

n **Vf**
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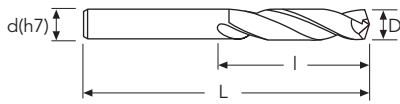
DIN 338

238LFTA



238LFTA (h8)

| | | | | | |
|----------|---------|---------|---------|---------|---------|
| Ø mm | 1~3 | 3.1~6 | 6.1~10 | 10.1~18 | 18.1~20 |
| tol. D µ | 0 / -14 | 0 / -18 | 0 / -22 | 0 / -27 | 0 / -33 |



d = D



| D(h8) | I | L | Stock |
|---------|----|----|-------|
| mm 2.00 | 24 | 49 | ● |
| 2.10 | 24 | 49 | ● |
| 2.20 | 27 | 53 | ● |
| 2.30 | 27 | 53 | ● |
| 2.40 | 30 | 57 | ● |
| 2.50 | 30 | 57 | ● |
| 2.60 | 30 | 57 | ● |
| 2.70 | 33 | 61 | ● |
| 2.80 | 33 | 61 | ● |
| 2.90 | 33 | 61 | ● |
| 3.00 | 33 | 61 | ● |
| 3.10 | 36 | 65 | ● |
| 3.20 | 36 | 65 | ● |
| 3.30 | 36 | 65 | ● |
| 3.40 | 39 | 70 | ● |
| 3.50 | 39 | 70 | ● |
| 3.60 | 39 | 70 | ● |
| 3.70 | 39 | 70 | ● |
| 3.80 | 43 | 75 | ● |
| 3.90 | 43 | 75 | ● |
| 4.00 | 43 | 75 | ● |
| 4.10 | 43 | 75 | ● |
| 4.20 | 43 | 75 | ● |
| 4.30 | 47 | 80 | ● |
| 4.40 | 47 | 80 | ● |
| 4.50 | 47 | 80 | ● |
| 4.60 | 47 | 80 | ● |
| 4.70 | 47 | 80 | ● |
| 4.80 | 52 | 86 | ● |
| 4.90 | 52 | 86 | ● |
| 5.00 | 52 | 86 | ● |
| 5.10 | 52 | 86 | ● |
| 5.20 | 52 | 86 | ● |
| 5.30 | 52 | 86 | ● |
| 5.40 | 57 | 93 | ● |
| 5.50 | 57 | 93 | ● |

● stock standard ○ non-standard stock ■ stock exhaustion

n **Vf**
PAGE 249

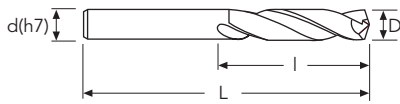
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| Ø mm | 1~3 | 3.1~6 | 6.1~10 | 10.1~18 | 18.1~20 |
| tol. D µ | 0 / -14 | 0 / -18 | 0 / -22 | 0 / -27 | 0 / -33 |



d = D



| D(h8) | I | L | Stock |
|---------|----|-----|-------|
| mm 5.60 | 57 | 93 | ● |
| 5.70 | 57 | 93 | ● |
| 5.80 | 57 | 93 | ● |
| 5.90 | 57 | 93 | ● |
| 6.00 | 57 | 93 | ● |
| 6.10 | 63 | 101 | ● |
| 6.20 | 63 | 101 | ● |
| 6.30 | 63 | 101 | ● |
| 6.40 | 63 | 101 | ● |
| 6.50 | 63 | 101 | ● |
| 6.60 | 63 | 101 | ● |
| 6.70 | 63 | 101 | ● |
| 6.80 | 69 | 109 | ● |
| 6.90 | 69 | 109 | ● |
| 7.00 | 69 | 109 | ● |
| 7.10 | 69 | 109 | ● |
| 7.20 | 69 | 109 | ● |
| 7.30 | 69 | 109 | ● |
| 7.40 | 69 | 109 | ● |
| 7.50 | 69 | 109 | ● |
| 7.60 | 75 | 117 | ● |
| 7.70 | 75 | 117 | ● |
| 7.80 | 75 | 117 | ● |
| 7.90 | 75 | 117 | ● |
| 8.00 | 75 | 117 | ● |
| 8.10 | 75 | 117 | ● |
| 8.20 | 75 | 117 | ● |
| 8.30 | 75 | 117 | ● |
| 8.40 | 75 | 117 | ● |
| 8.50 | 75 | 117 | ● |
| 8.60 | 81 | 125 | ● |
| 8.70 | 81 | 125 | ● |
| 8.80 | 81 | 125 | ● |
| 8.90 | 81 | 125 | ● |
| 9.00 | 81 | 125 | ● |
| 9.10 | 81 | 125 | ● |

● stock standard ○ non-standard stock ■ stock exhaustion

- TYPHOON
- C-SD-TA
- LFTA**
- SUTA
- HSS-HSS/CO DRILLS
- UH RED
- MEX ORANGE
- HF EVO
- MEF ENDLESS
- ALU
- MDC
- G2
- MDTA
- ULTRA MILLS
- HSS/CO
- CARBIDE BURRS
- PARAMETERS

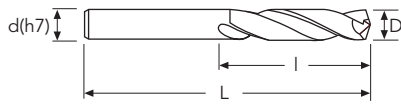
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DIN
338

238LFTA (h8)

| | | | | | |
|----------|---------|---------|---------|---------|---------|
| Ø mm | 1~3 | 3.1~6 | 6.1~10 | 10.1~18 | 18.1~20 |
| tol. D µ | 0 / -14 | 0 / -18 | 0 / -22 | 0 / -27 | 0 / -33 |

238LFTA



d = D



| D(h8) | I | L | Stock |
|---------|-----|-----|-------|
| mm 9.20 | 81 | 125 | ● |
| 9.30 | 81 | 125 | ● |
| 9.40 | 81 | 125 | ● |
| 9.50 | 81 | 125 | ● |
| 9.60 | 87 | 133 | ● |
| 9.70 | 87 | 133 | ● |
| 9.80 | 87 | 133 | ● |
| 9.90 | 87 | 133 | ● |
| 10.00 | 87 | 133 | ● |
| 10.20 | 87 | 133 | ● |
| 10.30 | 87 | 133 | ● |
| 10.50 | 87 | 133 | ● |
| 10.80 | 94 | 142 | ● |
| 11.00 | 94 | 142 | ● |
| 11.20 | 94 | 142 | ● |
| 11.30 | 94 | 142 | ● |
| 11.50 | 94 | 142 | ● |
| 11.80 | 94 | 142 | ● |
| 12.00 | 101 | 151 | ● |
| 12.20 | 101 | 151 | ● |
| 12.50 | 101 | 151 | ● |
| 12.80 | 101 | 151 | ● |
| 13.00 | 101 | 151 | ● |
| 13.30 | 108 | 160 | ● |
| 13.50 | 108 | 160 | ● |
| 13.80 | 108 | 160 | ● |
| 14.00 | 108 | 160 | ● |
| 14.50 | 114 | 169 | ● |
| 14.80 | 114 | 169 | ● |
| 15.00 | 114 | 169 | ● |
| 15.30 | 120 | 178 | ● |
| 15.50 | 120 | 178 | ● |
| 15.80 | 120 | 178 | ● |
| 16.00 | 120 | 178 | ● |
| 16.50 | 125 | 184 | ● |
| 17.00 | 125 | 184 | ● |

● stock standard ○ non-standard stock ■ stock exhaustion



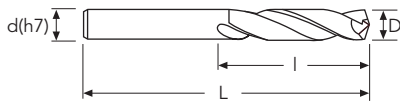
DIN
338

238LFTA



238LFTA (h8)

| | | | | | |
|----------|---------|---------|---------|---------|---------|
| Ø mm | 1~3 | 3.1~6 | 6.1~10 | 10.1~18 | 18.1~20 |
| tol. D µ | 0 / -14 | 0 / -18 | 0 / -22 | 0 / -27 | 0 / -33 |



d = D



HSS/CO
PV10



| D(h8) | I | L | Stock |
|----------|-----|-----|-------|
| mm 17.50 | 130 | 191 | ● |
| 18.00 | 130 | 191 | ● |
| 18.50 | 135 | 198 | ● |
| 19.00 | 135 | 198 | ● |
| 19.50 | 140 | 205 | ● |
| 20.00 | 140 | 205 | ● |

● stock standard ○ non-standard stock ■ stock exhaustion

- TYPHOON
- C-SD-TA
- LFTA
- SUTA
- HSS-HSS/CO DRILLS
- UH RED
- MEX ORANGE
- HF EVO
- MEF ENDLESS
- ALU
- MDC
- G2
- MDTA
- ULTRA MILLS
- HSS/CO
- CARBIDE BURRS
- PARAMETERS

| 238LFTA | | | | | | | | | | | | | | | |
|-------------------|---------|-------|---------|-------|----------|-------|-------|-------|-------|-------|-------------------|-------|------|-------|--|
| MATERIAL GROUPS | 1 2 3 | | 3 4 | | 5 6 | | 9 10 | | 13 14 | | 15 16 18 19 20 | | | 17 | |
| HRC | ~22 | | 22~27 | | 27~35 | | | | | | | | | | |
| N/mm ² | 500~800 | | 800~900 | | 900~1100 | | | | | | | | | | |
| Vc [m/min] | 30~35 | | 25~30 | | 20~25 | | 15~18 | | 25~30 | | 50~60 | | | 35~45 | |
| Ø mm. | n | fn | n | fn | n | fn | n | fn | n | fn | n | fn | n | fn | |
| 2 | 5500 | 0.067 | 4500 | 0.050 | 3600 | 0.042 | 2560 | 0.033 | 4500 | 0.060 | 8900 | 0.067 | 6400 | 0.058 | |
| 5 | 2200 | 0.170 | 1800 | 0.130 | 1450 | 0.110 | 1040 | 0.084 | 1800 | 0.150 | 3600 | 0.170 | 2560 | 0.150 | |
| 8 | 1350 | 0.240 | 1120 | 0.180 | 880 | 0.150 | 640 | 0.120 | 1120 | 0.210 | 2250 | 0.240 | 1600 | 0.210 | |
| 12 | 920 | 0.340 | 750 | 0.260 | 600 | 0.210 | 430 | 0.170 | 750 | 0.300 | 1480 | 0.340 | 1070 | 0.300 | |
| 16 | 680 | 0.420 | 560 | 0.330 | 450 | 0.260 | 320 | 0.210 | 560 | 0.380 | 1120 | 0.420 | 800 | 0.380 | |
| 20 | 550 | 0.470 | 450 | 0.380 | 360 | 0.300 | 260 | 0.240 | 450 | 0.420 | 900 | 0.470 | 640 | 0.420 | |

| 980SUTA - 990SUTA* | | | | | | | | | | | | | | | |
|--------------------|-------|-------|-------|-------|-------|-------|-------------------|-------|------|-------|------|------|------|-------|--|
| MATERIAL GROUPS | 1 2 | | 9 | | 10 | | 15 16 18 19 20 | | | 17 | | 22 | | 26 | |
| HRC | ~600 | | | | | | | | | | | | | | |
| N/mm ² | | | | | | | | | | | | | | | |
| Vc [m/min] | 35~45 | | 18~22 | | 16~20 | | 70~90 | | | 30~40 | | 8~10 | | 13~15 | |
| Ø mm. | n | fn | n | fn | n | fn | n | fn | n | fn | n | fn | n | fn | |
| 2 | 6300 | 0.080 | 3100 | 0.070 | 2600 | 0.070 | 11000 | 0.090 | 5600 | 0.060 | 1250 | 0.03 | 2080 | 0.06 | |
| 3 | 4200 | 0.130 | 2100 | 0.080 | 1800 | 0.080 | 7000 | 0.130 | 3800 | 0.080 | 850 | 0.05 | 1440 | 0.06 | |
| 4 | 3200 | 0.140 | 1600 | 0.100 | 1300 | 0.100 | 7100 | 0.180 | 2800 | 0.100 | 630 | 0.06 | 1040 | 0.08 | |
| 5 | 2500 | 0.160 | 1250 | 0.150 | 1100 | 0.140 | 5500 | 0.220 | 2300 | 0.130 | 500 | 0.08 | 840 | 0.11 | |
| 6 | 2100 | 0.180 | 1100 | 0.180 | 900 | 0.170 | 4600 | 0.260 | 1900 | 0.150 | 430 | 0.09 | 720 | 0.14 | |
| 8 | 1550 | 0.220 | 800 | 0.240 | 650 | 0.220 | 3500 | 0.340 | 1400 | 0.200 | 320 | 0.12 | 520 | 0.18 | |
| 10 | 1250 | 0.260 | 650 | 0.300 | 550 | 0.260 | 2800 | 0.400 | 1100 | 0.250 | 260 | 0.15 | 440 | 0.21 | |
| 12 | 1100 | 0.320 | 550 | 0.360 | 450 | 0.330 | 2300 | 0.500 | 950 | 0.300 | 210 | 0.18 | 360 | 0.26 | |
| 14 | 900 | 0.360 | 450 | 0.440 | 400 | 0.360 | 2100 | 0.550 | 800 | 0.330 | 193 | 0.22 | 320 | 0.29 | |
| 16 | 800 | 0.400 | 400 | 0.480 | 350 | 0.400 | 1800 | 0.620 | 700 | 0.350 | 178 | 0.24 | 280 | 0.32 | |
| 18 | 700 | 0.450 | 350 | 0.500 | 300 | 0.430 | 1600 | 0.700 | 620 | 0.400 | 167 | 0.26 | 240 | 0.34 | |
| 20 | 620 | 0.470 | 320 | 0.530 | 260 | 0.460 | 1500 | 0.750 | 560 | 0.400 | 159 | 0.28 | 208 | 0.37 | |

*fn = -10%~15%

TYPHOON

C-SD-TA

LFTA

SUTA

HSS-
HSS/CO
DRILLS

UH
RED

MEX
ORANGE

HF
EVO

MEF
ENDLESS

ALU

MDC

G2

MDTA

ULTRA
MILLS

HSS/CO

CARBIDE
BURRS

PARAMETERS