



PRODUCT CATALOGUE

www.kovaidrills.com

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Overview: Built on precision engineering and field-driven innovation, Kovai Drilling Applications focuses on delivering dependable drilling solutions for demanding ground conditions. From design & engineering to manufacturing and performance testing, every stage is developed with durability, efficiency, and drilling consistency in mind.

05

Applications: Engineered for diverse drilling environments, our solutions support operations across mining, construction, water well, geothermal, and infrastructure industries. Designed to perform under pressure, they adapt to challenging rock formations and high-impact drilling conditions.

06

Product Range: Our product portfolio includes DTH hammers, drill bits, drill rods, and essential drilling accessories developed for reliable field performance. Each product is manufactured to ensure compatibility, longer service life, and optimized drilling productivity.

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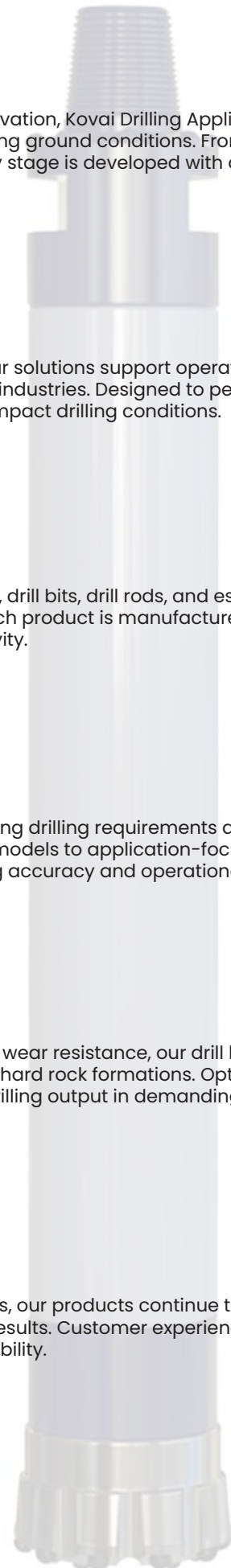
Product Line: A comprehensive range designed to meet varying drilling requirements across applications and rig configurations. From standard production models to application-focused solutions, every product reflects our commitment to engineering accuracy and operational reliability.

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Drill Bit Section: Manufactured for penetration efficiency and wear resistance, our drill bits are developed to maintain consistent performance in abrasive and hard rock formations. Optimized button layouts and precision machining contribute to reliable drilling output in demanding environments.

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Testimonial: Trusted by drilling professionals across industries, our products continue to support operations with dependable performance and consistent field results. Customer experiences reflect our focus on quality, responsiveness, and long-term drilling reliability.



OVERVIEW

Kovai Drilling Applications (KDA) is a precision - driven drilling technology company built on over 30 years of engineering and manufacturing expertise.

We specialize in the design and production of high - performance Down - The - Hole (DTH) hammer systems for demanding applications including water well drilling, mining, geothermal energy, and infrastructure development.

Our approach is simple
performance is engineered,
not assumed.

Every KDA product is developed through structured engineering processes and validated through real - world field conditions. This ensures consistent penetration rates, durability, and reliability across diverse geological formations.

With a growing global footprint & proven performance in North America and emerging markets, KDA continues to build next - generation drilling solutions from the ground up.

Built on Experience.
Driving by Engineering.



Why Kovai?



Designing

We start with application understandings. Our designs are driven by real drilling challenges, ensuring optimal energy transfer, airflow efficiency, and compatibility.



Engineering

We use advanced tools such as Finite Element Analysis (FEA) and Design of Experiments (DOE) to validate and refine every critical component.



Manufacturing

Structured production processes ensure consistency across batches, maintaining performance reliability and product integrity.



Testing

Every design is validated through control testing and real world field trials to ensure performance under actual drilling conditions.



Manufacturing Capabilities

Our manufacturing is built around precision, consistency, and control at every stage.

From raw material selection to final assembly, each component is produced under tightly controlled processes to ensure dimensional accuracy and repeatable performance.

Key capabilities include:

- Precision machining with controlled tolerances
- Heat treatment processes for wear resistance and durability
- Component - level inspection and quality checks
- Assembly under standardized procedures
- Performance validation before dispatch

Every hammer is traceable through defined manufacturing and inspection stages - ensuring accountability and reliability in the field.

Applications

Kovai's Drilling Applications delivers high-performance drilling solutions engineered for demanding production environments. Our precision-designed tools provide efficient energy transfer, stable operation, and reliable performance in extreme conditions. From water wells and foundation construction to hard rock drilling and renewable energy projects, Kovai solutions help improve safety, drilling efficiency, and return on investment for contractors worldwide.



Mining



Construction



Waterwell



Renewable Energy

DTH Hammers



Engineered for maximum penetration and long service life.



Precision manufactured for consistent field performance

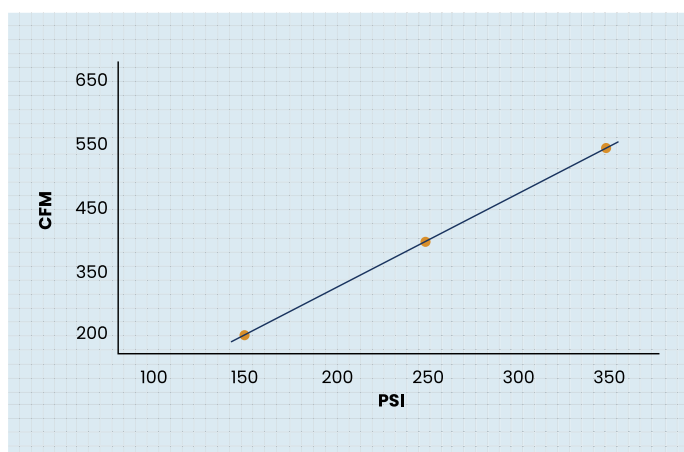




KM400M – 4" Mission Hammer



No.	Part#	Part Description
1	KM-4001	Back Head - (Top Sub)
2	KM-4002	Check Valve (NRV)
3	KM-4003	Connector Pin
4	KM-4004	Check Valve Spring
5	KM-4005	Air Distributor
6	KM-4006	Control Tube
7	KM-4007	Piston, Mission
8	KM-4008	Piston Retaining Ring
9	KM-4009	Barrel, Mission, 99mm
10	KM-4010	Guide Bush, Mission
11	KM-4011	Bit lock, O-Ring
12	KM-4012	Bit lock, Mission
13	KM-4013	Drive Sub, Mission
14	KM-4014	Service Kit - Items 4, 11
15	KH-4015	Recon Kit - Items (1, 2, 3, 9, 12, 13, 14)



CFM	155	375	500
PSI	150	250	350

Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Kovai Drills** technical team.

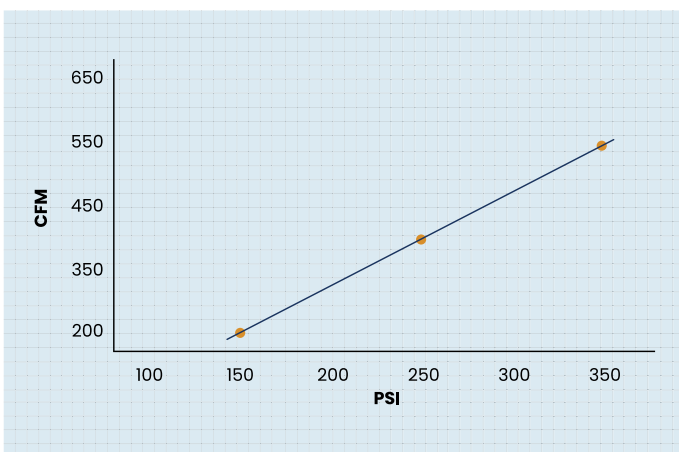
Specifications	Metrics	Imperial
Suitable Shank Type	M40	
Outside Diameter	98mm	3.88"
Hammer Length	940mm	37"
Hammer Weight	79lbs	36kgs
Piston Weight	16lbs	7.5kgs
Bit Size Min	107mm	4.25"
Bit Size Max	127mm	5"
Backhead Thread	2 7/8", 3 1/2" API Reg Pin	
Footvalve	No	

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KM400QL - 4" QL Hammer



No.	Part#	Part Description
1	KM-4001	Back Head 3 1/2" Regular Pin
2	KM-4002	Check Valve (NRV)
3	KM-4003	Connector Pin
4	KM-4004	Check Valve Spring
5	KM-4005	Air Distributor
6	KM-4006	Control Tube
7	KM-4016	Piston, QL
8	KM-4008	Piston Retaining Ring
9	KM-4017	Barrel, QL - 99mm
10	KM-4018	Guide Bush, QL
11	KM-4011	Bit lock, O-Ring
12	KM-4019	Bit lock, QL
13	KM-4020	Drive Sub, QL
14	KM-4021	Service Kit - Items 4, 11
15	KM-4022	Recon Kit - Items (1, 2, 3, 9, 12, 13, 14)



CFM	155	375	500
PSI	150	250	350

Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Kovai Drills** technical team.

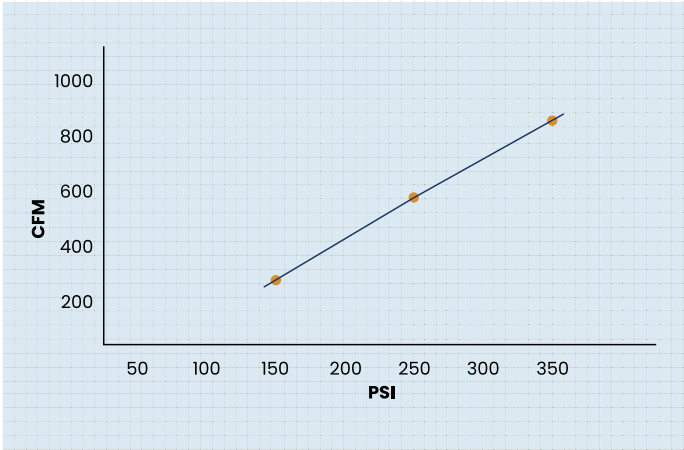
Specifications	Metrics	Imperial
Suitable Shank Type	QL40	
Outside Diameter	98mm	3.88"
Hammer Length	1016mm	40"
Hammer Weight	84lbs	38.50kgs
Piston Weight	16lbs	7.4kgs
Bit Size Min	107mm	4.25"
Bit Size Max	127mm	5"
Backhead Thread	2 7/8", 3 1/2" API Reg Pin	
Footvalve	No	

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KM500M – 5” Mission Hammer



No.	Part#	Part Description
1	KM-5001	Back Head 3 1/2" Regular Pin
2	KM-5002	Check Valve (NRV)
3	KM-5003	Connector Pin
4	KM-5004	Check Valve Spring
5	KM-5005	Air Distributor
6	KM-5006	Control Tube
7	KM-5007	Piston, Mission
8	KM-5008	Piston Retaining Ring
9	KM-5009	Barrel, Mission, 124mm
10	KM-5010	Guide Bush, Mission
11	KM-5011	Bit Lock, O-Ring
12	KM-5012	Bit Lock, Mission
13	KM-5013	Drive Sub, Mission, 124mm
14	KM-5014	Service Kit – Items 4, 11
15	KM-5015	Recon Kit – Items 1, 2, 3, 4, 9, 11, 12, 13



CFM	305	580	855
PSI	150	250	350

Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Kovai Drills** technical team.

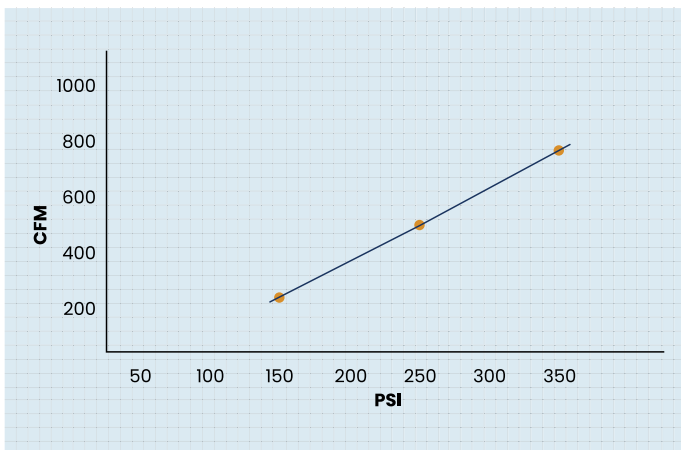
Specifications	Metrics	Imperial
Suitable Shank Type	M50	
Outside Diameter	124mm	4.88"
Hammer Length	1044.3mm	41.113"
Hammer Weight	146lbs	66.5kgs
Piston Weight	28lbs	12.9kgs
Bit Size Min	133mm	5.25"
Bit Size Max	165mm	6.5"
Backhead Thread	2 7/8", 3 1/2" API Reg Pin	
Footvalve	No	

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KM500QL - 5" QL Hammer



No.	Part#	Part Description
1	KM-5001	Back Head 3 1/2" Regular Pin
2	KM-5002	Check Valve (NRV)
3	KM-5003	Connector Pin
4	KM-5004	Check Valve Spring
5	KM-5005	Air Distributor
6	KM-5006	Control Tube
7	KM-5016	Piston, QL
8	KM-5008	Piston Retaining Ring
9	KM-5017	Barrel, QL, 124mm
10	KM-5018	Guide Bush, QL
11	KM-5011	Bit Lock, O-Ring
12	KM-5019	Bit Lock, QL
13	KM-5020	Drive Sub, QL, 124mm
14	KM-5021	Service Kit - Items 4, 11
15	KM-5022	Recon Kit - Items 1, 2, 3, 4, 9, 11, 12, 13



CFM	275	544	756
PSI	150	250	350

Specifications	Metrics	Imperial
Suitable Shank Type	QL50	
Outside Diameter	124mm	4.88"
Hammer Length	1049mm	41.3"
Hammer Weight	146lbs	66.5kgs
Piston Weight	30lbs	13.92kgs
Bit Size Min	133mm	5.25"
Bit Size Max	165mm	6.5"
Backhead Thread	2 7/8", 3 1/2" API Reg Pin	
Footvalve	No	

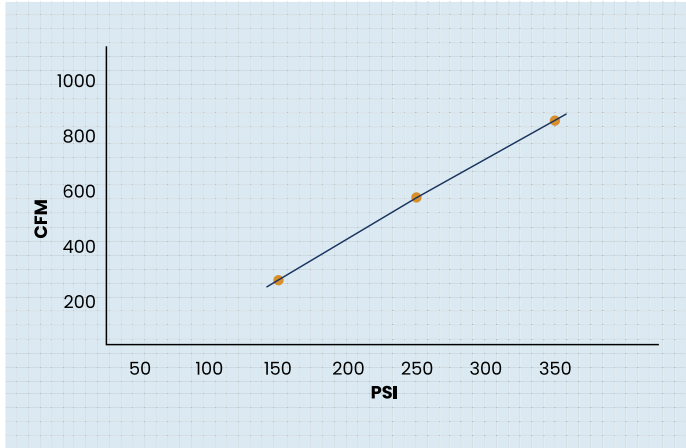
Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Koval Drills** technical team.

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KM550M CBH – 5.5” XL Mission CBH Hammer



No.	Part#	Part Description
1	KM-5501	Back Head 3 1/2" Regular Pin
2	KM-5002	Check Valve (NRV)
3	KM-5003	Connector Pin
4	KM-5004	Check Valve Spring
5	KM-5005	Air Distributor
6	KM-5006	Control Tube
7	KM-5007	Piston, Mission
8	KM-5008	Piston Retaining Ring
9	KM-5502	Barrel, Mission, 128mm
10	KM-5010	Guide Bush, Mission
11	KM-5011	Bit Lock, O-Ring
12	KM-5012	Bit Lock, Mission
13	KM-5503	Drive Sub, Mission, 128mm
14	KM-5504	Service Kit - Items 4, 11
15	KM-5505	Recon Kit - Items 1, 2, 3, 4, 9, 11, 12, 13



CFM	305	580	855
PSI	150	250	350

Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Kovai Drills** technical team.

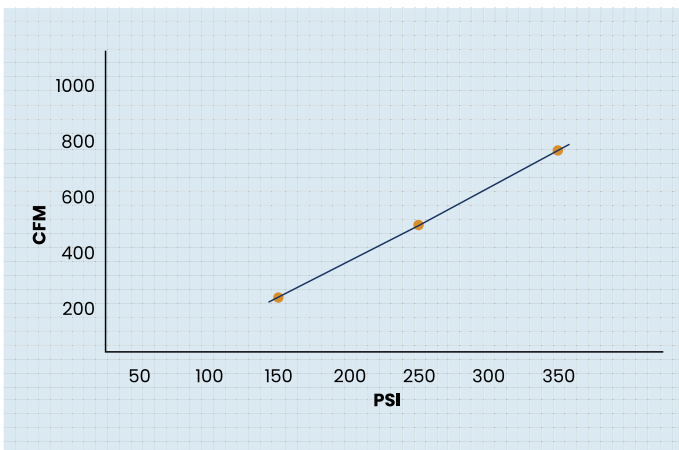
Specifications	Metrics	Imperial
Suitable Shank Type	M50	
Outside Diameter	128mm	5.04"
Hammer Length	1044mm	41.2"
Hammer Weight	154lbs	70.0kgs
Piston Weight	28lbs	12.9kgs
Bit Size Min	139mm	5.5"
Bit Size Max	165mm	6.5"
Backhead Thread	2 7/8", 3 1/2" API Reg Pin	
Footvalve	No	

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KM550QL CBH – 5.5" XL QL CBH Hammer



No.	Part#	Part Description
1	KM-5501	Back Head 3 1/2" Regular Pin
2	KM-5002	Check Valve (NRV)
3	KM-5003	Connector Pin
4	KM-5004	Check Valve Spring
5	KM-5005	Air Distributor
6	KM-5006	Control Tube
7	KM-5016	Piston, QL
8	KM-5008	Piston Retaining Ring
9	KM-5506	Barrel, QL, 128mm
10	KM-5018	Guide Bush, QL
11	KM-5011	Bit Lock, O-Ring
12	KM-5019	Bit Lock, QL
13	KM-5507	Drive Sub, QL, 128mm
14	KM-5508	Service Kit – Items 4, 11
15	KM-5509	Recon Kit – Items 1, 2, 3, 4, 9, 11, 12, 13



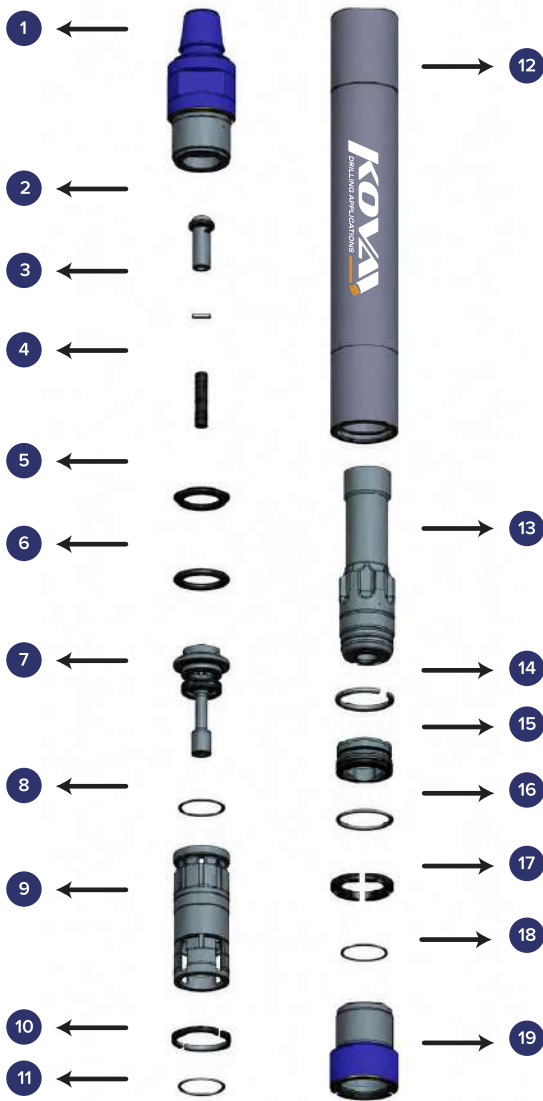
CFM	275	544	756
PSI	150	250	350

Specifications	Metrics	Imperial
Suitable Shank Type	QL50	
Outside Diameter	128mm	5.04"
Hammer Length	1049mm	41.3"
Hammer Weight	161lbs	73kgs
Piston Weight	30lbs	13.92kgs
Bit Size Min	139mm	5.5"
Bit Size Max	165mm	6.5"
Backhead Thread	2 7/8", 3 1/2" API Reg Pin	
Footvalve	No	

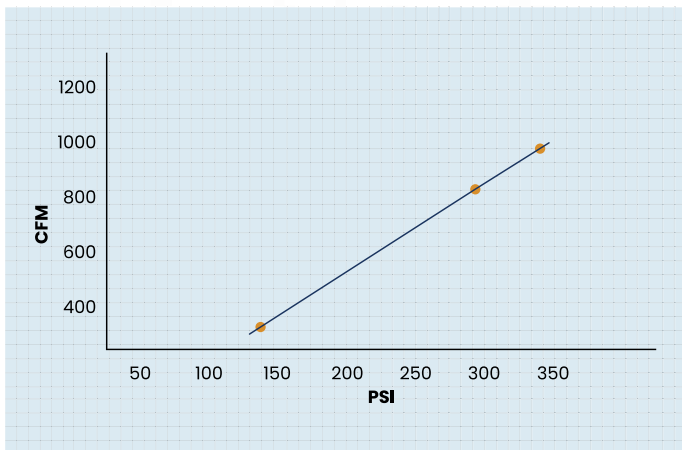
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Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KF500QL – 5" QL Footvale Hammer



No.	Part#	Part Description
1	KF5001	Back Head 3 1/2" Regular Pin
2	KF5002	Check Valve (NRV)
3	KF5003	Choke
4	KF5004	Spring
5	KF5005	Steel Make Up Ring
6	KF5006	Lock Ring
7	KF5007	Air Distributor
8	KF5008	O-Ring
9	KF5009	Liner
10	KF5010	Seating Ring
11	KF5011	O-Ring
12	KF5012	Casing –(124mm)
13	KF5013	Piston
14	KF5014	Piston Retaining Ring
15	KF5015	Bearing
16	KF5016	O-Ring
17	KF5017	Bit Retaining Ring
18	KF5018	O-Ring
19	KF5019	Drive Sub/Front Chuck
20	KF5020	Service Kit – Items 8, 11, 16, 18
21	KF5521	Recon Kit – Items 1, 2, 3, 4, 12, 17,19, 20



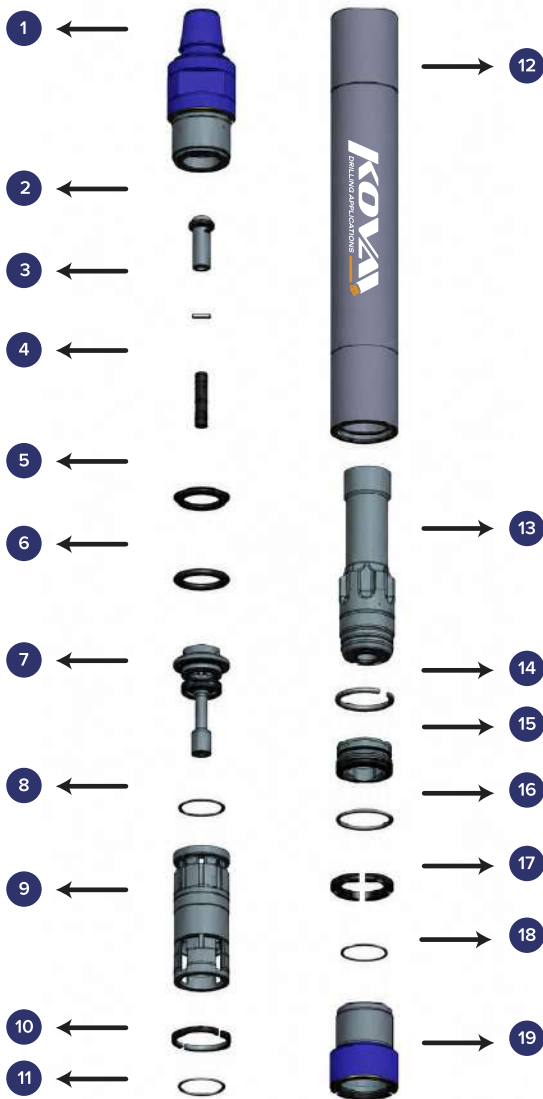
CFM	295	725	927
PSI	145	290	342

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

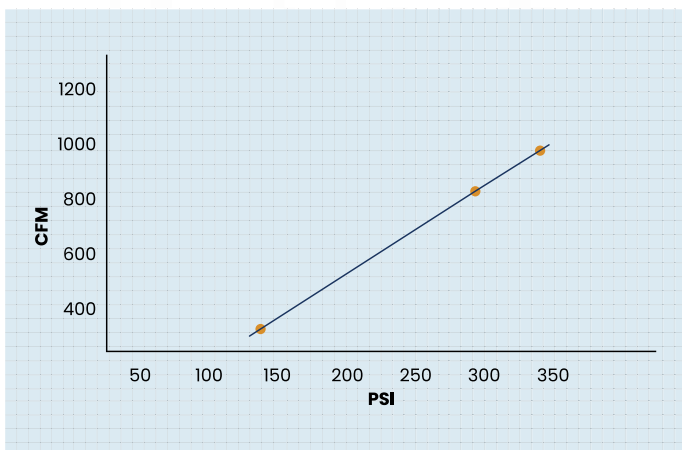
Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Koval Drills** technical team.

Specifications	Metrics	Imperial
Suitable Shank Type	QL50	
Outside Diameter	124mm	4.88"
Hammer Length	995mm	39.15"
Hammer Weight	150lbs	68kgs
Piston Weight	33lbs	15kgs
Bit Size Min	133mm	5.25"
Bit Size Max	165mm	6.5"
Backhead Thread	2 7/8", 3 1/2" API Reg Pin	
Footvalve	Yes	

KF550QL CBH – 5.5" XL QL CBH Footvalve Hammer



No.	Part#	Part Description
1	KF5501	Back Head 3 1/2" Regular Pin
2	KF5002	Check Valve (NRV)
3	KF5003	Choke
4	KF5004	Spring
5	KF5005	Steel Make Up Ring
6	KF5006	Lock Ring
7	KF5007	Air Distributor
8	KF5008	O-Ring
9	KF5009	Liner
10	KF5010	Seating Ring
11	KF5011	O-Ring
12	KF5512	Casing –(128mm)
13	KF5013	Piston
14	KF5014	Piston Retaining Ring
15	KF5015	Bearing
16	KF5016	O-Ring
17	KF5017	Bit Retaining Ring
18	KF5018	O-Ring
19	KF5519	Drive Sub/Front Chuck
20	KF5520	Service Kit – Items 8, 11, 16, 18
21	KF5521	Recon Kit – Items 1, 2, 3, 4, 12, 17, 19, 20



CFM	295	725	925
PSI	145	290	342

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

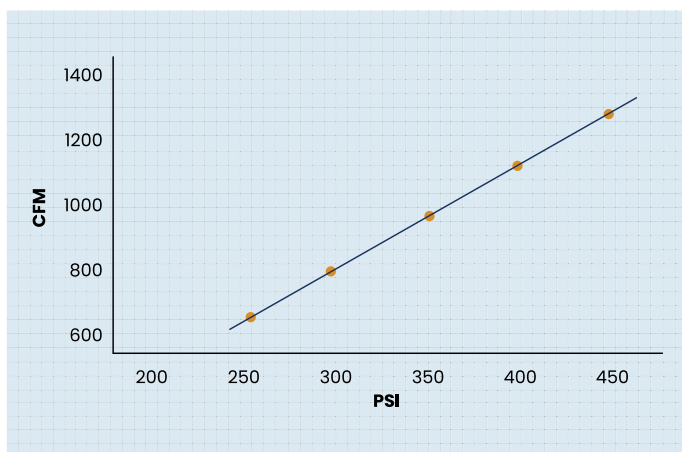
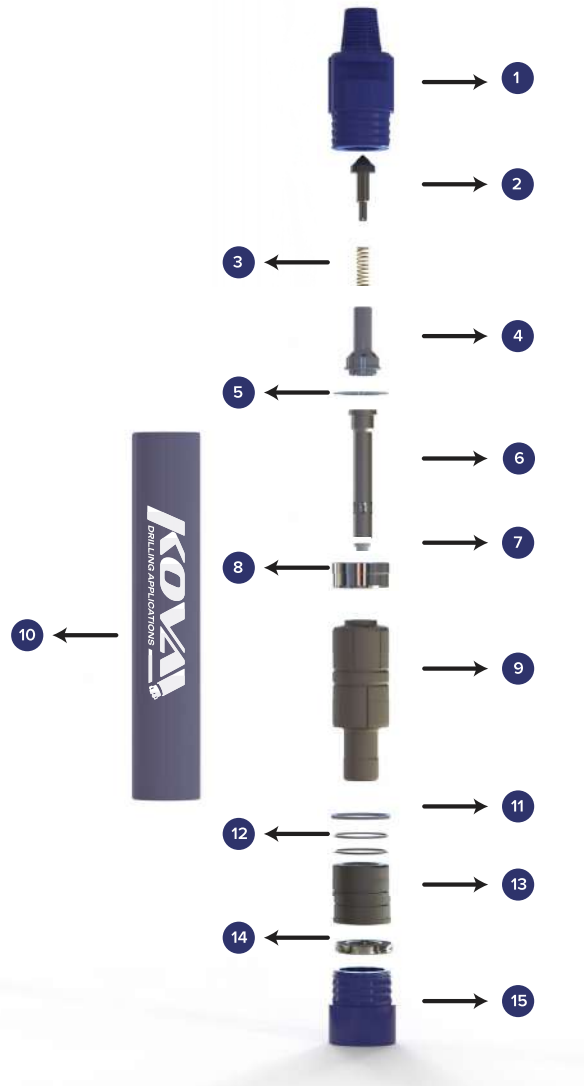
Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Kovai Drills** technical team.

Specifications	Metrics	Imperial
Suitable Shank Type	QL50	
Outside Diameter	128mm	5.04"
Hammer Length	994mm	39.15"
Hammer Weight	163lbs	74kgs
Piston Weight	33lbs	15kgs
Bit Size Min	139mm	5.5"
Bit Size Max	165mm	6.5"
Backhead Thread	2 7/8", 3 1/2" API Reg Pin	
Footvalve	Yes	

KH600M – 6" Mission Hammer

No.	Part#	Part Description
1	KH-6001	Back Head 3 1/2" Regular Pin
2	KH-6502	Check Valve (NRV)
3	KH-6503	Check Valve Spring
4	KH-6504	Air Distributor
5	KH-6507	Rubber Spacer
6	KH-6506	Control Tube
7	KH-6505	Choke - Blank, 1/8", 3/16"
8	KH-6508	Control tube Head
9	KH-6510	Piston, Mission
10	KH-6002	Barrel, 143mm
11	KH-6000	Piston Retainer Ring
12	KH-6511	Guide Bush O-Ring
13	KH-6512	Guide Bush, Mission
14.1	KH-6513	Bit Lock, Mission
14.2	KH-6515	Bit Lock, O-Ring
15	KH-6003	Drive Sub, Mission, 143mm
16	KH-6013	Service kit - Items 3, 5, 7
17	KH-6014	Recon Kit - Items 1, 2, 10, 11, 14, 15, 16

Specifications	Metrics	Imperial
Suitable Shank Type	M60	
Outside Diameter	143mm	5.63"
Hammer Length	1056mm	41.5"
Hammer Weight	184lbs	83.5kgs
Piston Weight	40lbs	18.44kgs
Bit Size Min	152mm	6"
Bit Size Max	190mm	7.5"
Backhead Thread	3 1/2" API Reg Pin	
Footvalve	No	

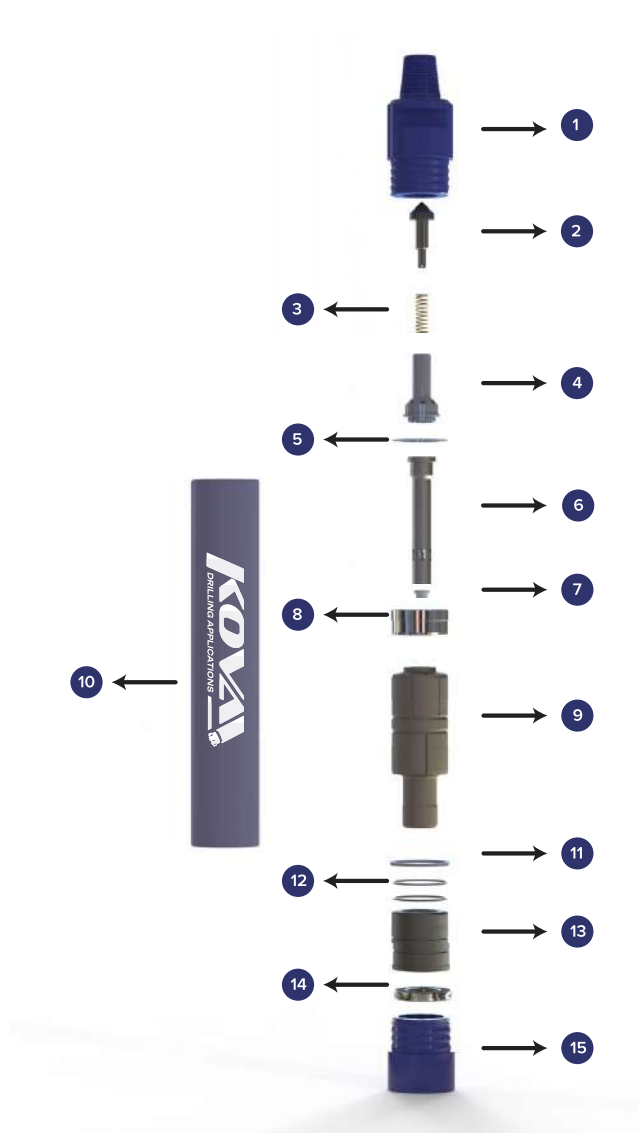


CFM	660	810	970	1120	1275
PSI	250	300	350	400	450

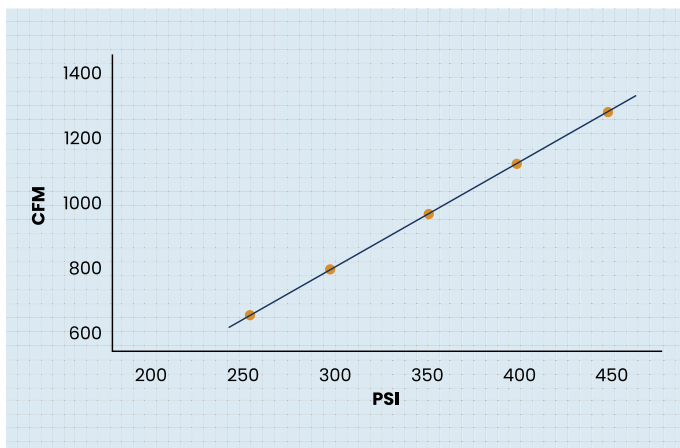
Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Koval Drills** technical team.

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KH600QL – 6" QL Hammer



No.	Part#	Part Description
1	KH-6001	Back Head 3 1/2" Regular Pin
2	KH-6502	Check Valve (NRV)
3	KH-6503	Check Valve Spring
4	KH-6504	Air Distributor
5	KH-6507	Rubber Spacer
6	KH-6506	Control Tube
7	KH-6505	Choke - Blank, 1/8", 3/16"
8	KH-6508	Control tube Head
9	KH-6004	Piston, QL
10	KH-6008	Barrel, QL, 143mm
11	KH-6000	Piston Retainer Ring
12	KH-6511	Guide Bush O-Ring
13	KH-6005	Guide Bush, QL
14.1	KH-6006	Bit Lock, QL
14.2	KH-6515	Bit Lock, O-Ring
15	KH-6007	Drive Sub, QL, 143mm
16	KH-6015	Service kit - Items 3, 5, 7
17	KH-6016	Recon Kit - Items 1, 2, 10, 11, 14, 15, 16



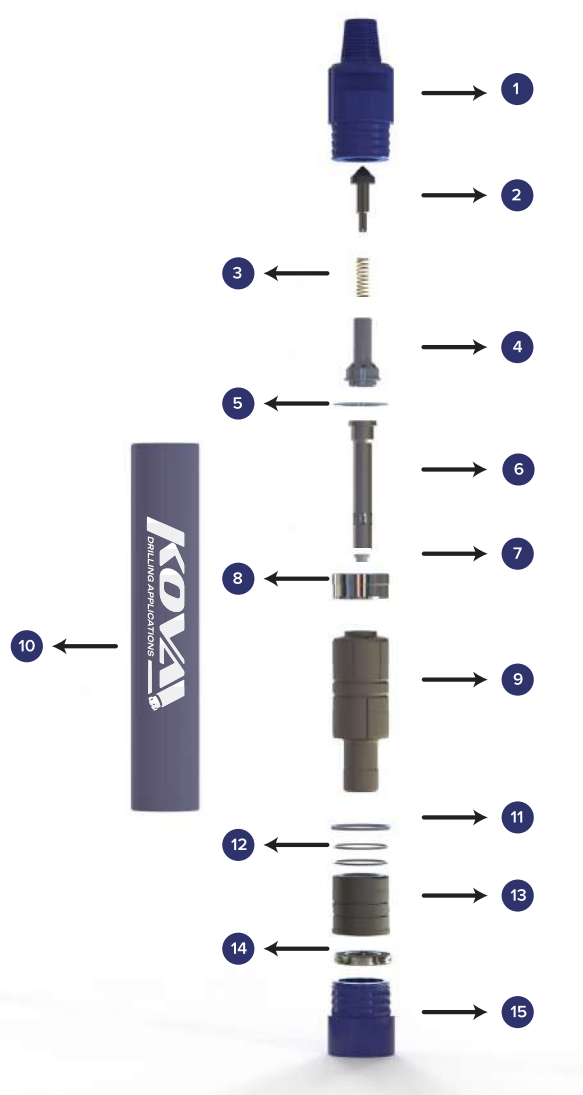
CFM	660	810	970	1120	1275
PSI	250	300	350	400	450

Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Kovai Drills** technical team.

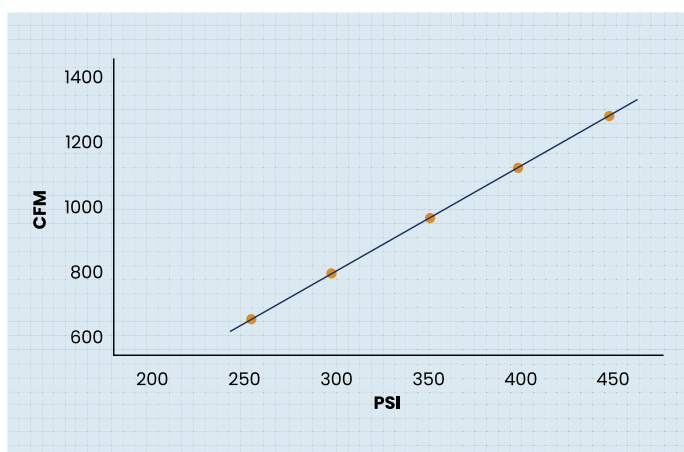
Specifications	Metrics	Imperial
Suitable Shank Type	QL60	
Outside Diameter	143mm	5.63"
Hammer Length	1092mm	43"
Hammer Weight	189lbs	85.8kgs
Piston Weight	45lbs	20.56kgs
Bit Size Min	152mm	6"
Bit Size Max	190mm	7.5"
Backhead Thread	3 1/2" API Reg Pin	
Footvalve	No	

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KH650M CBH – 6.5" Mission CBH Hammer



No.	Part#	Part Description
1	KH-6530	Back Head 3 1/2" Regular Pin
2	KH-6502	Check Valve (NRV)
3	KH-6503	Check Valve Spring
4	KH-6504	Air Distributor
5	KH-6507	Rubber Spacer
6	KH-6526	Control Tube
7	KH-6505	Choke - Blank, 1/8", 3/16"
8	KH-6508	Control tube Head
9	KH-6510	Piston, Mission
10	KH-6509	Barrel, 148mm
11	KH-6000	Piston Retainer Ring
12	KH-6511	Guide Bush O-Ring
13	KH-6512	Guide Bush, Mission
14.1	KH-6513	Bit Lock, Mission
14.2	KH-6515	Bit Lock, O-Ring
15	KH-6514	Drive Sub, Mission, 148mm
16	KH-6517	Service kit - Items 3, 5, 7
17	KH-6523	Recon Kit - Items 1, 2, 10, 11, 14, 15, 16



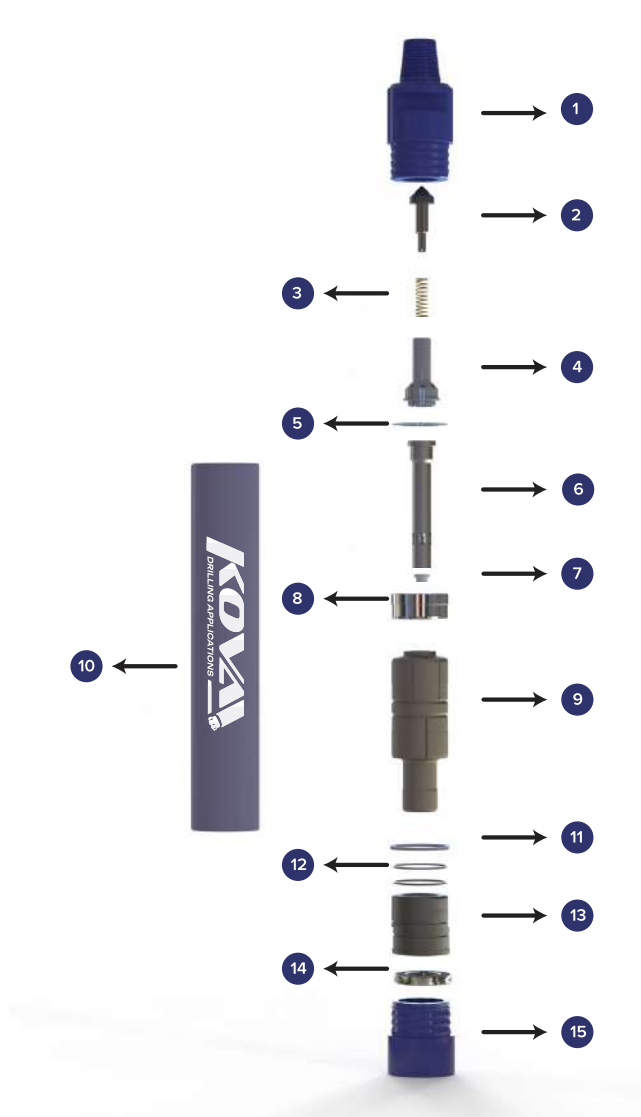
CFM	660	810	970	1120	1275
PSI	250	300	350	400	450

Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Koval Drills** technical team.

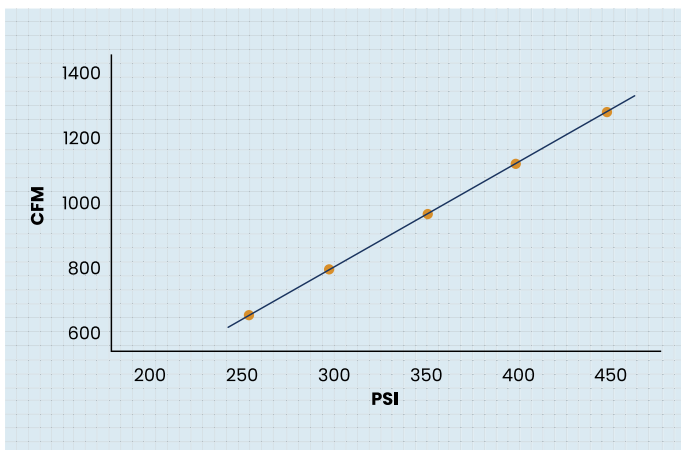
Specifications	Metrics	Imperial
Suitable Shank Type	M60	
Outside Diameter	148mm	5.84"
Hammer Length	1056mm	41.5"
Hammer Weight	204lbs	92.6kgs
Piston Weight	40lbs	18.44kgs
Bit Size Min	158mm	6.25"
Bit Size Max	203mm	8"
Backhead Thread	3 1/2" API Reg Pin	
Footvalve	No	

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KH650QL CBH – 6.5" XL QL CBH Hammer



No.	Part#	Part Description
1	KH-6530	Back Head 3 1/2" Regular Pin
2	KH-6502	Check Valve (NRV)
3	KH-6503	Check Valve Spring
4	KH-6504	Air Distributor
5	KH-6507	Rubber Spacer
6	KH-6526	Control Tube
7	KH-6505	Choke - Blank, 1/8", 3/16"
8	KH-6508	Control tube Head
9	KH-6004	Piston, QL
10	KH-6518	Barrel, QL, 148mm
11	KH-6000	Piston Retainer Ring
12	KH-6511	Guide Bush O-Ring
13	KH-6005	Guide Bush, QL
14.1	KH-6006	Bit Lock, QL
14.2	KH-6515	Bit Lock, O-Ring
15	KH-6519	Drive Sub, QL, 148mm
16	KH-6524	Service kit - Items 3, 5, 7
17	KH-6525	Recon Kit - Items 1, 2, 10, 11, 14, 15, 16



CFM	660	810	970	1120	1275
PSI	250	300	350	400	450

Specifications	Metrics	Imperial
Suitable Shank Type	QL60	
Outside Diameter	148mm	5.84"
Hammer Length	1092mm	43"
Hammer Weight	208lbs	94.6kgs
Piston Weight	45lbs	20.56kgs
Bit Size Min	158mm	6.25"
Bit Size Max	203mm	8"
Backhead Thread	3 1/2" API Reg Pin	
Footvalve	No	

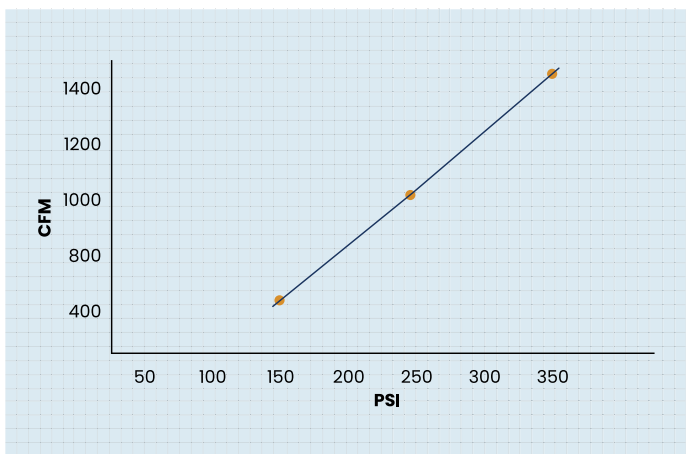
Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Koval Drills** technical team.

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KM800M – 8” Mission Hammer



No.	Part#	Part Description
1	KM-80001	Back Head 4 1/2" Regular Pin
2	KM-80002	Check Valve (NRV)
3	KM-80003	Check Valve Spring
4	KM-80004	Air Distributor
5	KM-80005	Control Tube
6	KM-80006	Piston, Mission
7	KM-80007	Buffer Ring
8	KM-80008	Rubber spacer
9	KM-80009	Piston Retainer Ring
10	KM-80010	Guide Bush, Mission
11	KM-80011	Bit Lock, O-Ring
12	KM-80012	Bit Lock, Mission
13	KM-80013	Drive Sub, Mission
14	KM-80014	Barrel, Mission
15	KM-80015	Service Kit – Items 3, 8, 11
16	KM-80016	Recon Kit – Items 1, 2, 8, 9, 12, 13, 14, 15



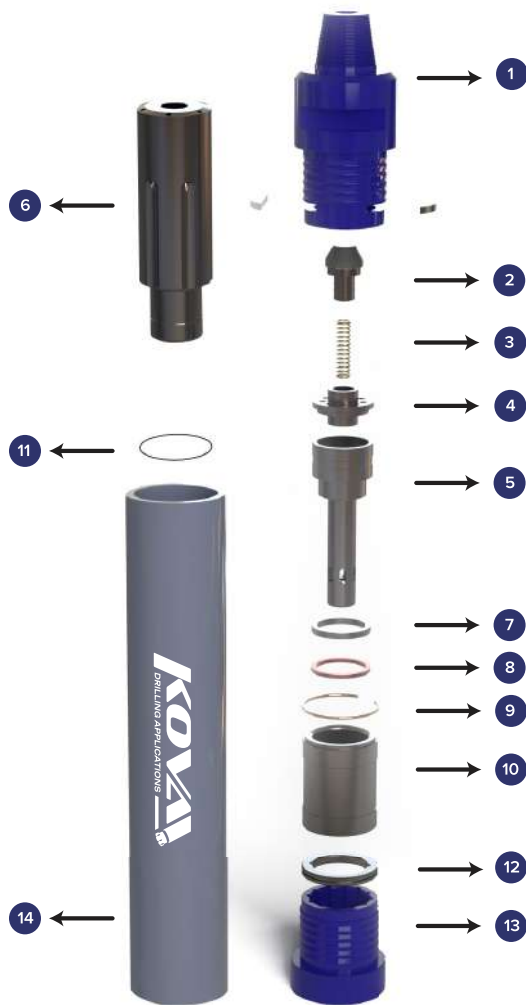
CFM	525	975	1540
PSI	150	250	350

Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Kovai Drills** technical team.

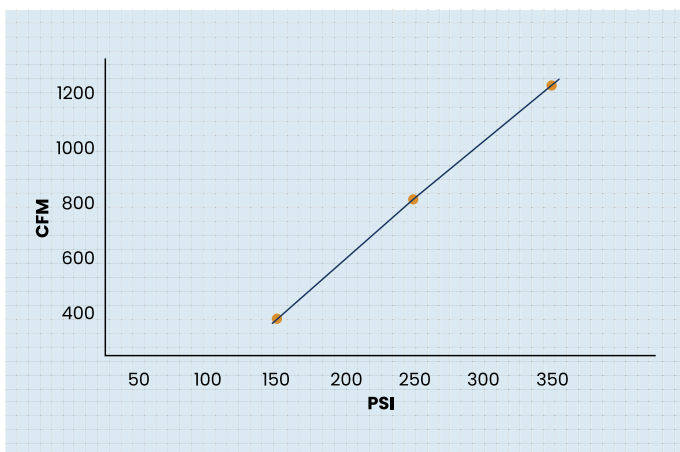
Specifications	Metrics	Imperial
Suitable Shank Type	M80	
Outside Diameter	184mm	7.28"
Hammer Length	1289mm	50.74"
Hammer Weight	398lbs	180.9kgs
Piston Weight	89lbs	40.46kgs
Bit Size Min	203mm	8"
Bit Size Max	304mm	12"
Backhead Thread	4 1/2" API Reg Pin	
Footvalve	No	

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

KM800QL – 8" QL Hammer



No.	Part#	Part Description
1	KM-80001	Back Head 4 1/2" Regular Pin
2	KM-80002	Check Valve (NRV)
3	KM-80003	Check Valve Spring
4	KM-80004	Air Distributor
5	KM-80005	Control Tube
6	KM-80017	Piston, QL
7	KM-80007	Buffer Ring
8	KM-80008	Rubber spacer
9	KM-80009	Piston Retainer Ring
10	KM-80018	Guide Bush, QL
11	KM-80011	Bit Lock, O-Ring
12	KM-80019	Bit Lock, QL
13	KM-80020	Drive Sub, QL
14	KM-80021	Barrel, QL
15	KM-80022	Service Kit – Items 3, 8, 11
16	KM-80023	Recon Kit – Items 1, 2, 8, 9, 12, 13, 14, 15



CFM	365	852	1290
PSI	150	250	350

Specifications	Metrics	Imperial
Suitable Shank Type	QL80	
Outside Diameter	184.9mm	7.28"
Hammer Length	1291mm	50.81"
Hammer Weight	403lbs	182.8kgs
Piston Weight	98lbs	44.7kgs
Bit Size Min	203mm	8"
Bit Size Max	304mm	12"
Backhead Thread	4 1/2" API Reg Pin	
Footvalve	No	

Air density reduces with altitude, potentially increasing air consumption. For accurate air package requirements, consult the **Koval Drills** technical team.

Air consumption values are indicative, based on simulations and field tests, and may vary in actual conditions.

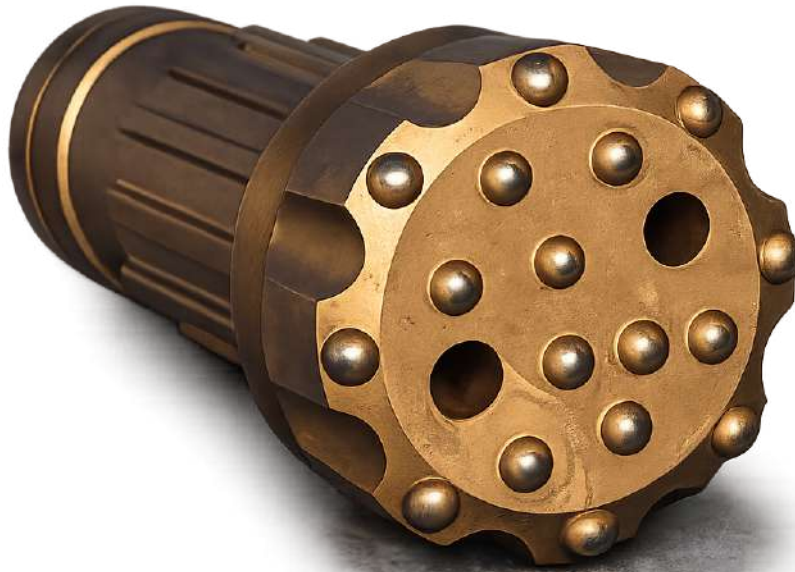
DTH Drill Bits



Superior button retention with optimized face design



High wear resistance for tough rock formations



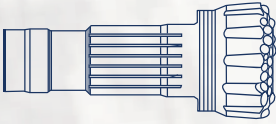
Overview

Engineered for Consistent Drilling Performance: Kovai DTH drill bits are designed to deliver maximum penetration rates, reliable hole quality, and extended service life across demanding drilling applications. Manufactured from premium alloy steel and equipped with high-performance carbide inserts, our bits ensure efficient energy transfer from the hammer to the rock, providing superior productivity in mining, quarrying, water well, and construction drilling operations.

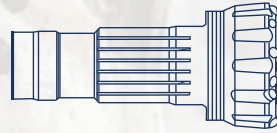
Application

Versatile Solutions for Diverse Ground Conditions: Kovai DTH drill bits are suitable for a wide range of geological formations, from soft and fractured ground to hard and abrasive rock. Designed to work seamlessly with high-pressure DTH hammers, they provide excellent hole straightness, efficient cuttings removal, and dependable performance in mining, quarrying, geothermal, water well, and infrastructure drilling projects.

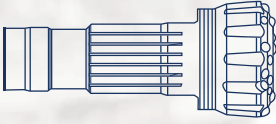




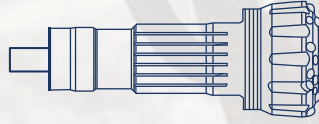
QL40



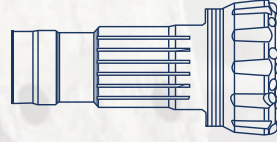
QL60



QL50



QL50 with Footvalve



QL80

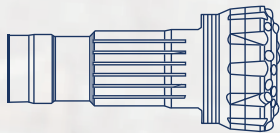
Part#	Diameter		Product Details	Shank
	Inch	mm		
KDB - QL40 - 413	4 1/3	110	4 1/3" DTH Drill Bit	QL40
KDB - QL40 - 412	4 1/2	115	4 1/2" DTH Drill Bit	
KDB - QL40 - 500	5	127	5" DTH Drill Bit	
KDB - QL40 - 518	5 1/8	130	5 1/8" DTH Drill Bit	
KDB - QL40 - 514	5 1/4	133	5 1/4" DTH Drill Bit	
KDB - QL50 - 500	5	127	5 1/4" DTH Drill Bit	QL50
KDB - QL50 - 518	5 1/8	133	5 1/8" DTH Drill Bit	
KDB - QL50 - 512	5 1/2	140	5 1/2" DTH Drill Bit	
KDB - QL50 - 534	5 3/4	146	5 3/4" DTH Drill Bit	
KDB - QL50 - 600	6	152	6" DTH Drill Bit	
KDB - QL60 - 600	6	152	6" DTH Drill Bit	QL60
KDB - QL60 - 618	6 1/8	156	6 1/8" DTH Drill Bit	
KDB - QL60 - 614	6 1/4	159	6 1/4" DTH Drill Bit	
KDB - QL60 - 612	6 1/2	165	6 1/2" DTH Drill Bit	
KDB - QL60 - 634	6 3/4	172	6 3/4" DTH Drill Bit	
KDB - QL60 - 616	6 1/16		6 1/16" DTH Drill Bit	QL80
KDB - QL60 - 700	7	178	7" DTH Drill Bit	
KDB - QL60 - 712	7 1/2	190	7 1/2" DTH Drill Bit	
KDB - QL60 - 800	8	203	8" DTH Drill Bit	
KDB - QL80 - 800	8	203	8" DTH Drill Bit	
KDB - QL80 - 814	8 1/4		8 1/4" DTH Drill Bit	QL80
KDB - QL80 - 812	8 1/2	216	8 1/2" DTH Drill Bit	
KDB - QL80 - 900	9	228	9" DTH Drill Bit	
KDB - QL80 - 1000	10	254	10" DTH Drill Bit	
KDB - QL80 - 1200	12	305	12" DTH Drill Bit	

Carbide Types - Spherical | Ballistic
Foot Valve - Optional

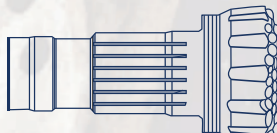
Face Designs - Concave | Convex | Flat Face
Carbide Composition - Low CO (Medium), High CO (Hard)

Number Of Holes - 2, 3

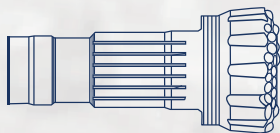
M Series



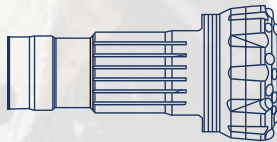
M40



M60



M50



M80

Part#	Diameter		Product Details	Shank
	Inch	mm		
KDB - M40 - 413	4 1/3	110	4 1/3" DTH Drill Bit	M40
KDB - M40 - 412	4 1/2	115	4 1/2" DTH Drill Bit	
KDB - M40 - 500	5	127	5" DTH Drill Bit	
KDB - M40 - 518	5 1/8	130	5 1/8" DTH Drill Bit	
KDB - M40 - 514	5 1/4	133	5 1/4" DTH Drill Bit	
KDB - M50 - 500	5	127	5 1/4" DTH Drill Bit	M50
KDB - M50 - 518	5 1/8	133	5 1/8" DTH Drill Bit	
KDB - M50 - 512	5 1/2	140	5 1/2" DTH Drill Bit	
KDB - M50 - 534	5 3/4	146	5 3/4" DTH Drill Bit	
KDB - M50 - 600	6	152	6" DTH Drill Bit	
KDB - M60 - 600	6	152	6" DTH Drill Bit	M60
KDB - M60 - 618	6 1/8	156	6 1/8" DTH Drill Bit	
KDB - M60 - 614	6 1/4	159	6 1/4" DTH Drill Bit	
KDB - M60 - 612	6 1/2	165	6 1/2" DTH Drill Bit	
KDB - M60 - 634	6 3/4	172	6 3/4" DTH Drill Bit	
KDB - M60 - 616	6 1/16		6 1/16" DTH Drill Bit	M80
KDB - M60 - 700	7	178	7" DTH Drill Bit	
KDB - M60 - 712	7 1/2	190	7 1/2" DTH Drill Bit	
KDB - M60 - 800	8	203	8" DTH Drill Bit	
KDB - M80 - 800	8	203	8" DTH Drill Bit	
KDB - M80 - 814	8 1/4		8 1/4" DTH Drill Bit	M80
KDB - M80 - 812	8 1/2	216	8 1/2" DTH Drill Bit	
KDB - M80 - 900	9	228	9" DTH Drill Bit	
KDB - M80 - 1000	10	254	10" DTH Drill Bit	
KDB - M80 - 1200	12	305	12" DTH Drill Bit	

Carbide Types - Spherical | Ballistic
Foot Valve - No

Face Designs - Concave | Convex | Flat Face
Carbide Composition - Low CO (Medium), High CO (Hard)

Number Of Holes - 2, 3

Drill Rods



High-strength steel for reliable torque transmission



Precision threaded for secure connection and longer lifespan



Pipe Diameter		Pipe Length		Wall Thickness		Connection Thread
Inch	MM	MM	Feet	MM	Inch	
3	76	1000 - 6000	3.2 - 19.6	5	0.19	API 2 3/8" Reg
3	76	1000 - 6000	3.2 - 19.6	6	0.23	API 2 3/8" Reg
3	76	1000 - 6000	3.2 - 29.5	8	0.31	API 2 3/8" Reg
3 1/2	89	1000 - 9000	3.2 - 19.6	6	0.23	API 2 3/8" Reg
3 1/2	89	1000 - 9000	3.2 - 29.5	8	0.31	API 2 7/8" Reg
4	102	1000 - 9000	3.2 - 29.5	8	0.31	API 2 7/8" Reg
4	102	1000 - 9000	3.2 - 29.5	10	0.39	API 3 1/2" Reg
4 1/2	114	1500 - 7620	4.9 - 25	6	0.23	API 3 1/2" Reg
4 1/2	114	1500 - 7620	4.9 - 30	8	0.31	API 3 1/2" Reg
4 1/2	114	1500 - 9140	4.9 - 30	10	0.39	API 3 1/2" Reg
4 1/2	114	1500 - 9140	4.9 - 31	18	0.70	API 3 1/2" Reg
5	127	1500 - 9500	4.9 - 31	12	0.47	API 3 1/2" Reg
5	127	1500 - 9500	4.9 - 31	14	0.55	API 3 1/2" Reg

Shock Absorbers



Protect Rotary Head Drastically reduce shock & vibration to prevent premature failure.



Faster Penetration Maintain uniform pressure for maximum ROP and extended bit life.



Total Versatility Multi - angle drilling; Rotary and DTH compatible.



Thread Protection Floating piston prevents damage during make-up & break out.



Model	Pull Down	Suitable Drill Rigs
KS3	Upto 30,000 lbf	DI650i, D65
KS5	25,000 to 55,000 lbf	DR410i, DM45, DM50
KS7	50,000 to 80,000 lbf	DR411i, PV275, DM75
KS9	75,000 to 100,000 lbf	DR412i, DR413i, PV291

Top Hammer

Drill Rods | Button Bits | Shank Adaptors | Extension Rods



Engineered for
Tough Conditions



Precision
Crafted Component



Optimized
Drilling Efficiency

Kovai's product range includes high-performance button bits, extension rods, couplings, and shank adaptors designed to withstand demanding mining, quarrying, and construction drilling conditions.

Driven by innovation, precision engineering, and field-tested performance, Kovai manufactures drilling solutions engineered for consistent penetration rates, extended service life, and maximum operational efficiency

Button Shapes & Designs



Dome



Semi-Ballistic



Ballistic

Spherical Buttons

Engineered with a classic dome profile to deliver maximum wear resistance and durability. This design is best suited for hard, highly abrasive rock formations, ensuring the longest service life and fewest tool changes.

Ballistic / Semi-Ballistic Buttons

Featuring a sharper, pointed profile, these buttons are built for high-speed drilling. They offer fast penetration rates in soft to medium-hard ground, making them ideal for non-abrasive rock formations.

Bit Body Designs

Standard Body

Built with a traditional straight skirt, this design is the most cost-effective choice for stable ground. It provides reliable and steady performance in homogeneous rock conditions.

Retrac Body

Featuring a grooved, heavy-duty skirt, this body design helps guide the bit straight to prevent hole deviation. It ensures easy bit extraction and prevents jamming in fractured or collapsing rock.

Drill Bits - T38

T38 (1 1/2") Button Bit - Retrac



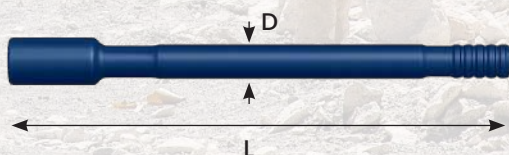
Enhanced Retrac Skirt

Improves bit recovery and maintains stable drilling in changing ground conditions. Its precision-machined steel body delivers superior impact resistance, accurate threads, and long durability.

Bit Diameter		Buttons Qty x Size, mm		Flushing Mode	
MM	Inch	Gauge	Face	Face	Side
64	2 1/2"	6X11	4X10	3	0
76	3"	6X12	4X11	3	0
76	3"	7X12	4X11	3	0
76	3"	8X12	4X11	2	1
89	3 1/2"	9X12	6X12	3	0
95	3 3/4"	8X11	6X11	4	1
105	4 1/6"	8X12	6X11	4	1

Extension Rods

MF - rod, T38 - round39 - T38



Rod Length		Rod Diameter	
MM	Inch	MM	Inch
915	3"	39	1 1/2"
1220	4"	39	1 1/2"
1525	5"	39	1 1/2"
1830	6"	39	1 1/2"

Drill Bits – T45

T45 (1 3/4") Button Bit – Retrac



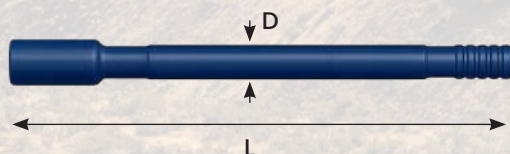
Enhanced Retrac Skirt

Improves bit recovery and maintains stable drilling in changing ground conditions. Its precision-machined steel body delivers superior impact resistance, accurate threads, and long durability.

Bit Diameter		Buttons Qty x Size, mm		Flushing Mode	
MM	Inch	Gauge	Face	Face	Side
76	3"	8X11	4X11	2	0
76	3"	8X12	5X11	2	0
89	3 1/2"	8X14	6X12	4	0
89	3 1/2"	8X12	4X12, 2X11	4	0
102	4"	8X12	7X12	4	0
105	4 1/6"	8X12	6X11	4	1
110	4 1/3"	8X12	7X12	4	1
127	5"	8X14	7X13	4	0
140	5 1/2"	9X16	7X14	3	0
146	5 3/4"	9X14	9X14	3	0
152	6"	9X16	6X14, 4X13	3	0

Extension Rods

MF – rod, T45 – round 46 – T45



Rod Length		Rod Diameter	
MM	Inch	MM	Inch
1220	4"	46	1 3/4"
1525	5"	46	1 3/4"
1830	6"	46	1 3/4"

Drill Bits – T51

T51 (2") Button Bit – Retrac



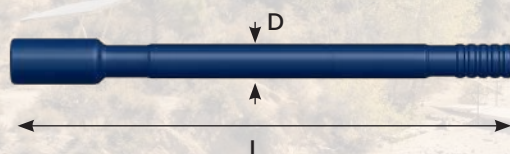
Optimized Retrac Bit

Designed for reliable drilling and easy hole recovery in broken or collapsing ground. Its high-grade, heat-treated carbide extends service life, increases penetration rates, and provides excellent gauge protection.

Bit Diameter		Buttons Qty x Size, mm		Flushing Mode	
MM	Inch	Gauge	Face	Face	Side
89	3 1/2"	6X11	6X10	3	1
89	3 1/2"	6X13	5X12	3	1
102	4"	8X14	4X13	4	0
102	4"	8X14	6X13	2	2
115	4 1/2"	10X14	7X14	3	0
115	4 1/2"	8X14	4X14, 2X12	4	0
127	5"	8X16	6X16	2	2
127	5"	8X14	7X14	4	0
140	5 1/2"	8X14	7X14	4	0
152	6"	8X14	8X14	4	0

Extension Rods

MF – rod, T51 – round 52 – T51



Rod Length		Rod Diameter	
MM	Inch	MM	Inch
1220	4"	52	2"
1525	5"	52	2"
1830	6"	52	2"
1830	6"	76	3"

Drill Bits - GT60

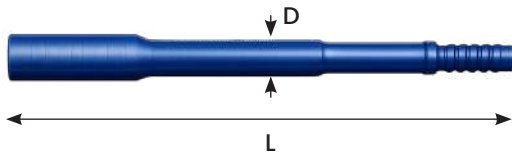
GT60 Button Bit - Retrac



Bit Diameter		Buttons Qty x Size, mm		Flushing Mode	
MM	Inch	Gauge	Face	Face	Side
92	3 5/8"	6X13	3X12, 2X11	3	0
92	3 5/8"	8X13	4X12, 2X11	4	0
102	4"	9X13	6X13	3	1
102	4"	8X13	4X13, 2X11	4	0
115	4 1/2"	9X16	6X14	3	0
115	4 1/2"	9X14	10X12	3	0
127	5"	9X18	7X16	3	0
127	5"	9X14	6X14, 4X13	3	0
140	5 1/2"	9X16	10X14	3	0
152	6"	12X16	10X16	3	0

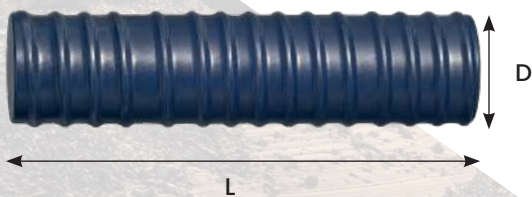
Extension Rods

MF - rod, GT60 - round60 - GT60



Rod Length		Rod Diameter	
MM	Inch	MM	Inch
915	3"	39	1 1/2"
1220	4"	39	1 1/2"
1525	5"	39	1 1/2"
1830	6"	39	1 1/2"

Coupling Sleeves



Thread Type	Dia (mm)	Length (mm)
T38	55	170
T45	63	210
T51	77	235

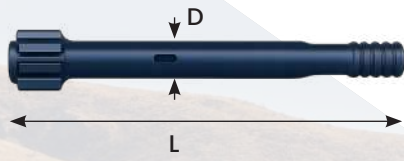


Thread Type	Dia (mm)	Thread Type
F1	F2	
T38	T38	55
T45	T45	61
T51	T51	71

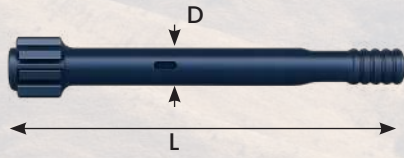


Thread Type	Dia (mm)	Thread Type
F	M	
T38	T45	57
T45	T38	63
T51	T45	71

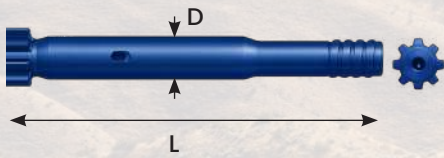
Shank Adapters



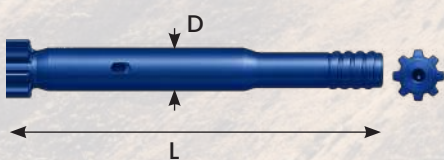
Thread	Length (mm)	Application
T38	550	Bench Drilling



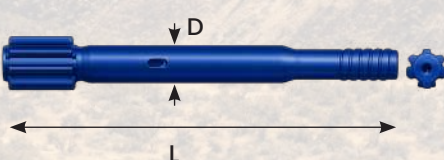
Thread	Length (mm)	Application
T38	460	Tunneling
T38	500	Product Drilling



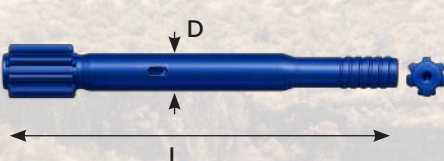
Thread	Length (mm)	Application
T45	550	Bench Drilling



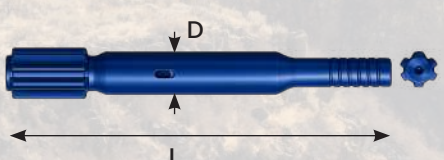
Thread	Length (mm)	Application
T45	600	Bench Drilling
T45	745	Tunneling



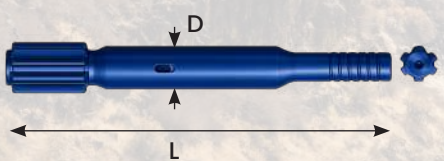
Thread	Length (mm)	Application
T51	600	Production Drilling



Thread	Length (mm)	Application
T51	670	Production Drilling
T51	820	Bench Drilling



Thread	Length (mm)	Application
GT60	820	Bench Drilling



Thread	Length (mm)	Application
GT60	760	Bench Drilling
GT60	760	Bench Drilling

Applicable for the below rock drill brands

Atlas Copco

Sandvik

Ingersoll Rand

Boart Longyear

Furukawa

Soonsan

Everdigm









Testimonial

Real feedback from customers operating in some of the world's toughest drilling conditions. Discover why professionals continue to choose Kovai for dependable drilling performance.



JEFF FRANCO
Wellco Drilling Inc,
Raymond, CA

“

The **Kovai 6inch** class hammer performs excellently at all depths. In my 36 years of hard rock drilling experience, I feel its quite possibly the fastest penetrating hammer on the market today!!



Dave Dzura
Québec, Canada
M-Roc

“

In the hard, abrasive iron ore at Mont-Wright Mine, the **Kovai DTH hammer** delivers excellent penetration with outstanding reliability. It handles tough conditions with ease and keeps our drilling efficient & consistent.



Shane Byrd
Drilling Supervisor
Vulcan Materials

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We tested **Kovai DTH hammers** against major brands in multiple quarries. They delivered strong penetration, reliable performance, and excellent service life in tough rock conditions. Based on the overall performance and durability, we adopted 5" and 6" Kovai hammers for our South Carolina drilling operations.

Conversion Table

Air Volume	Example
1 cc = .001 litre	1000 cc = 1 litre
1 litre = .001 m ³	1000 litres = 1 m ³

Air Flow	Example
1 cfm = 0.0283 m ³ /min	100 cfm = 2.83 m ³ /min
1 cfm = 0.4719 litre/sec	100 cfm = 47.19 litre/sec
1 m ³ /min = 35.3515 cfm	10 m ³ /min = 353.515 cfm
1 m ³ /min = 16.667 litre/sec	10 m ³ /min = 166.667 litre/sec
1 litre/sec = 2.1189 cfm	100 litre/sec = 211.89 cfm
1 litre/sec = 0.0600 m ³ /min	100 litre/sec = 600 m ³ /min

Air Pressure	Example
1 psi = 0.0689 bar	100 psi = 6.89 bar
1 psi = 0.0703 kg/cm ²	100 psi = 7.03 kg/cm ²
1 psi = 0.0680 atm (atmosphere)	100 psi = 6.80 atm (atmosphere)
1 bar = 14.504 psi	10 bar = 145.04 psi
1 bar = 1.0197 kg/cm ²	10 bar = 10.197 kg/cm ²
1 bar = 0.9869 atm	10 bar = 9.869 atm
1 atm = 14.696 psi	10 atm = 146.96 psi
1 atm = 1.0132 bar	10 atm = 10.132 bar
1 atm = 1.0332 kg/cm ²	10 atm = 10.332kg/cm ²

Velocity	Example
1 m/min = 3.2808 ft/min	1000 m/min = 328.08 ft/min
1 m/min = 0.0167 m/sec	1000 m/min = 16.70 m/sec
1 ft/min = 0.3048 m/min	1000 ft/min = 304.80 m/min
1 ft/min = 0.0051 m/sec	1000 ft/min = 5.10 m/sec
1 m/sec = 60.00 m/min	10 m/sec = 600 m/min
1 m/sec = 196.85 ft/min	100 m/sec = 1968.59 lbs

Velocity	Example
1 lb/ft = 0.1383 kgm	1000 lb/ft = 138.30 kgm
1 lb/ft psi = 1.3558Nm	1000 lb/ft = 1355.80 Nm
1 lb/ft = 12.00 lb/in	1000 lb/ft = 12,000 lb/in
1 kgm = 7.233 lb/ft	100 kgm = 723.30 lb/ft
1 kgm = 9.8067 Nm	100 kgm = 980.67 Nm
1 kgm = 86.796 lb/in	100 kgm = 8679.60 lb/in
1 lb/in = 0.0833 lb/ft	1000 lb/min = 83.30 lb/ft
1 lb/in = 0.0115 kgm	10 lb/in = 11.50 kgm
1 lb/in = 0.1130 Nm	1000 lb/in = 113 Nm

Notes

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GET IN TOUCH

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Built on **Experience.** Driven by **Engineering**