1	4.57
107	36	1 7/16	1220.2	900	29.2	1.15	158.5	6.24	31.8	1.25	119.1	4.69
110	42	1 5/8	1909.0	1408	33.4	1.31	162.8	6.41	31.8	1.25	123.4	4.86
113	46	1 13/16	1909.0	1408	35.5	1.40	164.8	6.49	31.8	1.25	125.5	4.94
200	50	2	1909.0	1408	37.7	1.48	167.1	6.58	31.8	1.25	127.8	5.03
203	55	2 3/16	1909.0	1408	40.1	1.58	169.7	6.68	31.8	1.25	130.3	5.13
206	60	2 3/8	1909.0	1408	43.2	1.70	172.5	6.79	31.8	1.25	133.1	5.24
RSL4H104	32	1 1/4	813.5	600	26.2	1.03	189.2	7.45	35.1	1.38	135.9	5.35
107	36	1 7/16	1220.2	900	30.0	1.18	193.5	7.62	35.1	1.38	139.4	5.49
110	41	1 5/8	1627.0	1200	33.5	1.32	197.4	7.77	35.1	1.38	143.0	5.63
113	46	1 13/16	2576.0	1900	37.3	1.47	199.9	7.87	35.1	1.38	146.8	5.78
200	50	2	3525.1	2600	40.6	1.60	204.2	8.04	35.1	1.38	150.4	5.92
203	55	2 3/16	4175.9	3080	44.7	1.76	207.3	8.16	35.1	1.38	154.4	6.08
206	60	2 3/8	4175.9	3080	46.7	1.84	209.6	8.25	35.1	1.38	156.2	6.15
209	65	2 9/16	4175.9	3080	49.5	1.95	206.8	8.14	35.1	1.38	159.0	6.26
212	70	2 3/4	4175.9	3080	51.8	2.04	209.0	8.23	35.1	1.38	161.5	6.36
215	74	2 15/16	4175.9	3080	54.9	2.16	211.8	8.34	35.1	1.38	166.1	6.54
RSL6H200	50	2	3525.1	2600	40.9	1.61	230.6	9.08	44.5	1.75	165.6	6.52
203	55	2 3/16	4745.3	3500	43.4	1.71	233.2	9.18	44.5	1.75	168.1	6.62
206	60	2 3/8	6101.1	4500	47.5	1.87	237.2	9.34	44.5	1.75	172.2	6.78
209	65	2 9/16	7189.8	5303	51.1	2.01	240.8	9.48	44.5	1.75	175.8	6.92
212	70	2 3/4	7189.8	5303	54.9	2.16	244.6	9.63	44.5	1.75	179.6	7.07
215	75	2 15/16	7189.8	5303	56.9	2.24	246.6	9.71	44.5	1.75	181.6	7.15
302	80	3 1/8	7189.8	5303	57.4	2.26	247.1	9.73	44.5	1.75	182.1	7.17
RSL8H203	55	2 3/16	4745.3	3500	43.4	1.71	238.0	9.37	57.2	2.25	173.7	6.84
206	60	2 3/8	6101.1	4500	47.5	1.87	242.1	9.53	57.2	2.25	177.8	7.00
209	65	2 9/16	7863.6	5800	53.3	2.10	245.6	9.67	57.2	2.25	181.1	7.13
212	70	2 3/4	10659.3	7862	54.9	2.16	249.4	9.82	57.2	2.25	184.9	7.28
215	75	2 15/16	10659.3	7862	56.9	2.24	251.5	9.90	57.2	2.25	186.9	7.36
302	-	3 1/8	10659.3	7862	57.4	2.26	252.0	9.92	57.2	2.25	187.7	7.39
302	80	-	9897.3	7300	57.4	2.26	252.0	9.92	57.2	2.25	187.7	7.39
RSL14H209	65	2 9/16	7863.6	5800	50.3	1.98	254.0	10.00	63.5	2.50	204.0	8.03
212	70	2 3/4	9897.3	7300	55.6	2.19	284.5	11.20	63.5	2.50	209.0	8.23
215	75	2 15/16	12202.2	9000	58.2	2.29	287.3	11.31	63.5	2.50	211.8	8.34
302	79	3 1/8	15122.6	11154	61.7	2.43	290.6	11.44	63.5	2.50	215.1	8.47
308	89	3 1/2	15122.6	11154	66.0	2.60	297.4	11.71	63.5	2.50	219.5	8.64
314	98	3 7/8	15122.6	11154	73.2	2.88	302.0	11.89	63.5	2.50	226.6	8.92
404	108	4 1/4	15122.6	11154	75.7	2.98	304.8	12.00	63.5	2.50	229.4	9.03
410	117	4 5/8	15122.6	11154	82.6	3.25	311.7	12.27	63.5	2.50	236.2	9.30
RSL20H302	79	3 1/8	14913.8	11000	62.2	2.45	323.1	12.72	69.9	2.75	239.8	9.44
308	89	3 1/2	21692.8	16000	70.4	2.77	331.2	13.04	69.9	2.75	247.9	9.76
314	98	3 7/8	25547.3	18843	74.9	2.95	335.8	13.22	69.9	2.75	252.5	9.94
404	108	4 1/4	25547.3	18843	83.8	3.30	344.7	13.57	69.9	2.75	261.1	10.28
410	117	4 5/8	25547.3	18843	87.4	3.44	348.2	13.71	69.9	2.75	264.9	10.43
RSL30H308	89	3 1/2	21692.8	16000	65.0	2.56	364.7	14.36	76.2	3.00	267.7	10.54
314	98	3 7/8	29827.6	22000	74.2	2.92	364.7	14.36	76.2	3.00	273.6	10.77
404	108	4 1/4	37965.1	28002	83.6	3.29	367.5	14.47	76.2	3.00	283.0	11.14
410	117	4 5/8	37965.1	28002	87.1	3.43	371.1	14.61	76.2	3.00	286.5	11.28
500	127	5	37965.1	28002	92.7	3.65	376.7	14.83	76.2	3.00	292.1	11.50
506	136	5 3/8	37965.1	28002	96.3	3.79	380.2	14.97	76.2	3.00	295.7	11.64
512	146	5 3/4	37965.1	28002	102.9	4.05	386.8	15.23	76.2	3.00	302.3	11.90
602	155	6 1/8	37965.1	28002	107.2	4.22	393.2	15.48	76.2	3.00	308.6	12.15

Note: Nose radius dimension 'R' is approximate. Contact your local representative for more information.



Marriage Joint Torque Wrench - Gert 30

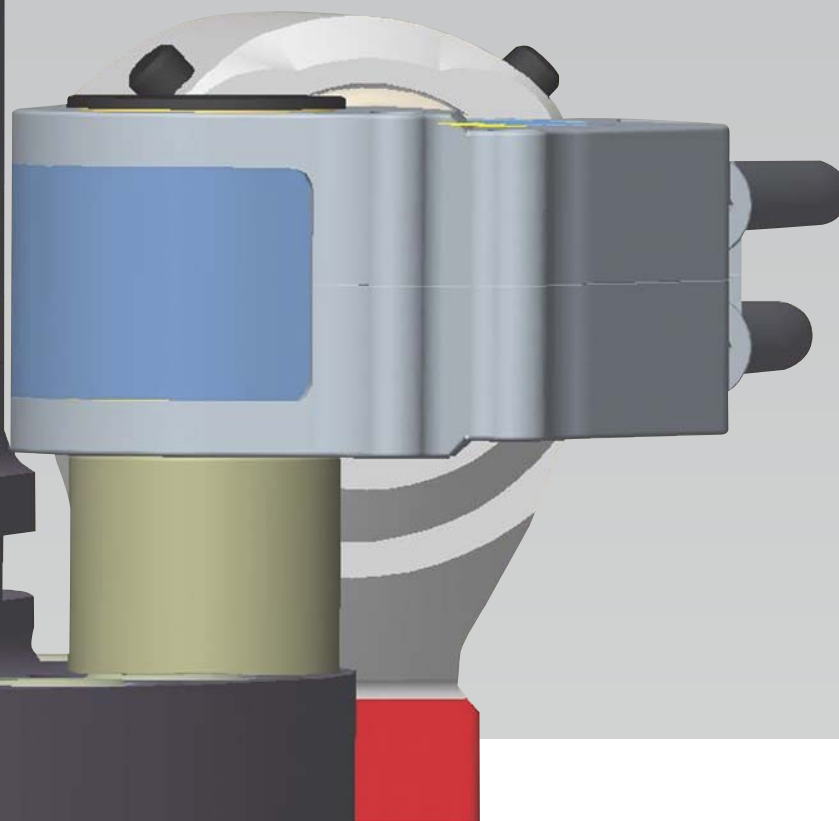
When an off-the-shelf tool doesn't do the job, trust Hydratight to create a customized solution that saves time in a safe and controlled way.

When an OEM had a problem un-bolting the marriage joint on one of their gas turbines they turned to Hydratight engineers to design and produce a solution that made the process easier and safer.

Hydratight remodelled a standard RSL torque wrench and following extensive product tests, managed to reduce the process from two shifts to just three hours, overcoming a variety of difficult and complex factors in the process.

This is a perfect example of Hydratight's capacity to create customized solutions for customers, either tailored or adapted from existing products.

CASE STUDY



Power Consoles

The Hydratight range of portable 10,000 psi ultra high performance pumps has been designed and developed specifically for use with hydraulic torque wrenches.

Pumps operate from two primary power sources: air and electric, providing optimum performance of power and speed, even in the most arduous conditions. Each Hydratight pump ensures user safety – operation via a remote control handset comes as standard.



PowaPak Air



PowaPak Air Ultra



PowaPak Electric



PowaPak Electric Automatic

PowaPak Air

A high pressure air powered hydraulic torque wrench pump, designed specifically for bolting applications.

PowaPak Air Ultra

A new high efficiency air powered, three stage hydraulic torque wrench pump designed to give industry leading performance with optimum power and speed.

PowaPak Electric

A high pressure electric torque wrench pump with backlit LCD display and microprocessor control, combining performance with long life and low maintenance.

PowaPak Electric Automatic

Fully automatic, this PowaPak pump provides industry leading performance and high levels of reliability, all in a high quality compact design.

PowaPak Electric Ultra

All of the performance benefits of the PowaPak Automatic with the added benefits of a fully programmable SMART multi-function microprocessor control.



PowaPak Electric Ultra

Torque Multipliers

Easy to use, Hydratight's range of torque multipliers enables small amounts of input torque to produce large amounts of output torque, efficiently and safely.



When the accurate make-up or break-out of a stubborn fastener requires a high level of torque, the Sweeney range of torque multipliers improve the job. These easy to use multipliers enable small amounts of input torque to produce large amounts of output torque- efficiently and safely.

Features:

- Overload protection - protects tool from internal damage
- Anti-backlash device
- High efficiency using planetary gear sets
- Input/output torque charts
- Angle of turn protractor
- Multiple styles of reaction
- Customer reaction anchors (available upon request)
- Application support

Benefits:

- Accurate
- Durable
- Reversible
- Low input torque to achieve high output torque

Sweeney Universal Torque Multipliers

Specification	290Plus	291	292	391	391	393
Output Capacity lbf-ft (N-m)	750 (1000)	1000 (1,357)	2000 (2,700)	1,200 (1,627)	2,200 (2,983)	3,200 (4,339)
Input Capacity lbf-ft (N-m)	227 (303)	303 (411)	571 (771)	200 (271)	162 (220)	173 (235)
Torque Ratio	3.0:1	3.0:1	3.5:1	6:1	13.6:1	18.5:1
Output Sq Sz.	3/4"	3/4"	1"	3/4"	1"	1"

Dimensions						
Head Diameter In (mm)	2.8 (71)	2.8 (71)	3.8 (95)	3.94 (100)	4.06 (103)	4.06 (103)
Height In (mm)	3.1 (79)	3.3 (84)	4.5 (114)	4 (102)	5.75 (146)	6.5 (165)
Length In (mm)	8.6 (217)	17.4 (443)	19.5 (495)	19.6 (497)	19.6 (497)	19.6 (497)
Weight lb (kg)	3.8 (1.7)	5.5 (2.5)	12 (5.5)	9.1 (4.1)	15.2 (6.9)	18.3 (8.3)

Plate Torque Multipliers

Specification	491	492	493	394	395
Output Capacity lbf-ft (N-m)	1000 (1,356)	2,200 (2,983)	3,200 (4,339)	5000 (6,779)	8,000 (10,846)
Input Capacity lbf-ft (N-m)	196 (266)	162 (220)	173 (235)	189 (256)	154 (209)
Torque Ratio	5.1:1	13.6:1	18.5:1	26.5:1	52:1
Output Sq Sz.	3/4"	1"	1"	1-1/2"	1-1/2"

Dimensions					
Head Diameter In (mm)	4.38 (111)	4.88 (124)	4.88 (124)	5.62 (143)	5.81 (148)
Height In (mm)	4.5 (114)	5.5 (140)	6.41 (163)	8.75 (222)	10.75 (273)
Length In (mm)	13.5 (343)	14.0 (356)	14.0 (356)	14.9 (378)	15.2 (387)
Weight lb (kg)	10.5 (4.8)	17.2 (7.8)	19.5 (8.9)	34.0 (15.4)	50.3 (22.8)

hydratight®

Global Standards Local Delivery

Our global network means you can rely on the right people, products and services wherever you are in the world.

Email us at: solutions@hydratight.com

Or find your local representative at:

hydratight.com/contact

