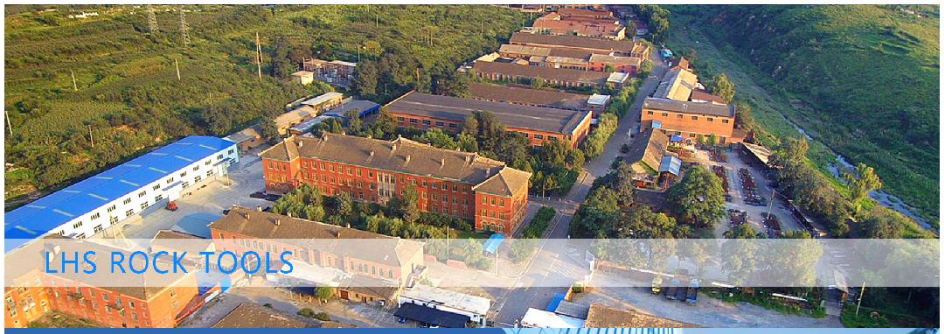


Table of contents

Company Profile	3
Guide to product codes	5
Carbide shape	8
Hand held and small hole drilling	9
Cable hole drilling tools	24
Underground development drilling and tunneling tools	37
Surface bench drilling tools	47
Underground production drilling tools	61
Shank adapters	81
Auxillary tools	101



Company Profile

Lianhuashan Rock Tools Co., Ltd., located in Huludao City Liaoning province, is an authorized rock drilling tools factory with a 55-year history in the design and manufacture of rock drilling tools. Meanwhile, our company has introduced advanced European manufacturing technology for rock drilling tools to improve manufacturing levels and enterprise strength. Lianhuashan Rock Tools Co., Ltd. is the largest exporter of rock drilling tools in China, which products are used in various drilling conditions and exported to more than 30 countries and regions, such as Australia, Canada, Finland, America, Chile, Peru, Mexico, Columbia, Serbia, etc.

The main products include rock drilling tools, hydraulic rock drills and other series; thereof, the rock drilling tools include various insert bits and button bits for hydraulic drill rigs, hand-held rock drills, down-the-hole drill rigs and other long-hole drilling applications, as well as shank adapters, drill rods, couplings, etc. The products are all designed and manufactured in accordance with international standards (ISO standard). The quality is at the leading level in China, and the quality of leading products even reaches the international advanced level.



CERTIFICATE OF CONFORMITY OF QUALITY MANAGEMENT SYSTEM

NO. 01022Q10148R3M

This is to certify that the quality management system of
LIANHUASHAN ROCK TOOLS CO., LTD.
LIANHUASHAN STREET, YANGJIACHANGZI ECONOMIC DEVELOPMENT DISTRICT, HULUDAO CITY, LIAONING PROVINCE, CHINA
POSTCODE: 125022 UNIFIED SOCIAL CREDIT CODE: 91211400744338602P
Is in conformity with
GB/T 19001-2016/ISO 9001:2015 Standard
The scope of activities covered by this certificate are defined below:
DESIGN, DEVELOPMENT AND PRODUCTION FOR ROCK DRILLING TOOLS, HYDRAULIC CHARGE AND SPARE PARTS FOR CHARGE
Term of validity of this certificate: from JUN 28, 2022 to JUN 27, 2025 inclusive
Northeast Audit Co., Ltd.
NO.21-1 WENYI ROAD, SHENHE DISTRICT, SHENYANG CITY, LIAONING PROVINCE
Surveillance audits should not exceed 12 months The certificate is invalid without attaching labels on schedule
General Manager
Date:06/28/2022
IAF CNAS 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C010-M
本证书信息可在国家认证认可监督管理委员会官方网站(www.cnca.gov.cn)上查询
THE CERTIFICATE INFORMATION IS AVAILABLE ON CNCA OFFICIAL WEBSITE(www.cnca.gov.cn)



MA 安全标志编号：MED080144

矿用产品安全标志证书

持 证 人： 蓬花山凿岩针具有限公司
注册地址： 葫芦岛市杨家杖子经济开发区毛祁屯街道蓬花山社区
生产单位： 蓬花山凿岩针具有限公司
生产地址： 辽宁葫芦岛市杨家杖子经济开发区毛祁屯街道蓬花山社区
产品名称： 液压凿岩机
规格型号： YYG-8/300
产品标准及技术条件： MT/T198-1996 Q/LQJ02.08-2021
适用范围： 严格按煤矿安全有关规定使用。
发证日期： 2022年01月24日 有效期至： 2027年01月23日
备 注： 原型号为HYD200

上述产品经履行安全标志审核发放实施规则ABGZ-MA-EDB-2017-01规定的合格评定程序，符合有关要求，特发此证。本证书的有效性需通过持证后监督获得保持，相关信息及主要零元部件等信息可通过网络查询可登陆www.aqbz.org或扫描本证书二维码查询。

CMAC 签发人： 发证部门： 2022年01月27日



CERTIFICATE OF ENVIRONMENT MANAGEMENT SYSTEM

Certificate No. 115423E0686R0M
This is to certify that
Lianhuashan Rock Drilling Tools Co., Ltd
Unified social credit code: 91211400744338602P
Registered address: Building 24-13 Lianhuashan Road, Yangjiachangzi Economic Development Zone, Huludao City, Liaoning Province
Official address: Building 24-13 Lianhuashan Road, Yangjiachangzi Economic Development Zone, Huludao City, Liaoning Province
Production/business address: Building 24-13 Lianhuashan Road, Yangjiachangzi Economic Development Zone, Huludao City, Liaoning Province
The Environment Eanagement System established conforms to the standard
GB/T24001-2016/ISO14001:2015
The range of certification following
Environmental management activities involved in the design, development, and production of rock drilling tools, hydraulic rock drills, and spare parts for rock drills
Date of first issuance: November 20th,2023 Date of this issuance: November 20th,2023 Valid until: November 19th,2026
Not included in the system coverage of multiple places shall not use the certification certificate and certification logo;
When the scope of certification involves the administrative license, qualification license and mandatory certification requirements required by laws and regulations, this certificate and the qualification requirements are valid for joint use.
The certified organization shall be subject to regular supervision and audit as required and pass the audit.The certificate shall remain valid.
Issuer:
LIAONING TOXIC CERTIFICATION SERVICE CO., LTD.
1368,Floor 13,Dongji Building, No.1 Qishan Middle Road, Huanggu District, Shenyang,Liaoning Province,P.R.China
Tel:024-81076225 E-mail:zhuoxinrz@126.com Http://www.zhuoxinrz.cn
The audit results and certificate information can be found at www.cnca.gov.cn of the national certification Or the company's official website or scan the QR code



CERTIFICATE OF OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

Certificate No. 115423S0687R0M
This is to certify that
Lianhuashan Rock Drilling Tools Co., Ltd
Unified social credit code: 91211400744338602P
Registered address: Building 24-13 Lianhuashan Road, Yangjiachangzi Economic Development Zone, Huludao City, Liaoning Province
Official address: Building 24-13 Lianhuashan Road, Yangjiachangzi Economic Development Zone, Huludao City, Liaoning Province
Production/business address: Building 24-13 Lianhuashan Road, Yangjiachangzi Economic Development Zone, Huludao City, Liaoning Province
The Occupational Health And Safety Management System established conforms to the standard follow
GB/T45001-2020/ISO45001:2018
The range of certification following
Occupational health and safety management activities involved in the design, development, and production of rock drilling tools, hydraulic rock drills, and spare parts for rock drills
Date of first issuance: November 20th,2023 Date of this issuance: November 20th,2023 Valid until: November 19th,2026
Not included in the system coverage of multiple places shall not use the certification certificate and certification logo;
When the scope of certification involves the administrative license, qualification license and mandatory certification requirements required by laws and regulations, this certificate and the qualification requirements are valid for joint use.
The certified organization shall be subject to regular supervision and audit as required and pass the audit.The certificate shall remain valid.
Issuer:
LIAONING TOXIC CERTIFICATION SERVICE CO., LTD.
1368,Floor 13,Dongji Building, No.1 Qishan Middle Road, Huanggu District, Shenyang,Liaoning Province,P.R.China
Tel:024-81076225 E-mail:zhuoxinrz@126.com Http://www.zhuoxinrz.cn
The audit results and certificate information can be found at www.cnca.gov.cn of the national certification Or the company's official website or scan the QR code

Guide to product codes



type bit



YQM	32	D	-	722
YQM=Chisel bit	Bit diameter	Tip size		Thread OR Taper
YX=Chisel bit				
X=X-type bit				
SQ=Cross bit				

Button bit



ZQ	54	D	-	R32
Bit design	Bit diameter	Gauge buttons		Thread OR Taper
ZQ = Button bit		B=3		
ZQA = Drop centre button bit		S=4		
ZQY = Retrac button bit		C = 5		
ZYA = Drop centre retrac button bit		D = 6		
		E = 7		
		F = 8		
		G = 9		
		H = 10		
		K = 12		

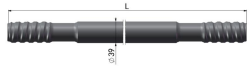
LHS ROCK TOOLS

Reaming button bit



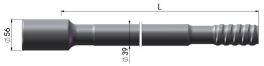
ZQK	89	F	/	40	-	R32
Reaming button bit	Bit diameter	Gauge buttons		Pilot diameter		Thread OR Taper
		F = 8	No Code = No Pilot			
		G = 9				
		H = 10				
		K = 12				
		M = 14				

Round extension rod



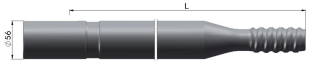
YG	H	T38	-	3660
Round extension rod	H=Friction welding	Thread		Length
	No Code=Integral rod			

Round speedrod



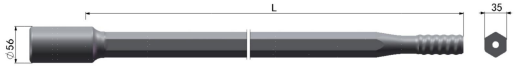
KYG	H	T38	-	3660
Round speedrod	H=Friction welding	Thread		Effective length
	No Code=Integral rod			

Guide tube



KYG	56	T38	G	-	1220
Drill tube/Guide tube	Diam	Thread	G = Drill tube		Effective length
			No Code=Guide tube		

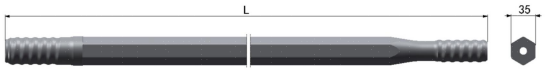
Hex.speedrod



KLG	35	R38	R32	-	3090
Hex.speedrod	Hex.Diam	Female thread	male thread		Effective length

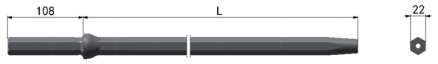
Guide to product codes

Hex. drifter rod



LG	35	R38	R32	-	3090
Hex. drifter rod	Hex.Diam	Thread	Thread		Length

Tapered rod



LG	7	22	-	1200
Hex. drifter rod	Taper	Hex.Diam		Effective length

Hex.speedrod



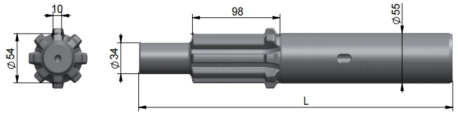
KLG	22	R23	-	1750
Hex.speedrod	Hex.Diam	Thread		Effective length

Shank end rod



LG	22	108	R25	-	1220
Hex. drifter rod	Hex.Diam	Shank Length	Thread		Effective length

shank adaptors



QW	5	-	351	R32	F
shank adaptors	Series		Length	Thread	F=Female thread
					No Code =male thread

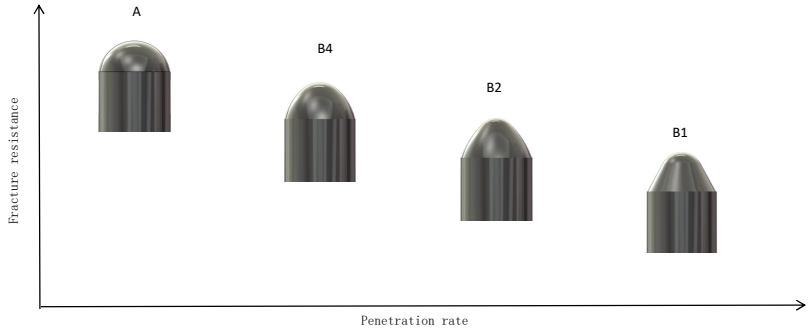
LHS ROCK TOOLS

Carbide shape



A	B1	B2	B4
			
Hemispherical button	Conical Button	Parabolic Button (Semi Ballistic)	Large-arc Parabolic Button
Strong fracture resistance. For hard rock	High penetration rate. RFor soft to medium hard rock formations.	Higher penetration rate For soft rock.	Combination of fracture resistance and penetration rate. For medium hard rock

Carbide feature



Hand held and small hole drilling



7° Taper, H22 tapered tools	10
7° Taper, H25 tapered tools	12
11° Taper, H22 tapered tools	13
11° Taper, H25 tapered tools	14
12° Taper, H22 tapered tools	15
12° Taper, H25 tapered tools	17
R23	18
R25	19
R28	21

Hand held and small hole drilling

7° Taper, H22 tapered tools

Bits

	Diam D		Tip size (mm)	No. of flushing holes	LHS Part No.
	mm	in	H×W		
Chisel bit					
	32	1 1/4	14×8	2	YQM32D-722
	34	1 11/32	14×8	2	YQM34D-722
	36	1 27/64	14×8	2	YQM36D-722
	38	1 1/2	15×10	2	YQM38-722
	40	1 37/64	15×10	2	YQM40-722
	32	1 1/4	14×8	2	YX32D-722
	34	1 11/32	14×8	2	YX34D-722
	36	1 27/64	14×8	2	YX36D-722
	38	1 1/2	15×10	2	YX38-722
	40	1 37/64	15×10	2	YX40-722

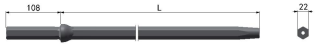
	Diam D		Buttons×Size (mm)		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
3-Gauge button bit,Flat face								
	38	1 1/2	3×8	1×8	35°	2	1	ZQ38B-722
	40	1 37/64	3×9	1×9	35°	2	1	ZQ40B-722
5-Gauge button bit,Flat face								
	32	1 1/4	5×7	2×7	30°	1	1	ZQ32C-722
	32	1 1/4	5×7	2×7	30°	1	-	ZQ32C1-722
	32	1 1/4	5×7	2×7	35°	1	-	ZQ32C3-722
	34	1 11/32	5×7	2×7	35°	2	1	ZQ34C-722
	34	1 11/32	5×7	2×7	35°	1	-	ZQ34C1-722
	36	1 27/64	5×7	2×7	35°	1	-	ZQ36C-722
	40	1 37/64	5×8	2×8	35°	1	1	ZQ40C-722
	40	1 37/64	5×10	2×8	35°	1	1	ZQ41C2-722
	42	1 49/75	5×7	2×7	30°	1	1	ZQ42C-722
	45	1 3/4	5×8	2×8	35°	2	1	ZQ45C-722

Hand held and small hole drilling

7° Taper, H22 tapered tools

Rods

Tapered Rod,22×108-Hex 22-7°



Length L		Hex.Diam		Taper	LHS Part No.
mm	ft	mm	in		
600	1.97	22	7/8	7°	LG722-600
800	2.62	22	7/8	7°	LG722-800
900	2.95	22	7/8	7°	LG722-900
1000	3.28	22	7/8	7°	LG722-1000
1100	3.61	22	7/8	7°	LG722-1100
1200	3.94	22	7/8	7°	LG722-1200
1400	4.59	22	7/8	7°	LG722-1400
1500	4.92	22	7/8	7°	LG722-1500
1600	5.25	22	7/8	7°	LG722-1600
1700	5.58	22	7/8	7°	LG722-1700
1800	5.91	22	7/8	7°	LG722-1800
1900	6.23	22	7/8	7°	LG722-1900
2000	6.56	22	7/8	7°	LG722-2000
2100	6.89	22	7/8	7°	LG722-2100
2200	7.22	22	7/8	7°	LG722-2200
2400	7.87	22	7/8	7°	LG722-2400
2900	9.51	22	7/8	7°	LG722-2900
3400	11.15	22	7/8	7°	LG722-3400
3900	12.80	22	7/8	7°	LG722-3900
4400	14.44	22	7/8	7°	LG722-4400
4900	16.08	22	7/8	7°	LG722-4900
5900	19.36	22	7/8	7°	LG722-5900

Hand held and small hole drilling

7° Taper, H25 tapered tools

Bits

5-Gauge button bit,Flat face



6-Gauge button bit,Flat face



Diam D		Buttons×Size (mm)		Angle	No.of flushing holes		LHS Part No.
mm	in	Gauge	Front		Front	Gauge	
38	1 1/2	5×9	2×8	35°	2	1	ZQ38C-725
40	1 37/64	5×8	2×8	35°	2	1	ZQ40C-725
41	1 5/8	5×9	2×8	35°	2	1	ZQ41C-725
48	1 7/8	5×10	2×9	35°	2	1	ZQ48C-725
51	2	5×11	2×10	35°	1	2	ZQ51C-725
41	1 5/8	6×8	3×8	35°	3	1	ZQ41D-725
43	1 11/16	6×9	3×7	40°	3	-	ZQ43D-725

Rods

Tapered Rod,25×108-Hex 25-7°



Length L		Hex.Diam		Taper	LHS Part No.
mm	ft	mm	in		
600	1.97	25	1	7°	LG725-600
1000	3.28	25	1	7°	LG725-1000
1200	3.94	25	1	7°	LG725-1200
1500	4.92	25	1	7°	LG725-1500
1600	5.25	25	1	7°	LG725-1600
1800	5.91	25	1	7°	LG725-1800
2000	6.56	25	1	7°	LG725-2000
2200	7.22	25	1	7°	LG725-2200
2400	7.87	25	1	7°	LG725-2400
2600	8.53	25	1	7°	LG725-2600
2900	9.51	25	1	7°	LG725-2900
3050	10	25	1	7°	LG725-3050
3200	10.50	25	1	7°	LG725-3200

LHS ROCK TOOLS

Hand held and small hole drilling

11° TaperH22 tapered tools

Bits

5-Gauge button bit,Flat face



Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Angle	No.of flushing holes Front	No.of flushing holes Gauge	LHS Part No.
32	1 1/4	5×7	2×7	35°	2	2	ZQ32C-1122
32	1 1/4	5×7	2×7	35°	2	1	ZQ32C1-1122
34	1 11/32	5×7	2×7	35°	2	1	ZQ34C-1122
35	1 3/8	5×8	2×7	30°	1	2	ZQ35C-1122
36	1 27/64	5×8	2×7	35°	1	1	ZQ36C-1122
36	1 27/64	5×8	2×7	35°	2	1	ZQ36C1-1122
36	1 27/64	5×8	2×7	35°	2	1	ZQ36C2-1122
38	1 1/2	5×8	2×8	30°	1	1	ZQ38C1-1122
38	1 1/2	5×8	2×8	35°	2	1	ZQ38C2-1122
38	1 1/2	5×9	2×8	35°	2	1	ZQ38C-1122
40	1 37/64	5×9	2×8	35°	2	1	ZQ40C1-1122
41	1 5/8	5×9	2×8	35°	2	1	ZQ41C-1122

Reaming tools

Reaming button bit



Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Pilot mm	No.of flushing holes Front	No.of flushing holes Gauge	LHS Part No.
57	2 1/4	6×9	3×8 3×7	28	3	-	ZQK57D/28-1122
64	2 1/2	8×10	4×9 2×8	28	2	-	ZQK64F/28-1122

Rods

Tapered Rod,22×108-Hex 22-11°



Length L mm	Length L ft	Hex.Diam mm	Hex.Diam in	Taper	LHS Part No.
610	2	22	7/8	11°	LG1122-610
800	2.62	22	7/8	11°	LG1122-800
915	3	22	7/8	11°	LG1122-915
1200	3.94	22	7/8	11°	LG1122-1200
1220	4	22	7/8	11°	LG1122-1220
1525	5	22	7/8	11°	LG1122-1525
1600	5.25	22	7/8	11°	LG1122-1600
1800	5.91	22	7/8	11°	LG1122-1800
1830	6	22	7/8	11°	LG1122-1830
2000	6.56	22	7/8	11°	LG1122-2000
2200	7.22	22	7/8	11°	LG1122-2200
2400	7.87	22	7/8	11°	LG1122-2400
2440	8	22	7/8	11°	LG1122-2440
3050	10	22	7/8	11°	LG1122-3050
3660	12	22	7/8	11°	LG1122-3660

LHS ROCK TOOLS

Hand held and small hole drilling

11° TaperH25 tapered tools

Bits

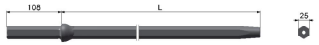
5-Gauge button bit,Flat face



Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Angle	No.of flushing holes Front	No.of flushing holes Gauge	LHS Part No.
38	1 1/2	5×8	2×8	35°	2	1	ZQ38C1-1125
41	1 5/8	5×9	2×8	35°	2	1	ZQ41C-1125

Rods

Tapered Rod,25×108-Hex 25-11°



Length L mm	Length L ft	Hex.Diam mm	Hex.Diam in	Taper	LHS Part No.
610	2	25	1	11°	LG1125-610
915	3	25	1	11°	LG1125-915
1220	4	25	1	11°	LG1125-1220
1525	5	25	1	11°	LG1125-1525
1830	6	25	1	11°	LG1125-1830
2440	8	25	1	11°	LG1125-2440

LHS ROCK TOOLS

Hand held and small hole drilling

12° TaperH22 tapered tools

Bits

Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Angle	No.of flushing holes Front	No.of flushing holes Gauge	LHS Part No.
4-Gauge button bit,Flat face							
							
28	1 1/8	4×7	1×7	30°	2	-	ZQ28S1-1220
29	1 9/64	4×7	1×7	30°	2	-	ZQ29S1-1220
5-Gauge button bit,Flat face							
							
30	1 3/16	5×7	2×7	35°	1	1	ZQ30C-1222
32	1 1/4	5×7	2×7	35°	2	1	ZQ32C3-1222
32	1 1/4	5×7	2×7	35°	2	1	ZQ32C14-1222
33	1 19/64	5×7	2×7	35°	2	1	ZQ33C2-1222
34	1 11/32	5×7	2×7	35°	1	1	ZQ34C-1222
35	1 3/8	5×8	2×7	35°	2	1	ZQ35C-1222
37	1 29/64	5×8	2×7	35°	2	1	ZQ37C-1222
38	1 1/2	5×8	2×8	30°	2	1	ZQ38C-1222
38	1 1/2	5×8	2×8	35°	1	1	ZQ38C1-1222
38	1 1/2	5×9	2×7	40°	2	1	ZQ38C2-1222
41	1 5/8	5×9	2×8	35°	2	1	ZQ41C1-1222
43	1 11/16	5×9	2×8	35°	2	1	ZQ43C-1222
45	1 3/4	5×8	3×8	30°	1	1	ZQ45C-1222
45	1 3/4	5×9	2×9	35°	1	2	ZQ45C1-1222
48	1 7/8	5×10	2×9	35°	2	1	ZQ48C-1222
6-Gauge button bit,Flat face							
							
32	1 1/4	6×7	2×7	35°	2	-	ZQ32D-1222
32	1 1/4	6×7	3×7	40°	3	-	ZQ32D1-1222
32	1 1/4	6×7	2×7	35°	2	-	ZQ32D3-1222
32	1 1/4	6×7	2×7	35°	2	-	ZQ32D4-1222
32	1 1/4	6×7	2×7	40°	2	2	ZQ32D6-1222
32	1 1/4	6×7	2×7	40°	2	1	ZQ32D9-1222
33	1 19/64	6×7	2×7	40°	2	1	ZQ33D-1222
33	1 19/64	6×7	2×7	35°	2	1	ZQ33D1-1222
35	1 3/8	6×8	2×7	40°	2	2	ZQ35D-1222
38	1 1/2	6×8	2×7	35°	2	2	ZQ38D-1222
38	1 1/2	6×8	2×7	40°	2	2	ZQ38D1-1222
41	1 5/8	6×8	2×8	35°	2	1	ZQ41D-1222
45	1 3/4	6×8	2×8	40°	2	2	ZQ45D1-1222

Reaming tools

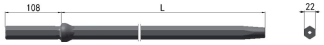
Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Pilot mm	No.of flushing holes Front	No.of flushing holes Gauge	LHS Part No.
Reaming button bit							
							
57	2 1/4	6×9	3×8 3×7	28	-	3	ZQK57D/28-1222
64	2 1/2	8×10	4×9 2×8	28	-	2	ZQK64F/28-1222

LHS ROCK TOOLS

Hand held and small hole drilling

12° TaperH22 tapered tools

Rods

Length L mm	Length L ft	Hex.Diam mm	Hex.Diam in	Taper	LHS Part No.
Tapered Rod,22×108-Hex 22-12°					
					
300	0.98	22	7/8	12°	LG1222-300
600	1.97	22	7/8	12°	LG1222-600
800	2.62	22	7/8	12°	LG1222-800
900	2.95	22	7/8	12°	LG1222-900
1200	3.94	22	7/8	12°	LG1222-1200
1220	4	22	7/8	12°	LG1222-1220
1525	5	22	7/8	12°	LG1222-1525
1600	5.25	22	7/8	12°	LG1222-1600
1800	5.91	22	7/8	12°	LG1222-1800
1830	6	22	7/8	12°	LG1222-1830
2000	6.56	22	7/8	12°	LG1222-2000
2400	7.87	22	7/8	12°	LG1222-2400
3000	9.84	22	7/8	12°	LG1222-3000
3050	10	22	7/8	12°	LG1222-3050
3660	12	22	7/8	12°	LG1222-3660
4000	13.12	22	7/8	12°	LG1222-4000
4900	16.08	22	7/8	12°	LG1222-4900

LHS ROCK TOOLS

Hand held and small hole drilling

12° TaperH25 tapered tools

Bits

Button bit



Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
36	1 27/64	5×9	2×7	35°	1	1	ZQ36C-1225
38	1 1/2	5×8	2×8	35°	2	1	ZQ38C1-1225
40	1 37/64	5×9	2×8	35°	2	1	ZQ40C1-1225

Reaming tools

Reaming button bit



Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Pilot mm	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
64	2 1/2	8×10	4×9 2×8	35°	-	2	ZQK64F/28-1225

Rods

Tapered Rod, 25×108-Hex 25-12°



Length L mm	Length L ft	Hex. Diam mm	Hex. Diam in	Taper	LHS Part No.
610	2	25	1	12°	LG1225-610
915	3	25	1	12°	LG1225-915
1220	4	25	1	12°	LG1225-1220
1525	5	25	1	12°	LG1225-1525
1830	6	25	1	12°	LG1225-1830
2000	6.56	25	1	12°	LG1225-2000
2440	8	25	1	12°	LG1225-2440
3050	10	25	1	12°	LG1225-3050
3660	12	25	1	12°	LG1225-3660

LHS ROCK TOOLS

Hand held and small hole drilling

R23(29/32")

Bits

5-Gauge button bit, Flat face



Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
35	1 3/8	5×8	2×7	35°	1	1	ZQ35C-R23
38	1 1/2	5×8	2×7	30°	1	1	ZQ38C1-R23
38	1 1/2	5×9	2×7	30°	1	1	ZQ38C3-R23
41	1 5/8	5×8	2×8	35°	1	1	ZQ41C-R23

Rods

Hex. speed rod R23F-Hex 22-R23M



Length L mm	Length L ft	Hex. Diam mm	Hex. Diam in	Taper	LHS Part No.
1750	5.74	22	7/8	R23-R23F	KLG22R23-1750
2095	6.87	22	7/8	R23-R23F	KLG22R23-2095
2300	7.55	22	7/8	R23-R23F	KLG22R23-2300
3090	10.14	22	7/8	R23-R23F	KLG22R23-3090

Shank Rod, 22×108-Hex 22-R23M



Length L mm	Length L ft	Hex. Diam mm	Hex. Diam in	Thread	LHS Part No.
255	2	22	7/8	R25	LG22108R23-255

Hand held and small hole drilling

R25(1")

Bits

Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
5-Gauge button bit, Flat face							
							
32	1 1/4	5×6.5	2×6.5	45°	1	2	ZQ32C-R25
33	1 19/64	5×7	2×7	30°	1	1	ZQ33C-R25
33	1 19/64	5×7	2×7	25°	1	2	ZQ33C2-R25
35	1 3/8	5×9	2×7	35°	1	1	ZQ35C1-R25
35	1 3/8	5×8	2×7	35°	1	2	ZQ35C2-R25
35	1 3/8	5×9	2×7	25°	1	2	ZQ35C3-R25
35	1 3/8	5×8	2×7	30°	1	1	ZQ35C6-R25
37	1 29/64	5×8	2×7	35°	1	2	ZQ37C-R25
37	1 29/64	5×9	2×7	35°	1	1	ZQ37C1-R25
38	1 1/2	5×8	2×8	30°	1	2	ZQ38C-R25
38	1 1/2	5×9	2×7	30°	1	2	ZQ38C3-R25
41	1 5/8	5×9	2×8	30°	1	1	ZQ41C-R25
41	1 5/8	5×9	2×8	30°	1	1	ZQ41C2-R25
41	1 5/8	5×9	2×9	30°	2	–	ZQ41C3-R25
43	1 11/16	5×9	2×9	35°	1	2	ZQ43C-R25
45	1 3/4	5×9	2×9	35°	1	1	ZQ45C-R25
48	1 7/8	5×10	2×9	35°	1	2	ZQ48C-R25
51	2	5×10	2×10	35°	1	2	ZQ51C-R25
54	2 1/8	5×11	2×10	35°	1	1+2reversed	ZQ54C-R25
6-Gauge button bit, Flat face							
							
35	1 3/8	6×8	2×7	30°	2	2	ZQ35D-R25
38	1 1/2	6×8	2×7	30°	2	1	ZQ38D-R25
41	1 5/8	6×8	3×8	35°	3	1	ZQ41D-R25
41	1 5/8	6×8	3×8	35°	3	1	ZQ41D1-R25
45	1 3/4	6×9	3×8	35°	3	2	ZQ45D1-R25
45	1 3/4	6×9	3×8	35°	3	1	ZQ45D3-R25
48	1 7/8	6×9	3×9	35°	3	1	ZQ48D-R25
48	1 7/8	6×10	2×9	35°	2	2	ZQ48D2-R25
51	2	6×10	3×9	35°	3	–	ZQ51D1-R25
6-Gauge button bit, Flat face, RetracSkirt							
							
41	1 5/8	6×8	3×8	35°	3	1	ZQY41D-R25
45	1 3/4	6×9	3×8	35°	3	1	ZQY45D1-R25
51	2	6×10	3×9	35°	3	1	ZQY51D-R25

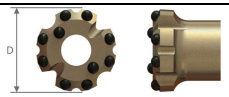
Hand held and small hole drilling

R25(1")

Reaming tools

Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Pilot mm	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
Reaming button bit							
							
64	2 1/2	8×10	2×9 2×8	28	2	1reversed	ZQK64F/28-R25
70	2 3/4	8×11	2×10 3×8	35	1	2+1reversed	ZQK70F/35-R25
76	3	10×11	2×8	28	2	–	ZQK76F/28-R25
76	3	10×11	3×8	35	1	2+1reversed	ZQK76F/35-R25

Diam D mm	Diam D in	Tip size (mm) H×W	Taper	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
Pilot adaptor						
						
26	1 1/32	12×8	6°	1	2	KQD26E-6R25
28	1 7/64	12×8	6°	1	2	KQD28E-6R25

Diam D mm	Diam D in	Buttons×Size (mm) Gauge	Buttons×Size (mm) Front	Angle	Taper	LHS Part No.
Reaming button bit						
						
57	2 1/4	6×9	3×8	35°	6°	ZQK57D-634
64	2 1/2	8×9	3×8	35°	6°	ZQK64F-634
76	3	8×11	2×11	35°	6°	ZQK76F-634
89	3 1/2	8×12	4×12	35°	6°	ZQK89F-634

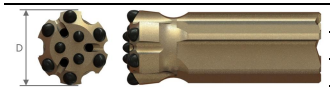
Rods

Length L mm	Length L ft	Hex. Diam mm	Hex. Diam in	Thread	LHS Part No.
Shank Rod, 22×108-Hex 22-R25M					
					
610	2	22	7/8	R25	LG22108R25-610
915	3	22	7/8	R25	LG22108R25-915
1220	4	22	7/8	R25	LG22108R25-1220
1525	5	22	7/8	R25	LG22108R25-1525
1830	6	22	7/8	R25	LG22108R25-1830
2440	8	22	7/8	R25	LG22108R25-2440

Length L mm	Length L ft	Hex. Diam mm	Hex. Diam in	Thread	LHS Part No.
Shank Rod, 25×108-Hex 25-R25M					
					
610	2	25	1	R25	LG25108R25-610
1220	4	25	1	R25	LG25108R25-1220
1525	5	25	1	R25	LG25108R25-1525
1830	6	25	1	R25	LG25108R25-1830
2440	8	25	1	R25	LG25108R25-2440
3660	12	25	1	R25	LG25108R25-3660

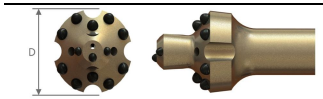
Hand held and small hole drilling

R28(11/8")

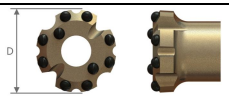
Bits	Diam D		Buttons×Size (mm)		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
4-Gauge button bit, Flat face								
	43	1 5/7	4×9	2×9	35°	1	1	ZQ43S-R28
5-Gauge button bit, Flat face								
	36	1 3/7	5×9	2×7	30°	1	2	ZQ36C-R28
	37	1 4/9	5×9	2×7	30°	1	1	ZQ37C-R28
	37	1 4/9	5×9	2×7	30°	1	2	ZQ37C1-R28
	38	1 1/2	5×8	2×8	30°	1	2	ZQ38C1-R28
	38	1 1/2	5×9	2×7	30°	1	2	ZQ38C2-R28
	38	1 1/2	5×8	2×7	30°	1	2	ZQ38C4-R28
	38	1 1/2	5×9	2×7	35°	1	2	ZQ38C5-R28
	40	1 4/7	5×8	2×8	35°	1	1	ZQ40C-R28
	41	1 5/8	5×9	2×8	30°	1	1	ZQ41C-R28
	41	1 5/8	5×9	2×8	35°	1	1	ZQ41C1-R28
	43	1 5/7	5×9	2×9	35°	1	2	ZQ43C-R28
	45	1 3/4	5×11	2×9	35°	2	2	ZQ45C1-R28
	45	1 3/4	5×11	2×9	35°	2	2	ZQ45C2-R28
	48	1 7/8	5×10	2×9	35°	1	2	ZQ48C-R28
6-Gauge button bit, Flat face								
	43	1 5/7	6×9	3×8	30°	3	1	ZQ43D-R28
	45	1 3/4	6×9	3×8	25°	3	–	ZQ45D1-R28
	45	1 3/4	6×9	3×8	35°	3	1	ZQ45D3-R28
	51	2	6×10	3×9	35°	3	1	ZQ51D-R28
6-Gauge button bit, Flat face, RetracSkirt								
	41	1 7/8	6×8	3×8	35°	3	1	ZQY41D-R28
	45	1 3/4	6×9	3×8	35°	3	1	ZQY45D-R28
	51	2	6×10	3×9	35°	3	1	ZQY51D-R28

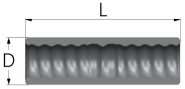
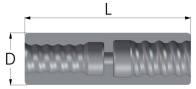
Hand held and small hole drilling

R28(11/8")

Reaming tools	Diam D		Buttons×Size (mm)		Pilot	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front	mm	Front	Gauge	
Reaming button bit								
	76	3	10×11	3×8	35	1	2+1reversed	ZQK76F/35-R28

	Diam D		Tip size (mm)	Taper	No. of flushing holes		LHS Part No.
	mm	in	H×W		Front	Gauge	
Pilot adaptor							
	28	1 1/9	12×8	6°	1	2	KQD28E-6R28

	Diam D		Buttons×Size (mm)		Angle	Taper	LHS Part No.
	mm	in	Gauge	Front			
Reaming button bit							
	57	2 1/4	6×9	3×8	35°	6°	ZQK57D-634
	64	2 1/2	8×9	3×8	35°	6°	ZQK64F-634
	76	3	8×11	2×11	35°	6°	ZQK76F-634
	76	3	8×11	4×11	35°	6°	ZQK76F1-634
	89	3 1/2	8×12	4×12	35°	6°	ZQK89F-634

Coupling sleeve	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	150	5 7/8	40	1 37/64	R28-R28	LR28-150
	150	5 7/8	45	1 3/4	R32-R32	LR32-150
	160	6 5/16	45	1 3/4	R32-R32	LR32-160
	170	6 11/16	45	1 3/4	R32-R32	LR32-170
	170	6 11/16	45	1 3/4	R32-R38	LR32R38A-170
Coupling sleeve(Full bridge)						
	150	5 7/8	40	1 37/64	R28-R28	LR28-150Q
	170	6 11/16	56	2 1/4	R32-R38	LR32R38-170Q
	177	7	56	2 1/4	R32-T38	LR32T38-177Q
	170	6 11/16	45	1 3/4	R28-R32	LR28R32-170Q
	170	6 11/16	56	2 1/4	R28-R38	LR28R38-170Q
	170	6 11/16	56	2 1/4	R28-T38	LR28T38-170Q

Hand held and small hole drilling

R28(11/8")

Rods	Length L		Hex.Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Hex. drifter rod R32M-Hex 28-R28M						
	2000	6.56	28	1 1/8	R28-R32	LG28R28R32-2000
	2175	7.14	28	1 1/8	R28-R32	LG28R28R32-2175
	2300	7.55	28	1 1/8	R28-R32	LG28R28R32-2300
	2400	7.87	28	1 1/8	R28-R32	LG28R28R32-2400
	2475	8.12	28	1 1/8	R28-R32	LG28R28R32-2475
	2600	8.53	28	1 1/8	R28-R32	LG28R28R32-2600
	2700	8.86	28	1 1/8	R28-R32	LG28R28R32-2700
	2750	9	28	1 1/8	R28-R32	LG28R28R32-2750
	2795	9.17	28	1 1/8	R28-R32	LG28R28R32-2795
	2875	9.43	28	1 1/8	R28-R32	LG28R28R32-2875
	2975	9.76	28	1 1/8	R28-R32	LG28R28R32-2975
	3090	10.14	28	1 1/8	R28-R32	LG28R28R32-3090
	3170	10.40	28	1 1/8	R28-R32	LG28R28R32-3170
	3400	11.15	28	1 1/8	R28-R32	LG28R28R32-3400
	3500	11.48	28	1 1/8	R28-R32	LG28R28R32-3500
	3700	12.14	28	1 1/8	R28-R32	LG28R28R32-3700
	4305	14.12	28	1 1/8	R28-R32	LG28R28R32-4305
Hex. drifter rod R28M-Hex 28-R28M						
	915	3	28	1 1/8	R28-R28	LGR28-915
	1000	3.28	28	1 1/8	R28-R28	LGR28-1000
	1525	5	28	1 1/8	R28-R28	LGR28-1220
	3050	10	28	1 1/8	R28-R28	LGR28-1525
	3660	12	28	1 1/8	R28-R28	LGR28-1830
Hex. speed rod R28F-Hex 28-R28M						
	915	3	28	1 1/8	R28-R28F	KLGR28-915
	1000	3.28	28	1 1/8	R28-R28F	KLGR28-1000
	1525	5	28	1 1/8	R28-R28F	KLGR28-1525
	3050	10	28	1 1/8	R28-R28F	KLGR28-3050
	3660	12	28	1 1/8	R28-R28F	KLGR28-3660
Shank Rod,25×108-Hex 25-R28M						
	3900	12.8	25	1	R25	LG25108R28-3900

LHS ROCK TOOLS

Cable hole drilling tools



R23	**25**
R25	**26**
R28	**28**
TR28	**30**
R32	**31**
TR35	**34**
T35	**36**

Cable hole drilling tools

R23(7/8")

Bits

	Diam		Buttons×Sizemm		Angle	No.of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
5-Gauge button bit,Flat face								
	35	1 3/8	5×8	2×7	35°	1	1	ZQ35C-R23
	38	1 1/2	5×8	2×7	30°	1	1	ZQ38C1-R23
	38	1 1/2	5×9	2×7	30°	1	1	ZQ38C3-R23
	41	1 5/8	5×8	2×8	35°	1	1	ZQ41C-R23

Rods

	Length L		Hex.Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Hex. speed rod R23F-Hex 22-R23M						
	1750	5.74	22	7/8	R23-R23F	KLG22R23-1750
	2095	6.87	22	7/8	R23-R23F	KLG22R23-2095
	2300	7.55	22	7/8	R23-R23F	KLG22R23-2300
	3090	10.14	22	7/8	R23-R23F	KLG22R23-3090

Cable hole drilling tools

R25(1")

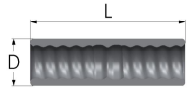
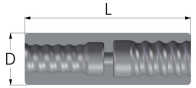
Bits

	Diam D		Buttons×Size mm		Angle	No.of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
5-Gauge button bit,Flat face								
	32	1 1/4	5×6.5	2×6.5	45°	1	2	ZQ32C-R25
	33	1 2/7	5×7	2×7	30°	1	1	ZQ33C-R25
	33	1 2/7	5×7	2×7	25° /12°	1	2	ZQ33C2-R25
	35	1 3/8	5×9	2×7	35° /12°	1	1	ZQ35C1-R25
	35	1 3/8	5×8	2×7	35°	1	2	ZQ35C2-R25
	35	1 3/8	5×9	2×7	25° /12°	1	2	ZQ35C3-R25
	35	1 3/8	5×8	2×7	30°	1	1	ZQ35C6-R25
	37	1 4/9	5×8	2×7	35°	1	2	ZQ37C-R25
	37	1 4/9	5×9	2×7	35°	1	1	ZQ37C1-R25
	38	1 1/2	5×8	2×8	30°	1	2	ZQ38C-R25
	38	1 1/2	5×9	2×7	30°	1	2	ZQ38C3-R25
	41	1 5/8	5×9	2×8	30°	1	1	ZQ41C-R25
	41	1 5/8	5×9	2×8	30°	1	1	ZQ41C2-R25
	41	1 5/8	5×9	2×9	30°	2	-	ZQ41C3-R25
	43	1 2/3	5×9	2×9	35°	1	2	ZQ43C-R25
	45	1 3/4	5×9	2×9	35°	1	1	ZQ45C-R25
	48	1 7/8	5×10	2×9	35°	1	2	ZQ48C-R25
	51	2	5×10	2×10	35°	1	2	ZQ51C-R25
	54	2 1/8	5×11	2×10	35°	1	1+2reversed	ZQ54C-R25
6-Gauge button bit,Flat face								
	35	1 3/8	6×8	2×7	30°	2	2	ZQ35D-R25
	38	1 1/2	6×8	2×7	30°	2	1	ZQ38D-R25
	41	1 5/8	6×8	3×8	35°	3	1	ZQ41D-R25
	41	1 5/8	6×8	3×8	35°	3	1	ZQ41D1-R25
	45	1 3/4	6×9	3×8	35°	3	2reversed	ZQ45D1-R25
	45	1 3/4	6×9	3×8	35°	3	1	ZQ45D3-R25
	48	1 7/8	6×9	3×9	35°	3	1	ZQ48D-R25
	48	1 7/8	6×10	2×9	35°	2	2	ZQ48D2-R25
	51	2	6×10	3×9	35°	3	-	ZQ51D1-R25
6-Gauge button bit,Flat face,RetracSkirt								
	41	1 5/8	6×8	3×8	35°	3	1	ZQY41D-R25
	45	1 3/4	6×9	3×8	35°	3	1	ZQY45D1-R25
	51	2	6×10	3×9	35°	3	1	ZQY51D-R25

Cable hole drilling tools

R25(1″)

Coupling sleeve

	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	150	5 7/8	45	1 3/4	R32-R32	LR32-150
	160	6 5/16	45	1 3/4	R32-R32	LR32-160
	170	6 11/16	45	1 3/4	R32-R32	LR32-170
	150	5 7/8	35	1 3/8	R25-R25	LR25-150
	170	6 11/16	56	2 1/4	R32-R38	LR32R38A-170
Coupling sleeve(Full bridge)						
	170	6 11/16	56	2 1/4	R32-R38	LR32R38-170Q
	177	7	56	2 1/4	R32-T38	LR32T38-177Q
	160	6 5/16	45	1 3/4	R25-R32	LR25R32-160Q
	160	6 5/16	56	2 1/4	R25-R38	LR25R38-160Q

R25(1″)

Rod

	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Hex. drifter rod R32M-Hex 25-R25M						
	2475	8.12	25	1	R25-R32	LG25R25R32-2475
	2700	8.86	25	1	R25-R32	LG25R25R32-2700
	2875	9.43	25	1	R25-R32	LG25R25R32-2875
	2975	9.76	25	1	R25-R32	LG25R25R32-2975
	3090	10.14	25	1	R25-R32	LG25R25R32-3090
	3400	11.15	25	1	R25-R32	LG25R25R32-3400
	3500	11.48	25	1	R25-R32	LG25R25R32-3500
	3700	12.14	25	1	R25-R32	LG25R25R32-3700
Hex. drifter rod R25M-Hex 28-R25M						
	610	2	25	1	R25-R25	LGR25-610
	915	3	25	1	R25-R25	LGR25-915
	1220	4	25	1	R25-R25	LGR25-1220
	1525	5	25	1	R25-R25	LGR25-1525
	1830	6	25	1	R25-R25	LGR25-1830
	2175	7	25	1	R25-R25	LGR25-2175
Hex. speed rod R25F-Hex 25-R25M						
	610	2	25	1	R25-R25F	KLGR25-610
	915	3	25	1	R25-R25F	KLGR25-915
	1220	4	25	1	R25-R25F	KLGR25-1220
	1525	5	25	1	R25-R25F	KLGR25-1525
	1830	6	25	1	R25-R25F	KLGR25-1830
	2435	8	25	1	R25-R25F	KLGR25-2435
	3050	10	25	1	R25-R25F	KLGR25-3050

Cable hole drilling tools

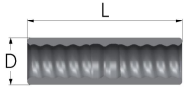
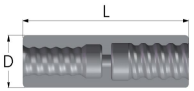
R28(11/8″)

Bits

	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
4-Gauge button bit,Flat face								
	43	1 5/7	4×9	2×9	35°	1	1	ZQ43S-R28
5-Gauge button bit,Flat face								
	36	1 3/7	5×9	2×7	30°	1	2	ZQ36C-R28
	37	1 4/9	5×9	2×7	30°	1	1	ZQ37C-R28
	37	1 4/9	5×9	2×7	30°	1	2	ZQ37C1-R28
	38	1 1/2	5×8	2×8	30°	1	2	ZQ38C1-R28
	38	1 1/2	5×9	2×7	30°	1	2	ZQ38C2-R28
	38	1 1/2	5×8	2×7	30°	1	2	ZQ38C4-R28
	38	1 1/2	5×9	2×7	35°	1	2	ZQ38C5-R28
	40	1 4/7	5×8	2×8	35°	1	1	ZQ40C-R28
	41	1 5/8	5×9	2×8	30°	1	1	ZQ41C-R28
	41	1 5/8	5×9	2×8	35°	1	1	ZQ41C1-R28
	43	1 5/7	5×9	2×9	35°	1	2	ZQ43C-R28
	45	1 3/4	5×11	2×9	35°	2	2	ZQ45C1-R28
	45	1 3/4	5×11	2×9	35°	2	2	ZQ45C2-R28
	48	1 7/8	5×10	2×9	35°	1	2	ZQ48C-R28
6-Gauge button bit,Flat face								
	43	1 5/7	6×9	3×8	30°	3	1	ZQ43D-R28
	45	1 3/4	6×9	3×8	25°	3	–	ZQ45D1-R28
	45	1 3/4	6×9	3×8	35°	3	1	ZQ45D3-R28
	51	2	6×10	3×9	35°	3	1	ZQ51D-R28
6-Gauge button bit,Flat face,RetracSkirt								
	41	1 7/8	6×8	3×8	35°	3	1	ZQY41D-R28
	45	1 3/4	6×9	3×8	35°	3	1	ZQY45D-R28
	51	2	6×10	3×9	35°	3	1	ZQY51D-R28

Cable hole drilling tools

R28(11/8")

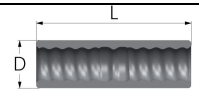
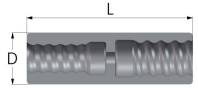
Coupling sleeve	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	150	5 7/8	40	1 37/64	R28-R28	LR28-150
	150	5 7/8	45	1 3/4	R32-R32	LR32-150
	160	6 5/16	45	1 3/4	R32-R32	LR32-160
	170	6 11/16	45	1 3/4	R32-R32	LR32-170
	170	6 11/16	45	1 3/4	R32-R38	LR32R38A-170
Coupling sleeve(Full bridge)						
	150	5 7/8	40	1 37/64	R28-R28	LR28-150Q
	170	6 11/16	56	2 1/4	R32-R38	LR32R38-170Q
	177	7	56	2 1/4	R32-T38	LR32T38-177Q
	170	6 11/16	45	1 3/4	R28-R32	LR28R32-170Q
	170	6 11/16	56	2 1/4	R28-R38	LR28R38-170Q
	170	6 11/16	56	2 1/4	R28-T38	LR28T38-170Q

Rods	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Hex. drifter rod R32M-Hex 28-R28M						
	2000	6.56	28	1 1/8	R28-R32	LG28R28R32-2000
	2175	7.14	28	1 1/8	R28-R32	LG28R28R32-2175
	2300	7.55	28	1 1/8	R28-R32	LG28R28R32-2300
	2400	7.87	28	1 1/8	R28-R32	LG28R28R32-2400
	2475	8.12	28	1 1/8	R28-R32	LG28R28R32-2475
	2600	8.53	28	1 1/8	R28-R32	LG28R28R32-2600
	2700	8.86	28	1 1/8	R28-R32	LG28R28R32-2700
	2750	9	28	1 1/8	R28-R32	LG28R28R32-2750
	2795	9.17	28	1 1/8	R28-R32	LG28R28R32-2795
	2875	9.43	28	1 1/8	R28-R32	LG28R28R32-2875
	2975	9.76	28	1 1/8	R28-R32	LG28R28R32-2975
	3090	10.14	28	1 1/8	R28-R32	LG28R28R32-3090
	3170	10.40	28	1 1/8	R28-R32	LG28R28R32-3170
	3400	11.15	28	1 1/8	R28-R32	LG28R28R32-3400
	3500	11.48	28	1 1/8	R28-R32	LG28R28R32-3500
	3700	12.14	28	1 1/8	R28-R32	LG28R28R32-3700
	4305	14.12	28	1 1/8	R28-R32	LG28R28R32-4305
Hex. drifter rod R28M-Hex 28-R28M						
	915	3	28	1 1/8	R28-R28	LGR28-915
	1000	3.28	28	1 1/8	R28-R28	LGR28-1000
	1525	5	28	1 1/8	R28-R28	LGR28-1220
	3050	10	28	1 1/8	R28-R28	LGR28-1525
	3660	12	28	1 1/8	R28-R28	LGR28-1830
Hex. speed rod R28F-Hex 28-R28M						
	915	3	28	1 1/8	R28-R28F	KLGR28-915
	1000	3.28	28	1 1/8	R28-R28F	KLGR28-1000
	1525	5	28	1 1/8	R28-R28F	KLGR28-1525
	3050	10	28	1 1/8	R28-R28F	KLGR28-3050
	3660	12	28	1 1/8	R28-R28F	KLGR28-3660

Cable hole drilling tools

TR28

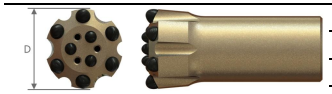
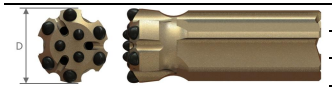
Bits	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
5-Gauge button bit,Flat face								
	33	1 2/7	5×7	2×7	30°	1	1	ZQ33C-TR28
	35	1 3/8	5×9	2×7	25° /12°	1	2	ZQ35C-TR28
	35	1 3/8	5×8	2×7	30°	1	1	ZQ35C1-TR28
	36	1 3/7	5×9	2×7	25° /12°	1	2	ZQ36C-TR28
	37	1 4/9	5×8	2×7	35°	1	1	ZQ37C-TR28
	38	1 1/2	5×9	2×7	35°	1	1	ZQ38C-TR28
	38	1 1/2	5×9	2×7	35°	1	1	ZQ38C1-TR28
	41	1 5/8	5×9	2×8	40°	1	1	ZQ41C-TR28
	43	1 5/7	5×9	2×9	40°	1	1	ZQ43C-TR28
	51	2	5×10	2×10	35°	1	2	ZQ51C-TR28

Coupling sleeve	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	150	5 7/8	45	1 3/4	R32-R32	LR32-150
	160	6 5/16	45	1 3/4	R32-R32	LR32-160
	170	6 5/7	45	1 3/4	R32-R32	LR32-170
Coupling sleeve(Full bridge)						
	170	6 5/7	45	1 3/4	R32-R38	LR32R38A-170
	170	6 5/7	45	1 3/4	R32-R38	LR32R38-170Q
	177	7	56	2 1/4	R32-T38	LR32T38-177Q

Rods	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Hex. drifter rod R32M-Hex 28-TR28M						
	2100	6.89	28	1 1/8	TR28-R32	LG28TR28R32-2100
	2400	7.87	28	1 1/8	TR28-R32	LG28TR28R32-2400
	2600	8.53	28	1 1/8	TR28-R32	LG28TR28R32-2600
	2800	9.19	28	1 1/8	TR28-R32	LG28TR28R32-2800
	3090	10.14	28	1 1/8	TR28-R32	LG28TR28R32-3090
	3350	11	28	1 1/8	TR28-R32	LG28TR28R32-3350
	3700	12.14	28	1 1/8	TR28-R32	LG28TR28R32-3700

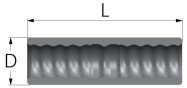
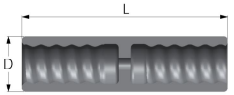
Cable hole drilling tools

R32(11/4")

Bits	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
4-Gauge button bit,Flat face								
	45	1 3/4	4×11	2×9	35°	1	2	ZQ45S6-R32
5-Gauge button bit,Flat face								
	41	1 5/8	5×9	2×8	30°	1	1	ZQ41C-R32
	41	1 5/8	5×9	2×8	30°	1	2	ZQ41C2-R32
	43	1 11/16	5×10	2×8	35°	1	1	ZQ43C4-R32
	43	1 11/16	5×9	2×9	30°	1	2	ZQ43C-R32
	45	1 3/4	5×11	2×9	40°	2	3	ZQ45C-R32
	45	1 3/4	5×11	2×9	35°	2	2	ZQ45C2-R32
	45	1 3/4	5×11	2×9	30°	1	2	ZQ45C7-R32
	48	1 7/8	5×11	2×10	35°	1	2	ZQ48C7-R32
	51	2	5×10	2×10	35°	1	1	ZQ51C-R32
	51	2	5×11	2×10	35°	1	2	ZQ51C2-R32
	51	2	5×12	2×10	35°	1	2	ZQ51C3-R32
	54	2 1/8	5×11	3×10	35°	1	1	ZQ54C1-R32
6-Gauge button bit,Flat face								
	42	1 11/16	6×9	2×8	30°	2	-	ZQ42D1-R32
	43	1 11/16	6×9	2×8	30°	2	1	ZQ43D3-R32
	43	1 11/16	6×9	3×8	40°	3	1	ZQ43D4-R32
	43	1 11/16	6×9	2×9	30°	2	2	ZQ43D5-R32
	44	1 11/16	6×9	3×8	30°	3	1	ZQ43D6-R32
	43	1 11/16	6×9	3×8	35°	3	1	ZQ43D8-R32
	43	1 11/16	6×9	3×8	35°	3	1	ZQ43D9-R32
	43	1 11/16	6×8	3×8	40°	3	1	ZQ43D10-R32
	45	1 3/4	6×9	3×8	40°	3	1	ZQ45D7-R32
	45	1 3/4	6×9	3×8	40°	3	1reversed	ZQ45D9-R32
	45	1 3/4	6×9	3×8	35°	3	1	ZQ45D10-R32
	45	1 3/4	6×9	3×8	40°	3	2	ZQ45D22-R32
	45	1 3/4	6×10	3×8	35°	3	1	ZQ45D23-R32
	48	1 7/8	6×10	3×8	40°	3	1	ZQ48D2-R32
	48	1 7/8	6×10	2×9	35°	2	2	ZQ48D3-R32
	48	1 7/8	6×10	3×9	35°	3	1	ZQ48D4-R32
	48	1 7/8	6×9	3×9	35°	3	1	ZQ48D6-R32
	51	2	6×10	3×9	40°	3	1	ZQ51D-R32
	51	2	6×10	3×9	30°	3	1	ZQ51D5-R32
	54	2 1/8	6×11	3×9	35°	3	1	ZQ54D2-R32
	54	2 1/8	6×10	3×9	35°	3	1	ZQ54D4-R32
	57	2 1/4	6×11	3×10	30°	3	1	ZQ57D2-R32
6-Gauge button bit,Flat face,RetracSkirt								
	45	2 3/4	6×9	3×8	35°	3	-	ZQY45D1-R32
	48	1 7/8	6×10	3×8	35°	3	1	ZQY48D1-R32
	48	1 7/8	6×9	3×8	35°	3	1	ZQY48D3-R32
	51	2	6×10	3×9	35°	3	1	ZQY51D2-R32
	51	2	6×10	3×9	35°	3	1	ZQY51D3-R32
	57	2 1/4	6×10	3×10	35°	3	1	ZQY57D-R32

Cable hole drilling tools

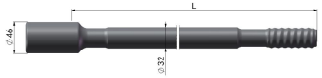
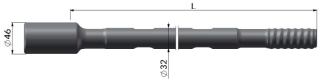
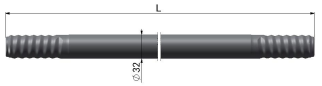
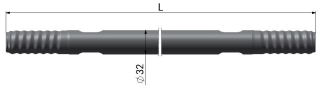
R32(11/4")

Coupling sleeve	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	150	5 7/8	45	1 3/4	R32-R32	LR32-150
	160	6 5/16	45	1 3/4	R32-R32	LR32-160
	170	6 5/7	45	1 3/4	R32-R32	LR32-170
	170	6 5/7	56	2 1/4	R38-R38	LR38-170
	190	7 1/2	56	2 1/4	T38-T38	LT38-190
	180	7	56	2 1/4	R38-T38	LR38T38-180
Coupling sleeve(Full bridge)						
	150	5 7/8	45	1 3/4	R32-R32	LR32-150Q
	170	6 5/7	45	1 3/4	R32-R32	LR32-170Q
	170	6 5/7	56	2 1/4	R38-R38	LR38-170Q
	190	7 1/2	56	2 1/4	T38-T38	LT38-190Q
	170	6 5/7	56	2 1/4	R32R38-R38	LR32R38-170Q
	177	7	56	2 1/4	R32-T38	LR32T38-177Q
	195	7 5/8	56	2 1/4	R32-T38	LR32T38-195Q
	190	7 1/2	56	2 1/4	R38-T38	LR38T38-190Q

Rods	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Hex. drifter rod R38-Hex35-R32						
	2400	7.87	35	1 3/8	R32-R38	LG35R32R38-2400
	2700	8.88	35	1 3/8	R32-R38	LG35R32R38-2700
	3090	10.13	35	1 3/8	R32-R38	LG35R32R38-3090
	3300	10.83	35	1 3/8	R32-R38	LG35R32R38-3300
	3700	12.14	35	1 3/8	R32-R38	LG35R32R38-3700
	4000	13.12	35	1 3/8	R32-R38	LG35R32R38-4000
	4305	14.12	35	1 3/8	R32-R38	LG35R32R38-4305
	4500	14.76	35	1 3/8	R32-R38	LG35R32R38-4500
	4700	15.42	35	1 3/8	R32-R38	LG35R32R38-4700
	4915	16.13	35	1 3/8	R32-R38	LG35R32R38-4915
	5000	16.4	35	1 3/8	R32-R38	LG35R32R38-5000
	5525	18.13	35	1 3/8	R32-R38	LG35R32R38-5525
	6135	20.13	35	1 3/8	R32-R38	LG35R32R38-6135
	6400	21	35	1 3/8	R32-R38	LG35R32R38-6400
Hex. drifter rod T38-Hex35-R32						
	2400	7.87	35	1 3/8	R32-T38	LG35R32T38-2400
	2700	8.88	35	1 3/8	R32-T38	LG35R32T38-2700
	3090	10.13	35	1 3/8	R32-T38	LG35R32T38-3090
	3300	10.83	35	1 3/8	R32-T38	LG35R32T38-3300
	3700	12.14	35	1 3/8	R32-T38	LG35R32T38-3700
	4000	13.12	35	1 3/8	R32-T38	LG35R32T38-4000
	4305	14.12	35	1 3/8	R32-T38	LG35R32T38-4305
	4500	14.76	35	1 3/8	R32-T38	LG35R32T38-4500
	4700	15.42	35	1 3/8	R32-T38	LG35R32T38-4700
	4915	16.13	35	1 3/8	R32-T38	LG35R32T38-4915
	5000	16.4	35	1 3/8	R32-T38	LG35R32T38-5000
	5525	18.13	35	1 3/8	R32-T38	LG35R32T38-5525
	6135	20.13	35	1 3/8	R32-T38	LG35R32T38-6135
	6400	21	35	1 3/8	R32-T38	LG35R32T38-6400

Cable hole drilling tools

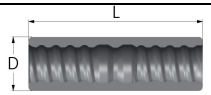
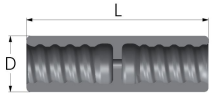
R32(11/4")

Rods	L				Thread	LHS Part No.
	mm	ft	mm	in		
Round speed rod,R32F-D32-R32M						
	610	2	32	1 1/4	R32-R32F	KYGR32-610
	915	3	32	1 1/4	R32-R32F	KYGR32-915
	1220	4	32	1 1/4	R32-R32F	KYGR32-1220
	1525	5	32	1 1/4	R32-R32F	KYGR32-1525
	1830	6	32	1 1/4	R32-R32F	KYGR32-1830
	2440	7.87	32	1 1/4	R32-R32F	KYGR32-2440
	3050	10	32	1 1/4	R32-R32F	KYGR32-3050
	3660	12	32	1 1/4	R32-R32F	KYGR32-3660
Round speed rod,R32F-D32-R32M (Wrenchflat)						
	610	2	32	1 1/4	R32-R32F	KYGR32Q-610
	915	3	32	1 1/4	R32-R32F	KYGR32Q-915
	1220	4	32	1 1/4	R32-R32F	KYGR32Q-1220
	1525	5	32	1 1/4	R32-R32F	KYGR32Q-1525
	1830	6	32	1 1/4	R32-R32F	KYGR32Q-1830
	2440	7.87	32	1 1/4	R32-R32F	KYGR32Q-2440
	3050	10	32	1 1/4	R32-R32F	KYGR32Q-3050
	3660	12	32	1 1/4	R32-R32F	KYGR32Q-3660
Round extension rod,R32M-D32-R32M						
	610	2	32	1 1/4	R32-R32	YGR32-610
	915	3	32	1 1/4	R32-R32	YGR32-915
	1220	4	32	1 1/4	R32-R32	YGR32-1220
	1525	5	32	1 1/4	R32-R32	YGR32-1525
	1700	5.57	32	1 1/4	R32-R32	YGR32-1700
	1830	6	32	1 1/4	R32-R32	YGR32-1830
	2000	6.56	32	1 1/4	R32-R32	YGR32-2000
	2200	7.22	32	1 1/4	R32-R32	YGR32-2200
	2400	7.87	32	1 1/4	R32-R32	YGR32-2400
	3050	10	32	1 1/4	R32-R32	YGR32-3050
Round extension rod,R32M-D32-R32M (Wrenchflat)						
	610	2	32	1 1/4	R32-R32	YGR32Q-610
	915	3	32	1 1/4	R32-R32	YGR32Q-915
	1220	4	32	1 1/4	R32-R32	YGR32Q-1220
	1525	5	32	1 1/4	R32-R32	YGR32Q-1525
	1700	5.57	32	1 1/4	R32-R32	YGR32Q-1700
	1830	6	32	1 1/4	R32-R32	YGR32Q-1830
	2000	6.56	32	1 1/4	R32-R32	YGR32Q-2000
	2200	7.22	32	1 1/4	R32-R32	YGR32Q-2200
	2400	7.87	32	1 1/4	R32-R32	YGR32Q-2400
	3050	10	32	1 1/4	R32-R32	YGR32Q-3050

Cable hole drilling tools

TR35

Bits	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
5-Gauge button bit,Flat face								
	43	1 5/7	5×9	2×8	35°	1	1	ZQ43C-TR35
	45	1 3/4	5×11	2×9	35°	2	2	ZQ45C-TR35
6-Gauge button bit,Flat face								
	42	1 2/3	6×9	2×8	30°	2	1	ZQ42D-TR35
	43	1 5/7	6×9	3×8	30°	3	1	ZQ43D2-TR35
	43	1 5/7	6×9	3×8	35°	3	1	ZQ43D9-TR35
	45	1 3/4	6×9	3×8	40°	3	1	ZQ45D2-TR35
	45	1 3/4	6×10	3×8	30°	3	1	ZQ45D4-TR35
	45	1 3/4	6×10	3×8	35°	3	1	ZQ45D5-TR35
	45	1 3/4	6×9	3×8	40°	3	1	ZQ45D6-TR35
	48	1 7/8	6×10	3×8	35°	3	2	ZQ48D-TR35
	51	2	6×10	3×9	35°	3	1	ZQ51D-TR35
	54	2 1/8	6×10	3×9	35°	3	1	ZQ54D-TR35
8-Gauge button bit,Flat face								
	64	2 1/2	8×10	4×10	35°	2	-	ZQ64F-TR35
	76	3	8×11	4×11	35°	2	2	ZQ76F-TR35
6-Gauge button bit,RisingCenter								
	43	1 5/7	6×10	3×8	35°	3	1	ZQT43D-TR35
	45	1 3/4	6×11	3×9	35°	3	2	ZQT45D-TR35
	45	1 3/4	6×10	3×9	35°	3	2	ZQT45D1-TR35
	48	1 7/8	6×11	3×9	35°	3	2	ZQT48D-TR35
	48	1 7/8	8×10	3×9	35°	3	2	ZQT48F-TR35
6-Gauge button bit,Flat face,RetracSkirt								
	48	1 7/8	6×10	3×9	35°	3	1	ZQY48D-TR35
	51	2	6×10	3×9	35°	3	1	ZQY51D-TR35

Coupling sleeve	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	170	611/16	56	2 1/4	R38-R38	LR38-170
	180	7	56	2 1/4	R38-T38	LR38T38-180
	190	7 1/2	56	2 1/4	T38-T38	LT38-190
Coupling sleeve(Full bridge)						
	170	6 2/3	56	2 1/4	R38-R38	LR38-170Q
	190	7 1/2	56	2 1/4	T38-T38	LT38-190Q
	190	7 1/2	56	2 1/4	R38-T38	LR38T38-190Q

Cable hole drilling tools

TR35

Rods

Hex. drifter rod T38 - Hex35 - R35



L		Diam		Thread	LHS Part No.
mm	ft	mm	in		
2475	8	35	1 3/8	TR35-T38	LG35TR35T38-2475
2700	9	35	1 3/8	TR35-T38	LG35TR35T38-2700
3090	10	35	1 3/8	TR35-T38	LG35TR35T38-3090
3150	10.33	35	1 3/8	TR35-T38	LG35TR35T38-3150
3700	12	35	1 3/8	TR35-T38	LG35TR35T38-3700
4305	14	35	1 3/8	TR35-T38	LG35TR35T38-4305
4915	16	35	1 3/8	TR35-T38	LG35TR35T38-4915
5525	18	35	1 3/8	TR35-T38	LG35TR35T38-5525
6135	20	35	1 3/8	TR35-T38	LG35TR35T38-6135
6400	21	35	1 3/8	TR35-T38	LG35TR35T38-6400

Cable hole drilling tools

T35(13/8")

Bits

Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
mm	in	Gauge	Front		Front	Gauge	
5-Gauge button bit, Flat face							
54	2 1/8	5×12	2×10	35°	2	1	ZQ54C-T35
6-Gauge button bit, Dropcent							
54	2 1/8	6×10	3×9	35°	3	1	ZQA54D-T35
57	2 1/4	6×11	3×10	35°	3	1	ZQA57D-T35
6-Gauge button bit, Flat face, RetracSkirt							
54	2 1/8	6×10	3×9	35°	3	-	ZQY54D-T35
6-Gauge button bit, Dropcent, RetracSkirt							
51	2	6×9	3×9	35°	3	-	ZYA51D1-T35
54	2 1/8	6×10	3×9	35°	3	-	ZYA54D-T35
57	2 1/4	6×11	3×10	35°	3	-	ZYA57D-T35
57	2 1/4	6×10	3×10	35°	3	-	ZYA57D2-T35

Rods

L		Diam		Thread	LHS Part No.
mm	ft	mm	in		
Round speed rod, T35F-D36-T35M					
1220	4	36	1 27/64	T35-T35F	KYGT35-1220
1525	5	36	1 27/64	T35-T35F	KYGT35-1525
1830	6	36	1 27/64	T35-T35F	KYGT35-1830
Round speed rod, T35F-D39-T35M					
1220	4	39	1 1/2	T35-T35F	KYG39T35-1220
1525	5	39	1 1/2	T35-T35F	KYG39T35-1525
1830	6	39	1 1/2	T35-T35F	KYG39T35-1830
Guide tube					
1220	4	48	1 7/8	T35-T35F	KYG48T35-1220
1525	5	48	1 7/8	T35-T35F	KYG48T35-1525
1830	6	48	1 7/8	T35-T35F	KYG48T35-1830

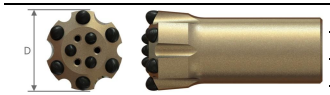
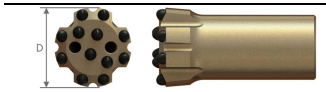
Underground development drilling and tunneling tools



R32	38
R35	42
TR35	44

Underground development drilling and tunneling tools

R32(11/4")

Bits	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
4-Gauge button bit,Flat face								
	45	1 3/4	4×11	2×9	35°	1	2	ZQ45S6-R32
5-Gauge button bit,Flat face								
	41	1 5/8	5×9	2×8	30°	1	1	ZQ41C-R32
	41	1 5/8	5×9	2×8	30°	1	2	ZQ41C2-R32
	43	1 11/16	5×10	2×8	35°	1	1	ZQ43C4-R32
	43	1 11/16	5×9	2×9	30°	1	2	ZQ43C-R32
	45	1 3/4	5×11	2×9	40°	2	3	ZQ45C-R32
	45	1 3/4	5×11	2×9	35°	2	2	ZQ45C2-R32
	45	1 3/4	5×11	2×9	30°	1	2	ZQ45C7-R32
	48	1 7/8	5×11	2×10	35°	1	2	ZQ48C7-R32
	51	2	5×10	2×10	35°	1	1	ZQ51C-R32
	51	2	5×11	2×10	35°	1	2	ZQ51C2-R32
	51	2	5×12	2×10	35°	1	2	ZQ51C3-R32
	54	2 1/8	5×11	3×10	35°	1	1	ZQ54C1-R32
6-Gauge button bit,Flat face								
	42	1 11/16	6×9	2×8	30°	2		ZQ42D1-R32
	43	1 11/16	6×9	2×8	30°	2	1	ZQ43D3-R32
	43	1 11/16	6×9	3×8	40°	3	1	ZQ43D4-R32
	43	1 11/16	6×9	2×9	30°	2	2	ZQ43D5-R32
	44	1 11/16	6×9	3×8	30°	3	1	ZQ43D6-R32
	43	1 11/16	6×9	3×8	35°	3	1	ZQ43D8-R32
	43	1 11/16	6×9	3×8	35°	3	1	ZQ43D9-R32
	43	1 11/16	6×8	3×8	40°	3	1	ZQ43D10-R32
	45	1 3/4	6×9	3×8	40°	3	1	ZQ45D7-R32
	45	1 3/4	6×9	3×8	40°	3	1	ZQ45D9-R32
	45	1 3/4	6×9	3×8	35°	3	1	ZQ45D10-R32
	45	1 3/4	6×9	3×8	40°	3	2	ZQ45D22-R32
	45	1 3/4	6×10	3×8	35°	3	1	ZQ45D23-R32
	48	1 7/8	6×10	3×8	40°	3	1	ZQ48D2-R32
	48	1 7/8	6×10	2×9	35°	2	2	ZQ48D3-R32
	48	1 7/8	6×10	3×9	35°	3	1	ZQ48D4-R32
	48	1 7/8	6×9	3×9	35°	3	1	ZQ48D6-R32
	51	2	6×10	3×9	40°	3	1	ZQ51D-R32
	51	2	6×10	3×9	30°	3	1	ZQ51D5-R32
	54	2 1/8	6×11	3×9	35°	3	1	ZQ54D2-R32
	54	2 1/8	6×10	3×9	35°	3	1	ZQ54D4-R32
	57	2 1/4	6×11	3×10	30°	3	1	ZQ57D2-R32
	64	2 1/2	6×12	3×11	35°	1	2	ZQ64D1-R32
8-Gauge button bit,Flat face								
	64	2 1/2	8×10	4×10	35°	2	2	ZQ64F1-R32
	64	2 1/2	8×10	4×10	35°	2	1+2reversed	ZQ64F2-R32
	76	3	8×10	4×10	35°	2	-	ZQ76F2-R32
	76	3	8×11	4×11	35°	2	2	ZQ76F3-R32

derground development drilling and tunneling tools

R32(11/4")

Bits

Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No.of flushing holes Front	No.of flushing holes Gauge	LHS Part No.
6-Gauge button bit,Flat face,RetracSkirt							
45	2 3/4	6×9	3×8	35°	3	-	ZQY45D1-R32
48	1 7/8	6×10	3×8	35°	3	1	ZQY48D1-R32
48	1 7/8	6×9	3×8	35°	3	1	ZQY48D3-R32
51	2	6×10	3×9	35°	3	1	ZQY51D2-R32
51	2	6×10	3×9	35°	3	1	ZQY51D3-R32
57	2 1/4	6×10	3×10	35°	3	1	ZQY57D-R32
64	2 1/2	8×10	4×10	30°	2	1+1reversed	ZQY64F1-R32
64	2 1/2	8×10	4×10	35°	2	2	ZQY64F5-R32
76	3	8×11	4×11	35°	2	2	ZQY76F-R32

Reaming tools

Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Pilot mm	No.of flushing holes Front	No.of flushing holes Gauge	LHS Part No.
Reaming button bit (No Pilot)							
76	3	9×12	2×11 1×10	-	3	-	ZQK76D1-R32
76	3	9×11	2×11 1×10	-	3	-	ZQK76D-R32
76	3	12×12	2×10 1×7	-	4	-	ZQK76F-R32
89	3 1/2	12×11	2×11 1×10	-	3	2reversed	ZQK89F-R32
102	4	12×12	2×12 1×10	-	3	2reversed	ZQK102F-R32
102	4	12×12	2×12 1×10	-	1	2	ZQK102F1-R32
102	4	12×12	2×12 1×10	-	1	2	ZQK102F2-R32
Reaming button bit							
76	3	9×11	4×9	40	3	-	ZQK76D/40-R32
76	3	12×11	4×9	40	4	-	ZQK76F/40-R32
89	3 1/2	12×12	3×10	40	1+2	-	ZQK89F/40-R32
102	4	14×12	2×10 1×10	40	2	-	ZQK102F/40-R32
102	4	12×12	4×10 2×9	45	4	1	ZQK102F/45-R32
102	4	14×12	3×10	40	2	1reversed	ZQK102F1/40-R32
102	4	14×12	4×9 2×8	40	1	2	ZQK102F2/40-R32(端齿)
102	4	14×13	3×10	40	2	-	ZQK102F3/40-R32
127	5	8×14	6×14 2×10	40	1+2	-	ZQK127F/45-R32

Diam D mm	Diam D in	Tip size(mm) H×W	Taper	No.of flushing holes Front	No.of flushing holes Gauge	LHS Part No.
Pilot adaptor						
40	1 4/7	18*10	6°	1	2	KQD40-6R32
40	1 4/7	18*10	12°	1	2	KQD40-12R32B
40	1 4/7	18*10	12°	1	2	KQD40A-12R32B

Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	Taper	LHS Part No.
Reaming button bit						
76	3	8×9	4×10	35°	6°	ZQK76F-646
89	3 1/2	8×12	4×10	35°	12°	ZQK89F-1251
102	4	8×12	4×12	35°	12°	ZQK102F-1251
102	4	8×14	6×12	35°	12°	ZQK102F1-1251
127	5	8×14	6×12	35°	12°	ZQK127F1-1251

Underground development drilling and tunneling tools

R32(11/4")

Coupling sleeve

Length mm	Length in	Outside diam mm	Outside diam in	Thread	LHS Part No.
Coupling sleeve					
170	6 5/7	56	2 1/4	R38-R38	LR38-170
180	7	56	2 1/4	R38-T38	LR38T38-180
190	7 1/2	56	2 1/4	T38-T38	LT38-190
Coupling sleeve(Full bridge)					
170	6 5/7	56	2 1/4	R38-R38	LR38-170Q
190	7 1/2	56	2 1/4	T38-T38	LT38-190Q
190	7 1/2	56	2 1/4	R38-T38	LR38T38-190Q

Rods

L mm	L ft	Diam mm	Diam in	Thread	LHS Part No.
R38-Hex32-R32Hex. drifter rod R38-Hex32-R32					
3090	10.14	32	1 1/4	R32-R38	LG32R32R38-3090
3700	12.14	32	1 1/4	R32-R38	LG32R32R38-3700
4305	14.12	32	1 1/4	R32-R38	LG32R32R38-4305
4915	16.13	32	1 1/4	R32-R38	LG32R32R38-4915
5525	18.13	32	1 1/4	R32-R38	LG32R32R38-5525
T38-Hex32-R32Hex. drifter rod T38-Hex32-R32					
3090	10.14	32	1 1/4	R32-T38	LG32R32T38-3090
3700	12.14	32	1 1/4	R32-T38	LG32R32T38-3700
4305	14.12	32	1 1/4	R32-T38	LG32R32T38-4305
4915	16.13	32	1 1/4	R32-T38	LG32R32T38-4915
5525	18.13	32	1 1/4	R32-T38	LG32R32T38-5525
R38-Hex35-R32Hex. drifter rod R38-Hex35-R32					
2400	7.87	35	1 3/8	R32-R38	LG35R32R38-2400
2700	8.86	35	1 3/8	R32-R38	LG35R32R38-2700
3090	10.14	35	1 3/8	R32-R38	LG35R32R38-3090
3300	10.83	35	1 3/8	R32-R38	LG35R32R38-3300
3700	12.14	35	1 3/8	R32-R38	LG35R32R38-3700
4000	13.12	35	1 3/8	R32-R38	LG35R32R38-4000
4305	14.12	35	1 3/8	R32-R38	LG35R32R38-4305
4500	14.76	35	1 3/8	R32-R38	LG35R32R38-4500
4700	15.42	35	1 3/8	R32-R38	LG35R32R38-4700
4915	16.13	35	1 3/8	R32-R38	LG35R32R38-4915
5000	16.4	35	1 3/8	R32-R38	LG35R32R38-5000
5525	18.13	35	1 3/8	R32-R38	LG35R32R38-5525
6135	20.13	35	1 3/8	R32-R38	LG35R32R38-6135
6400	21	35	1 3/8	R32-R38	LG35R32R38-6400

LHS ROCK TOOLS

Underground development drilling and tunneling tools

R32(11/4")

Rods

Hex. drifter rod T38M－Hex35－R32M



L		Diam		Thread	LHS Part No.
mm	ft	mm	in		
2400	7.87	35	1 3/8	R32-T38	LG35R32T38-2400
2700	8.86	35	1 3/8	R32-T38	LG35R32T38-2700
3090	10.14	35	1 3/8	R32-T38	LG35R32T38-3090
3300	10.83	35	1 3/8	R32-T38	LG35R32T38-3300
3700	12.14	35	1 3/8	R32-T38	LG35R32T38-3700
4000	13.12	35	1 3/8	R32-T38	LG35R32T38-4000
4305	14.12	35	1 3/8	R32-T38	LG35R32T38-4305
4500	14.76	35	1 3/8	R32-T38	LG35R32T38-4500
4700	15.42	35	1 3/8	R32-T38	LG35R32T38-4700
4915	16.13	35	1 3/8	R32-T38	LG35R32T38-4915
5000	16.4	35	1 3/8	R32-T38	LG35R32T38-5000
5525	18.13	35	1 3/8	R32-T38	LG35R32T38-5525
6135	20.13	35	1 3/8	R32-T38	LG35R32T38-6135
6400	21	35	1 3/8	R32-T38	LG35R32T38-6400

Hex. speed rod R38F－Hex35－R32M



3090	10.14	35	1 3/8	R32-R38F	KLG35R38R32-3090
3700	12.14	35	1 3/8	R32-R38F	KLG35R38R32-3700
4305	14.12	35	1 3/8	R32-R38F	KLG35R38R32-4305
4915	16.13	35	1 3/8	R32-R38F	KLG35R38R32-4915
5525	18.13	35	1 3/8	R32-R38F	KLG35R38R32-5525

Hex. speed rod T38F－Hex35－R32M



3090	10.14	35	1 3/8	R32-T38F	KLG35T38R32-3090
3700	12.14	35	1 3/8	R32-T38F	KLG35T38R32-3700
4000	13.12	35	1 3/8	R32-T38F	KLG35T38R32-4000
4305	14.12	35	1 3/8	R32-T38F	KLG35T38R32-4305
4915	16.13	35	1 3/8	R32-T38F	KLG35T38R32-4915
5525	18.13	35	1 3/8	R32-T38F	KLG35T38R32-5525

LHS ROCK TOOLS

Underground development drilling and tunneling tools

R35(13/8")

Bits

6-Gauge button bit,Flat face



Diam		Buttons×Size mm		Angle	No.of flushing holes		LHS Part No.
mm	in	Gauge	Front		Front	Gauge	
47	1 6/7	6×10	3×8	35°	3	1	ZQ47D4-R35
49	1 7/8	6×10	3×9	35°	3	2	ZQ48D1-R35
51	2	6×10	3×9	35°	3	1	ZQ51D-R35
54	2 1/8	6×10	3×9	35°	3	1	ZQ54D-R35

6-Gauge button bit,Dropcent



54	2 1/8	6×10	3×9	35°	3	1	ZQA54D-R35
57	2 1/4	6×11	3×9	35°	3	1	ZQA57D-R35

6-Gauge button bit,Flat face,RetracSkirt



48	1 7/8	6×10	3×9	35°	3	1	ZQY48D-R35
51	2	6×10	3×9	35°	3	1	ZQY51D-R35
54	2 1/8	6×10	3×9	35°	3	-	ZQY54D1-R35
57	2 1/4	6×10	3×10	30°	3	-	ZQY57D-R35

Reaming tools

Reaming button bit (No Pilot)



Diam		Buttons×Size mm		Pilot	No.of flushing holes		LHS Part No.
mm	in	Gauge	Front	mm	Front	Gauge	
102	4	12×12	2×12 1×10	-	1	2	ZQK102F-R35

Reaming button bit



102	4	14×12	4×9 2×8	40	1	2	ZQK102F1/40-R35

Pilot adaptor



Diam D		Tip size(mm)	Taper	No.of flushing holes		LHS Part No.
mm	in	H×W		Front	Gauge	
40	1 4/7	18*10	12°	1	2	KQD40A-12R35A

Reaming button bit

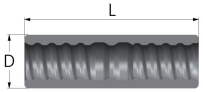
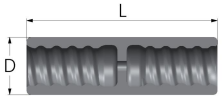


Diam		Buttons×Size mm		Angle	Taper	LHS Part No.
mm	in	Gauge	Front			
89	3 1/2	8×12	4×10	35°	12°	ZQK89F-1251
102	4	8×12	4×12	35°	12°	ZQK102F-1251
102	4	8×14	6×12	35°	12°	ZQK102F1-1251
127	5	8×14	6×12	35°	12°	ZQK127F1-1251

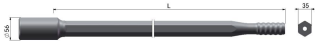
Underground development drilling and tunneling tools

R35(13/8")

Coupling sleeve

	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	170	6 5/7	56	2 1/4	R38-R38	LR38-170
	180	7	56	2 1/4	R38-T38	LR38T38-180
	190	7 1/2	56	2 1/4	T38-T38	LT38-190
Coupling sleeve(Full bridge)						
	170	6 5/7	56	2 1/4	R38-R38	LR38-170Q
	190	7 1/2	56	2 1/4	T38-T38	LT38-190Q
	190	7 1/2	56	2 1/4	R38-T38	LR38T38-190Q

Rods

	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Hex. drifter rod T38M-Hex35-R35M						
	2700	8.86	35	1 3/8	R35-T38	LG35R35T38-2700
	3090	10.14	35	1 3/8	R35-T38	LG35R35T38-3090
	3700	12.14	35	1 3/8	R35-T38	LG35R35T38-3700
	4305	14.12	35	1 3/8	R35-T38	LG35R35T38-4305
	4915	16.13	35	1 3/8	R35-T38	LG35R35T38-4915
	5525	18.13	35	1 3/8	R35-T38	LG35R35T38-5525
	6135	20.13	35	1 3/8	R35-T38	LG35R35T38-6135
	6400	21	35	1 3/8	R35-T38	LG35R35T38-6400
Hex. speed rod T38F-Hex35-R35M						
	3090	10.14	35	1 3/8	R35-T38F	KLG35T38R35-3090
	3700	12.14	35	1 3/8	R35-T38F	KLG35T38R35-3700
	4305	14.12	35	1 3/8	R35-T38F	KLG35T38R35-4305
	4915	16.13	35	1 3/8	R35-T38F	KLG35T38R35-4915
	5525	18.13	35	1 3/8	R35-T38F	KLG35T38R35-5525

Underground development drilling and tunneling tools

TR35

Bits

	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
5-Gauge button bit,Flat face								
	43	1 5/7	5×9	2×8	35°	1	1	ZQ43C-TR35
	45	1 3/4	5×11	2×9	35°	2	2	ZQ45C-TR35
6-Gauge button bit,Flat face								
	42	1 2/3	6×9	2×8	30°	2	1	ZQ42D-TR35
	43	1 5/7	6×9	3×8	30°	3	1	ZQ43D2-TR35
	43	1 5/7	6×9	3×8	35°	3	1	ZQ43D9-TR35
	45	1 3/4	6×9	3×8	40°	3	1	ZQ45D2-TR35
	45	1 3/4	6×10	3×8	30°	3	1	ZQ45D4-TR35
	45	1 3/4	6×10	3×8	35°	3	1	ZQ45D5-TR35
	45	1 3/4	6×9	3×8	40°	3	1	ZQ45D6-TR35
	48	1 7/8	6×10	3×8	35°	3	2	ZQ48D-TR35
	51	2	6×10	3×9	35°	3	1	ZQ51D-TR35
	54	2 1/8	6×10	3×9	35°	3	1	ZQ54D-TR35
	64	2 1/2	8×10	4×10	35°	2	-	ZQ64F-TR35
	76	3	8×11	4×11	35°	2	2	ZQ76F-TR35
6-Gauge button bit,RisingCenter								
	43	1 5/7	6×10	3×8	35°	3	1	ZQT43D-TR35
	45	1 3/4	6×11	3×9	35°	3	2	ZQT45D-TR35
	45	1 3/4	6×10	3×9	35°	3	2	ZQT45D1-TR35
	48	1 7/8	6×11	3×9	35°	3	2	ZQT48D-TR35
	48	1 7/8	8×10	3×9	35°	3	2	ZQT48F-TR35
6-Gauge button bit,Flat face,RetracSkirt								
	48	1 7/8	6×10	3×9	35°	3	1	ZQY48D-TR35
	51	2	6×10	3×9	35°	3	1	ZQY51D-TR35

Reaming tools

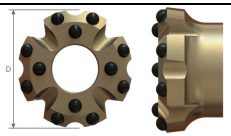
	Diam		Buttons×Size mm		Pilot	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front	mm	Front	Gauge	
Reaming button bit (No Pilot)								
	76	3	9×12	2×11 1×10	-	3	-	ZQK76D-TR35
	89	3 1/2	14×11	1×11	-	2	-	ZQK89F-TR35
	102	4	12×12	2×12 1×10	-	1	2	ZQK102F-TR35
	102	4	14×12	1×12	-	2	-	ZQK102F1-TR35
	102	4	1×13	1×13	-	2	-	ZQK102F2-TR35
Reaming button bit								
	89	3 1/2	12×12	3×10	40	1+2	-	ZQK89F/40-TR35
	102	4	14×12	4×9 2×8	40	1+2	-	ZQK102F/40-TR35
	102	4	14×14	4×9 2×8	40	1+2	-	ZQK102F1/40-TR35
	102	4	14×12	2×10 1×10	40	2	-	ZQK102F2/40-TR35
	127	5	14×14	2×10 1×10	40	2	-	ZQK127F/40-TR35

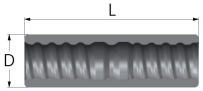
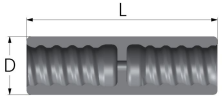
Underground development drilling and tunneling tools

TR35

Reaming tools

	Diam D		Tip size(mm)	Taper	No.of flushing holes		LHS Part No.
	mm	in	H×W		Front	Gauge	
Pilot adaptor							
	40	1 4/7	18*10	12°	1	2	KQD40A-12TR35

	Diam		Buttons×Size mm		Angle	Taper	LHS Part No.
	mm	in	Gauge	Front			
Reaming button bit							
	89	3 1/2	8×12	4×10	35°	12°	ZQK89F-1251
	102	4	8×12	4×12	35°	12°	ZQK102F-1251
	102	4	8×14	6×12	35°	12°	ZQK102F1-1251
	127	5	8×14	6×12	35°	12°	ZQK127F1-1251

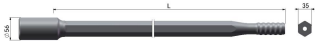
	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	170	6 5/7	56		R38-R38	LR38-170
	180	7	56		R38-T38	LR38T38-180
	190	7 1/2	56		T38-T38	LT38-190
Coupling sleeve(Full bridge)						
	170	6 5/7	56		R38-R38	LR38-170Q
	190	7 1/2	56		T38-T38	LT38-190Q
	190	1/2	56		R38-T38	LR38T38-190Q

LHS ROCK TOOLS

Underground development drilling and tunneling tools

TR35

Rods

	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Hex. drifter rod T38M－Hex35－TR35M						
	2475	8.12	35	1 3/8	TR35-T38	LG35TR35T38-2475
	2700	8.86	35	1 3/8	TR35-T38	LG35TR35T38-2700
	3090	10.14	35	1 3/8	TR35-T38	LG35TR35T38-3090
	3150	10.33	35	1 3/8	TR35-T38	LG35TR35T38-3150
	3700	12.14	35	1 3/8	TR35-T38	LG35TR35T38-3700
	4305	14.12	35	1 3/8	TR35-T38	LG35TR35T38-4305
	4915	16.13	35	1 3/8	TR35-T38	LG35TR35T38-4915
	5525	18.13	35	1 3/8	TR35-T38	LG35TR35T38-5525
	6135	20.13	35	1 3/8	TR35-T38	LG35TR35T38-6135
	6400	21	35	1 3/8	TR35-T38	LG35TR35T38-6400
Hex. speed rod T38F－Hex35－TR35M						
	3090	10.14	35	1 3/8	TR35-T38F	KLG35T38TR35-3090
	3700	13.14	35	1 3/8	TR35-T38F	KLG35T38TR35-3700
	4305	14.12	35	1 3/8	TR35-T38F	KLG35T38TR35-4305
	4915	16.13	35	1 3/8	TR35-T38F	KLG35T38TR35-4915
	5525	18.13	35	1 3/8	TR35-T38F	KLG35T38TR35-5525

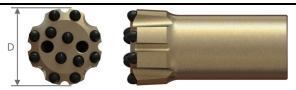
Surface bench drilling tools



T38	**48**
T45	**51**
T51	**54**
EL60	**57**
GT60	**59**

Surface Bench Drilling Tools

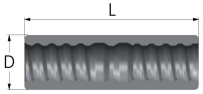
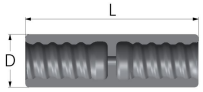
T38(11/2")

Bits	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Button bit								
	54	2 1/8	6×10	3×10	30°	1	2	ZQ54D1-T38
	57	2 1/4	6×11	3×10	30°	1	2	ZQ57D1-T38
	64	2 1/2	6×12	3×11	35°	1	2	ZQ64D3-T38
	64	2 1/2	8×11	4×10	35°	2	2	ZQ64F1-T38
	64	2 1/2	8×10	4×10	30°	2	-	ZQ64F5-T38
	64	2 1/2	8×10	4×10	30°	2	2	ZQ64F7-T38
	70	2 3/4	8×11	4×10	35°	2	-	ZQ70F-T38
	70	2 3/4	8×11	5×10	35°	2	2	ZQ70F2-T38
	76	3	7×14	4×11	40°	2	1	ZQ76E2-T38
	76	3	8×11	4×10	35°	2	2	ZQ76F-T38
	76	3	8×12	4×11	30°	2	2	ZQ76F3-T38
	76	3	8×12	4×12	30°	2	2	ZQ76F6-T38
	89	3 1/2	8×13	5×12	43°	1	2	ZQ89F1-T38
	89	3 1/2	8×12	6×12	35°	2	2	ZQ89F3-T38
	89	3 1/2	8×12	5×11	35°	2	2	ZQ89F7-T38
	102	4	8×14	7×12	35°	2	2	ZQ102F1-T38
Dropcent button bit								
	54	2 1/8	6×10	3×9	35°	3	1	ZQA54D-T38
	57	2 1/4	6×11	3×10	35°	3	1	ZQA57D-T38
	64	2 1/2	6×12	3×11 1×9	35°	3	-	ZQA64D2-T38
	64	2 1/2	6×10	3×10 1×9	35°	3	-	ZQA64D3-T38
	64	2 1/2	6×12	3×12	35°	3	-	ZQA64D6-T38
	64	2 1/2	8×10	4×10 1×9	35°	4	2reversed	ZQA64F2-T38
	64	2 1/2	8×10	4×10 1×9	35°	4	-	ZQA64F3-T38
	70	2 3/4	8×11	4×10 1×9	35°	4	-	ZQA70F2-T38
	76	3	8×12	4×11 1×11	30°	4	1	ZQA76F-T38
	76	3	8×11	4×11 1×10	35°	4	-	ZQA76F2-T38
Retrac button bit								
	64	2 1/2	8×10	4×10	30°	2	2	ZQY64F3-T38
	70	2 3/4	8×11	4×11	35°	2	-	ZQY70F2-T38
	76	3	8×11	4×11	35°	2	-	ZQY76F3-T38
	76	3	8×11	4×11	35°	2	2	ZQY76F5-T38
	76	3	8×12	5×11	30°	2	2	ZQY76F6-T38
	89	3 1/2	8×12	6×11	30°	2	-	ZQY89F1-T38

Surface Bench Drilling Tools

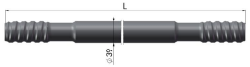
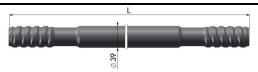
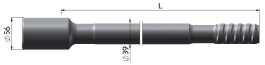
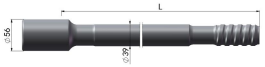
T38(11/2")

Bits	Diam		Buttons×Size mm		Angle	No.of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Dropcent retrac button bit								
	54	2 1/8	6×9	3×8 1×7	35°	3	-	ZYA54D1-T38
	57	2 1/4	6×9	3×8 1×7	35°	3	-	ZYA57D-T38
	60	2 3/8	6×11	3×10 1×9	35°	3	-	ZYA60D1-T38
	60	2 3/8	8×10	4×9 1×8	30°	4	1	ZYA60F-T38
	64	2 1/2	6×10	3×10 1×9	35°	3	-	ZYA64D-T38G
	64	2 1/2	8×10	4×10 1×10	35°	4	-	ZYA64F-T38G
	64	2 1/2	6×11	3×10 1×9	35°	3	-	ZYA64D1-T38
	64	2 1/2	6×12	3×10 1×9	35°	3	1	ZYA64D2-T38
	64	2 1/2	6×12	3×12	35°	3	-	ZYA64D3-T38
	64	2 1/2	8×10	4×10 1×9	35°	4	-	ZYA64F3-T38
	70	2 3/4	8×10	4×10 1×9	30°	4	1	ZYA70F-T38
	70	2 3/4	8×11	4×10 1×10	35°	4	-	ZYA70F1-T38
	76	3	8×11	4×11 1×11	30°	4	1	ZYA76F1-T38
	76	3	8×11	4×11 1×9	35°	4	1	ZYA76F3-T38

Coupling sleeve	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	190	7 1/2	56	2 1/5	T38-T38	LT38-190
Coupling sleeve(Full bridge)						
	190	7 1/2	56	2 1/5	T38-T38	LT38-190Q
	190	7 1/2	56	2 1/5	T38-T45	LT38T45-190Q
	210	8 1/4	56	2 1/5	T38-T45	LT38T45-210Q

Surface Bench Drilling Tools

T38(11/2")

Rods	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round extension rod,T38M-D39-T38M						
	3050	10	39	1 1/2	T38-T38	YGT38-3050
	3660	12	39	1 1/2	T38-T38	YGT38-3660
	4265	14	39	1 1/2	T38-T38	YGT38-4265
	4500	14.76	39	1 1/2	T38-T38	YGT38-4500
	5525	18.13	39	1 1/2	T38-T38	YGT38-5525
	6135	20.13	39	1 1/2	T38-T38	YGT38-6135
	6400	21	39	1 1/2	T38-T38	YGT38-6400
Friction welding round extension rod T38M-D38-T38M						
	3050	10	38	1 1/2	T38-T38	YGH38T38-3050
	3660	12	38	1 1/2	T38-T38	YGH38T38-3660
	4265	14	38	1 1/2	T38-T38	YGH38T38-4265
	4500	14.76	38	1 1/2	T38-T38	YGH38T38-4500
	5525	18.13	38	1 1/2	T38-T38	YGH38T38-5525
	6135	20.13	38	1 1/2	T38-T38	YGH38T38-6135
	6400	21	38	1 1/2	T38-T38	YGH38T38-6400
Round speed rod,T38F-D39-T38M						
	3050	10	39	1 1/2	T38-T38F	KYGT38-3050
	3660	12	39	1 1/2	T38-T38F	KYGT38-3660
	4265	14	39	1 1/2	T38-T38F	KYGT38-4265
	4915	16.13	39	1 1/2	T38-T38F	KYGT38-4915
	5525	18.13	39	1 1/2	T38-T38F	KYGT38-5525
Friction welding round speed rod T38F-D38-T38M						
	3050	10	38	1 1/2	T38-T38F	KYGH38T38-3050
	3660	12	38	1 1/2	T38-T38F	KYGH38T38-3660
	4265	14	38	1 1/2	T38-T38F	KYGH38T38-4265
	4915	16.13	38	1 1/2	T38-T38F	KYGH38T38-4915
	5525	18.13	38	1 1/2	T38-T38F	KYGH38T38-5525

Surface Bench Drilling Tools

T45(13/4")

Bits

Button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
64	2 1/2	8×10	4×10	35°	2	1	ZQ64F-T45
70	2 3/4	8×11	4×10	35°	2	2	ZQ70F1-T45
76	3	6×14	4×12	35°	2	-	ZQ76D4-T45
76	3	8×12	4×12	35°	2	2	ZQ76F1-T45
76	3	8×12	4×11	30°	2	2	ZQ76F3-T45
76	3	8×12	4×12	35°	2	2	ZQ76F4-T45
76	3	8×11	4×11	35°	2	2	ZQ76F5-T45
76	3	8×12	4×12	35°	2	-	ZQ76F14-T45
81	3 1/5	8×12	6×11	35°	2	-	ZQ81F-T45
89	3 1/2	8×12	6×12	35°	2	2	ZQ89F4-T45
89	3 1/2	8×12	5×11	35°	2	2	ZQ89F7-T45
89	3 1/2	8×12	5×12	35°	2	1	ZQ89F11-T45
89	3 1/2	8×12	4×12	35°	2	2	ZQ89F12-T45
102	4	8×14	7×12	35°	2	2	ZQ102F1-T45
102	4	8×16	6×16	35°	2	-	ZQ102F4-T45
115	4 1/2	8×14	6×14	35°	2	1+1reversed	ZQ115F-T45
115	4 1/2	8×14	8×12	35°	2	2	ZQ115F1-T45

Dropcent button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
70	2 3/4	8×10	4×10 1×9	35°	4	2reversed	ZQA70F1-T45
76	3	6×13	4×11	35°	3	1	ZQA76D3-T45
76	3	8×11	4×11 1×10	30°	4	1+1reversed	ZQA76F1-T45
76	3	8×11	4×11 1×9	35°	4	1	ZQA76F2-T45G
76	3	8×12	4×11 1×10	35°	4	-	ZQA76F5-T45
76	3	8×12	4×11 1×9	35°	4	-	ZQA76F-T45G
89	3 1/2	8×12	4×12 2×10	35°	4	-	ZQA89F-T45
89	3 1/2	8×12	4×12 2×10	35°	4	-	ZQA89F3-T45
102	4	8×12	4×12 4×10	35°	4	-	ZQA102F-T45

Retrac button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
76	3	8×12	5×11	30°	2	2	ZQY76F6-T45
76	3	8×10	4×10	35°	4	1	ZQY76F9-T45
76	3	8×12	4×12	35°	2	2	ZQY76F11-T45
85	3 1/3	9×12	5×12	30°	3	-	ZQY85G-T45
89	3 1/2	8×12	6×12	35°	2	1+1reversed	ZQY89F-T45
89	3 1/2	8×12	6×12	30°	2	2	ZQY89F3-T45
89	3 1/2	8×14	6×12	30°	2	2	ZQY89F4-T45

LHS ROCK TOOLS

Surface Bench Drilling Tools

T45(13/4")

Bits

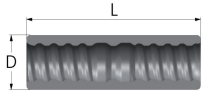
Dropcent retrac button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
66		8×10	4×10 1×10	35°	4	-	ZYA66F-T45
70	2 3/4	8×10	4×10 1×9	30°	4	1	ZYA70F-T45
70	2 3/4	8×10	4×10 1×10	35°	4	1	ZYA70F2-T45
76	3	8×11	4×11 1×9	35°	4	1	ZYA76F11-T45
76	3	8×11	4×11 1×11	30°	4	1	ZYA76F13-T45
76	3	8×12	4×11 1×9	40°	4	1	ZYA76F14-T45
76	3	8×12	4×11 1×9	35°	4	-	ZYA76F-T45G
76	3	8×11	4×11 1×9	35°	4	1	ZYA76F2-T45G
76	3	8×11	4×11 1×11	30°	4	1	ZYA76F-T45
76	3	8×12	4×11 1×11	35°	4	-	ZYA76F6-T45
83	3 2/7	8×12	4×11 2×9	40°	4	2	ZYA83F1-T45
89	3 1/2	8×11	4×11 2×9	35°	4	-	ZYA89F-T45
89	3 1/2	8×12	4×11 2×9	35°	4	-	ZYA89F6-T45
89	3 1/2	8×12	4×11 2×9	35°	4	2	ZYA89F9-T45
91	3 1/2	8×12	4×12 2×12	35°	4	1	ZYA89F14-T45
102	4	8×14	4×12 3×11	35°	4	-	ZYA102F6-T45
102	4	8×12	4×12 4×10	35°	4	-	ZYA102F-T45

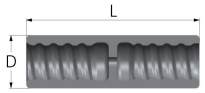
Coupling sleeve

Coupling sleeve



Length mm	Length in	Outside diam mm	Outside diam in	Thread	LHS Part No.
210	8 1/4	63	2 1/2	T45-T45	LT45-210
210	8 1/4	66	2 3/5	T45-T45	LT45A-210

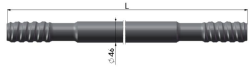
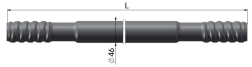
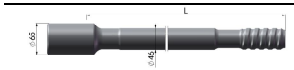
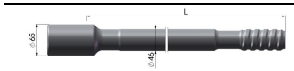
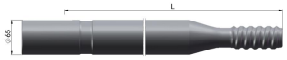
Coupling sleeve(Full bridge)



Length mm	Length in	Outside diam mm	Outside diam in	Thread	LHS Part No.
210	8 1/4	63	2 1/2	T45-T45	LT45-210Q
210	8 1/4	66	2 3/5	T45-T45	LT45A-210Q
225	8 7/8	76	3	T45-T51	LT45T51-225Q

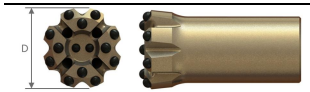
Surface Bench Drilling Tools

T45(13/4")

Rods	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round extension rod T45M-D46-T45M						
	3050	10	46	1 4/5	T45-T45	YGT45-3050
	3660	12	46	1 4/5	T45-T45	YGT45-3660
	4265	14	46	1 4/5	T45-T45	YGT45-4265
	4915	16.12	46	1 4/5	T45-T45	YGT45-4915
	5100	16.73	46	1 4/5	T45-T45	YGT45-5100
	5525	18.13	46	1 4/5	T45-T45	YGT45-5525
	6095	20	46	1 4/5	T45-T45	YGT45-6095
Friction welding round extension rod T45M-D45-T45M						
	3050	10	45	1 3/4	T45-T45	YGH45T45-3050
	3660	12	45	1 3/4	T45-T45	YGH45T45-3660
	4265	14	45	1 3/4	T45-T45	YGH45T45-4265
	4915	16.12	45	1 3/4	T45-T45	YGH45T45-4915
	5100	16.73	45	1 3/4	T45-T45	YGH45T45-5100
	5525	18.13	45	1 3/4	T45-T45	YGH45T45-5525
	6095	20	45	1 3/4	T45-T45	YGH45T45-6095
Round speed rod,T45F-D46-T45M						
	2435	8	46	1 4/5	T45M-T45F	KYGT45-2435
	3050	10	46	1 4/5	T45M-T45F	KYGT45-3050
	3660	12	46	1 4/5	T45M-T45F	KYGT45-3660
	4265	14	46	1 4/5	T45M-T45F	KYGT45-4265
	5525	18.13	46	1 4/5	T45M-T45F	KYGT45-5525
	6095	20	46	1 4/5	T45M-T45F	KYGT45-6095
	6400	21	46	1 4/5	T45M-T45F	KYGT45-6400
Friction welding round speed rod, T45F-D46-T45M						
	2435	8	45	1 7/9	T45M-T45F	KYGH45T45-2435
	3050	10	45	1 3/4	T45M-T45F	KYGH45T45-3050
	3660	12	45	1 3/4	T45M-T45F	KYGH45T45-3660
	4265	14	45	1 3/4	T45M-T45F	KYGH45T45-4265
	5525	18.13	45	1 3/4	T45M-T45F	KYGH45T45-5525
	6095	20	45	1 3/4	T45M-T45F	KYGH45T45-6095
	6400	21	45	1 3/4	T45M-T45F	KYGH45T45-6400
Guide tube						
	3050	10	65	2 5/9	T45M-T45F	KYG65T45-3050
	3660	12	65	2 5/9	T45M-T45F	KYG65T45-3660

Surface Bench Drilling Tools

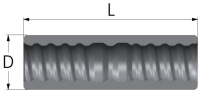
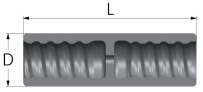
T51(2")

Bits	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Button bit								
	76	3	8×12	4×12	30°	2	1	ZQ76F-T51
	80	3 1/7	8×12	5×12	30°	2	-	ZQ80F2-T51
	89	3 1/2	6×16	4×13	40°	2	2	ZQ89D4-T51
	89	3 1/2	8×12	6×12	30°	2	2	ZQ89F-T51
	89	3 1/2	8×14	6×12	35°	2	-	ZQ89F1-T51
	89	3 1/2	8×14	6×12	35°	2	2	ZQ89F2-T51
	89	3 1/2	8×12	6×12	35°	2	2	ZQ89F5-T51
	89	3 1/2	8×14	6×12	35°	2	2	ZQ89F7-T51
	89	3 1/2	8×14	6×12	35°	2	-	ZQ89F8-T51
	89	3 1/2	9×11	6×11	35°	3	-	ZQ89G3-T51
	102	4	8×14	6×14	35°	2	-	ZQ102F1-T51
	102	4	8×16	6×16	35°	2	-	ZQ102F4-T51
	102	4	8×14	7×12	35°	2	2	ZQ102F-T51
	102	4	9×13	9×11	35°	3	-	ZQ102G3-T51
	115	4 1/2	8×16	6×14	40°	2	-	ZQ115F1-T51
	115	4 1/2	8×16	6×14	35°	2	1	ZQ115F2-T51
	115	4 1/2	8×16	6×14	35°	2	-	ZQ115F6-T51
	115	4 1/2	9×14	10×12	35°	3	-	ZQ115G1-T51
	115	4 1/2	9×14	7×14	40°	3	-	ZQ115G-T51
	115	4 1/2	10×14	7×14	35°	3	-	ZQ115H-T51
	127	5	8×16	8×14	40°	2	-	ZQ127F4-T51
	140	5 1/2	9×6	9×14	40°	3	-	ZQ140G-T51
	152	6	9×18	9×18	35°	3	-	ZQ152G1-T51
Dropcent button bit								
	76	3	8×12	4×11 1×9	35°	4	-	ZQA76F-T51
	80	3 1/7	8×12	4×12 1×9	35°	4	-	ZQA80F-T51
	89	3 1/2	8×12	4×12 2×10	35°	4	-	ZQA89F1-T51
	89	3 1/2	8×12	4×12 2×10	35°	4	-	ZQA89F2-T51
	89	3 1/2	8×13	5×12	35°	4	-	ZQA89F3-T51
	89	3 1/2	8×12	4×12 2×10	35°	4	-	ZQA89F4-T51
	89	3 1/2	8×13	5×11	35°	4	-	ZQA89F6-T51
	89	3 1/2	9×11	6×11 2×9	35°	3	-	ZQA89G-T51
	102	4	8×14	4×12 2×11	35°	4	1+1reversed	ZQA102F1-T51
	102	4	8×14	4×12 3×11	35°	4	-	ZQA102F-T51
	113	4 1/2	8×14	4×14 2×12	40°	4	-	ZQA115F5-T51
	127	5	8×16	4×14 4×12	35°	4	1+1reversed	ZQA127F1-T51
	140	5 1/2	8×16	4×16 4×14	35°	4	-	ZQA140F-T51
	150	6	9×16	6×16 4×13	35°	3	-	ZQA152G-T51
	165	6 1/2	9×16	9×14 4×14	35°	3	-	ZQA165G-T51
	178	7	9×16	9×16 4×14	35°	3	-	ZQA178G-T51

Surface Bench Drilling Tools

T51(2")

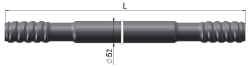
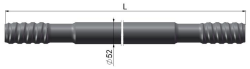
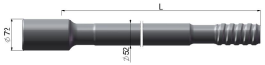
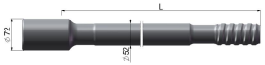
Bits	Diam		Buttons×Size mm		Angle	No.of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Retrac button bit								
	89	3 1/2	9×11	7×11	35°	3	-	ZQY89G2-T51
	102	4	9×14	7×12	35°	3	-	ZQY102G-T51
	102	4	9×14	6×14	35°	3	-	ZQY102G2-T51
	102	4	9×12	7×12	35°	3	-	ZQY102G3-T51
	115	4 1/2	8×14	7×14	35°	2	-	ZQY115F3-T51
Dropcent retrac button bit								
	80	3 1/7	8×12	4×11 2×9	35°	4	-	ZYA80F1-T51
	83	3 2/7	8×12	4×11 2×9	40°	4	2	ZYA83F2-T51
	89	3 1/2	8×12	4×12 2×10	35°	4	1	ZYA89F-T51
	89	3 1/2	8×12	4×11 2×9	35°	2	-	ZYA89F1-T51
	89	3 1/2	8×11	4×11 2×11	35°	4	1	ZYA89F3-T51
	89	3 1/2	8×12	4×12 2×10	35°	4	1	ZYA89F4-T51
	89	3 1/2	8×12	4×12 2×10	35°	4	1	ZYA89F8-T51
	89	3 1/2	8×12	4×11 2×9	35°	4	-	ZYA89F9-T51
	89	3 1/2	8×13	4×12 1×12	35°	4	-	ZYA89F10-T51
	89	3 1/2	8×12	4×11 2×11	35°	4	-	ZYA89F11-T51
	89	3 1/2	9×11	3×11 3×11	35°	3	1	ZYA89G-T51
	89	3 1/2	9×11	7×11	35°	3	-	ZYA89G3-T51
	102	4	8×14	4×12 3×11	35°	4	-	ZYA102F-T51
	102	4	8×12	4×12 3×12	35°	4	-	ZYA102F4-T51
	102	4	8×13	4×13 2×13	35°	4	-	ZYA102F7-T51
	102	4	8×14	4×12 3×11	35°	4	-	ZYA102F10-T51
	115	4 1/2	8×14	4×14 2×12	35°	4	-	ZYA115F1-T51
	115	4 1/2	8×14	4×14 3×12	35°	4	-	ZYA115F3-T51
	127	5	8×14	4×14 4×12	35°	4	-	ZYA127F2-T51
	131	5 1/6	9×14	6×14 3×12	35°	3	-	ZYA131G-T51
	150	6	9×16	6×16 4×13	35°	3	-	ZYA152G-T51
	102	4	8×14	4×12 3×11	35°	4	-	ZDA102F-T51

Coupling sleeve	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	225	8 7/8	72	2 5/6	T51-T51	LT51-225
	235	9 1/4	72	2 5/6	T51-T51	LT51-235
	235	9 1/4	76	3	T51-T51	LT51A-235
Coupling sleeve(Full bridge)						
	235	9 1/4	72	2 5/6	T51-T51	LT51-235Q
	225	8 7/8	76	2 5/6	T45-T51	LT45T51-225Q

LHS ROCK TOOLS

Surface Bench Drilling Tools

T51(2")

Rods	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round extension rod, T51M-D52-T51M						
	2435	8	52	2	T51-T51	YGT51-2435
	3050	10	52	2	T51-T51	YGT51-3050
	3660	12	52	2	T51-T51	YGT51-3660
	4265	14	52	2	T51-T51	YGT51-4265
	4915	16.13	52	2	T51-T51	YGT51-4915
	5525	18.13	52	2	T51-T51	YGT51-5525
	6095	20	52	2	T51-T51	YGT51-6095
	7300	24	52	2	T51-T51	YGT51-7300
Friction welding round extension rod, T51M-D51-T51M						
	2435	8	51	2	T51-T51	YGH51T51-2435
	3050	10	51	2	T51-T51	YGH51T51-3050
	3660	12	51	2	T51-T51	YGH51T51-3660
	4265	14	51	2	T51-T51	YGH51T51-4265
	4915	16.13	51	2	T51-T51	YGH51T51-4915
	5525	18.13	51	2	T51-T51	YGH51T51-5525
	6095	20	51	2	T51-T51	YGH51T51-6095
	7300	24	51	2	T51-T51	YGH51T51-7300
Round speed rod,T51F-D52-T51M						
	2435	8	52	2	T51-T51F	KYGT51-2435
	3050	10	52	2	T51-T51F	KYGT51-3050
	3660	12	52	2	T51-T51F	KYGT51-3660
	4265	14	52	2	T51-T51F	KYGT51-4265
	4915	16.13	52	2	T51-T51F	KYGT51-4915
	5525	18.13	52	2	T51-T51F	KYGT51-5525
	7300	24	52	2	T51-T51F	KYGT51-7300
Friction welding round speed rod, T51F-D51-T51M						
	2435	8	51	2	T51-T51F	KYGH51T51-2435
	3050	10	51	2	T51-T51F	KYGH51T51-3050
	3660	12	51	2	T51-T51F	KYGH51T51-3660
	4265	14	51	2	T51-T51F	KYGH51T51-4265
	4915	16.13	51	2	T51-T51F	KYGH51T51-4915
	5525	18.13	51	2	T51-T51F	KYGH51T51-5525
	7300	24	51	2	T51-T51F	KYGH51T51-7300
Guide tube						
	3050	10	76	3	T51-T51F	KYG76T51-3050
	3660	12	76	3	T51-T51F	KYG76T51-3660
	4265	14	76	3	T51-T51F	KYG76T51-4265

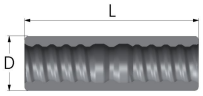
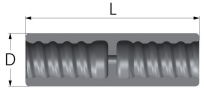
Surface Bench Drilling Tools

EL60

Bits

	Diam		Buttons×Size mm		Angle	No.of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Button bit								
	92	3 5/8	8×13	6×13	35°	2	-	ZQ92F-EL60
	102	4	9×12	7×12	35°	3	-	ZQ102G-EL60
	102	4	9×14	7×13	35°	3	-	ZQ102G1-EL60
	115	4 1/2	9×14	7×14	40°	3	-	ZQ115G-EL60
	127	5	9×16	7×16	35°	3	-	ZQ127G-EL60
Dropcent button bit								
	102	4	9×13	6×13 3×12	35°	3	-	ZQA102G-EL60
	102	4	9×14	6×13 3×12	35°	3	-	ZQA102G1-EL60
	115	4 1/2	9×14	9×14	35°	3	-	ZQA115G-EL60
	127	5	9×16	9×14	35°	3	-	ZQA127G-EL60
Retrac button bit								
	115	4 1/2	9×14	6×14	35°	3	-	ZQY115G-EL60
	127	5	9×16	6×14 3×13	35°	3	-	ZQY127G-EL60
	140	5 1/2	9×16	9×14	40°	3	-	ZQY140G-EL60
Dropcent retrac button bit								
	102	4	9×13	6×11 2×10	35°	3	-	ZYA102G-EL60
	115	4 1/2	9×14	6×13 3×13	35°	3	-	ZYA115G-EL60
	127	5	9×16	6×14 3×13	35°	3	-	ZYA127G-EL60
	140	5 1/2	9×16	6×16 3×14	35°	3	-	ZYA140G-EL60
	152	6	9×16	9×16	35°	3	-	ZYA152G-EL60
	165	6 1/2	9×18	9×16	35°	3	-	ZYA165G-EL60

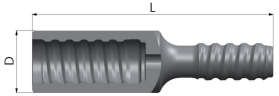
Coupling sleeve

	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	279	11	85	3 1/3	EL60-EL60	LEL60-279
Coupling sleeve(Full bridge)						
	300	11 4/5	85	3 1/3	EL60-EL60	LEL60-300Q

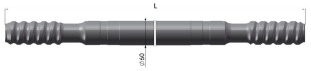
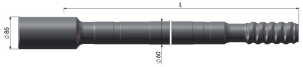
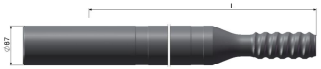
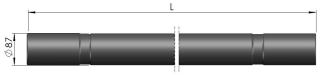
Surface Bench Drilling Tools

EL60

Bit adapters

	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Bit adapters						
	330	13 1/6	-	-	EL60M-EL60M	LEL60M-330
	335	13 1/5	85	3 1/3	EL60-GT60M	LEL60GT60GM-335
	340	13 3/8	85	3 1/3	EL60-T51M	LEL60T51M-340
	375	14 3/4	85	3 1/3	GT60-EL60M	LGT60GEL60M-375

Rods

	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round extension rod, EL60M-D60-EL60M						
	1000	3.28	60	2 3/8	EL60-EL60	YGH60EL60-1000
	3660	12	60	2 3/8	EL60-EL60	YGH60EL60-3660
	4265	14	60	2 3/8	EL60-EL60	YGH60EL60-4305
	6095	20	60	2 3/8	EL60-EL60	YGH60EL60-6095
	7300	24	60	2 3/8	EL60-EL60	YGH60EL60-7300
Round speed rod,EL60F-D60-EL60M						
	1525	5	60	2 3/8	EL60-EL60F	KYGH60EL60-1525
	3660	12	60	2 3/8	EL60-EL60F	KYGH60EL60-3660
	4265	14	60	2 3/8	EL60-EL60F	KYGH60EL60-4265
	6095	20	60	2 3/8	EL60-EL60F	KYGH60EL60-6095
Guide tube						
	3660	12	87	3 3/7	EL60-EL60F	KYG87EL60-3660
	4265	14	87	3 3/7	EL60-EL60F	KYG87EL60-4265
Guide tube						
	3660	12	87	3 3/7	EL60F-EL60F	KYK87EL60-3660
	4265	14	87	3 3/7	EL60F-EL60F	KYK87EL60-4265

Surface Bench Drilling Tools

GT60

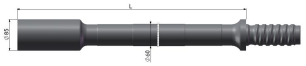
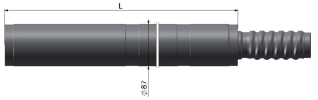
Bits	Diam		Buttons×Size mm		Angle	No.of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Button bit								
	92	3 5/8	8×13	4×11 2×10	35°	4	-	ZQ92F-GT60G
	97	3 5/6	8×14	6×13	35°	2	-	ZQ97F-GT60G
	102	4	9×13	9×11	35°	3	-	ZQ102G-GT60G
	127	5	9×16	10×14	35°	3	-	ZQ127G-GT60G
	140	5 1/2	9×16	10×14	35°	3	-	ZQ140G-GT60G
	152	6	9×16	12×14	35°	3	-	ZQ152G-GT60G
Drop centre button bit								
	115	4 1/2	9×14	9×14	35°	3	-	ZQA115G-GT60G
	127	5	9×16	9×14	35°	3	-	ZQA127G1-GT60G
	140	5 1/2	9×16	6×16 3×13	35°	3	-	ZQA140G-GT60G
Retrac button bit								
	92	3 5/8	9×12	9×12	40°	2	-	ZQY92G-GT60G
	102	4	9×13	7×12	35°	3	-	ZQY102G1-GT60G
	102	4	9×13	9×11	35°	3	-	ZQY102G3-GT60G
	115	4 1/2	8×16	6×15	35°	2	-	ZQY115F2-GT60G
	115	4 1/2	8×14	7×14	35°	2	-	ZQY115F-GT60G
	115	4 1/2	9×14	10×12	35°	3	-	ZQY115G-GT60G
	127	5	9×16	10×14	35°	3	-	ZQY127G-GT60G
	140	5 1/2	9×16	10×14	35°	3	-	ZQY140G-GT60G
	152	6	9×16	12×14	35°	3	-	ZQY152G-GT60G
Drop centre retrac button bit								
	93	3 2/3	8×12	4×12 2×10	35°	4	-	ZYA93F-GT60G
	102	4	8×12	4×12 3×11	35°	4	-	ZYA102F-GT60G
	102	4	8×14	6×14 2×14	35°	4	-	ZYA102F1-GT60G
	115	4 1/2	8×14	4×14 3×12	35°	4	-	ZYA115F-GT60G
	127	5	8×16	4×14 4×12	40°	4	-	ZYA127F-GT60G
	140	5 1/2	8×16	4×16 4×13	35°	4	-	ZYA140F-GT60G
	160	6 2/7	9×18	9×16	35°	3	-	ZYA160G-GT60G

Bit adapters	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Bit adapters						
	335	13 1/5	85	3 1/3	EL60-GT60M	LEL60GT60GM-335
	375	14 3/4	85	3 1/3	GT60-EL60M	LGT60GEL60M-375
	350	13 3/4	83	3 1/4	GT60-T45M	LGT60GT45M-350
	340	13 3/8	85	3 1/3	GT60-T54M	LGT60GT51M-340
	285	11 1/4	85	3 1/3	T51-GT60GM	LT51GT60GM-285

LHS ROCK TOOLS

Surface Bench Drilling Tools

GT60

Rods	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round Speed Rod, GT60 F -D60- GT60 M						
	3660	12	60	2 3/8	GT60-GT60F	KYGH60GT60G-3660
	4265	14	60	2 3/8	GT60-GT60F	KYGH60GT60G-4265
	6095	20	60	2 3/8	GT60-GT60F	KYGH60GT60G-6095
Guide tube						
	4265	14	87	3 3/7	GT60-GT60F	KYG87GT60G-4265

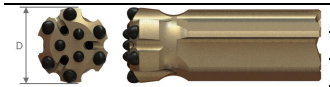
Underground production drilling tools

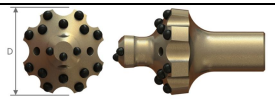


R32	62
R35	64
R38	65
TZ35	66
T35	67
T38	68
T45	71
T51	74
ST58	78
ST68	79
R3212	80

Underground Production Drilling Tools

R32(11/4")

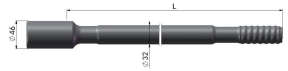
Bits	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Button bit								
	51	2	5×10	2×10	35°	1	1	ZQ51C-R32
	51	2	5×11	2×10	35°	1	2	ZQ51C2-R32
	51	2	5×12	2×10	35°	1	2	ZQ51C3-R32
	51	2	5×12	2×10	35°	2	1	ZQ51C4-R32
	54	2 1/8	5×11	3×10	35°	1	1	ZQ54C1-R32
	51	2	6×10	3×9	40°	3	1	ZQ51D-R32
	51	2	6×10	3×9	30°	3	1	ZQ51D5-R32
	54	2 1/8	6×10	3×9	35°	3	1	ZQ54D-R32
	54	2 1/8	6×11	3×9	35°	3	1	ZQ54D2-R32
	54	2 1/8	6×10	3×9	35°	3	2	ZQ54D3-R32
	54	2 1/8	6×10	3×9	35°	3	1	ZQ54D4-R32
	57	2 1/4	6×10	3×9	35°	3	1	ZQ57D-R32
	57	2 1/4	6×11	3×10	30°	3	1	ZQ57D2-R32
	57	2 1/4	6×11	3×10	30°	1	2	ZQ57D4-R32
	57	2 1/4	6×10	3×9	35°	1	1	ZQ57D5-R32
	64	2 1/2	6×12	3×11	35°	1	2	ZQ64D1-R32
	64	2 1/2	8×10	4×10	30°	2	2	ZQ64F-R32
	64	2 1/2	8×10	4×10	35°	2	2	ZQ64F1-R32
	64	2 1/2	8×10	4×10	35°	2	1+2reversed	ZQ64F2-R32
	76	3	8×11	4×11	35°	2	2	ZQ76F1-R32
	76	3	8×10	4×10	35°	2	2	ZQ76F2-R32
	76	3	8×11	4×11	35°	2	2	ZQ76F3-R32
Retrac button bit								
	51	2	6×10	3×9	35°	3	1	ZQY51D2-R32
	51	2	6×10	3×9	35°	3	1	ZQY51D3-R32
	57	2 1/4	6×10	3×10	35°	3	1	ZQY57D-R32
	64	2 1/2	8×10	4×10	30°	2	1	ZQY64F-R32
	64	2 1/2	8×10	4×10	35°	2	2	ZQY64F5-R32
	76	3	8×11	4×11	35°	2	2	ZQY76F-R32

Reaming tools	Diam		Buttons×Size mm		Pilot	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front	mm	Front	Gauge	
Reaming button bit (No Pilot)								
	89	3 1/2	12×11	2×11 1×10	-	3	2reversed	ZQK89F-R32
	102	4	12×12	2×12 1×10	-	3	-	ZQK102F-R32
Reaming button bit								
	89	3 1/2	12×12	3×10	40	1+2	-	ZQK89F/40-R32
	102	4	14×12	3×10	40	2	1reversed	ZQK102F1/40-R32
	102	4	14×12	4×9 2×8	40	1+2	-	ZQK102F2/40-R32
	102	4	14×13	3×10	40	2	-	ZQK102F3/40-R32
	127	5	8×14	6×14 2×10	45	1+2	-	ZQK127F/45-R32

Underground Production Drilling Tools

R32(11/4")

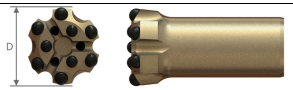
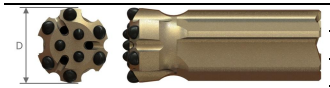
Tods

	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round speed rod, R32F-D32-R32M						
	915	3	32	1 1/4	R32-R32F	KYGR32-915
	1000	3	32	1 1/4	R32-R32F	KYGR32-1000
	1220	4	32	1 1/4	R32-R32F	KYGR32-1220
	1525	5	32	1 1/4	R32-R32F	KYGR32-1525
	1830	6	32	1 1/4	R32-R32F	KYGR32-1830
Guide tube						
	1220	4	46	1 4/5	R32-R32F	KYG46R32-1220

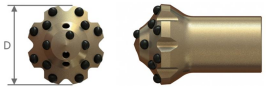
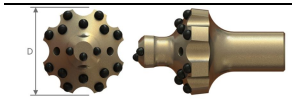
Underground Production Drilling Tools

R35(13/8")

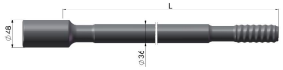
Bits

	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Button bit								
	51	2	6×10	3×9	35°	3	1	ZQ51D-R35
	54	2 1/8	6×10	3×9	35°	3	1	ZQ54D-R35
Dropcent button bit								
	54	2 1/8	6×10	3×9	35°	3	1	ZQA54D-R35
	57	2 1/4	6×11	3×9	35°	3	1	ZQA57D-R35
Retrac button bit								
	51	2	6×10	3×9	35°	3	1	ZQY51D-R35
	54	2 1/8	6×10	3×9	35°	3	-	ZQY54D1-R35
	57	2 1/4	6×10	3×10	30°	3	-	ZQY57D-R35

Reaming tools

	Diam		Buttons×Size mm		Pilot	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front	mm	Front	Gauge	
Reaming button bit (No Pilot)								
	102	4	12×12	2×12 1×10	-	1+2	-	ZQK102F-R35
	115	4 1/2	12×14	2×14 1×12	-	1+4	-	ZQK115F-R35
	127	5	14×14	2×12 1×11	-	2+2	-	ZQK127F-R35
Reaming button bit								
	102	4	14×12	4×9 2×8	40	1+2	-	ZQK102F/40-R35
	102	4	14×12	4×9 2×8	40	1+2	-	ZQK102F1/40-R35（端齿）
	110	4 1/3	14×14	4×10 2×9	45	1+2	-	ZQK110F/45-R35
	115	4 1/2	14×14	4×10 2×9	45	1+2	-	ZQK115F/45-R35
	152	6	20×14	3×10	45	1+3	-	ZQK152G/45-R35

Rods

	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round speed rod, R35F-D35-R35M						
	1220	4	35	1 3/8	R35-R35F	KYGR35-1220
	1525	5	35	1 3/8	R35-R35F	KYGR35-1525
	1830	6	35	1 3/8	R35-R35F	KYGR35-1830

Underground Production Drilling Tools

R38(11/2")

Bits

Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
mm	in	Gauge	Front		Front	Gauge	
Button bit							
64	2 1/2	8×10	4×10	30°	2	1	ZQ64F-R38
70	2 3/4	8×10	4×10	35°	2	2	ZQ70F-R38
76	3	8×12	4×11	30°	2	2	ZQ76F-R38
89	3 1/2	8×12	6×11	35°	2	2	ZQ89F1-R38
102	4	8×14	6×12	35°	2	-	ZQ102F1-R38
Retrac button bit							
64	2 1/2	8×10	4×10	30°	2	2	ZQY64F1-R38
70	2 3/4	8×10	4×10	35°	2	2	ZQY70F1-R38
76	3	8×12	5×11	30°	2	2	ZQY76F-R38
102	4	8×14	7×12	35°	2	-	ZQY102F-R38

Reaming tools

Diam		Buttons×Size mm		Pilot	No. of flushing holes		LHS Part No.
mm	in	Gauge	Front	mm	Front	Gauge	
Reaming button bit							
152	6	20×14	3×10	45	1+3	-	ZQK152G/45-R38

Rods

L		Diam		Thread	LHS Part No.
mm	ft	mm	in		
Round speed rod, R38F-D39-R38M					
1220	4	39	1 1/2	R38-R38F	KYGR38-1220
1525	5	39	1 1/2	R38-R38F	KYGR38-1525
1830	6	39	1 1/2	R38-R38F	KYGR38-1830

Underground Production Drilling Tools

TZ35(13/8")

Bits

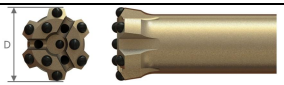
Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
mm	in	Gauge	Front		Front	Gauge	
Button bit							
51	2	6×10	3×9	35°	3	1	ZQY51D-TZ35
57	2 1/4	6×10	3×10	35°	3	1	ZQY57D-TZ35
70	2 3/4	8×11	4×10	35°	2	2	ZQY70F-TZ35
Dropcent retrac button bit							
64	2 1/2	8×10	4×10 1×9	35°	4	1	ZYA64F-TZ35

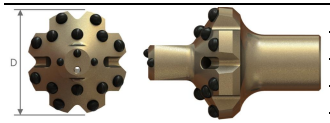
Rods

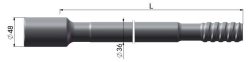
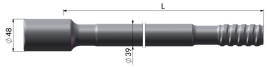
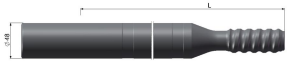
L		Diam		Thread	LHS Part No.
mm	ft	mm	in		
Round speed rod, TZ35F-D36-TZ35M					
1220	4	36	1 3/7	TZ35-TZ35F	KYGTZ35-1220
1525	5	36	1 3/7	TZ35-TZ35F	KYGTZ35-1525
1830	6	36	1 3/7	TZ35-TZ35F	KYGTZ35-1830

Underground Production Drilling Tools

T35(13/8")

Bits	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Button bit								
	54	2 1/8	5×12	2×10	35°	2	1	ZQ54C-T35
Dropcent button bit								
	54	2 1/8	6×10	3×9	35°	3	1	ZQA54D-T35
	57	2 1/4	6×11	3×10	35°	3	1	ZQA57D-T35
	64	2 1/2	6×10	3×10 1×9	35°	3	-	ZQA64D-T35
	76	3	6×11	3×11 1×10	35°	3	-	ZQA76D-T35
Retrac button bit								
	54	2 1/8	6×10	3×9	35°	3	-	ZQY54D-T35
Dropcent retrac button bit								
	51	2	6×9	3×9	35°	3	-	ZYA51D1-T35
	54	2 1/8	6×10	3×9	35°	3	-	ZYA54D-T35
	57	2 1/4	6×11	3×10	35°	3	-	ZYA57D-T35
	57	2 1/4	6×10	3×10	35°	3	-	ZYA57D2-T35
	64	2 1/2	6×11	3×10	35°	3	-	ZYA64D-T35
	76	3	8×11	4×11 1×9	35°	4	1	ZYA76F-T35
	89	3 1/2	8×13	4×13 1×13	40°	4	-	ZYA89F-T35

Reaming tools	Diam		Buttons×Size mm		Pilot	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front	mm	Front	Gauge	
Reaming button bit								
	115	4 1/2	14×14	2×9 1×9	54	1+2	-	ZQK115F/54-T35
	125	5	14×14	2×9 1×9	54	1+2	-	ZQK125F/54-T35
	135	5 1/3	14×14	4×10 2×9	54	1+2	-	ZQK135F/54-T35
	175	6 8/9	18×14	3×14	125	3	-	ZQK175G/125-T35

Rods	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round speed rod, T35F-D36-T35M						
	1220	4	36	1 3/7	T35-T35F	KYGT35-1220
	1525	5	36	1 3/7	T35-T35F	KYGT35-1525
	1830	6	36	1 3/7	T35-T35F	KYGT35-1830
Round speed rod, T35F-D39-T35M						
	1220	4	39	1 5/9	T35-T35F	KYG39T35-1220
	1525	5	39	1 5/9	T35-T35F	KYG39T35-1525
	1830	6	39	1 5/9	T35-T35F	KYG39T35-1830
Guide tube						
	1220	4	48	1 8/9	T35-T35F	KYG48T35-1220
	1525	5	48	1 8/9	T35-T35F	KYG48T35-1525
	1830	6	48	1 8/9	T35-T35F	KYG48T35-1830

Underground Production Drilling Tools

T38(11/2")

Bits	Diam		Tip size(mm)	No. of flushing holes		LHS Part No.
	mm	in	H×W	Front	Gauge	
X-type bit						
	64	2 1/2	18×13	1	2	X64D-T38
	76	3	25×13	1	2	X76A-T38
	89	3 1/2	25×13	1	2	X89A-T38

	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Button bit								
	54	2 1/8	6×10	3×10	30°	1	2	ZQ54D1-T38
	57	2 1/4	6×11	3×10	30°	1	2	ZQ57D1-T38
	64	2 1/2	6×12	3×11	35°	1	2	ZQ64D3-T38
	70	2 3/4	6×13	5×10	35°	1	1	ZQ70D2-T38
	76	3	6×12	3×12	35°	3	1	ZQ76D-T38
	80	3 1/6	6×13	3×12	40°	3	1	ZQ80D-T38
	64	2 1/2	8×11	4×10	35°	2	2	ZQ64F1-T38
	64	2 1/2	8×10	4×10	35°	2	2	ZQ64F6-T38
	64	2 1/2	8×10	4×10	30°	2	2	ZQ64F7-T38
	70	2 3/4	8×11	4×10	35°	2	-	ZQ70F-T38
	70	2 3/4	8×11	5×10	35°	2	2	ZQ70F2-T38
	76	3	8×11	4×10	35°	2	2	ZQ76F-T38
	76	3	8×12	4×11	30°	2	2	ZQ76F3-T38
	76	3	8×12	4×12	30°	2	2	ZQ76F6-T38
	89	3 1/2	8×13	5×12	43°	1	2	ZQ89F1-T38
	89	3 1/2	8×12	6×12	35°	2	2	ZQ89F3-T38
	89	3 1/2	8×12	5×11	35°	2	2	ZQ89F7-T38
	102	4	8×14	7×12	35°	2	2	ZQ102F1-T38
	76	3	8×11	4×11	40°	2	1	ZQ76E2-T38
	64	2 1/2	9×10	3×9	35°	3	1	ZQ64G-T38
Dropcent button bit								
	54	2 1/8	6×10	3×9	35°	3	1	ZQA54D-T38
	57	2 1/4	6×11	3×10	35°	3	1	ZQA57D-T38
	57	2 1/4	6×10	3×10 1×9	35°	3	-	ZQA64D-T38G
	64	2 1/2	6×12	3×11 1×9	35°	3	-	ZQA64D2-T38
	64	2 1/2	6×10	3×10 1×9	35°	3	-	ZQA64D3-T38
	64	2 1/2	6×12	3×11 1×9	35°	3	1+1reversed	ZQA64D5-T38
	64	2 1/2	6×12	3×12	35°	3	-	ZQA64D6-T38
	64	2 1/2	8×10	4×10 1×9	35°	4	2reversed	ZQA64F2-T38
	64	2 1/2	8×10	4×10 1×9	35°	4	-	ZQA64F3-T38
	70	2 3/4	8×11	4×10 1×9	35°	4	-	ZQA70F2-T38
	76	3	8×12	4×11 1×11	30°	4	1	ZQA76F-T38
	76	3	8×11	4×11 1×10	35°	4	2reversed	ZQA76F1-T38
	76	3	8×11	4×11 1×10	35°	4	-	ZQA76F2-T38
	89	3 1/2	8×12	4×12 2×10	35°	4	1	ZQA89F-T38

Underground Production Drilling Tools

T38(11/2")

Bits

	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Retrac button bit								
	64	2 1/2	8×11	4×10	35°	2	-	ZQY64F-T38
	64	2 1/2	8×10	4×10	30°	2	2	ZQY64F3-T38
	70	2 3/4	8×11	4×11	35°	2	-	ZQY70F2-T38
	76	3	8×11	4×11	35°	2	-	ZQY76F3-T38
	76	3	8×11	4×11	35°	2	2	ZQY76F5-T38
	89	3 1/2	8×12	6×11	30°	2	-	ZQY89F1-T38
	89	3 1/2	8×13	4×12	35°	2	2	ZQY89F-T38
	76	3	8×12	5×11	30°	2	2	ZQY76F6-T38
Dropcent retrac button bit								
	54	2 1/8	6×9	3×8 1×7	35°	3	-	ZYA54D1-T38
	57	2 1/4	6×9	3×8 1×7	35°	3	1	ZYA57D-T38
	57	2 1/4	6×10	3×9 1×8	35°	3	-	ZYA57D1-T38
	60	2 3/8	6×10	3×10 1×9	35°	3	1	ZYA60D1-T38
	60	2 3/8	8×10	4×9 1×8	30°	4	1	ZYA60F-T38
	60	2 3/8	8×10	4×9 1×9	35°	4	-	ZYA60F1-T38
	64	2 1/2	6×10	3×10 1×9	35°	3	-	ZYA64D-T38G
	64	2 1/2	8×10	4×10 1×10	35°	4	-	ZYA64F-T38G
	64	2 1/2	6×11	3×10 1×9	35°	3	-	ZYA64D1-T38
	64	2 1/2	6×12	3×10 1×9	35°	3	-	ZYA64D2-T38
	64	2 1/2	6×12	3×11	35°	3	2reversed	ZYA64D4-T38
	64	2 1/2	6×12	3×12	35°	3	-	ZYA64D3-T38
	64	2 1/2	8×10	4×10 1×9	35°	4	-	ZYA64F3-T38
	64	2 1/2	8×12	4×12 1×9	35°	4	2	ZYA64F9-T38
	70	2 3/4	8×10	4×10 1×9	30°	4	1	ZYA70F-T38
	70	2 3/4	8×11	4×10 1×10	35°	4	-	ZYA70F1-T38
	76	3	8×11	4×11 1×11	30°	4	1	ZYA76F1-T38
	76	3	8×11	4×11 1×9	35°	4	1	ZYA76F3-T38
	76	3	8×11	4×11 1×9	35°	4	1	ZYA76F3-T38
	76	3	8×11	4×11 1×11	30°	4	1	ZYA76F-T38
	76	3	8×12	4×11 1×11	35°	4	-	ZYA76F5-T38
	89	3 1/2	8×12	4×12 2×10	35°	4	-	ZYA89F2-T38

LHS ROCK TOOLS

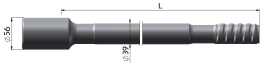
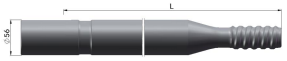
Underground Production Drilling Tools

T38(11/2")

Reaming tools

	Diam		Buttons×Size mm		Pilot	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front	mm	Front	Gauge	
Reaming button bit (No Pilot)								
	89	3 1/2	8×11	6×11 1×10	-	3	-	ZQK89F-T38
	102	4	8×12	6×12 1×10	-	3	2reversed	ZQK102F-T38
	127	5	8×14	6×14 3×12	-	4	-	ZQK127F-T38
Reaming button bit								
	89	3 1/2	8×12	2×10	64	4	-	ZQK89F/64-T38
	102	4	8×144×10	2×8	64	4	-	ZQK102F2/64-T38
	115	4 1/2	12×14	2×8	64	-	4+2reversed	ZQK115F/64-T38
	127	5	8×144×14	6×10	48	2	2	ZQK127F/48-T38
	127	5	14×14	2×8	64	2	-	ZQK127F2/64-T38
	150	6	18×14	3×10	64	3	-	ZQK150G1/64-T38
	152	6	15×16	3×10	95	3	-	ZQK152G/95-T38

Rods

	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round speed rod,T38F-D39-T38M						
	915	3	39	1 1/2	T38-T38F	KYGT38-915
	1000	3	39	1 1/2	T38-T38F	KYGT38-1000
	1220	4	39	1 1/2	T38-T38F	KYGT38-1220
	1525	5	39	1 1/2	T38-T38F	KYGT38-1525
	1830	6	39	1 1/2	T38-T38F	KYGT38-1830
	1830	6	39	1 1/2	T38-T38F	KYGT38Y-1830
Guide tube						
	915	3	56	2 1/5	T38-T38F	KYG56T38-915
	1220	4	56	2 1/5	T38-T38F	KYG56T38-1220
	1525	5	56	2 1/5	T38-T38F	KYG56T38-1525
	1830	6	56	2 1/5	T38-T38F	KYG56T38-1830
	1830	6	56	2 1/5	T38-T38F	KYG56T38Y-1830
Drill tube						
	1220	4	56	2 1/5	T38-T38F	KYG56T38G-1220
	1525	5	56	2 1/5	T38-T38F	KYG56T38G-1525
	1830	6	56	2 1/5	T38-T38F	KYG56T38G-1830

Underground Production Drilling Tools

T45(13/4")

Bits

X-type bit



Diam mm	Diam in	Tip size(mm) H×W	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
76	3	25×13	1	2	X76A-T45
89	3 1/2	25×13	1	2	X89A-T45

Button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
64	2 1/2	8×10	4×10	35°	2	1	ZQ64F-T45
70	2 3/4	8×11	4×10	35°	2	2	ZQ70F1-T45
76	3	6×14	4×12	35°	2	–	ZQ76D4-T45
76	3	8×12	4×12	35°	2	2	ZQ76F1-T45
76	3	8×12	4×12	30°	2	2	ZQ76F3-T45
76	3	8×12	4×12	35°	2	2	ZQ76F4-T45
76	3	8×12	4×12	35°	2	2	ZQ76F7-T45
76	3	8×11	4×11	35°	2	2	ZQ76F5-T45
76	3	8×12	4×12	35°	2	–	ZQ76F14-T45
76	3	8×12	4×11	35°	4	–	ZQ76F11-T45
76	3	8×13	4×12	30°	2	2	ZQ76F12-T45
81	3 1/5	8×12	6×11	35°	2	–	ZQ81F-T45
85	3 3/8	8×12	6×11	35°	2	–	ZQ85F-T45
89	3 1/2	8×14	6×12	35°	2	2	ZQ89F2-T45
89	3 1/2	8×12	6×12	35°	2	2	ZQ89F4-T45
89	3 1/2	8×12	5×11	35°	2	2	ZQ89F7-T45
89	3 1/2	8×12	6×12	35°	2	–	ZQ89F13-T45
89	3 1/2	8×12	5×12	35°	2	1	ZQ89F11-T45
89	3 1/2	8×12	4×12	35°	2	2	ZQ89F12-T45
102	4	8×14	7×12	35°	2	1+1reversed	ZQ102F-T45
102	4	8×14	7×12	35°	2	2	ZQ102F1-T45
102	4	8×16	6×16	35°	2	–	ZQ102F4-T45
115	4 1/2	8×14	6×14	35°	2	1+1reversed	ZQ115F-T45
115	4 1/2	8×14	8×12	35°	2	2	ZQ115F1-T45

Dropcent button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
70	2 3/4	8×10	4×10 1×9	35°	4	2+1reversed	ZQA70F1-T45
76	3	6×13	3×11 1×11	35°	3	1	ZQA76D3-T45
76	3	8×11	4×11 1×10	30°	4	1+1reversed	ZQA76F1-T45
76	3	8×11	4×11 1×9	35°	4	1	ZQA76F2-T45G
76	3	8×12	4×11 1×10	35°	4	–	ZQA76F5-T45
76	3	8×12	4×11 1×9	35°	4	–	ZQA76F-T45G
76	3	8×12	4×11 1×9	35°	4	–	ZQA76F1-T45G
89	3 1/2	8×12	4×12 2×10	35°	4	–	ZQA89F-T45
89	3 1/2	8×12	4×12 2×10	35°	4	1+1reversed	ZQA89F1-T45
89	3 1/2	8×12	4×12 2×10	35°	4	–	ZQA89F3-T45
102	4	8×12	4×12 4×10	35°	4	–	ZQA102F-T45
102	4	8×14	4×12 2×11	35°	4	1+1reversed	ZQA102F1-T45

LHS ROCK TOOLS

Underground Production Drilling Tools

T45(13/4")

Bits

Retrac button bit



Dropcent retrac button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
76	3	8×12	5×11	30°	2	2	ZQY76F6-T45
76	3	8×10	4×10	35°	4	1	ZQY76F9-T45
76	3	8×12	4×12	35°	2	2	ZQY76F11-T45
85	3 3/8	8×13	6×13	30°	2	–	ZQY85F-T45
85	3 3/8	9×11	6×11	35°	2	2reversed	ZQY85G-T45
89	3 1/2	8×12	6×12	35°	2	1+1reversed	ZQY89F-T45
89	3 1/2	8×12	6×12	30°	2	2	ZQY89F3-T45
89	3 1/2	8×14	6×12	30°	2	2	ZQY89F4-T45
89	3 1/2	9×11	7×11	35°	3	–	ZQY89G3-T45
102	4	8×12	7×12	35°	2	–	ZQY102F-T45
66	2 3/5	8×10	4×10 1×10	35°	4	–	ZYA66F-T45
66	2 3/5	8×10	4×10 1×10	35°	4	2	ZYA66F1-T45
70	2 3/4	8×10	4×10 1×9	30°	4	1	ZYA70F-T45
70	2 3/4	8×10	4×10 1×10	35°	4	1	ZYA70F2-T45
76	3	8×11	4×11 1×9	35°	4	1	ZYA76F11-T45
76	3	8×11	4×11 1×11	30°	4	1	ZYA76F13-T4
76	3	8×12	4×11 1×9	40°	4	1	ZYA76F14-T45
76	3	8×12	4×11 1×9	35°	4	–	ZYA76F-T45G
76	3	8×12	4×11 1×9	40°	4	–	ZYA76F1-T45G
76	3	8×11	4×11 1×9	35°	4	1	ZYA76F2-T45G
76	3	8×11	4×11 1×11	30°	4	1	ZYA76F-T45
76	3	8×12	4×11 1×11	35°	4	–	ZYA76F5-T45
76	3	8×12	4×11 1×11	35°	4	–	ZYA76F6-T45
83	3 1/3	8×12	4×11 2×9	40°	4	2	ZYA83F1-T45
89	3 1/2	8×11	4×11 2×9	35°	4	–	ZYA89F-T45
89	3 1/2	8×12	4×12 2×10	35°	4	1	ZYA89F3-T45
89	3 1/2	8×13	4×13 1×13	40°	4	–	ZYA89F5-T45
89	3 1/2	8×13	4×13 1×13	40°	4	–	ZYA89F7-T45
89	3 1/2	8×12	4×11 2×9	35°	4	2	ZYA89F9-T45
89	3 1/2	8×12	4×11 2×9	35°	2	2	ZYA89F6-T45
89	3 1/2	8×13	4×13 1×13	40°	4	–	ZYA89F10-T45
89	3 1/2	8×12	4×12 2×10	35°	4	–	ZYA89F11-T45
89	3 1/2	8×12	4×12 2×12	35°	4	1	ZYA89F14-T45
89	3 1/2	8×12	4×12 2×9	35°	4	–	ZYA89F15-T45
89	3 1/2	8×12	4×11 2×9	35°	4	2	ZYA89F9-T45
102	4	8×12	4×12 4×10	35°	4	–	ZYA102F-T45
102	4	8×14	4×12 3×11	35°	4	–	ZYA102F6-T45
102	4	8×14	4×13 1×13	35°	4	–	ZYA105F-T45
127	5	8×14	4×14 4×12	35°	4	–	ZYA127F-T45
140	5 1/2	9×16	6×14 3×14	35°	3	–	ZYA140G-T45

Underground Production Drilling Tools

T45(13/4")

Reaming tools

Diam		Buttons×Size mm		Pilot	No. of flushing holes		LHS Part No.
mm	in	Gauge	Front	mm	Front	Gauge	
Reaming button bit							
89	3 1/2	8×14	2×8	64	2	-	ZQK89F/64-T45
102	4	8×14, 6×10	2×10	64	2	-	ZQK102F/64-T45
115	4 1/2	12×14	2×9	76	4	-	ZQK115F/76-T45
127	5	12×14	2×9	76	4	-	ZQK127F2/76-T45
140	5 1/2	9×166×14	3×8	70	3	-	ZQK140G/70-T45
150	6	15×14	3×9	76	3	-	ZQK150G3/76-T45
152	6	9×16	3×9	118	3	-	ZQK152G/118-T45
178	7	21×16	3×9	76	3	-	ZQK178G/76-T45
203	8	9×16	6×16	140	3	-	ZQK203G/140-T45
203	8	21×16	3×8	76	3	-	ZQK203G1/76-T45

Rods

L		Diam		Thread	LHS Part No.
mm	ft	mm	in		
Round speed rod, T45F-D46-T45M					
1220	4	46	1 4/5	T45-T45F	KYGT45-1220
1525	5	46	1 4/5	T45-T45F	KYGT45-1525
1830	6	46	1 4/5	T45-T45F	KYGT45-1830
1830	6	46	1 4/5	T45-T45F	KYGT45Y-1830
Guide tube					
1220	4	65	2 5/9	T45-T45F	KYG65T45-1220
1525	5	65	2 5/9	T45-T45F	KYG65T45-1525
1830	6	65	2 5/9	T45-T45F	KYG65T45-1830
1830	6	65	2 5/9	T45-T45F	KYG65T45Y-1830
1830	6	70	2 3/4	T45-T45F	KYG70T45Y-1830
Drill tube					
1220	4	65	2 5/9	T45-T45F	KYG65T45G-1220
1525	5	65	2 5/9	T45-T45F	KYG65T45G-1525
1830	6	65	2 5/9	T45-T45F	KYG65T45G-1830

Underground Production Drilling Tools

T51(2")

Bits

Diam		Tip size(mm)	No. of flushing holes		LHS Part No.
mm	in	H×W	Front	Gauge	
X-type bit					
89	3 1/2	25×13	1	2	X89A-T51
102	4	25×15	1	2	X102W-T51

Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
mm	in	Gauge	Front		Front	Gauge	
Button bit							
76	3	8×12	4×12	30°	2	1	ZQ76F-T51
80	3 1/6	8×12	5×12	30°	2		ZQ80F2-T51
89	3 1/2	6×16	4×13	40°	2	2	ZQ89D4-T51
89	3 1/2	8×12	6×12	30°	2	2	ZQ89F-T51
89	3 1/2	8×14	6×12	35°	2	-	ZQ89F1-T51
89	3 1/2	8×14	6×12	35°	2	2	ZQ89F2-T51
89	3 1/2	8×12	6×12	35°	2	-	ZQ89F3-T51
89	3 1/2	8×12	6×12	35°	2	2	ZQ89F5-T51
89	3 1/2	8×12	6×11	35°	2	2	ZQ89F6-T51
89	3 1/2	8×14	6×12	35°	2	2	ZQ89F7-T51
89	3 1/2	8×14	6×12	35°	2	-	ZQ89F8-T51
89	3 1/2	9×11	6×10	35°	3	-	ZQ89G-T51
89	3 1/2	9×11	6×11	35°	3	-	ZQ89G3-T51
102	4	8×14	6×14	35°	2	-	ZQ102F1-T51
102	4	8×14	7×12	35°	2	1+1reversed	ZQ102F2-T51
102	4	8×16	6×14	35°	2	-	ZQ102F3-T51
102	4	8×16	6×16	35°	2	-	ZQ102F4-T51
102	4	8×14	7×12	35°	2	2	ZQ102F-T51
102	4	9×12	6×12	35°	3	-	ZQ102G-T51
102	4	9×13	9×11	35°	3	-	ZQ102G3-T51
115	4 1/2	8×16	6×14	40°	2	-	ZQ115F1-T51
115	4 1/2	8×16	6×14	35°	2	1	ZQ115F2-T51
115	4 1/2	8×16	6×14	35°	2	-	ZQ115F6-T51
115	4 1/2	9×14	10×12	35°	3	-	ZQ115G1-T51
115	4 1/2	9×14	7×14	40°	3	-	ZQ115G-T51
115	4 1/2	10×14	7×14	35°	3	-	ZQ115H-T51
127	5	8×16	8×14	40°	2	-	ZQ127F4-T51
140	5 1/2	9×16	9×14	40°	3	-	ZQ140G-T51
152	6	9×16	11×14	35°	3	-	ZQ152G-T51
152	6	9×18	9×18	35°	3	-	ZQ152G1-T51

Underground Production Drilling Tools

T51(2″)

Bits

Dropcent button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
76	3	8×12	4×11 1×9	35°	4	–	ZQA76F-T51
89	3 1/2	8×12	4×12 2×10	35°	4	1	ZQA89F-T51
80	3 1/6	8×12	4×12 1×9	35°	4	–	ZQA80F-T51
89	3 1/2	8×12	4×12 2×10	35°	4	–	ZQA89F1-T51
89	3 1/2	8×12	4×12 2×10	35°	4	–	ZQA89F2-T51
89	3 1/2	8×13	5×12	35°	4	–	ZQA89F3-T51
89	3 1/2	8×12	4×12 2×10	35°	4	–	ZQA89F4-T51
89	3 1/2	8×14	4×12 1×12	35°	4	–	ZQA89F5-T51
89	3 1/2	8×13	5×11	35°	4	–	ZQA89F6-T51
89	3 1/2	9×11	6×11 2×9	35°	3	–	ZQA89G-T51
89	3 1/2	9×11	6×11 1×11	35°	3	–	ZQA89G-T51M
89	3 1/2	9×12	6×10 2×9	35°	3	–	ZQA89G1-T51
102	4	8×14	4×12 2×11	35°	4	1+1reversed	ZQA102F1-T51
102	4	8×14	4×12 3×11	35°	4	–	ZQA102F-T51
102	4	8×13	4×12 2×11	35°	4	1+1reversed	ZQA102F5-T51
115	4 1/2	8×14	4×13 4×11	35°	4	–	ZQA115F-T51
115	4 1/2	8×14	4×14 2×12	40°	4	–	ZQA115F5-T51
127	5	8×14	4×14 4×12	35°	4	1	ZQA127F-T51
127	5	8×16	4×14 4×12	35°	4	1+1reversed	ZQA127F1-T51
140	5 1/2	8×16	4×16 4×14	35°	4	–	ZQA140F-T51
152	6	9×16	6×16 4×13	35°	3	–	ZQA152G-T51
165	6 1/2	9×16	9×14 4×14	35°	3	–	ZQA165G-T51
178	7	9×16	9×16 4×14	35°	3	–	ZQA178G-T51

Retrac button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
89	3 1/2	9×11	7×11	35°	3	–	ZQY89G2-T51
89	3 1/2	9×12	6×12	35°	2	–	ZQY89G4-T51
102	4	9×13	9×11	35°	3	–	ZQY102G-T51
102	4	9×12	6×12	35°	3	–	ZQY102G2-T51
102	4	9×12	7×12	35°	3	–	ZQY102G3-T51
115	4 1/2	8×14	7×14	35°	2	–	ZQY115F3-T51
140	5 1/2	9×16	9×14	40°	3	–	ZQD140G-T51

LHS ROCK TOOLS

Underground Production Drilling Tools

T51(2″)

Bits

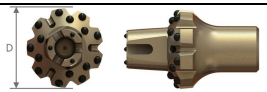
Dropcent retrac button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
80	3 1/6	8×12	4×11 2×9	35°	4	–	ZYA80F1-T51
83	3 1/4	8×12	4×11 2×9	40°	4	2	ZYA83F2-T51
89	3 1/2	8×12	4×12 2×10	35°	4	1	ZYA89F-T51
89	3 1/2	8×12	4×11 2×9	35°	2	2	ZYA89F1-T51
89	3 1/2	8×11	4×11 2×11	35°	4	1	ZYA89F3-T51
89	3 1/2	8×12	4×12 2×10	35°	4	1	ZYA89F4-T51
89	3 1/2	8×14	4×12 1×12	35°	4	–	ZYA89F5-T51
89	3 1/2	8×12	4×12 2×10	35°	4	1	ZYA89F8-T51
89	3 1/2	8×12	4×11 2×9	35°	4	–	ZYA89F9-T51
89	3 1/2	8×13	4×12 1×12	35°	4	–	ZYA89F10-T51
89	3 1/2	8×12	4×11 2×11	35°	4	–	ZYA89F11-T51
89	3 1/2	8×12	4×11 2×9	35°	4	2	ZYA89F13-T51
89	3 1/2	8×13	4×13 1×13	35°	4	–	ZYA89F15-T51
89	3 1/2	9×11	3×11 3×11	35°	3	1	ZYA89G-T51
89	3 1/2	9×11	7×11	35°	3	–	ZYA89G3-T51
89	3 1/2	9×12	6×11 3×11	35°	3	–	ZYA89G4-T51
95	3 3/4	8×12	4×12 2×12	35°	4	2	ZYA95F-T51
102	4	8×14	4×12 3×11	35°	4	–	ZYA102F-T51
102	4	8×14	4×14 1×14	35°	4	–	ZYA102F1-T51
102	4	8×12	4×12 3×12	35°	4	–	ZYA102F4-T51
102	4	8×13	4×13 2×13	35°	4	–	ZYA102F7-T51
102	4	8×14	4×12 3×11	35°	4	–	ZYA102F10-T51
102	4	9×11	6×11 3×11	35°	3	–	ZYA102G-T51
102	4	9×14	6×12 2×10	35°	3	–	ZYA102G1-T51
115	4 1/2	8×14	4×14 2×12	35°	4	–	ZYA115F1-T51
115	4 1/2	8×14	4×14 3×12	35°	4	–	ZYA115F3-T51
127	5	8×14	4×14 3×12	35°	4	–	ZYA127F2-T51
131	5 1/6	9×14	6×14 3×14	35°	3	–	ZYA131G-T51
140	5 1/2	9×16	6×14 3×14	35°	3	–	ZYA140G-T51
152	6	9×6	6×16 4×13	35°	3	–	ZYA152G-T51
165	6 1/2	9×6	6×16 3×16	35°	3	–	ZYA165G-T51
102	4	8×14	4×12 3×11	35°	4	–	ZDA102F-T51

Reaming tools

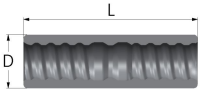
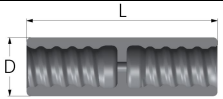
Reaming button bit

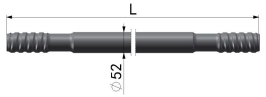
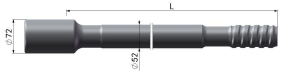


Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Pilot mm	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
152	6	15×14	3×9	76	3	–	ZQK152G/76-T51
152	6	15×16	3×9	89	3	–	ZQK152G1/89-T51
203	8	21×16	3×9	89	3	–	ZQK203G/89-T51
203	8	15×16	3×10	152	3	–	ZQK203G/152-T51

Underground Production Drilling Tools

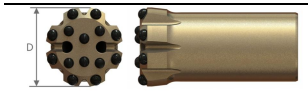
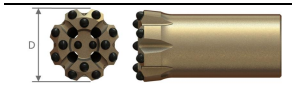
T51(2")

Coupling sleeve	Length		Outside diam		Thread	LHS Part No.
	mm	in	mm	in		
Coupling sleeve						
	225	8 7/8	72	2 5/6	T51-T51	LT51-225
	235	9 1/4	72	2 5/6	T51-T51	LT51-235
	235	9 1/4	76	2 5/6	T51-T51	LT51A-235
Coupling sleeve(Full bridge)						
	235	9 1/4	72	2 5/6	T51-T51	LT51-235Q
	250	927/32	76	2 5/6	T51-T51	LT51-250Q

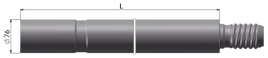
Rods	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Round extension rod,T51M-D52-T51M						
	1220	4	52	2	T51-T51	YGT51-1220
	1525	5	52	2	T51-T51	YGT51-1525
	1830	6	52	2	T51-T51	YGT51-1830
Round speed rod,T51F-D52-T51M						
	1220	4	52	2	T51-T51F	KYGT51-1220
	1525	5	52	2	T51-T51F	KYGT51-1525
	1830	6	52	2	T51-T51F	KYGT51-1830
Guide tube						
	1525	5	76	2 5/6	T51-T51F	KYG76T51-1525
	1830	6	76	2 5/6	T51-T51F	KYG76T51-1830
Drill tube						
	1525	5	76	2 5/6	T51-T51F	KYG76T51G-1525
	1830	6	76	2 5/6	T51-T51F	KYG76T51G-1830

Underground Production Drilling Tools

ST58(21/4")

Bits	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Button bit								
	89	3 1/2	8×14	5×12	35°	2	2	ZQ89F1-ST58G
	89	3 1/2	8×13	6×12	35°	2	2	ZQ89F2-ST58G
	102	4	8×14	6×12	35°	2	2	ZQ102F1-ST58G
	115	4 1/2	8×16	6×14	35°	2	-	ZQ115F1-ST58G
Dropcent button bit								
	89	3 1/2	8×12	4×12 2×10	35°	4	-	ZQA89F1-ST58G
	102	4	8×14	5×13	35°	4	-	ZQA102F1-ST58G
	152	6	9×16	6×16 3×14	35°	3	-	ZQA152G-ST58G
Retrac button bit								
	102	4	8×14	7×12	35°	2	-	ZQY102F3-ST58G
	115	4 1/2	8×16	6×14	35°	2	-	ZQY115F-ST58G
Dropcent retrac button bit								
	89	3 1/2	8×12	4×12 2×10	35°	4	-	ZYA89F1-ST58G
	89	3 1/2	8×13	4×12 2×12	35°	4	-	ZYA89F2-ST58G
	102	4	9×13	6×12 3×11	35°	3	-	ZYA102G-ST58G
	127	5	8×16	4×14 4×12	40°	4	-	ZYA127F-ST58G
Dropcent retrac button bit								
	89	3 1/2	10×11	6×11 1×11	35°	4	-	ZDA89H-ST58G
	102	4	10×12	4×12 4×12	35°	4	-	ZDA102H-ST58G
	115	4 1/2	10×14	6×13 1×13	35°	3	-	ZDA115H-ST58G

Reaming tools	Diam		Buttons×Size mm		Angle	No. of flushing holes		LHS Part No.
	mm	in	Gauge	Front		Front	Gauge	
Reaming button bit								
	115	4 1/2	8×13	3×9	35°	3	-	ZQK115F/89-ST58G
	127	5	8×14	4×14 2×9	35°	4	-	ZQK127F/89-ST58G
	152	6	15×16	3×9	35°	3	-	ZQK152G1/89-ST58G
	178	7	9×16	6×12	35°	3	-	ZQK178G/135-ST58G
	203	8	21×16	3×9	35°	3	-	ZQK203G1/89-ST58G
	203	8	21×16	3×9	35°	3	-	ZQK203G/80-ST58G
	203	8	9×16	6×16	35°	3	-	ZQK203G/140-ST58G
	254	10	20×18	4×12	35°	4	-	ZQK254K/185-ST58G

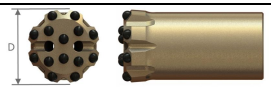
Drill tube	L		Diam		Thread	LHS Part No.
	mm	ft	mm	in		
Drill tube						
	1220	4	76	2 5/6	ST58-ST58F	KYG76ST58GA-1220
	1525	5	76	2 5/6	ST58-ST58F	KYG76ST58GA-1525
	1830	6	76	2 5/6	ST58-ST58F	KYG76ST58GA-1830

Underground Production Drilling Tools

ST68(23/4")

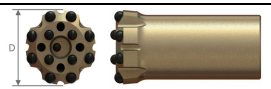
Bits

Button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
102	4	8×14	6×14	40°	2	-	ZQ102F-ST68G
102	4	8×16	6×13	40°	2	1	ZQ102F2-ST68G
115	4 1/2	8×16	6×14	35°	2	-	ZQ115F-ST68G
127	5	8×16	8×14	40°	2	-	ZQ127F-ST68G

Dropcent button bit



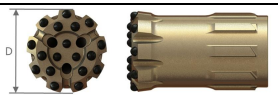
102	4	8×16	5×13	35°	4	-	ZQA102F-ST68G
102	4	9×13	6×12 3×11	35°	3	-	ZQA102G-ST68G
102	4	10×12	8×12	35°	4	-	ZQA102H1-ST68G
115	4 1/2	9×14	6×14 3×14	35°	3	-	ZQA115G-ST68G
127	5	9×16	9×14	35°	3	-	ZQA127G-ST68G

Retrac button bit



102	4	8×14	6×14	35°	2	-	ZQY102F-ST68G
115	4 1/2	8×16	6×14	35°	2	-	ZQY115F-ST68G
127	5	9×16	9×14	35°	3	-	ZQY127G-ST68G
140	5 1/2	9×16	6×14 4×14	35°	3	-	ZQY140G1-ST68G

Dropcent retrac button bit



102	4	9×13	6×12 3×11	35°	3	-	ZYA102G-ST68G
102	4	10×12	8×12	35°	4	-	ZYA102H1-ST68G

Reaming tools

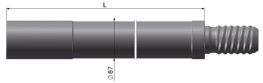
Reaming button bit



Diam mm	Diam in	Buttons×Size mm Gauge	Buttons×Size mm Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
152	6	9×166×14	3×9	35°	3	-	ZQK152G1/102-ST68G
203	8	21×16	3×9	35°	3	-	ZQK203G1/102-ST68G
254	10	20×18	4×12	35°	4	-	ZQK254K/185-ST68G
300	69 5/9	28×18	3×12	35°	4	-	ZQK300M/195-ST68G

Drill tube

Drill tube



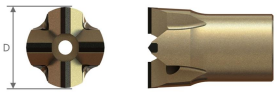
L mm	L ft	Diam mm	Diam in	Thread	LHS Part No.
1525	5	87	3 3/7	ST68-ST68F	KYG87ST68GC-1525
1830	6	87	3 3/7	ST68-ST68F	KYG87ST68GC-1830
1525	5	87	3 3/7	ST68-ST68F	KYG87ST68GZ-1525
1830	6	87	3 3/7	ST68-ST68F	KYG87ST68GZ-1830

Underground Production Drilling Tools

R3212

Bits

Cross bit



Diam mm	Tip size(mm) H×W	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
55	16×10	1	1	SQ55-R3212
60	16×10	1	1	SQ60-R3212
65	16×10	1	1	SQ65-R3212
70	16×10	1	1	SQ70-R3212

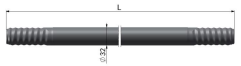
Button bit





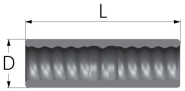
Diam mm	Buttons(mm) Gauge	Buttons(mm) Front	Angle	No. of flushing holes Front	No. of flushing holes Gauge	LHS Part No.
55	3×14	1×12	35°	1	1	ZQ55B-R3212
60	3×14	2×12	40°	1	1	ZQ60B4-R3212
65	3×14	3×12	40°	1	1	ZQ65B2-R3212
70	3×14	3×12	35°	1	1	ZQ70B-R3212
60	6×11	3×11	35°	-	3	ZQ60D-R3212
60	6×11	3×10	40°	1	1	ZQ60D3-R3212
65	6×12	3×12	35°	1	1	ZQ65D-R3212
70	6×12	3×12	35°	1	1	ZQ70D-R3212
75	6×12	5×10	35°	2	1	ZQ75D-R3212

Round rod



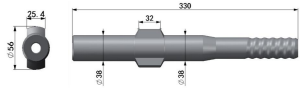
Length (mm)	Diam(mm)	Thread	LHS Part No.
600	32	R3212-R3212	YGR3212-600
800	32	R3212-R3212	YGR3212-800
1000	32	R3212-R3212	YGR3212-100
1100	32	R3212-R3212	YGR3212-1100
1200	32	R3212-R3212	YGR3212-1200

Coupling sleeve



Length (mm)	Outside diam	Thread	LHS Part No.
150	45	R3212	LR3212-150
160	45	R3212	LR3212-160

Shank adaptors



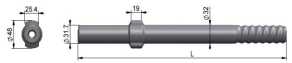
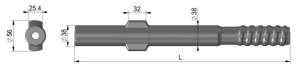
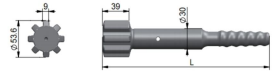
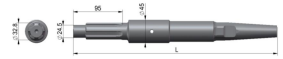
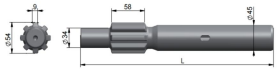
Length (mm)	Outside diam	Thread	LHS Part No.
330	38	R3212	90-43A
320	38	R3212	80-7

Shank adapters

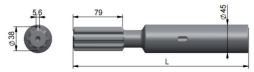
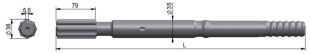
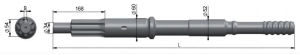
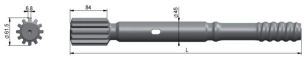
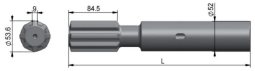


EPIROC	82
Sandvik	87
Furukawa	91
Gardner denver/TOYO	93
Ingersooll-Rand	94
Montabert	95
Secoma	98
other	99

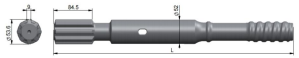
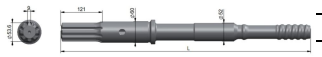
Shank adaptors

EPIROC	Thread	Length L（mm）	Diameter mm	LHS Part No.
BBC43, 44, 45and100				
	R32	380	Φ32	QW73-380R32
BBC54, BBC120				
	R25	380	Φ38	QW134-380R25
	T38	380	Φ38	QW134-380T38
	T38	390	Φ38	QW134-390T38
	R32	380	Φ38	QW80-380R32
COP 628				
	TR25	245	Φ30	QW189-245TR25
COP 1028				
	R32	400	Φ45	QW60-400TR32
COP 1028HB				
	Z7 Taper	400	Φ45	QW60-400Z7
COP 1032				
	R32	550	Φ45	QW4-550R32
COP 1032HD				
	R32F	340	Φ45	QW4-340R32F
COP 1036, 1038, 1238				
	R32	485	Φ38	QW6-485R32
	R38	485	Φ38	QW6-485R38
	T38	485	Φ38	QW6-485T38
	R38	500	Φ38	QW6-500R38
	T38	500	Φ38	QW6-500T38
	R32	575	Φ38	QW6-575R32
	R35	575	Φ38	QW6-575R35
	T38	575	Φ38	QW6-575T38
	T38	575	Φ38	QW6-575T38B

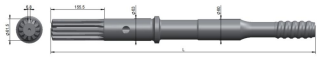
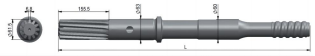
Shank adaptors

EPIROC	Thread	Length L（mm）	Diameter mm	LHS Part No.
COP 1036, 1038, 1238				
	T38	500	Φ45	QW12-500T38
	T45	500	Φ45	QW12-500T45
	T45	500	Φ45	QW12-500T45A
	R32	575	Φ45	QW12-575R32
	R38	575	Φ45	QW12-575R38
	T38	575	Φ45	QW12-575T38
	T38	575	Φ45	QW12-575T38A
	T45	575	Φ45	QW12-575T45
	T45	575	Φ45	QW12-575T45A
COP 1132, RR11				
	R32F	280	Φ45	QW101-280R32F
	R32	410	Φ35	QW101-410R32
	R32	500	Φ35	QW101-500R32
	R32	500	Φ35	QW101-500R32A
COP 1140, 1435, RR14, SC14				
	R32	410	Φ35	QW147-410R32
	R32	500	Φ35	QW147-500R32
COP 1338MEX				
	T45	780	Φ60	QW20-780T45
RD 14S, 18S, RD 22S				
	T51	655	Φ52	QW159-655T51
COP RD 14U, RD 18U				
	T45	525	Φ45	QW33-525T45B
COP RD 18U, RD 22U				
	T45	525	Φ45.1	QW175-525T45
COP 1432, 1440, 1532, 1550, 1638, 1838, 2238and+version				
	R32F	310	Φ52	QW33-310R32F
	R32F	341	Φ52	QW33-341R32FA

Shank adaptors

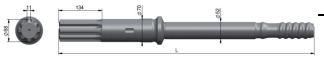
EPIROC	Thread	Length L（mm）	Diameter mm	LHS Part No.
COP 1432, 1440, 1532, 1550, 1638, 1838, 2238and+version				
	R32	435	Φ38	QW33-435R32
	R38	435	Φ38	QW33-435R38
	R38	435	Φ38	QW33-435R38A
	R38	435	Φ38	QW33-435R38B
	T38	435	Φ38.16	QW33-435T38
	T38	435	Φ38.16	QW33-435T38D
	T38	435	Φ38.16	QW33-435T38-D
	R38	455	Φ38.16	QW33-455R38
	T38	455	Φ38.16	QW33-455T38
	R32	525	Φ38.1	QW33-525R32A
	R32	525	Φ38	QW33-525R32
	R38	525	Φ38	QW33-525R38A
	T38	525	Φ38	QW33-525T38A
	R35	435	Φ52	QW33-435R35
	T38	435	Φ52	QW33-435T38B
	T38	475	Φ52	QW33-475T38
	R32	525	Φ52	QW33-525R32B
	R38	525	Φ52	QW33-525R38
	T38	525	Φ52	QW33-525T38
	T45	525	Φ52	QW33-525T45
	T45	525	Φ52	QW33-525T45-D
	T51	525	Φ52	QW33-525T51
COP MD20				
	T38	470	Φ38	QW162-470T38
COP 1550EX, 1838EX				
	T38	730	Φ60	QW55-730T38
	T45	730	Φ60	QW55-730T45
COP 1838MUX				
	R35	730	Φ52	QW119-730R35
	T35	730	Φ52	QW119-730T35
	T38	730	Φ52	QW119-730T38
	T38	730	Φ52	QW119-730T38-D
	T45	730	Φ52	QW119-730T45
	T45	730	Φ52	QW119-730T45-D
	T51	730	Φ52	QW119-730T51
	T51	730	Φ52	QW119-730T51-D
	TZ35	730	Φ52	QW119-730TZ35

Shank adaptors

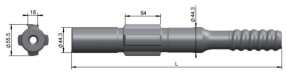
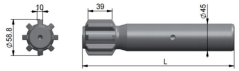
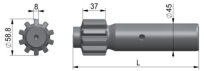
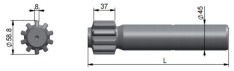
EPIROC	Thread	Length	Diameter	LHS Part No.
		L（mm）	mm	
COP 1240, 1640, 1840, 1850, 2150, 2550and+version, COP SC16, SC19, SC25-HF				
	T38	565	Φ52	QW37-565T35
	T38	565	Φ52	QW37-565T38
	T45	565	Φ52	QW37-565T45
	T51	565	Φ52	QW37-565T51
COP 1240EX, 1640EX, 1840EX, 1850EX, 2150EX, 2550EXand+version, COP SC19X, SC25X-HF				
	T38	770	Φ60	QW37-770T38
	T45	770	Φ60	QW37-770T45
	T51	770	Φ60	QW37-770T51
COP 2150, 2550and+version				
	T51	770	Φ52	QW37-770T51A
COP 2550UX				
	ST58	770	Φ77	QW116-770ST58
	ST58	770	Φ77	QW116-770ST58-D
	T45	770	Φ60	QW116-770T45
	T45	770	Φ60	QW116-770T45G
	T51	770	Φ60	QW116-770T51
COP 2160EX, 2560EXand+version				
	T45	769	Φ63	QW89-769T45
	T51	769	Φ63	QW89-769T51
COP 2160, 2560and+version				
	T51	770	Φ60	QW89-770T51A
COP 2560EXand+version				
	T51	770	Φ63	QW89-770T51B
COP 2560, 2560+, SC25-HE				
	T45	770	Φ60	QW89-770T45C
	T51	770	Φ60	QW89-770T51C
COP 3038				
	T38	525	Φ45	QW109-525T38
COP 3038				
	T45	440	Φ45	QW110-440T38
	T38	440	Φ45	QW110-440T45

LHS ROCK TOOLS

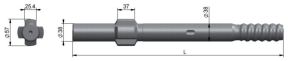
Shank adaptors

EPIROC	Thread	Length	Diameter	LHS Part No.
		L（mm）	mm	
COP 3038, 4038				
	T38	525	Φ45	QW193-525T38
COP 3060MUX				
	ST58	745	Φ90	QW144-745ST58
	ST58	745	Φ90	QW144-745ST58-D
	ST68	745	Φ90	QW144-745ST68
	ST68	745	Φ90	QW144-745ST68-D
	T45	745	Φ90	QW144-745T45G
	T51	838	Φ60	QW144-838T51
	T51	838	Φ60	QW144-838T51-D
	EL60	840	Φ60	QW144-840EL60
COP 4050				
	T51	605	Φ52	QW76-605T51
COP 4050ME				
	EL60	700	Φ70	QW143-700EL60
COP 4050EX				
	T51	790	Φ70	QW183-790T51
COP 4050MUX				
	ST58	833	Φ90	QW93-833ST58
	ST68	833	Φ90	QW93-833ST68

Shank adaptors

Sandvik	Thread	Length L（mm）	Diameter mm	LHS Part No.
L600, L750				
	R32	330	Φ44.3	QW8-330R32
	R25	380	Φ44.3	QW8-380R25
	R32	380	Φ44.3	QW8-380R32
	R38	380	Φ44.3	QW8-380R38A
	T38	380	Φ44.3	QW8-380T38A
	T45	380	Φ44.3	QW8-380T45
	T38	446	Φ44.3	QW8-446T38
	T45	446	Φ44.3	QW8-446T45
	T38	585	Φ44.3	QW8-585T38
HL X1, RD 106				
	R22	255	Φ28	QW133-255R22
	R25	255	Φ28	QW133-255R25
	R28	255	Φ28	QW133-255R28
HL 300				
	R32	400	Φ32	QW39-400R32A
HL 300S				
	R32F	245	Φ45	QW35-245R32F
RD 308, RD 314, RD 414, HL X3				
	R32F	205	Φ45	QW157-205R32F
RD 308, RD 314, RD 414				
	R32	410	Φ38	QW163-410R32
	R35	410	Φ38	QW163-410R35
	T35	410	Φ38	QW163-410T35
	T38	410	Φ38	QW163-410T38
RD 212				
	R32F	245	Φ45	QW191-245R32F
RD 212				
	R38	379	Φ38	QW191-379R38

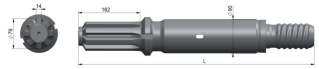
Shank adaptors

Sandvik	Thread	Length L（mm）	Diameter mm	LHS Part No.
HL X5				
	R32	500	Φ45	QW63-500R32
	R35	500	Φ45	QW63-500R35
	R38	500	Φ45	QW63-500R38
	T38	500	Φ45	QW63-500T38
	T38	500	Φ45	QW63-500T38-D
	T45	500	Φ45	QW63-500T45
	R32	575	Φ45	QW63-575R32
	R38	575	Φ45	QW63-575R38
	T38	575	Φ45	QW63-575T38
	T45	575	Φ45	QW63-575T45
HL X5PE-45				
	R32	575	Φ45	QW98-575R32
	T38	575	Φ45	QW98-575T38
	T45	575	Φ45	QW98-575T45
RD 520, RD 525				
	T38	525	Φ45	QW125-525T38
	T45	525	Φ45	QW125-525T45
RD 520PE, RD 525PE, RD 535PE				
	T38	745	Φ45	QW182-745T38
HL 438LS, HL 438TS, HL 538, HL 538L, L550S				
	T38	455	Φ38	QW7-455T38A
HL 500S, HL 510S, HL 510B, HL 510LH				
	R32	460	Φ37.85	QW16-460R32
	R35	460	Φ37.85	QW16-460R35
	R38	460	Φ37.85	QW16-460R38
	T35	460	Φ37.85	QW16-460T35
	T38	460	Φ37.85	QW16-460T38
	T38	460	Φ37.85	QW16-460T38A
	R38	500	Φ37.85	QW16-500R38
	T38	500	Φ37.85	QW16-500T38
	T38	500	Φ38.1	QW16-500T38A
	R38	550	Φ37.85	QW16-550R38
	T35	550	Φ37.85	QW16-550T35
	T38	550	Φ37.85	QW16-550T38

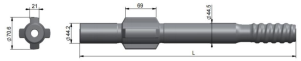
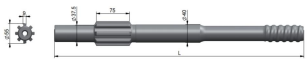
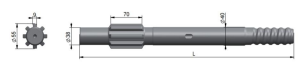
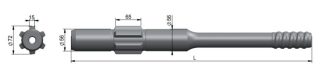
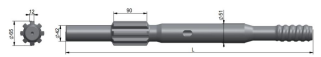
Shank adaptors

Sandvik	Thread	Length	Diameter	LHS Part No.
		L（mm）	mm	
HL 500,HL 510,HL 510S,HL 550S,HL 560S				
	R25	460	Φ45	QW28-460R25
	R35	460	Φ45	QW28-460R35
	T35	460	Φ45	QW28-460T35
	T38	460	Φ45	QW28-460T38
	R38	500	Φ45	QW28-500R38
	T38	500	Φ45	QW28-500T38
	T45	500	Φ45	QW28-500T45
	T38	550	Φ45	QW28-550T38
	T45	550	Φ45	QW28-550T45
HL 600				
	T38	600	Φ45	QW24-600T38
	T45	600	Φ45	QW24-600T45
HL 650,HL 700,HL 710,HL 710PE,HL 710SPE,HL /HF810T,HL /HF820T,HL /HF810TPE,HL /HF820TPE,HL 810ST,HL 820ST				
	T38	600	Φ52	QW59-600T38
	T45	600	Φ52	QW59-600T45
	T45	600	Φ52	QW59-600T45-D
	T51	600	Φ52	QW59-600T51
	T45	800	Φ52	QW59-800T45
RD 900,RD 925				
	T51	670	Φ65	QW173-670T51
	ST58	670	Φ65	QW173-670ST58
	ST58	670	Φ70	QW173-670ST58G
	ST58	670	Φ65	QW173-670ST58GA
RD 900PE				
	T45	664	Φ65	QW174-664T45G
	ST58	670	Φ70	QW174-670ST58
	ST58	670	Φ65	QW174-670ST58A
HL 1000,HL 1000S,HL 1010,HL 1010S				
	T45	670	Φ52	QW34-670T45
2	T51	670	Φ52	QW34-670T51
HL 1000,HL 1010				
	T51	670	Φ60	QW34-670T51A
	GT60	670	Φ60	QW34-670GT60
HL 1000PE,HL 1010PE,HL 1060T,HL 1060TPE,HL 1560T,HL 1560TPE,RD 1635FC				
	T45	635	Φ65	QW84-635T45
	EL60	760	Φ65	QW84-760EL60
	GT60	760	Φ65	QW84-760GT60
	T51	760	Φ65	QW84-760T51
HL 1000,HL 1000S,HL 1010				
	ST58	635	Φ79.7	QW34-635ST58
	ST58	640	Φ79.7	QW34-640ST68

Shank adaptors

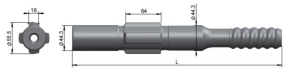
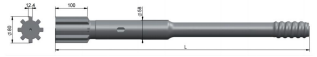
Sandvik	Thread	Length	Diameter	LHS Part No.
		L（mm）	mm	
HL 1500				
	T51	710	Φ52	QW61-710T51
HL 1500,HL 1560ST				
	ST58	635	Φ79.7	QW75-635ST58
	ST68	635	Φ79.7	QW75-635ST68
	ST68	635	Φ79.7	QW75-635ST68-D
	EL60	760	Φ79.7	QW75-760EL60
	GT60	760	Φ79.7	QW75-760GT60
	GT60	760	Φ65	QW75-760GT60A
HL 1500STPE,HL 1560STPE				
	ST68	635	Φ90	QW190-635ST58G
	ST68	635	Φ90	QW190-635ST68G

Shank adaptors

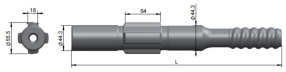
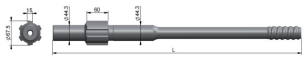
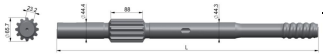
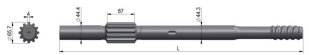
Furukawa	Thread	Length L（mm）	Diameter mm	LHS Part No.
PD 200R				
	T38	484	Φ44.5	QW22-484T38
	T45	484	Φ44.5	QW22-484T45
HD 75,HD 90				
	R38	425	Φ40	QW18-425R38
	T38	500	Φ40	QW18-500T38
	R38	510	Φ40	QW18-510R38
HD 90,HD 150				
	R38	520	Φ40	QW31-520R38
	T38	520	Φ40	QW31-520T38
HD 180				
	T38	565	Φ40	QW44-565T38
HD 190				
	R38	480	Φ40	QW42-480R38A
HD 210				
	R38	410	Φ40	QW51-410R38
	R38	410	Φ40	QW51-410T38
	R38	605	Φ40	QW51-605R38
HD 260,HD 300				
	T38	655	Φ45	QW41-655T38
	T45	655	Φ45	QW41-655T45
HD 500,SOOSAN ED100,EVERDIGM ED100				
	T45	620	Φ56	QW124-620T45
	T45	620	Φ56	QW124-620T45A
	T51	620	Φ56	QW124-620T51
HD 609				
	T38	620	Φ45	QW32-620T38
	T45	620	Φ45	QW32-620T45
	T38	690	Φ45	QW32-690T38
	T45	690	Φ45	QW32-690T45
HD 612				
	T45	670	Φ51	QW21-670T45
	T45	720	Φ51	QW21-720T45
HD 615				
	T51	700	Φ58	QW45-700T51
	T51	700	Φ58	QW45-700T51A

LHS ROCK TOOLS

Shank adaptors

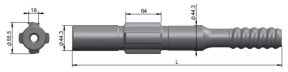
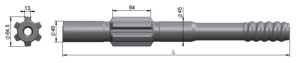
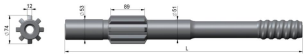
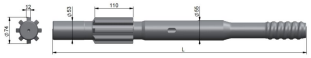
Furukawa	Thread	Length L（mm）	Diameter mm	LHS Part No.
M120 and PD 200				
	R32	330	Φ44.3	QW8-330R32
	R25	380	Φ44.3	QW8-380R25
	R32	380	Φ44.3	QW8-380R32
	R38	380	Φ44.3	QW8-380R38A
	T38	380	Φ44.3	QW8-380T38A
	T45	380	Φ44.3	QW8-380T45
	T38	446	Φ44.3	QW8-446T38
	T45	446	Φ44.3	QW8-446T45
	T38	585	Φ44.3	QW8-585T38
HD 709				
	T38	620	Φ45	QW99-620T38
	T45	620	Φ45	QW99-620T45
HD 709RP				
	T45	815	Φ45	QW146-815T45
HD 712				
	T45	590	Φ51	QW47-590T45A
	T51	590	Φ51	QW47-590T51A
	T45	790	Φ51	QW47-790T45A
	T51	790	Φ51	QW47-790T51A
HD 712RP				
	T45	885	Φ51	QW47-885T45A
	T51	885	Φ51	QW47-885T51A
HD 715				
	T51	790	Φ58	QW85-790T51A
HD 715RP				
	T51	885	Φ58	QW85-885T51A

Shank adaptors

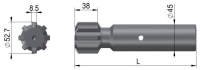
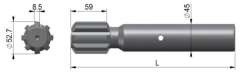
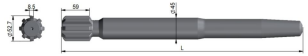
Gardner denver/TOYO	Thread	Length L（mm）	Diameter mm	LHS Part No.
PR123, UPD 550/ToyoF16, PR220				
	R32	330	Φ44.3	QW8-330R32
	R25	380	Φ44.3	QW8-380R25
	R32	380	Φ44.3	QW8-380R32
	R38	380	Φ44.3	QW8-380R38A
	T38	380	Φ44.3	QW8-380T38A
	T45	380	Φ44.3	QW8-380T45
	T38	446	Φ44.3	QW8-446T38
	T45	446	Φ44.3	QW8-446T45
	T38	585	Φ44.3	QW8-585T38
PR 66				
	T38	711	Φ44.3	QW77-711T38
HPR 1H				
	T45	725	Φ44.4	QW138-725T45
HPR 4519				
	T38	750	Φ44.3	QW179-750T38
	T45	750	Φ44.3	QW179-750T45
	T45	770	Φ44.3	QW179-770T45
HPR 5123				
	T45	770	Φ50.8	QW172-770T45
	T51	770	Φ50.8	QW172-770T51
HPR 2H, H5128				
	T51	915	Φ50.8	QW38-915T51
HPR 6030				
	T51	1040	Φ60.5	QW83-1040T51A
	EL60	1040	Φ60.5	QW83-1040EL60A
HPR 2				
	EL60	1040	Φ70	QW83-1040EL60
	EL68	1040	Φ70	QW83-1040EL68
	T51	1040	Φ70	QW83-1040T51

LHS ROCK TOOLS

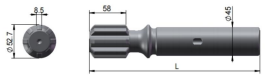
Shank adaptors

Ingersooll-Rand	Thread	Length L（mm）	Diameter mm	LHS Part No.
VL120, EVL130, VL140, URD 475, URD 550				
	R32	330	Φ44.3	QW8-330R32
	R25	380	Φ44.3	QW8-380R25
	R32	380	Φ44.3	QW8-380R32
	R38	380	Φ44.3	QW8-380R38A
	T38	380	Φ44.3	QW8-380T38A
	T45	380	Φ44.3	QW8-380T45
	T38	446	Φ44.3	QW8-446T38
	T45	446	Φ44.3	QW8-446T45
	T38	585	Φ44.3	QW8-585T38
YH65, YH70, YH80				
	T45	495	Φ45	QW26-495T45
	T45	500	Φ45	QW26-500T45
	T38	580	Φ45	QW26-580T38
	T45	580	Φ45	QW26-580T45
	T45	495	Φ51	QW26-495T45A
	T51	495	Φ51	QW26-495T51
YH65RP, YH70RP, YH75RP, YH80RP				
	T38	700	Φ45	QW46-700T38
	T45	700	Φ45	QW46-700T45
	T45	820	Φ45	QW46-820T45
YH100				
	T51	623	Φ51	QW168-623T51
YH110, YH135				
	T45	728	Φ55	QW82-728T45
	T51	728	Φ55	QW82-728T51

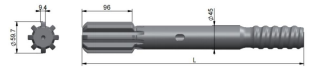
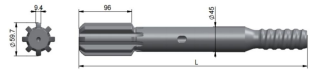
Shank adaptors

Montabert	Thread	Length L（mm）	Diameter mm	LHS Part No.
HC20				
	R25F	187	Φ45	QW136-187R25F
	R32F	187	Φ45	QW136-187R32F
HC25				
	R32F	202	Φ45	QW118-202R32F
	R32RF	220	Φ45	QW118-220R32RF
	R32RF	220	Φ45	QW118-220R32RFA
	R32F	252	Φ45	QW118-252R32F
	R32F	290	Φ45	QW118-290R32F
	R32F	290	Φ45	QW118-290R32FA
	H29	320	Φ45	QW118-320H29
	T45	320	Φ45	QW118-320T45
	R32	325	Φ45	QW118-325R32
	T38	325	Φ45	QW118-325T38
	Z40 Taper	320	Φ45	QW118-550Z40
	Z16 Taper	570	Φ45	QW118-570Z16
	Z21 Taper	590	Φ45	QW118-590Z21
	Z16 Taper	770	Φ45	QW118-770Z16
HC28				
	R32F	270	Φ45	QW169-270R32F
	R38	390	Φ45	QW169-390R38
	T38	390	Φ45	QW169-390T38
	Z5 Taper	505	Φ45	QW169-505Z5
	Z21 Taper	590	Φ45	QW169-590Z21
HC40, HC50				
	R32	372	Φ38	QW19-372R32
	T38	372	Φ38	QW19-372T38
	R32	390	Φ38	QW19-390R32
	R38	390	Φ38	QW19-390R38
	T38	390	Φ38	QW19-390T38
	R32	440	Φ38	QW19-440R32
	R38	447	Φ38	QW19-447R38
	T38	447	Φ38	QW19-447T38

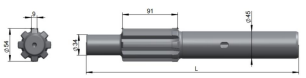
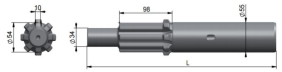
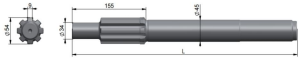
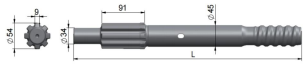
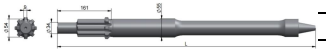
Shank adaptors

Montabert	Thread	Length L（mm）	Diameter mm	LHS Part No.
HC40(female)				
	R32F	270	Φ45	QW19-270R32F
	R32F	270	Φ45	QW19-270R32FA
HC80, HC105, HC108, HC109, HC120, HC150				
	R38	440	Φ38	QW54-440R38
	T38	440	Φ38	QW54-440T38
HC80, HC105, HC108, HC109, HC110, HC120, HC150				
	T38	420	Φ45	QW126-420T38
	R38	460	Φ45	QW126-460R38
	T38	460	Φ45	QW126-460T38
	T38	525	Φ45	QW126-525T38
HC80, HC105, HC108, HC109, HC110, HC120, HC150				
	R38	470	Φ45	QW135-470R38
	T38	470	Φ45	QW135-470T38
	T35	490	Φ45	QW135-490T35
	T38	490	Φ45	QW135-490T38
	T38	680	Φ45	QW135-680T38
HC95R, HC95LQW				
	R32F	503	Φ45	QW154-503R32FA
	R32	503	Φ45	QW154-503R32A
	R38	503	Φ45	QW154-503R38A
	T38	503	Φ45	QW154-503T38A
	T45	518	Φ45	QW154-518T45A
	T38	503	Φ45	QW154-503T38
	T45	518	Φ45	QW154-518T45
HC95				
	R32	500	Φ38	QW177-500R32
HC95(SA)				
	T38	438	Φ45.1	QW180-438T38
	T38	500	Φ45.1	QW180-500T38
HC95(SAR)				
	T38	468	Φ45	QW185-468T38

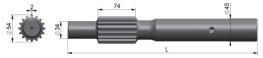
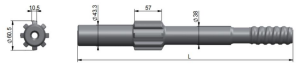
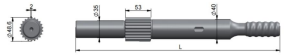
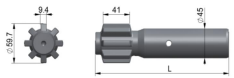
Shank adaptors

Montabert	Thread	Length L（mm）	Diameter mm	LHS Part No.
HC80RP, HC105RP, HC107RP, HC108RP, HC109RP				
	T38	670	Φ45	QW49-670T38
	T45	670	Φ45	QW49-670T45
	T45	770	Φ45	QW49-770T45
HC110CS				
	R32	425	Φ45	QW160-425R32
	T45	425	Φ45	QW160-425T45
HC110MT				
	T38	415	Φ45	QW166-415T38
HC120RP, HC150RP, HC155RP, HC158RP				
	T45	670	Φ51	QW49-670T45A
	T51	670	Φ51	QW49-670T51
HC160, HC170				
	T51	804	Φ60	QW74-804T51
HC200A				
	T60	850	Φ60	QW71-850T60
	GT60	865	Φ60	QW71-865GT60
	T51	865	Φ60	QW71-865T51

Shank adaptors

Secoma	Thread	Length L（mm）	Diameter mm	LHS Part No.
Hydrastar200, 300				
	R32F	351	Φ45	QW5-351H22F
	R32F	351	Φ45	QW5-351R32FA
	R28F	351	Φ45	QW5-351R28F
	R38F	351	Φ55	QW5-351R38F
	T38F	351	Φ55	QW5-351T38F
	D44	470	Φ45	QW5-470D44
	R23	485	Φ45	QW5-485R23
	T45	485	Φ45	QW5-485T45
	Z27 Taper	710	Φ45	QW5-710Z27
	Z21 Taper	770	Φ55	QW5-770Z21
	R32	462	Φ38	QW6-462R32
	R38	462	Φ38	QW6-462R38
	T38	462	Φ38	QW6-462T38
Hydrastar300, 350E				
	T45	485	Φ45	HYD300-03A-1
	T38	530	Φ45	HYD350E-01-1
	T45	530	Φ45	HYD350E-01-1A

Shank adaptors

other	Thread	Length	Diameter	LHS Part No.
		L（mm）	mm	
Boart Long Year HD 65				
	R32	445	Φ45	QW123-445R32
Doofor DF 545				
	T38	515	Φ38.5	QW141-515T38
Doofor DF 545HD				
	T45	515	Φ45	QW141-515T45
Doofor DF 550				
	R32F	375	Φ45	QW141-375R32F
Doofor DF 550L,550S				
	T38	465	Φ45	QW141-465T38
JOY VCR 260,360				
	T38	451	Φ38	QW79-451T38
BROKK TE160-100				
	R32	420	Φ40	QW187-420R32
华泰RC 1200				
	R32F	205	Φ45	QW184-205R32F
	T38	205	Φ45	QW184-375T38
HH220				
	Z16 Taper	705	Φ55	QW181-705Z16
HD 500				
	T45	460	Φ44.6	QW171-460T45

LHS ROCK TOOLS

Shank adaptors

other	Thread	Length	Diameter	LHS Part No.
		L（mm）	mm	
永大YHD 5				
	R32	552	Φ36	QW149-552R32
永大HD 210				
	T38	455	Φ40	QW150-455R32
	T38	455	Φ40	QW150-455T38
	T45	455	Φ45	QW150-455T45
YYG150				
	T38	515	Φ40	QW151-515T38
TMT				
	T62	1380	Φ62	QW86-1380T62
	T62	1440	Φ62	QW86-1440T62

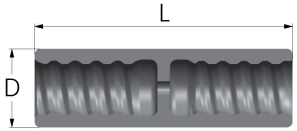
Auxillary tools



Coupling sleeve	102
Crossover coupling sleeve	103
Bit adapters	104
Retrac bit adapters	105
Male thread adaptor	105

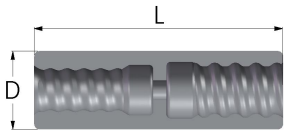
Auxillary tools

Coupling sleeve



Thread	Length		Outside diam		Feature	LHS Part No.
male	mm	inch	mm	inch		
EL60	279	10 63/64	85	3 9/26	Central stop	LEL60-279
EL60	300	11 13/16	85	3 9/26	Full bridge	LEL60-300Q
EL68	330	13	96	3 3/4	Central stop	LEL68-330
EL68	356	14	96	3 3/4	Full bridge	LEL68-356Q
R21	90	3 1/2	28	1 7/64	Full bridge	LR21-90Q
R22	140	5 1/2	31	1 7/32	Central stop	LR22-140
R22	150	5 7/8	30	1 3/16	Full bridge	LR22-150Q
R25	150	5 7/8	35	1 3/8	Central stop	LR25-150
R25	150	5 7/8	35	1 3/8	Full bridge	LR25-150Q
R25	160	6 5/16	35	1 3/8	Central stop	LR25-160
R25	160	6 5/16	35	1 3/8	Full bridge	LR25-160Q
R28	150	5 7/8	40	1 37/64	Central stop	LR28-150
R28	150	5 7/8	40	1 37/64	Full bridge	LR28-150Q
R3212	160	6 5/16	45	1 3/4	Central stop	LR3212-160
R32	150	5 7/8	45	1 3/4	Central stop	LR32-150
R32	150	5 7/8	45	1 3/4	Full bridge	LR32-150Q
R32	160	6 5/16	45	1 3/4	Central stop	LR32-160
R32	170	6 3/4	45	1 3/4	Central stop	LR32-170
R32	170	6 3/4	45	1 3/4	Full bridge	LR32-170Q
R38	170	6 3/4	56	2 13/64	Central stop	LR38-170
R38	170	6 3/4	56	2 13/64	Full bridge	LR38-170Q
R38	180	7 1/8	56	2 13/64	Central stop	LR38-180
R38	180	7 1/8	56	2 13/64	Full bridge	LR38-180Q
R38	190	7 1/2	56	2 13/64	Central stop	LR38-190
R38	190	7 1/2	56	2 13/64	Full bridge	LR38-190Q
R38	190	7 1/2	58	2 9/32	Full bridge	LR38D-190Q
T32	170	6 3/4	45	1 3/4	Central stop	LT32-170
T38	170	6 3/4	56	2 13/64	Central stop	LT38-170
T38	170	6 3/4	56	2 13/64	Full bridge	LT38-170Q
T38	190	7 1/2	56	2 13/64	Central stop	LT38-190
T38	190	7 1/2	56	2 13/64	Full bridge	LT38-190Q
T38	210	8 1/4	56	2 13/64	Central stop	LT38-210
T38	190	7 1/2	58	2 9/32	Central stop	LT38A-190
T38	190	7 1/2	52	2	Full bridge	LT38B-190Q
T45	210	8 1/4	63	2 31/64	Central stop	LT45-210
T45	210	8 1/4	63	2 31/64	Full bridge	LT45-210Q
T45	220	8 5/8	63	2 31/64	Full bridge	LT45-220Q
T45	210	8 1/4	66	2 5/8	Central stop	LT45A-210
T45	210	8 1/4	66	2 5/8	Full bridge	LT45A-210Q
T51	235	9 1/4	72	2 5/6	Central stop	LT51-235
T51	235	9 1/4	72	2 5/6	Full bridge	LT51-235Q
T51	250	9 7/8	72	2 5/6	Full bridge	LT51-250Q
T51	235	9 1/4	76	3	Central stop	LT51A-235

Crossover coupling sleeve

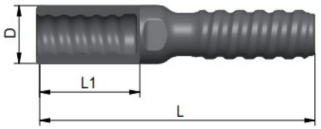


Thread		Length		Outside diam		Feature	LHS Part No.
male	male	mm	inch	mm	inch		
R25	R32	160	6 5/16	45	1 3/4	Full bridge	LR25R32-160Q
R25	T38	160	6 5/16	56	2 13/64	Full bridge	LR25T38-160Q
R25	R38	160	6 5/16	56	2 13/64	Full bridge	LR25R38-160Q
R28	R32	160	6 5/16	45	1 3/4	Central stop	LR28R32-160
R28	R32	170	6 3/4	45	1 3/4	Full bridge	LR28R32-170Q
R28	R38	170	6 3/4	56	2 13/64	Full bridge	LR28R38-170Q
R28	T38	170	6 3/4	56	2 13/64	Full bridge	LR28T38-170Q
R32	R38	170	6 3/4	56	2 13/64	Central stop	LR32R38-170
R32	R38	170	6 3/4	56	2 13/64	Full bridge	LR32R38-170Q
R32	R38	180	7 1/8	56	2 13/64	Full bridge	LR32R38-180Q
R32	R38	210	8 1/4	56	2 13/64	Full bridge	LR32R38-210Q
R32	R38	170	6 3/4	56	2 13/64	Central stop	LR32R38A-170
R32	T38	177	6 31/32	56	2 13/64	Central stop	LR32T38-177
R32	T38	177	6 31/32	56	2 13/64	Full bridge	LR32T38-177Q
R32	T38	195	7 11/16	56	2 13/64	Full bridge	LR32T38-195Q
R32	T38	210	8 1/4	56	2 13/64	Full bridge	LR32T38-210Q
R35	R38	170	6 3/4	56	2 13/64	Full bridge	LR35R38-170Q
R35	T38	170	6 3/4	56	2 13/64	Full bridge	LR35T38-170Q
R38	T38	180	7 1/8	56	2 13/64	Central stop	LR38T38-180
R38	T38	180	7 1/8	56	2 13/64	Full bridge	LR38T38-180Q
R38	T38	185	7 9/32	56	2 13/64	Central stop	LR38T38-185
R38	T38	190	7 1/2	56	2 13/64	Full bridge	LR38T38-190Q
R38	T45	190	7 1/2	63	2 31/64	Full bridge	LR38T45-190Q
T38	T38	195	7 11/16	56	2 13/64	Full bridge	LT32T38-195Q
TR35	T38	170	6 3/4	56	2 13/64	Full bridge	LTR35T38-170Q
T38	T45	190	7 1/2	63	2 31/64	Full bridge	LT38T45-190Q
T38	T45	210	8 1/4	63	2 31/64	Full bridge	LT38T45-210Q
T45	T51	225	8 7/8	76	3	Full bridge	LT45T51-225Q
R32	T45	185	7 9/32	63	2 31/64	Full bridge	LR32T45-185Q
R32	T51	200	7 7/8	76	3	Full bridge	LR32T51-200Q
T38	T51	220	8 5/8	76	3	Full bridge	LT38T51-220Q

LHS ROCK TOOLS

Auxillary tools

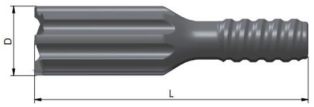
Bit adapters



Thread		Length		Outside diam		LHS Part No.
male	female	mm	inch	mm	inch	
GT60	EL60	335	13 3/16	85	3 9/26	LEL60GT60GM-335
T51	EL60	340	13 27/70	85	3 9/26	LEL60T51M-340
EL60	GT60G	375	14 49/64	85	3 9/26	LGT60GEL60M-375
EL68	GT60G	400	15 3/4	85	3 9/26	LGT60GEL68M-400
T45	GT60G	350	13 1/2	85	3 9/26	LGT60GT45M-350
T51	GT60G	340	13 27/70	85	3 9/26	LGT60GT51M-340
R32	R25	200	7 7/8	45	1 3/4	LR25R32M-200
R32	R28	220	8 21/32	40	1 37/64	LR28R32M-220
R38	R28	220	8 21/32	40	1 37/64	LR28R38M-220
R32	R22M	200	7 7/8	34	1 11/32	LR22MR32M-200
R32	R23M	215	8 15/32	34	1 11/32	LR23MR32M-215
R32	R25M	240	9 29/64	34	1 11/32	LR25MR32M-240
R28	R32	210	8 1/4	45	1 3/4	LR32R28M-210
R32	R32	380	14 31/32	46	1 13/16	LR32R32M-380
T38	R32	210	8 1/4	45	1 3/4	LR32T38M-210
T38	R32	220	8 21/32	45	1 3/4	LR32T38M-220
T28	R38	265	10 3/8	76	3	LR38T28M-265
ST58G	ST58	265	10 3/8	76	3	LST58ST58GM-265
ST68G	ST58	320	12 19/32	88	3 15/32	LST58ST68M-320
EL68	ST58	380	14 31/32	76	3	LST58EL68M-380
T51	ST58	320	12 19/32	76	3	LST58T51M-320
T51	ST68	350	13 25/32	87	3 7/16	LST68T51M-350
R38	T32	200	7 7/8	45	1 3/4	LT32R38M-200
R32	TR32	215	8 15/32	45	1 3/4	LTR32R32M-215
T38	TZ35	250	9 7/8	46	1 13/16	LTZ35T38M-250
R32	T38	250	9 7/8	56	2 13/64	LT38R32M-250
T45	T38	285	11 7/32	56	2 13/64	LT38T45M-285
R23	T45	260	10 1/4	63	2 31/64	LT45R23M-260
T38	T45	220	8 21/32	63	2 31/64	LT45T38M-220
T38	T45	265	10 3/8	63	2 31/64	LT45T38M-265
T51	T45	300	11 13/16	66	2 19/32	LT45T51M-300
EL60	T51	315	12 13/32	72	2 53/64	LT51EL60M-315
GT60G	T51	285	11 7/32	85	3 9/26	LT51GT60GM-285
ST58G	T51	280	11 1/32	76	3	LT51ST58M-280
EL68	T51	350	13 25/32	76	3	LT51EL68M-350
T45	T51	285	11 7/32	72	2 53/64	LT51T45M-285
R32R	N18	200	7 7/8	45	1 3/4	LN18R32RM-200
R32	N18	208	8 3/16	45	1 3/4	LN18R32M-208
R32R	N21	200	7 7/8	45	1 3/4	LN21R32RM-200
R32	N21	208	8 3/16	45	1 3/4	LN21R32M-208
T58	T60	280	11 1/32	87	3 7/16	LT60ST58M-280
R32	Z16	445	17 33/64	44	1 47/64	LZ16R32M-445
R32	Z16	445	17 33/64	48	1 7/8	LZ27R32M-445

Auxillary tools

Retrac bit adapters



Thread		Length		Outside diam		LHS Part No.
male	female	mm	inch	mm	inch	
T38	T38	340	13 27/70	63	2 31/64	LYT38T38MA-340
T45	T45	310	12 13/64	70	2 3/4	LYT45T45M-310
T51	T51G	235	9 1/4	76	3 15/64	LYT51T51M-235
T51	T51	340	13 27/70	82	3 15/64	LYT51T51MA-340
T51	T51	340	13 27/70	88	3 15/32	LYT51T51MB-340
GT60	GT60G	400	15 3/4	105	4 9/64	LYGT60GGT60GM-400
GT60	GT60G	680	26 49/64	117	4 39/64	LYGT60GGT60GM-680

Male thread adaptor



Thread		Length		LHS Part No.
male	male	mm	inch	
R38	R38	160	6 19/64	LR38M-160
R38	R38	280	11 1/32	LR38MA-280
T38	T38	340	13 27/70	LT38M-340
T38	T38	340	13 27/70	LT38MA-340
T45	T45	225	8 7/8	LT45M-225
T51	T51	250	9 7/8	LT51M-250
EL60	EL60	330	13	LEL60M-330

LHS ROCK TOOLS

Global Service System





Contact Information

International Sales: +86 429 4428424

Sales Email: info@lhsrocktools.com

China - Liaoning - Huludao - Lianhua Mountain

Marketing Agency

https://www.lhsrta.com.au/

http://www.lhsdrill.com/

http://www.lhsdrill.ca/