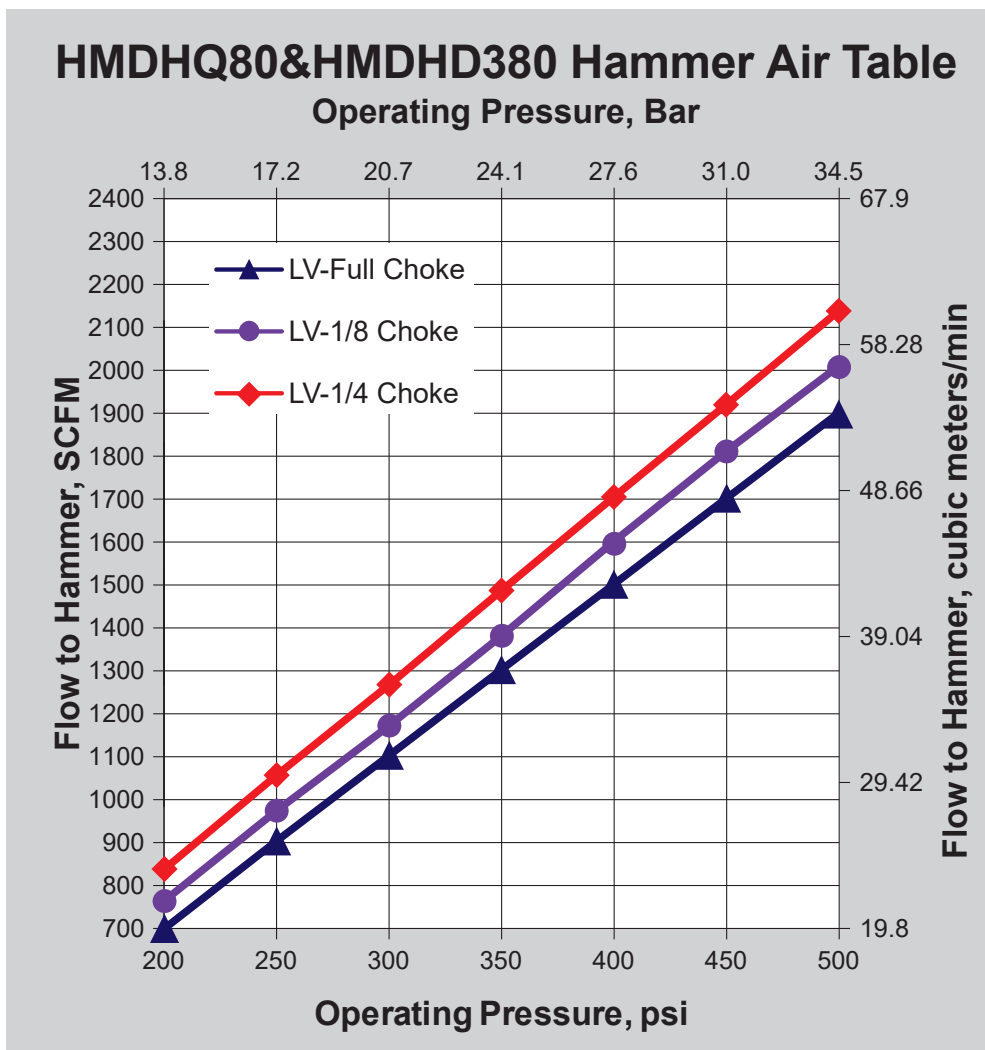


8" QL8&380 MD HAMMER-HMDHQ80&HMDHD380

HMDHQ80&HMDHD380:

This High Performance Hammer was designed with production drilling in mind. It is designed best for Water Well and Geothermal drilling, but can be used in blast hole drilling applications.

The HMDHQ80&HMDHD380's non-ported, air craft quality steel piston is the only moving part in the hammer which limits internal wear and yields maximum penetration rates. Its wearsleeve is reversible and double heat treated for maximum life.



MMC RYOTEC Corporation

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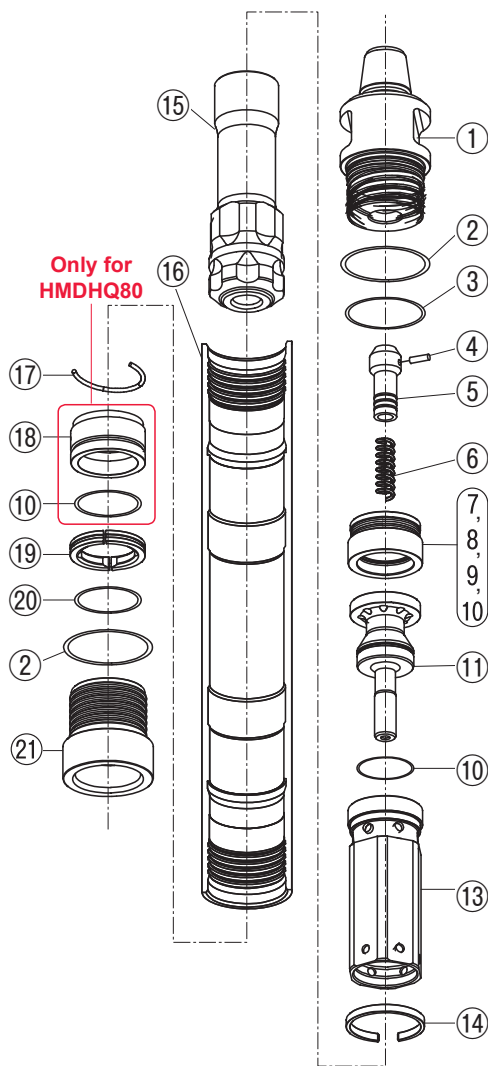
Hammer Specification

| | English | Metric |
|--------------------------------------------------|-------------------------------------------------------|-----------------|
| Outside Dia | 7.10 in | 180 mm |
| Overall Length Without Bit | | |
| HMDHD380 Models | 56.9 in | 1445 mm |
| HMDHQ80 Models | 56.2 in | 1427 mm |
| Operating Length API Shoulder to Bit Face | | |
| HMDHD380 Models | 57.7 in | 1542 mm |
| HMDHQ80 Models | 57.0 in | 1524 mm |
| Total Weight | 414 lbs | 188 kg |
| Bore Size | 5.87 in | 149 mm |
| Piston Weight | 78 lbs | 35 kg |
| Drillpipe Connect | 4-1/2 Reg API Pin Up others available upon request | |
| Wrench Flats | 5.9 in | 150 mm |
| Hole Size Range All Models | 7-7/8 in to 10 in | 200 mm to 254 m |
| Bit Shank Required | | |
| HMDHD380 Models | 380 | |
| HMDHQ80 Models | QL8 | |
| Minimum Air Volume Required | 500 cfm | 14 cmm |
| Maximum Operating Pressure All Models | 500 psi | 34 bar |

Parts List

Shown at the right side of the chart is the quantity of spare parts that should be kept on hand. Level 1 is for water well drilling, Level 3 is for high production drilling.

HMDHQ80 & HMDHD380



| ITEM No | PART No | QTY REQD | PART NAME | WEIGHT | | SPARE PARTS ON HAND | | |
|---------------------------------------|------------------------------|----------|----------------------------------------------------------------------------|--------|-------|---------------------|---------|---------|
| | | | | LBS | KGS | LEVEL 1 | LEVEL 2 | LEVEL 3 |
| 1 | HP-BKH-MD803-0020 | 1 | Back Head, 4 1/2" API Reg. Pin Up | 98 | 44.5 | — | — | 1 |
| 2 | HP-BOW-0041 | 2 | Washer, Breakout | 0.03 | 0 | — | 2 | 4 |
| 3 | HP-ORG/BKH-0103 | 1 | O-Ring for Back Head | 0.01 | | 1 | 2 | 4 |
| 4 | HP-CST-0054 | 1 | Choke Set | 0.01 | | — | — | — |
| 5 | HP-CKV-RH8-0049 | 1 | Check Valve Body | 1.2 | 0.55 | — | — | 1 |
| 6 | HP-CVS-0051 | 1 | Spring, Check Valve | 0.3 | 0.14 | — | 1 | 2 |
| 7 | HP-GUR-0087 | 1 | Disc Spring Guide Ring | 4.3 | 1.95 | — | — | — |
| 8 | HP-DSC-0079 | 4 | Disc Spring | 0.22 | 0.1 | — | — | 4 |
| 9 | HP-SPT-0149 | 1 | Spacer Ring | 4.4 | 2 | — | — | — |
| 10 | HP-ORG/GUR-0118 | 3 or 2 | O-Ring for Guide Ring, Bearing & Air Dist 3 for HMDHQ80, 2 for HMDHD380 | 0.01 | | 3 or 2 | 6 or 4 | 9 or 6 |
| 11 | HP-ADB-MD80-0009 | 1 | Air Distributor | 4.5 | 2.05 | — | — | 1 |
| 12 | part not used in this hammer | | | | | | | |
| 13 | HP-CLD-MD80-0077 | 1 | Cylinder, Assembly | 7 | 3.2 | — | 1 | 2 |
| 14 | | 1 | RETAINING RING, COMES ON CYLINDER 13 | 0.45 | 0.2 | — | — | — |
| 15 | HP-PST/LOW-MD80Q1-0129 | 1 | Piston for HMDHQ80 | 78 | 35.5 | — | 1 | 1 |
| 15 | HP-PST/LOW-MD80R1-0130 | 1 | Piston for HMDHD380 | 78 | 35.5 | — | 1 | 1 |
| 16 | HP-WSV-MD80-0166 | 1 | Wear Sleeve | 139 | 63.2 | 1 | 2 | 3 |
| 17 | HP-RRG/PST-0142 | 1 | Retaining Ring, Piston | 0.24 | 0.109 | — | — | — |
| 18 | HP-BRG-MD80-0028 | 1 | Bearing | 6.7 | 3.045 | — | 1 | 1 |
| 18 | part not used in HMDHD380 | | | | | | | |
| 19 | HP-BRR-0036 | 1 | Bit Retaining Ring | 3.2 | 1.455 | — | 1 | 1 |
| 20 | HP-ORG/BRR-0111 | 1 | O-Ring for Bit Retaining Ring | 0.01 | | 2 | 4 | 6 |
| 21 | HP-CHK-MD80Q-0067 | 1 | Chuck for HMDHQ80 | 25.8 | 11.7 | 2 | 4 | 6 |
| 21 | HP-CHK-MD80R-0068 | 1 | Chuck for HMDHD380 | 25.8 | 11.7 | 2 | 4 | 6 |
| THE FOLLOWING PARTS ARE SOLD SEPARATE | | | | | | | | |
| — | HP-MUW-0206 | | Washer, Make-Up | | | | | 1 |
| — | HP-RBDKIT-MD80QLV-0197 | | Rebuild Kit for HMDHQ80 | | | | | 1 |
| — | HP-RBDKIT-MD80LV-0199 | | Rebuild Kit for HMDHD380 | | | | | 1 |

MITSUBISHI MATERIALS, USA CORPORATION

California Office
3535 Hyland Avenue, Suite 200
Costa Mesa, CA 92626
Customer Service: 800.423.1358

North Carolina Rock Tools Office
105 Corporate Center Drive
 Mooresville, NC 28117
Customer Service: 980.312.3150
Fax: 704.746.9595
E-Mail: mmusclt@mmus.com

Toronto Office
3535 Laird Road
Units 15 & 16
Mississauga, Ontario, Canada L5L 5Y7
Main: 905.814.0240
Fax: 905.814.0245