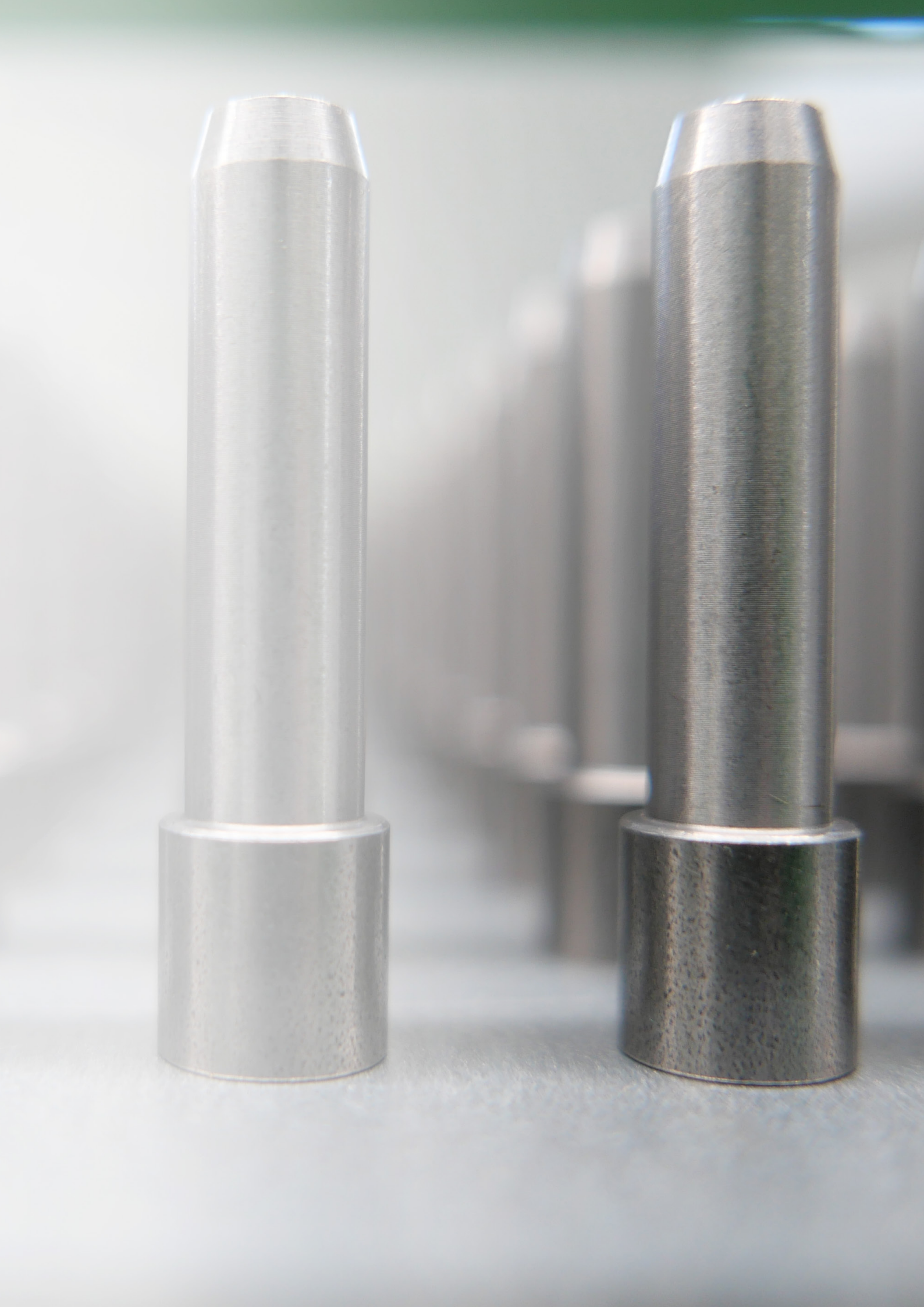
DAMEC

# MANUALE TECNICO
# HONING SUPPLIES CATALOG

μ

# INDICE - *INDEX*



# CHI SIAMO - LA MISSION

DAMEC non si limita a progettare, costruire e vendere macchine utensili per la levigatura di precisione del foro. Vuole trasmettere ai propri clienti metodo e competenza: la somma delle esperienze acquisite dal fondatore, Danilo Maggioni, e trasmesse ai propri figli per continuare a credere in un sogno nato nel 2014.
Continuare ad acquisire e trasmettere competenze, attraverso la costanza, il sacrificio, la determinazione e la disciplina, è un processo che non si ferma mai, anzi, come la vita, scorre naturalmente accompagnando DAMEC e i suoi clienti verso una realtà industriale in costante e continua evoluzione.
Per noi i dettagli sono molto importanti, quelli più piccoli, quelli che fanno la differenza.

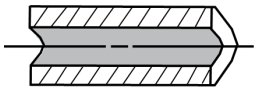
*DAMEC: in un micron tutto lo stile italiano.*

DAMEC is more than just a developer, manufacturer and distributor of high-precision boring machines. The company's aim is to pass on to its customers its methods and know-how: the sum of the experience acquired by the company's founder, Danilo Maggioni, and passed on to his children in order to continue believing in a dream born in 2014.
Acquiring and passing on skills, through perseverance, sacrifice, determination and discipline, is a process that never stops, but, like life, flows naturally, accompanying DAMEC and its customers towards a constantly evolving industrial reality.
For us, details are very important, the smallest, those that make the difference.

*DAMEC: all Italian style in a micron.*

# GUIDA ALLA SELEZIONE DEGLI UTENSILI
# *HONING UNIT SELECTION GUIDE*

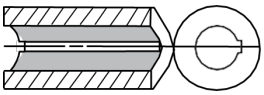
FORI PASSANTI
*OPEN HOLES WITH NO INTERRUPTIONS*



Selezionare un utensile con lunghezza pietra da 2/3 a 1-1/2 volte la lunghezza del foro. Se la lunghezza della pietra montata sull'utensile è eccesiva bisogna accorciare la pietra.

*Select a honing unit with stone length 2/3 to 1-1/2 times bore length. If honing units shown have stone length too long, shorten the stone.*

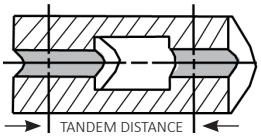
FORI CON CHIAVETTA
*OPEN HOLES WITH KEYWAYS OR SPLINES*



Fori con uno scarico come questo richiedono un utensile per cave (Y). La pietra dovrebbe essere da 2/3 a 1-1/2 volte la lunghezza del foro.
Non adatto per lavorazione in fori ciechi.

*Bores with interruptions such as these require keyway honing units. Stone should be 2/3 to 1-1/2 times bore length. Not suitable for blind hole work.*

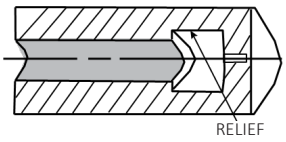
FORI A TANDEM
OPEN HOLES WITH TANDEM LANDS




Fori a tandem richiedono una lunghezza della pietra di almeno il doppio della pietra stessa. Nel caso in cui i mandrini a disposizione non abbiano la lunghezza pietra adeguata per la lavorazione da eseguire, è possibile intervenire modificando opportunamente la configurazione della pietra stessa.

*Tandem bores require a stone length at least twice the distance. If honing units are not available with sufficient stone length, alter the stone.*

FORI CIECHI
BLIND HOLES




Selezionare un mandrino con una lunghezza della pietra pari a 2/3 della lunghezza del foro. Qualora i mandrini disponibili abbiano una lunghezza eccessiva bisogna accorciare la pietra.
Assicurarsi che l'albero del mandrino sia sufficientemente lungo da consentire alla pietra di raggiungere il fondo del foro (accorciando la parte finale del utensile standard oppure utilizzare un multi-pietra).

*Select a honing unit with stone length 2/3 times bore length. If Honing units shown have stone length too long, shorten the stone.*
*Be sure shank is long enough to permit stone to reach bottom in hole (by shortening the rear end of the standard tool or by using a multi-stone tool).*

# MANDRINI K - BL
## *SPINDLE K - BL*

L'utensile con singolo abrasivo è progettato per la lavorazione dei fori sia in fase di sgrossatura che finitura.

DAMEC commercializza differenti tipologie di mandrini a seconda del materiale da lavorare, aventi guide dure, tenere o in bronzo. Per una maggiore prestazione e durata dell'utensile, la nostra azienda offre la possibilità di diamantare l'utensile e le guide per raddiopiarne la vita lavorativa.

I range di lavorazione degli utensili partono da un diametro minimo di 2,54mm ad un massimo di 152,40mm.

L'attrezzatura standard è composta da: un adattatore, un mandrino con asta, una boccola di centraggio, una boccola per la raggiatura e una pietra abrasiva.

Tutti questi prodotti hanno un codice "DAMEC" in modo da poter riconoscere la tipologia dell'utensile.

Inoltre, il nostro team offre ai propri clienti la possibilità di personalizzare i propri utensili a seconda delle loro esigenze.

*The single-stone tool is designed to reach an inner hole during the roughing and finishing process.*

*DAMEC has developed different types of mandrels depending on the working material, with hard, soft or bronze shoes. In order to have the best performance and long-life time of the tool, our company offers the possibility to diamondise tool and guides in order to double the work.*

*The workable diameter is from 2,54 mm to max. 152,40 mm.*

*The standard devices are: adapter, mandrel with wedge, truing sleeve, sleeve and abrasive stone.*

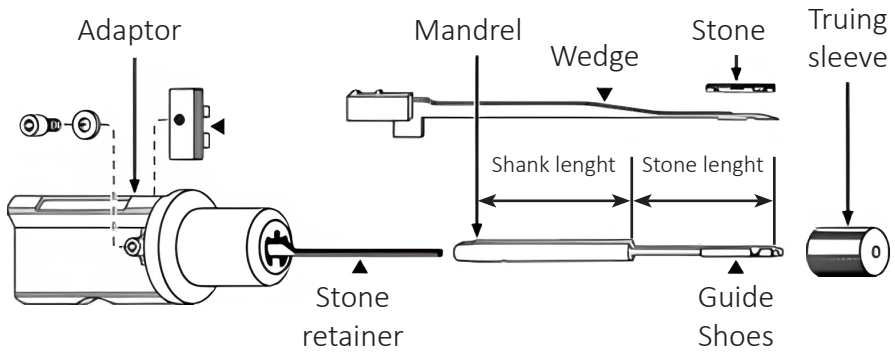
*All these products are codified "DAMEC" in order to be identified by the customer.*

*Then, our team offer to our customer the possibility the customize their tools depending on their needs.*

| TABELLA INDICATIVA ROTAZIONE UTENSILI | |
|---|---|
| *INDICATIVE TOOL ROTATION TABLE* | |
| DIAMETRO Ø | GIRI RPM MAX |
| Meno di 8mm | 2500 |
| da 8 a 8,5 | 2250 |
| da 8,5 a 9,5 | 2000 |
| da 9,5 a 11 | 1800 |
| da 11 a 12,5 | 1600 |
| da 12,5 a 14 | 1425 |
| da 14 a 16 | 1270 |
| da 16 a 19 | 1000 |

| TABELLA INDICATIVA ROTAZIONE UTENSILI | |
|---|---|
| *INDICATIVE TOOL ROTATION TABLE* | |
| DIAMETRO Ø | GIRI RPM MAX |
| da 19 a 25 | 800 |
| da 25 a 32 | 640 |
| da 32 a 41 | 500 |
| da 41 a 51 | 400 |
| da 51 a 64 | 320 |
| da 64 a 83 | 250 |
| Oltre 83 | 200 |


DAMEC




# BL3 / K3
# Diametro: da 2.54 a 3.05 mm
# *Diameter: from 2.54 to 3.05 mm / .100” - .120”*

| **DIAMETRO** ***DIAMETER*** | | **MANDRINO** ***MANDREL*** | | | | **BOCCOLA DI RAGGIATURA** ***TRUING SLEEVE*** | **ADATTATORE** ***ADAPTOR*** | **BOCCOLA DI CENTRAGGIO** ***ALIGNMENT BUSHING*** |
|---|---|---|---|---|---|---|---|---|
| 2,54-2,59 | .100-.102 | K3/BL3-100C | S | H | B | S-100 | K3/BL3-A | C-100 |
| 2,59-2,64 | .102-.104 | K3/BL3-102C | S | H | B | S-102 | K3/BL3-A | C-102 |
| 2,64-2,69 | .104-.106 | K3/BL3-104C | S | H | B | S-104 | K3/BL3-A | C-104 |
| 2,69-2,74 | .106-.108 | K3/BL3-106C | S | H | B | S-106 | K3/BL3-A | C-106 |
| 2,74-2,79 | .108-.110 | K3/BL3-108C | S | H | B | S-108 | K3/BL3-A | C-108 |
| 2,79-2,84 | .110-.112 | K3/BL3-110C | S | H | B | S-110 | K3/BL3-A | C-110 |
| 2,84-2,90 | .112-.114 | K3/BL3-112C | S | H | B | S-112 | K3/BL3-A | C-112 |
| 2,90-2,95 | .114-.116 | K3/BL3-114C | S | H | B | S-114 | K3/BL3-A | C-114 |
| 2,95-3,00 | .116-.118 | K3/BL3-116C | S | H | B | S-116 | K3/BL3-A | C-116 |
| 3,00-3,05 | .118-.120 | K3/BL3-118C | S | H | B | S-118 | K3/BL3-A | C-118 |

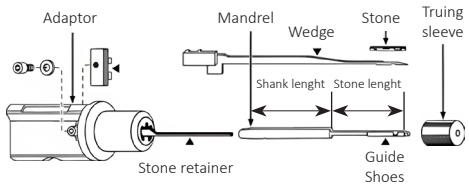
LUNGHEZZA PIETRA / STONE LENGHT

BL3 = 25.40 mm / K3 = 14.30 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)

BL3 = 47.6 mm / K3 = 36.5 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.




# BL4 / K4
# Diametro: da 3.05 a 3.81 mm
# *Diameter: from 3.05 to 3.81 mm / .120” - .150”*

| DIAMETRO *DIAMETER* | | MANDRINO *MANDREL* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|
| 3,05-3,17 | .120-.125 | K/BL4-120C | S | H | B | S-120 | K/BL4-A | C-120 |
| 3,17-3,30 | .125-.130 | K/BL4-125C | S | H | B | S-125 | K/BL4-A | C-125 |
| 3,30-3,43 | .130-.135 | K/BL4-130C | S | H | B | S-130 | K/BL4-A | C-130 |
| 3,43-3,56 | .135-.140 | K/BL4-135C | S | H | B | S-135 | K/BL4-A | C-135 |
| 3,56-3,68 | .140-.145 | K/BL4-140C | S | H | B | S-140 | K/BL4-A | C-140 |
| 3,68-3,81 | .145-.150 | K/BL4-145C | S | H | B | S-145 | K/BL4-A | C-145 |

LUNGHEZZA PIETRA / *STONE LENGHT*
BL4 = 25.40 mm / K3 = 14.30 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
BL4 = 47.6 mm / K4 = 36.5 mm

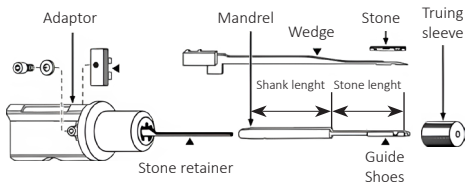
# BL5 / K5
# Diametro: da 3.81 a 4.70 mm
# *Diameter: from 3.81 to 4.70 mm / .150” - .185”*

| DIAMETRO *DIAMETER* | | MANDRINO *MANDREL* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|
| 3,81-3,94 | .150-.155 | K/BL5-150C | S | H | B | S-150 | K/BL5-A | C-150 |
| 3,94-4,06 | .155-.160 | K/BL5-155C | S | H | B | S-155 | K/BL5-A | C-155 |
| 4,06-4,19 | .160-.165 | K/BL5-160C | S | H | B | S-160 | K/BL5-A | C-160 |
| 4,19-4,32 | .165-.170 | K/BL5-165C | S | H | B | S-165 | K/BL5-A | C-165 |
| 4,32-4,44 | .170-.175 | K/BL5-170C | S | H | B | S-170 | K/BL5-A | C-170 |
| 4,44-4,57 | .175-.180 | K/BL5-175C | S | H | B | S-175 | K/BL5-A | C-175 |
| 4,57-4,70 | .180-.185 | K/BL5-180C | S | H | B | S-180 | K/BL5-A | C-180 |

LUNGHEZZA PIETRA / *STONE LENGHT*
BL5 = 31.70 mm / K3 = 17.50 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
BL5 = 53.9 mm / K5 = 39.7 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.




# BL6 / L6
# Diametro: da 4.70 a 6.22 mm
# *Diameter: from 4.70 to 6.22 mm / .185” - .245”*

| DIAMETRO *DIAMETER* | | BL 6 MANDRINO *MANDREL BL 6* | | | | L 6 MANDRINO *MANDREL L 6* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,70-4,83 | .185-.190 | BL6-185C | S | H | B | L6-185C | S | H | B | S-185 | BL/L6-A | C-187 |
| 4,83-4,95 | .190-.195 | BL6-190C | S | H | B | L6-190C | S | H | B | S-190 | BL/L6-A | C-190 |
| 4,95-5,08 | .195-.200 | BL6-195C | S | H | B | L6-195C | S | H | B | S-195 | BL/L6-A | C-195 |
| 5,08-5,21 | .200-.205 | BL6-200C | S | H | B | L6-200C | S | H | B | S-200 | BL/L6-A | C-200 |
| 5,21-5,33 | .205-.210 | BL6-205C | S | H | B | L6-205C | S | H | B | S-205 | BL/L6-A | C-205 |
| 5,33-5,46 | .210-.215 | BL6-210C | S | H | B | L6-210C | S | H | B | S-210 | BL/L6-A | C-210 |
| 5,46-5,59 | .215-.220 | BL6-215C | S | H | B | L6-215C | S | H | B | S-215 | BL/L6-A | C-215 |
| 5,59-5,71 | .220-.225 | BL6-220C | S | H | B | L6-220C | S | H | B | S-220 | BL/L6-A | C-220 |
| 5,71-5,84 | .225-.230 | BL6-225C | S | H | B | L6-225C | S | H | B | S-225 | BL/L6-A | C-225 |
| 5,84-5,97 | .230-.235 | BL6-230C | S | H | B | L6-230C | S | H | B | S-230 | BL/L6-A | C-230 |
| 5,97-6,10 | .235-.240 | BL6-235C | S | H | B | L6-235C | S | H | B | S-235 | BL/L6-A | C-235 |
| 6,10-6,22 | .240-.245 | BL6-240C | S | H | B | L6-240C | S | H | B | S-240 | BL/L6-A | C-240 |

LUNGHEZZA PIETRA / *STONE LENGHT*
BL6 / L6 = 34.90 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
BL6 = 66.6 mm / L6 = 92 mm

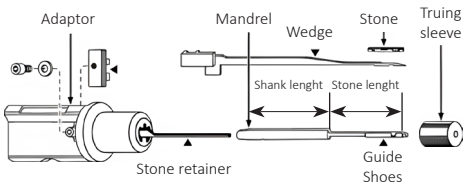
# K6 / JK6
# Diametro: da 4.70 a 6.22 mm
# *Diameter: from 4.70 to 6.22 mm / .185” - .245”*

| DIAMETRO *DIAMETER* | | K 6 MANDRINO *MANDREL K 6* | | | | J-K6 MANDRINO *MANDREL J-K6* | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,70-4,83 | .185-.190 | K6-185C | S | H | B | J-K6-185C | S | H | S-185 | K/JK6-A | C-187 |
| 4,83-4,95 | .190-.195 | K6-190C | S | H | B | J-K6-190C | S | H | S-190 | K/JK6-A | C-190 |
| 4,95-5,08 | .195-.200 | K6-195C | S | H | B | J-K6-195C | S | H | S-195 | K/JK6-A | C-195 |
| 5,08-5,21 | .200-.205 | K6-200C | S | H | B | J-K6-200C | S | H | S-200 | K/JK6-A | C-200 |
| 5,21-5,33 | .205-.210 | K6-205C | S | H | B | J-K6-205C | S | H | S-205 | K/JK6-A | C-205 |
| 5,33-5,46 | .210-.215 | K6-210C | S | H | B | J-K6-210C | S | H | S-210 | K/JK6-A | C-210 |
| 5,46-5,59 | .215-.220 | K6-215C | S | H | B | J-K6-215C | S | H | S-215 | K/JK6-A | C-215 |
| 5,59-5,71 | .220-.225 | K6-220C | S | H | B | J-K6-220C | S | H | S-220 | K/JK6-A | C-220 |
| 5,71-5,84 | .225-.230 | K6-225C | S | H | B | J-K6-225C | S | H | S-225 | K/JK6-A | C-225 |
| 5,84-5,97 | .230-.235 | K6-230C | S | H | B | J-K6-230C | S | H | S-230 | K/JK6-A | C-230 |
| 5,97-6,10 | .235-.240 | K6-235C | S | H | B | J-K6-235C | S | H | S-235 | K/JK6-A | C-235 |
| 6,10-6,22 | .240-.245 | K6-240C | S | H | B | J-K6-240C | S | H | S-240 | K/JK6-A | C-240 |

LUNGHEZZA PIETRA / *STONE LENGHT*
K6 / JK6 = 19.00 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
K6 = 50.7 mm / JK6 = 76.1 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.




# BL8 / L8
# Diametro: da 6.22 a 7.82 mm
# *Diameter: from 6.22 to 7.82 mm / .245" - .308"*

| DIAMETRO *DIAMETER* | | BL 8 MANDRINO *MANDREL BL 8* | | | | L 8 MANDRINO *MANDREL L 8* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6,22-6,35 | .245-.250 | BL8-245A | S | H | B | L8-245A | S | H | B | S-245 | BL/L8-A | C-245 |
| 6,35-6,48 | .250-.255 | BL8-250A | S | H | B | L8-250A | S | H | B | S-250 | BL/L8-A | C-250 |
| 6,48-6,60 | .255-.260 | BL8-255A | S | H | B | L8-255A | S | H | B | S-255 | BL/L8-A | C-255 |
| 6,60-6,73 | .260-.265 | BL8-260A | S | H | B | L8-260A | S | H | B | S-260 | BL/L8-A | C-260 |
| 6,73-6,86 | .265-.270 | BL8-265A | S | H | B | L8-265A | S | H | B | S-265 | BL/L8-A | C-265 |
| 6,86-6,98 | .270-.275 | BL8-270A | S | H | B | L8-270A | S | H | B | S-270 | BL/L8-A | C-270 |
| 6,98-7,11 | .275-.280 | BL8-275A | S | H | B | L8-275A | S | H | B | S-275 | BL/L8-A | C-275 |
| 7,11-7,24 | .280-.285 | BL8-280A | S | H | B | L8-280A | S | H | B | S-280 | BL/L8-A | C-280 |
| 7,24-7,37 | .285-.290 | BL8-285A | S | H | B | L8-285A | S | H | B | S-285 | BL/L8-A | C-285 |
| 7,37-7,49 | .290-.295 | BL8-290A | S | H | B | L8-290A | S | H | B | S-290 | BL/L8-A | C-290 |
| 7,49-7,62 | .295-.300 | BL8-295A | S | H | B | L8-295A | S | H | B | S-295 | BL/L8-A | C-295 |
| 7,62-7,82 | .300-.308 | BL8-300A | S | H | B | L8-300A | S | H | B | S-300 | BL/L8-A | C-300 |

LUNGHEZZA PIETRA / *STONE LENGHT*
BL8 / L8 = 57.10 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
BL8 = 104.7 mm / L8 = 155.5 mm

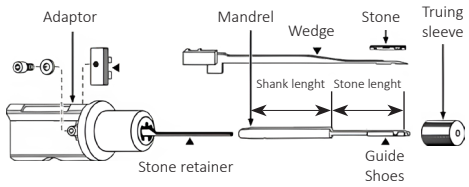
# K8 / JK8
# Diametro: da 6.22 a 7.82 mm
# *Diameter: from 6.22 to 7.82 mm / .245" - .308"*

| DIAMETRO *DIAMETER* | | K 6 MANDRINO *MANDREL K 6* | | | | J-K6 MANDRINO *MANDREL J-K6* | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6,22-6,35 | .245-.250 | K8-245A | S | H | B | JK8-245A | S | H | S-245 | K8-A | C-245 |
| 6,35-6,48 | .250-.255 | K8-250A | S | H | B | JK8-250A | S | H | S-250 | K8-A | C-250 |
| 6,48-6,60 | .255-.260 | K8-255A | S | H | B | JK8-255A | S | H | S-255 | K8-A | C-255 |
| 6,60-6,73 | .260-.265 | K8-260A | S | H | B | JK8-260A | S | H | S-260 | K8-A | C-260 |
| 6,73-6,86 | .265-.270 | K8-265A | S | H | B | JK8-265A | S | H | S-265 | K8-A | C-265 |
| 6,86-6,98 | .270-.275 | K8-270A | S | H | B | JK8-270A | S | H | S-270 | K8-A | C-270 |
| 6,98-7,11 | .275-.280 | K8-275A | S | H | B | JK8-275A | S | H | S-275 | K8-A | C-275 |
| 7,11-7,24 | .280-.285 | K8-280A | S | H | B | JK8-280A | S | H | S-280 | K8-A | C-280 |
| 7,24-7,37 | .285-.290 | K8-285A | S | H | B | JK8-285A | S | H | S-285 | K8-A | C-285 |
| 7,37-7,49 | .290-.295 | K8-290A | S | H | B | JK8-290A | S | H | S-290 | K8-A | C-290 |
| 7,49-7,62 | .295-.300 | K8-295A | S | H | B | JK8-295A | S | H | S-295 | K8-A | C-295 |
| 7,62-7,82 | .300-.308 | K8-300A | S | H | B | JK8-300A | S | H | S-300 | K8-A | C-300 |

LUNGHEZZA PIETRA / *STONE LENGHT*
K8 / JK8 = 31.70 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
K8 = 79.3 mm / JK8 = 130.1 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.




# BL10 / L10
# Diametro: da 7.82 a 9.40 mm
# *Diameter: from 7.82 to 9.40 mm / .308” - .370”*

| DIAMETRO *DIAMETER* | | BL 10 MANDRINO *MANDREL BL 10* | | | | L 10 MANDRINO *MANDREL L 10* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,82-8,03 | .308-.316 | BL10-308A | S | H | B | L10-308A | S | H | B | S-308 | BL/L10-A | C-308 |
| 8,03-8,20 | .316-.323 | BL10-316A | S | H | B | L10-316A | S | H | B | S-316 | BL/L10-A | C-316 |
| 8,20-8,41 | .323-.331 | BL10-323A | S | H | B | L10-323A | S | H | B | S-323 | BL/L10-A | C-323 |
| 8,41-8,61 | .331-.339 | BL10-331A | S | H | B | L10-331A | S | H | B | S-331 | BL/L10-A | C-331 |
| 8,61-8,81 | .339-.347 | BL10-339A | S | H | B | L10-339A | S | H | B | S-339 | BL/L10-A | C-339 |
| 8,81-8,99 | .347-.354 | BL10-347A | S | H | B | L10-347A | S | H | B | S-347 | BL/L10-A | C-347 |
| 8,99-9,19 | .354-.362 | BL10-354A | S | H | B | L10-354A | S | H | B | S-354 | BL/L10-A | C-354 |
| 9,19-9,40 | .362-.370 | BL10-362A | S | H | B | L10-362A | S | H | B | S-362 | BL/L10-A | C-362 |

LUNGHEZZA PIETRA / *STONE LENGHT*
BL10 / L10 = 57.10 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
BL10 = 104.7 mm / L10 = 155.5 mm

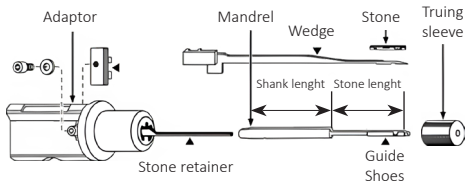
# K10 / JK10
# Diametro: da 7.82 a 9.40 mm
# *Diameter: from 7.82 to 9.40 mm / .308” - .370”*

| DIAMETRO *DIAMETER* | | K 10 MANDRINO *MANDREL K 10* | | | | J-K10 MANDRINO *MANDREL J-K10* | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,82-8,03 | .308-.316 | K10-308A | S | H | B | J-K10-308A | S | H | S-308 | K/JK10-A | C-308 |
| 7,90-8,11 | .311-3.19 | K10-8MMA | NA | H | NA | N/A | NA | NA | S-8MM | K/JK10-A | C-8MM |
| 8,03-8,20 | .316-.323 | K10-316A | S | H | B | J-K10-316A | S | H | S-316 | K/JK10-A | C-316 |
| 8,20-8,41 | .323-.331 | K10-323A | S | H | B | J-K10-323A | S | H | S-323 | K/JK10-A | C-323 |
| 8,41-8,61 | .331-.339 | K10-331A | S | H | B | J-K10-331A | S | H | S-331 | K/JK10-A | C-331 |
| 8,61-8,81 | .339-.347 | K10-339A | S | H | B | J-K10-339A | S | H | S-339 | K/JK10-A | C-339 |
| 8,81-8,99 | .347-.354 | K10-347A | S | H | B | J-K10-347A | S | H | S-347 | K/JK10-A | C-347 |
| 8,99-9,19 | .354-.362 | K10-354A | S | H | B | J-K10-354A | S | H | S-354 | K/JK10-A | C-354 |

LUNGHEZZA PIETRA / *STONE LENGHT*
K10 / JK10 = 31.70 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
K10 = 79.3 mm / JK10 = 130.1 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.




# BL12 / L12
# Diametro: da 9.40 a 12.57 mm
# *Diameter: from 9.40 to 12.57 mm / .370” - .495”*

| DIAMETRO *DIAMETER* | | BL 12 MANDRINO *MANDREL BL 12* | | | | L 12 MANDRINO *MANDREL L 12* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9,40-9,78 | .370-385 | BL12-370A | S | H | B | L12-370A | S | H | B | S-370 | BL/L12-A | C-370 |
| 9,78-10,16 | .385-.400 | BL12-385A | S | H | B | L12-385A | S | H | B | S-385 | BL/L12-A | C-385 |
| 10,16-10,57 | .400-.416 | BL12-400A | S | H | B | L12-400A | S | H | B | S-400 | BL/L12-A | C-400 |
| 10,57-10,97 | .416-.432 | BL12-416A | S | H | B | L12-416A | S | H | B | S-416 | BL/L12-A | C-416 |
| 10,97-11,35 | .432-.447 | BL12-432A | S | H | B | L12-432A | S | H | B | S-432 | BL/L12-A | C-432 |
| 11,35-11,76 | .447-.463 | BL12-447A | S | H | B | L12-447A | S | H | B | S-447 | BL/L12-A | C-447 |
| 11,76-12,17 | .463-.479 | BL12-463A | S | H | B | L12-463A | S | H | B | S-463 | BL/L12-A | C-463 |
| 12,17-12,57 | .479-.495 | BL12-479A | S | H | B | L12-479A | S | H | B | S-479 | BL/L12-A | C-479 |

LUNGHEZZA PIETRA / *STONE LENGHT*
BL12 / L12 = 88.90 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
BL12 = 136.5 mm / L12 = 212.7 mm

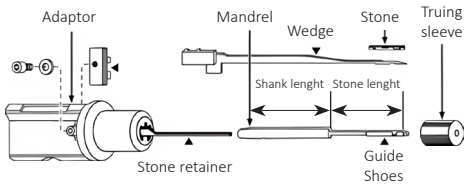
# K12 / JK12
# Diametro: da 9.40 a 12.57 mm
# *Diameter: from 9.40 to 12.57 mm / .370” - .495”*

| DIAMETRO *DIAMETER* | | K 12 MANDRINO *MANDREL K 12* | | | | J-K12 MANDRINO *MANDREL J-K12* | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9,40-9,78 | .370.385 | K12-370A | S | H | B | J-K12-370A | S | H | S-370 | K/JK12-A | C-370 |
| 9,78-10,16 | .385-.400 | K12-385A | S | H | B | J-K12-385A | S | H | S-385 | K/JK12-A | C-385 |
| 10,16-10,57 | .400-.416 | K12-10MMA | - | H | - | N/A | NA | NA | S-10MM | K/JK12-A | C-10MM |
| 10,57-10,97 | .416-.432 | K12-400A | S | H | B | J-K12-400A | S | H | S-416 | K/JK12-A | C-416 |
| 10,97-11,35 | .432-.447 | K12-416A | S | H | B | J-K12-416A | S | H | S-432 | K/JK12-A | C-432 |
| 11,35-11,76 | .447-.463 | K12-432A | S | H | B | J-K12-432A | S | H | S-447 | K/JK12-A | C-447 |
| 11,76-12,17 | .463-.479 | K12-12MMA | - | H | - | N/A | NA | NA | S-12MM | K/JK12-A | C-12MM |
| 12,17-12,57 | .479-.495 | K12-479A | S | H | B | J-K12-479A | S | H | S-479 | K/JK12-A | C-479 |

LUNGHEZZA PIETRA / *STONE LENGHT*
K12 / JK12 = 44.40 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
K12 = 92 mm / JK12 = 244.4 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.




# BL16 / L16
# Diametro: da 12.57 a 15.72 mm
# *Diameter: from 12.57 to 15.72 mm / .495” - .619”*

| DIAMETRO *DIAMETER* | | BL 16 MANDRINO *MANDREL BL 16* | | | | L 16 MANDRINO *MANDREL L 16* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12,57-13,36 | .495-.526 | BL16-495A | S | H | B | L16-495A | S | H | B | S-495 | BL/L16-A | C-495 |
| 13,36-14,15 | .526-.557 | BL16-526A | S | H | B | L16-526A | S | H | B | S-526 | BL/L16-A | C-526 |
| 14,15-14,94 | .557-.588 | BL16-557A | S | H | B | L16-557A | S | H | B | S-557 | BL/L16-A | C-557 |
| 14,94-15,72 | .588-.619 | BL16-588A | S | H | B | L16-588A | S | H | B | S-588 | BL/L16-A | C-588 |

LUNGHEZZA PIETRA / *STONE LENGHT*
BL16 / L16 = 114.30 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
BL16 = 168.2 mm / L16 = 244.4 mm

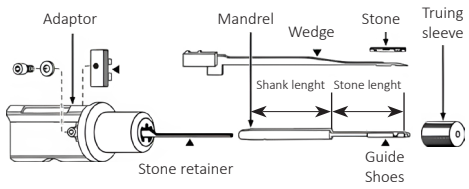
# K16 / JK16
# Diametro: da 12.57 a 15.72 mm
# *Diameter: from 12.57 to 15.72 mm / .495” - .619”*

| DIAMETRO *DIAMETER* | | K 10 MANDRINO *MANDREL K 10* | | | | J-K10 MANDRINO *MANDREL J-K10* | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12,57-13,36 | .495-.526 | K16-495A | S | H | B | J-K16-495A | S | H | S-495 | K/JK16-A | C-495 |
| 13,36-14,15 | .526-.557 | K16-526A | S | H | B | J-K16-526A | S | H | S-526 | K/JK16-A | C-526 |
| 13,90-14,69 | .547-.578 | K16-14MMA | NA | H | NA | N/A | NA | NA | S-14MM | K/JK16-A | C-14MM |
| 14,15-14,94 | .557-.588 | K16-557A | S | H | B | J-K16-557A | S | H | S-557 | K/JK16-A | C-557 |
| 14,94-15,72 | .588-.619 | K16-588A | S | H | B | J-K16-588A | S | H | S-588 | K/JK16-A | C-588 |

LUNGHEZZA PIETRA / *STONE LENGHT*
K16 / JK16 = 57.10 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
K16 = 110 mm / JK16 = 263.5 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.




# BL20 / L20
# Diametro: da 15.75 a 18.90 mm
# *Diameter: from 15.75 to 18.90 mm / .619” - .744”*

| DIAMETRO *DIAMETER* | | BL 20 MANDRINO *MANDREL BL 20* | | | | L 20 MANDRINO *MANDREL L 20* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,72-16,51 | .619-.650 | BL20-619A | S | H | B | L20-619A | S | H | B | S-619 | BL/L20-A | C-619 |
| 16,51-17,30 | .650-.681 | BL20-650A | S | H | B | L20-650A | S | H | B | S-650 | BL/L20-A | C-650 |
| 17,30-18,11 | .681-.713 | BL20-681A | S | H | B | L20-681A | S | H | B | S-681 | BL/L20-A | C-681 |
| 18,11-18,90 | .713-.744 | BL20-713A | S | H | B | L20-713A | S | H | B | S-713 | BL/L20-A | C-713 |

LUNGHEZZA PIETRA / *STONE LENGHT*
BL20 / L20 = 114.30 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
BL20 = 168.2 mm / L20 = 244.4 mm

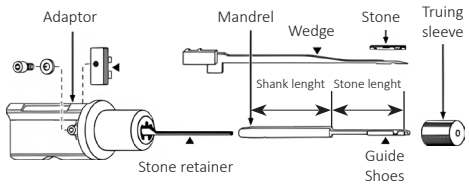
# K20 / JK20
# Diametro: da 15.75 a 18.90 mm
# *Diameter: from 15.75 to 18.90 mm / .619” - .744”*

| DIAMETRO *DIAMETER* | | K 20 MANDRINO *MANDREL K 20* | | | | J-K20 MANDRINO *MANDREL J-K20* | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,72-16,51 | .619-.650 | K20-619A | S | H | B | J-K20-619A | S | H | S-619 | K20-A | C-619 |
| 16,51-17,30 | .650-.681 | K20-650A | S | H | B | J-K20-650A | S | H | S-650 | K20-A | C-650 |
| 17,30-18,11 | .681-.713 | K20-681A | S | H | B | J-K20-681A | S | H | S-681 | K20-A | C-681 |
| 18,11-18,90 | .713-.744 | K20-713A | S | H | B | J-K20713A | S | H | S-713 | K20-A | C-713 |

LUNGHEZZA PIETRA / *STONE LENGHT*
BL20 / L20 = 63.5 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
K20 = 117.4 mm / JK20 = 269.8 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.



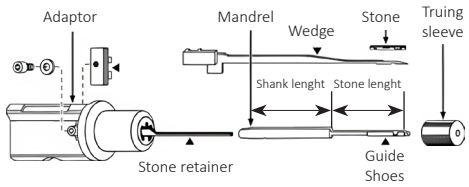

# AK20 / JAK20
# Diametro: da 18.90 a 31.75 mm
# *Diameter: from 18.90 to 31.75 mm / .744” - 1.250”*

| **DIAMETRO** *DIAMETER* | | **JAK/AK20 MANDRINO** *MANDREL JAK/AK20* | | **BOCCOLA DI RAGGIATURA** *TRUING SLEEVE* | **ADATTATORE** *ADAPTOR* | **BOCCOLA DI CENTRAGGIO** *ALIGNMENT BUSHING* | **SHOES** *SCREWS* |
|---|---|---|---|---|---|---|---|
| 18,90-19,68 | .744-.775 | AK | 20-744UA | S-744 | AK20-A | C-750 | LN-1547A 4- 40 x 7/32” |
| 19,68-20,47 | .775-.806 | AK | 20-775UA | S-775 | AK20-A | C-750 | |
| 19,90-20,69 | .783-.815 | AK | 20-20MMUA | S-20MM | AK20-A | C-20MM | |
| 20,47-21,29 | .806-.838 | AK | 20-806UB | S-806 | AK20-A | C-812 | |
| 21,29-22,07 | .838-.869 | AK | 20-838UB | S-838 | AK20-A | C-812 | |
| 21,90-22,69 | .862-.893 | AK | 20-22MMUB | S-22MM | AK20-A | C-22MM | |
| 22,07-22,86 | .869-.900 | AK | 20-869UB | S-869 | AK20-A | C-875 | LN-1548A 4- 40 x 1/4” |
| 22,86-23,65 | .900-.931 | AK | 20-900UC | S-900 | AK20-A | C-875 | |
| 23,65-24,43 | .931-.962 | AK | 20-931UC | S-931 | AK20-A | C-937 | |
| 23,90-24,69 | .940-.972 | AK | 20-24MMUC | S-24MM | AK20-A | C-24MM | 24MM |
| 24,43-25,25 | .962-.994 | AK | 20-962UC | S-962 | AK20-A | C-937 | |
| 25,25-26,19 | .994-1.031 | AK | 20-994UC | S-994 | AK20-A | C-1000 | |
| 24,90-25,72 | .980-1.012 | AK | 20-25MMUC | S-25MM | AK20-A | C-25MM | 25MM |
| 25,15-26,97 | .990-1.062 | AK | 20-1000UD | S-994 | AK20-A | C-1000 | |
| 26,72-28,57 | 1.052-1.125 | AK | 20-1062UD | S-1062 | AK20-A | C-1062 | LN-1247A 6- 32 x 5/16" |
| 28,32-30,15 | 1.115-1.187 | AK | 20-1125UE | S-1125 | AK20-A | C-1125 | |
| 29,90-31,75 | 1.177-1.250 | AK | 20-1187UE | S-1187 | AK20-A | C-1187 | |

LUNGHEZZA PIETRA / *STONE LENGHT*
AK20 = 63.50 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
AK20 = 117.4 mm / JAK20 = 269.8 mm

C= General purpose shoe for most honing applications. Furnished with Mandrel.
B= Bronze for finer finishes and soft or difficult materials. Order separately.
CH/BH= Hard steel for production honing or hard, rough parts or carbide, ceramic, etc. Order separately




# BAL20 / L20
# Diametro: da 18.90 a 26.19 mm
# *Diameter: from 18.90 to 26.19 mm / .744” - 1.031”*

| **DIAMETRO** *DIAMETER* | | **MANDRINO BAL/AL20** *BAL/AL20 MANDREL* | | **BOCCOLA DI RAGGIATURA** *TRUING SLEEVE* | **ADATTATORE** *ADAPTOR* | **BOCCOLA DI CENTRAGGIO** *ALIGNMENT BUSHING* | **GUIDE/SHOES (2pc per box)** | | | | **SHOES** *SCREW* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 18,90-19,68 | .744-.775 | BAL | 20-744LA | S-744 | BAL20-A | C-713 | LA | C | B | CH | LN-1547A 4- 40 x 7/32” |
| 19,68-20,47 | .775-.806 | BAL | 20-775LA | S-775 | BAL20-A | C-750 | LA | C | B | CH | |
| 20,47-21,29 | .806-.838 | BAL | 20-806LB | S-806 | BAL20-A | C-812 | LB | C | B | CH | LN-1548A 4- 40 x 1/4” |
| 21,29-22,07 | .838-.869 | BAL | 20-838LB | S-838 | BAL20-A | C-875 | LB | C | B | CH | |
| 22,07-22,86 | .869-.900 | BAL | 20-869LB | S-869 | BAL20-A | C-875 | LB | C | B | CH | |
| 22,86-23,65 | .900-.931 | BAL | 20-900LC | S-900 | BAL20-A | C-875 | LC | C | B | CH | |
| 23,65-24,43 | .931-.962 | BAL | 20-931LC | S-931 | BAL20-A | C-937 | LC | C | B | CH | |
| 24,43-25,25 | .962-.994 | BAL | 20-962LC | S-962 | BAL20-A | C-937 | LC | C | B | CH | |
| 25,25-26,19 | .994-1.031 | BAL | 20-994LC | S-994 | BAL20-A | C-1000 | LC | C | B | CH | |

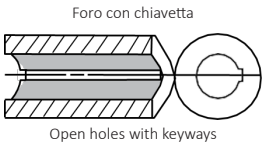
LUNGHEZZA PIETRA / *STONE LENGHT*

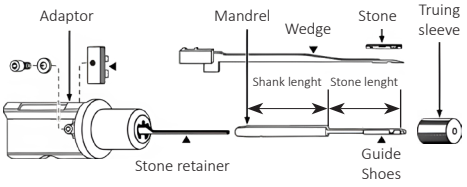
BAL20 / AL20 = 114.30 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)

BAL20 = 168.2 mm / AL20 = 244.4 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.



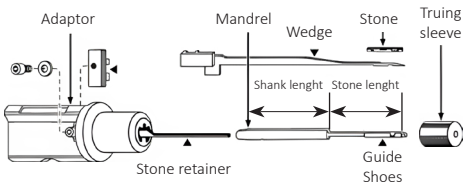

# Y8
# Diametro: da 6.22 a 7.82 mm
## *Diameter: from 6.22 to 7.82 mm / .245” - 308”*

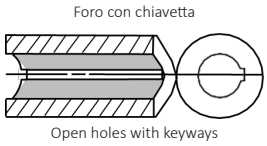
| DIAMETRO *DIAMETER* | | Y 8 MANDRINO *MANDREL Y 8* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAGGIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|
| 6,22-6,35 | .245-.250 | Y8-245B | S | H | B+ | S-245 | Y8-A | C-245 |
| 6,35-6,48 | .250-.255 | Y8-250B | S | H | B+ | S-250 | Y8-A | C-250 |
| 6,48-6,60 | .255-.260 | Y8-255B | S | H | B+ | S-255 | Y8-A | C-255 |
| 6,60-6,73 | .260-.265 | Y8-260B | S | H | B+ | S-260 | Y8-A | C-260 |
| 6,73-6,86 | .265-.270 | Y8-265B | S | H | B+ | S-265 | Y8-A | C-265 |
| 6,86-6,98 | .270-.275 | Y8-270B | S | H | B+ | S-270 | Y8-A | C-270 |
| 6,98-7,11 | .275-.280 | Y8-275B | S | H | B+ | S-275 | Y8-A | C-275 |
| 7,11-7,24 | .280-.285 | Y8-280B | S | H | B+ | S-280 | Y8-A | C-280 |
| 7,24-7,37 | .285-.290 | Y8-285B | S | H | B+ | S-285 | Y8-A | C-285 |
| 7,37-7,49 | .290-.295 | Y8-290B | S | H | B+ | S-290 | Y8-A | C-290 |
| 7,49-7,62 | .295-.300 | Y8-295B | S | H | B+ | S-295 | Y8-A | C-295 |
| 7,62-7,82 | .300-.308 | Y8-300B | S | H | B+ | S-300 | Y8-A | C-300 |

LUNGHEZZA PIETRA / *STONE LENGHT*
Y8 = 19.00 mm / YY8 = 34.9 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
Y8 = 69.8 mm / YY8 = 85.7 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.
+ = Special Order. Contact Customer Service.




# Y10
# Diametro: da 7.82 a 9.40 mm
## *Diameter: from 7.82 to 9.40 mm / .308” - 370”*

| DIAMETRO *DIAMETER* | | Y 10 MANDRINO *MANDREL Y 10* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAG-GIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|
| 7,82-8,03 | .308-.316 | Y10-308B | S | H | B+ | S-308 | Y10-A | C-308 |
| 8,03-8,20 | .316-.323 | Y10-316B | S | H | B+ | S-316 | Y10-A | C-316 |
| 8,20-8,41 | .323-.331 | Y10-323B | S | H | B+ | S-323 | Y10-A | C-323 |
| 8,41-8,61 | .331-.339 | Y10-331B | S | H | B+ | S-331 | Y10-A | C-331 |
| 8,61-8,81 | .339-.347 | Y10-339B | S | H | B+ | S-339 | Y10-A | C-339 |
| 8,81-8,99 | .347-.354 | Y10-347B | S | H | B+ | S-347 | Y10-A | C-347 |
| 8,99-9,19 | .354-.362 | Y10-354B | S | H | B+ | S-354 | Y10-A | C-354 |
| 9,19-9,40 | .362-.370 | Y10-362B | S | H | B+ | S-362 | Y10-A | C-362 |

LUNGHEZZA PIETRA / *STONE LENGHT*
Y10 / YY10 = 19.00 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
Y10 = 69.8 mm / YY10 = 69.8 mm

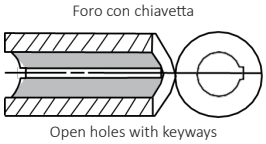
# Y12
# Diametro: da 9.40 a 12.57 mm
## *Diameter: from 9.40 to 12.57 mm / .370” - 495”*

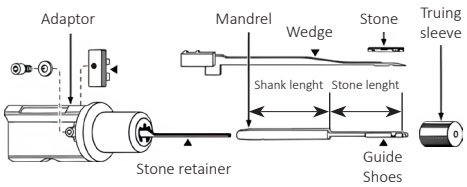
| DIAMETRO *DIAMETER* | | Y 12 MANDRINO *MANDREL Y 12* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAG-GIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|
| 9,40-9,78 | .370-.385 | Y12-370B | S | H | B+ | S-370 | Y12-A | C-370 |
| 9.78-10,16 | .385-.400 | Y12-385B | S | H | B+ | S-385 | Y12-A | C-385 |
| 10.16-10,57 | .400-.416 | Y12-400B | S | H | B+ | S-400 | Y12-A | C-400 |
| 10,57-10,97 | .416-.432 | Y12-416B | S | H | B+ | S-416 | Y12-A | C-416 |
| 10,97-11,35 | .432-.447 | Y12-432B | S | H | B+ | S-432 | Y12-A | C-432 |
| 11,35-11,76 | .447-.463 | Y12-447B | S | H | B+ | S-447 | Y12-A | C-447 |
| 11,76-12,17 | .463-.479 | Y12-463B | S | H | B+ | S-463 | Y12-A | C-463 |
| 12,17-12,57 | .479-.495 | Y12-479B | S | H | B+ | S-479 | Y12-A | C-479 |

LUNGHEZZA PIETRA / *STONE LENGHT*
Y12 = 31.70 mm / YY12 = 57.1 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
Y12 = 82.5 mm / YY12 = 108 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.




# Y16
# Diametro: da 12.57 a 15.72 mm
## *Diameter: from 12.57 to 15.72 mm / .495” - 619”*

| DIAMETRO *DIAMETER* | | Y 16 MANDRINO *MANDREL Y 16* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAG-GIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|
| 12,57-13,36 | .495-.526 | Y16-495B | S | H | B+ | S-495 | Y16-A | C-495 |
| 13,36-14,15 | .526-.557 | Y16-526B | S | H | B+ | S-526 | Y16-A | C-526 |
| 14,15-14,94 | .557-.588 | Y16-557B | S | H | B+ | S-557 | Y16-A | C-557 |
| 14,94-15,72 | .588-.619 | Y16-588B | S | H | B+ | S-588 | Y16-A | C-588 |

LUNGHEZZA PIETRA / *STONE LENGHT*
Y16 = 41.20 mm / YY16 = 76.2 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
Y16 = 101.5 mm / YY16 = 136.5 mm

# Y20
# Diametro: da 15.72 a 19.68 mm
## *Diameter: from 15.72 to 19.68 mm / .619” - 775”*

| DIAMETRO *DIAMETER* | | Y 20 MANDRINO *MANDREL Y 20* | | | | BOCCOLA DI RAGGIATURA *TRUING SLEEVE* | ADATTATORE *ADAPTOR* | BOCCOLA DI CENTRAG-GIO *ALIGNMENT BUSHING* |
|---|---|---|---|---|---|---|---|---|
| 15,72-16,51 | .619-.650 | Y20-619B | S | H | B+ | S-619 | Y20-A | C-619 |
| 16,51-17,30 | .650-.681 | Y20-650B | S | H | B+ | S-650 | Y20-A | C-650 |
| 17,30-18,11 | .681-.713 | Y20-681B | S | H | B+ | S-681 | Y20-A | C-681 |
| 18,11-18,90 | .713-.744 | Y20-713B | S | H | B+ | S-713 | Y20-A | C-713 |
| 18,90-19,68 | .744-.775 | Y20-744B | S | H | B+ | S-744 | Y20-A | C-750 |

LUNGHEZZA PIETRA / *STONE LENGHT*
Y20 = 47.60 mm

LUNGHEZZA UTILE / TOTAL LENGHT (SHANK + STONE)
Y20 = 111.1 mm

S = *Steel Mandrel w/ soft shoes for honing most materials.*/ Utensile con guide tenere.
H = *Steel Mandrel w/ hardened shoes for production honing or hard, rough parts, carbide, ceramic, glass.* / Utensile con guide dure.
B = *Bronze Mandrel for producing very fine finishes and honing exotic metals.* / Utensile in bronzo.
+ = Special Order. Contact Customer Service.

DAMEC

# PIETRE ABRASIVE
*ABRASIVE STONES*

DAMEC offre un'ampia gamma di pietre abrasive nel campo della lappatura dei fori, formate da un supporto metallico di diverse dimensioni e da un listello abrasivo.

*DAMEC offers a wide range of abrasive stones, which are used in different honing fields, made by a metal support of different sizes and an abrasive strip.*

| Materiale abrasivo<br>Abrasive material | Codice<br>Code | Applicazione<br>Application |
|---|---|---|
| Borazon / CBN | NM | Acciaio temprato<br>Tempered steel |
| Diamante<br>Diamond | DM | Ghisa, alluminio, ceramica<br>Cast iron, aluminium, ceramic |
| Ossido di Alluminio<br>Aluminium Oxide | A | Acciaio temperato, alluminio<br>Hard steel, aluminium |
| Carburo di Silicio<br>Silicon carbide | J/C | Leghe metalliche, ghisa<br>Alloys, cast iron |

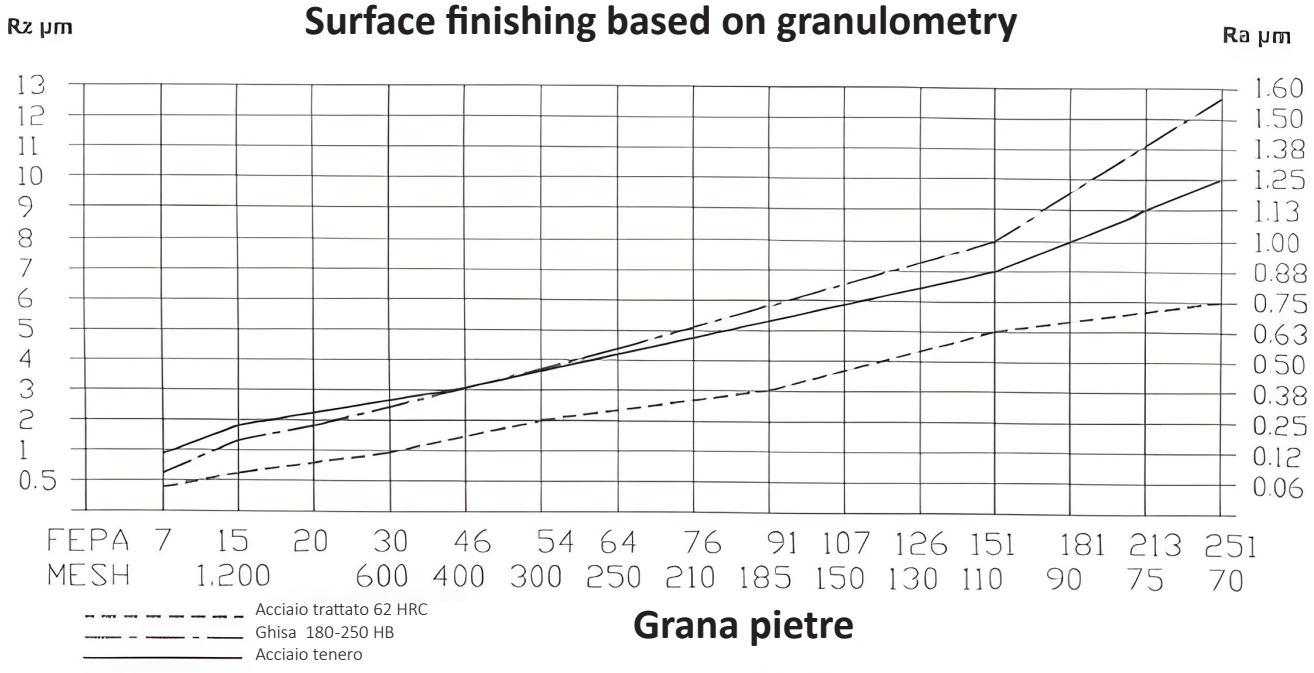
DAMEC per classificare ogni tipo di prodotto utilizza dei codici ben precisi. Nel caso specifico delle pietre, un esempio come da tabella sottostante.

*Damec in order to classify each type of product uses very simple codes.*
*An example of stones' codes in the following table.*

| Materiale abrasivo<br>*Abrasive's material ** | Grana<br>*Grit *** | Durezza<br>*Hardness **** |
|---|---|---|
| A – Ossido di alluminio / Aluminium oxide<br><br>C,J – Carburo di silicio / Silicon carbide<br><br>DM, DR, DV – Diamante / Diamond<br><br>NM, NR- Borazon (CBN) | 1- 70<br>2- 80<br>3- 100<br>4- 150<br>5- 220<br>6- 280<br>7- 320<br>8- 400<br>9- 500<br>0- 600<br>80- 800<br>90- 900<br>10- 1000<br>00- 1200 | 1 – Tenera / Soft<br>3-<br>5-<br>7-<br>9- Dura / Hard |

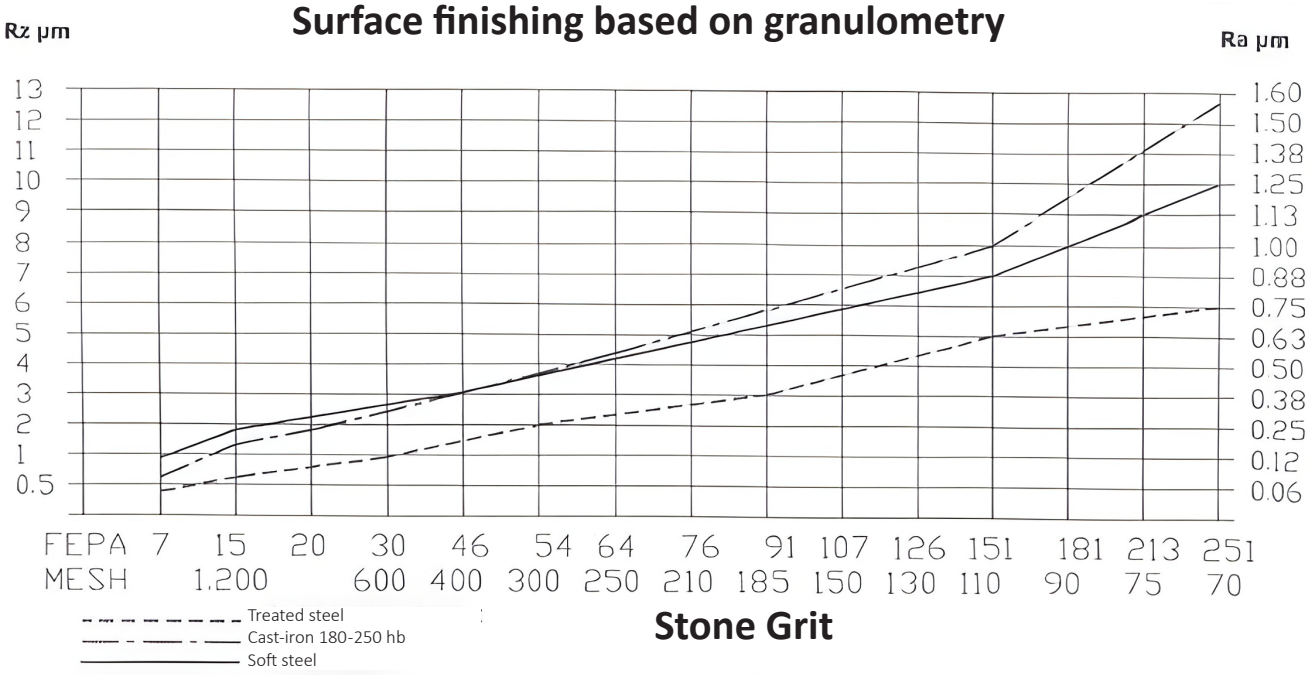
| | |
|---|---|
| Serie<br>*Series* | K/L 12 |
| Materiale abrasivo *<br>*Abrasive's material* | NM |
| Grana<br>*Grit *** | 6 |
| Durezza<br>*Hardness **** | 5 |
| Codice Identificativo<br>*Identified Code* | ES |

## Surface finishing based on granulometry




**Grana pietre**

## Surface finishing based on granulometry




**Stone Grit**

## K3 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | K3-J67 | 0,83 | 33 | K3-DM87 | 1,25 | 50 |
| Brass, Soft | K3-J65 | 0,83 | 33 | K3-J65 | 0,83 | 33 |
| Bronze | K3-J67 | 0,83 | 33 | K3-J67 | 0,83 | 33 |
| Carbide | K3-DM57 | 0,50 | 20 | K3-DM57 | 0,50 | 20 |
| Cast Iron | K3-J67 | 0,30 | 12 | K3-DM57 | 2,00 | 80 |
| Ceramic | K3-DM57 | 1,00 | 40 | K3-DM57 | 1,00 | 40 |
| Glass | K3-DM57 | 1,75 | 70 | K3-DM57 | 1,75 | 70 |
| Steel, Soft | K3-A67 | 0,50 | 20 | K3-NM45 | 1,25 | 50 |
| Steel, Hardened | K3-A65 | 0,30 | 12 | K3-NM45 | 1,12 | 45 |
| Steel, Hardened | K3-A65 | 0,30 | 12 | — | — | — |
| Steel, Very | K3-NM65 | 0,70 | 28 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | K3-J95 | 0,30 | 12 | K3-DM07 | 0,83 | 33 |
| Brass, Soft | K3-J85 | 0,40 | 16 | K3-85 | 0,40 | 16 |
| Bronze | K3-J95 | 0,30 | 12 | K3-J95 | 0,30 | 12 |
| Carbide | K3-DM07 | 0,08 | 3 | K3-DM07 | 0,08 | 3 |
| Cast Iron | K3-J95 | 0,13 | 5 | K3-DM07 | 0,50 | 20 |
| Ceramic | K3-DM07 | 0,38 | 15 | K3-DM07 | 0,38 | 15 |
| Glass | K3-DM07 | 0,38 | 15 | K3-DM07 | 0,38 | 15 |
| Steel, Soft | K3-J95 | 0,10 | 4 | K3-NM05 | 0,40 | 16 |
| Steel, Hardened | K3-J85 | 0,13 | 5 | K3-NM05 | 0,18 | 7 |

## L3 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | L3-J67 | 0,83 | 33 | L3-DM87 | 1,25 | 50 |
| Brass, Soft | L3-J65 | 0,83 | 33 | L3-J65 | 0,83 | 33 |
| Bronze | L3-J67 | 0,83 | 33 | L3-J67 | 0,83 | 33 |
| Carbide | L3-DM57 | 0,50 | 20 | L3-DM57 | 0,50 | 20 |
| Cast Iron | L3-J67 | 0,30 | 12 | L3-DM57 | 2,00 | 80 |
| Ceramic | L3-DM57 | 1,00 | 40 | L3-DM57 | 1,00 | 40 |
| Glass | L3-DM57 | 1,75 | 70 | L3-DM57 | 1,75 | 70 |
| Steel, Soft | L3-A67 | 0,50 | 20 | L3-NM55 | 1,25 | 50 |
| Steel, Hardened | L3-A65 | 0,30 | 12 | L3-NM55 | 1,12 | 45 |
| Steel, Hardened | L3-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | L3-NM65 | 0,70 | 28 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | L3-J95 | 0,30 | 12 | L3-DM07 | 0,83 | 33 |
| Brass, Soft | L3-J85 | 0,40 | 16 | L3-J85 | 0,40 | 16 |
| Bronze | L3-J95 | 0,30 | 12 | L3-J95 | 0,30 | 12 |
| Carbide | L3-DM07 | 0,08 | 3 | L3-DM07 | 0,08 | 3 |
| Cast Iron | L3-J95 | 0,13 | 5 | L3-DM07 | 0,50 | 20 |
| Ceramic | L3-DM07 | 0,38 | 15 | L3-DM07 | 0,38 | 15 |
| Glass | L3-DM07 | 0,38 | 15 | L3-DM07 | 0,38 | 15 |
| Steel, Soft | L3-J95 | 0,10 | 4 | L3-NM05 | 0,40 | 16 |
| Steel, Hardened | L3-J85 | 0,13 | 5 | L3-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

DAMEC

## K4 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | K4-J67 | 0,83 | 33 | K4-DM87 | 1,25 | 50 |
| Brass, Soft | K4-J65 | 0,83 | 33 | K4-J65 | 0,83 | 33 |
| Bronze | K4-J67 | 0,83 | 33 | K4-J67 | 0,83 | 33 |
| Carbide | K4-DM57 | 0,50 | 20 | K4-DM57 | 0,50 | 20 |
| Cast Iron | K4-J67 | 0,30 | 12 | K4-DM57 | 2,00 | 80 |
| Ceramic | K4-DM57 | 1,00 | 40 | K4-DM57 | 1,00 | 40 |
| Glass | K4-DM57 | 1,75 | 70 | K4-DM57 | 1,75 | 70 |
| Steel, Soft | K4-A67 | 0,75 | 30 | K4-NM45 | 1,25 | 50 |
| Steel, Hardened | K4-A65 | 0,30 | 12 | K4-NM45 | 1,12 | 45 |
| Steel, Hardened | K4-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | K4-NM65 | 0,70 | 28 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | K4-J95 | 0,30 | 12 | K4-DM07 | 0,83 | 33 |
| Brass, Soft | K4-J95 | 0,40 | 16 | K4-J83 | 0,40 | 16 |
| Bronze | K4-J95 | 0,30 | 12 | K4-J95 | 0,30 | 12 |
| Carbide | K4-DM07 | 0,08 | 3 | K4-DM07 | 0,08 | 3 |
| Cast Iron | K4-J95 | 0,13 | 5 | K4-DM07 | 0,50 | 20 |
| Ceramic | K4-DM07 | 0,38 | 15 | K4-DM07 | 0,38 | 15 |
| Glass | K4-DM07 | 0,38 | 15 | K4-DM07 | 0,38 | 15 |
| Steel, Soft | K4-J95 | 0,10 | 4 | K4-NM05 | 0,40 | 16 |
| Steel, Hardened | K4-J85 | 0,13 | 5 | K4-NM05 | 0,18 | 7 |

## L4 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | L4-J67 | 0,83 | 33 | L4-DM87 | 1,25 | 50 |
| Brass, Soft | L4-J65 | 0,83 | 33 | L4-J65 | 0,83 | 33 |
| Bronze | L4-J67 | 0,83 | 33 | L4-J67 | 0,83 | 33 |
| Carbide | L4-DM57 | 0,50 | 20 | L4-DM57 | 0,50 | 20 |
| Cast Iron | L4-J67 | 0,30 | 12 | L4-DM57 | 2,00 | 80 |
| Ceramic | L4-DM57 | 1,00 | 40 | L4-DM57 | 1,00 | 40 |
| Glass | L4-DM57 | 1,75 | 70 | L4-DM57 | 1,75 | 70 |
| Steel, Soft | L4-A67 | 0,75 | 30 | L4-NM45 | 1,25 | 50 |
| Steel, Hardened* | L4-A65 | 0,30 | 12 | L4-NM45 | 1,12 | 45 |
| Steel, Hardened** | L4-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard*** | L4-NM65 | 0,70 | 28 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | L4-J95 | 0,30 | 12 | L4-DM07 | 0,83 | 33 |
| Brass, Soft | L4-J95 | 0,40 | 16 | L4-J85 | 0,40 | 16 |
| Bronze | L4-J95 | 0,30 | 12 | L4-J95 | 0,30 | 12 |
| Carbide | L4-DM07 | 0,08 | 3 | L4-DM07 | 0,08 | 3 |
| Cast Iron | L4-J95 | 0,13 | 5 | L4-DM07 | 0,50 | 20 |
| Ceramic | L4-DM07 | 0,38 | 15 | L4-DM07 | 0,38 | 15 |
| Glass | L4-DM07 | 0,38 | 15 | L4-DM07 | 0,38 | 15 |
| Steel, Soft | L4-J95 | 0,10 | 4 | L4-NM05 | 0,40 | 16 |
| Steel, Hardened | L4-J85 | 0,13 | 5 | L4-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

## K5 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | K5-J67 | 0,83 | 33 | K5-DM87 | 1,25 | 50 |
| Brass, Soft | K5-J65 | 0,83 | 33 | K5-J65 | 0,83 | 33 |
| Bronze | K5-J67 | 0,83 | 33 | K5-J67 | 0,83 | 33 |
| Carbide | K5-DM57 | 0,50 | 20 | K5-DM57 | 0,50 | 20 |
| Cast Iron | K5-J67 | 0,30 | 12 | K5-DM57 | 2,00 | 80 |
| Ceramic | K5-DM57 | 1,00 | 40 | K5-DM57 | 1,00 | 40 |
| Glass | K5-DM57 | 1,75 | 70 | K5-DM57 | 1,75 | 70 |
| Steel, Soft | K5-A67 | 0,75 | 30 | K5-NM45 | 1,25 | 50 |
| Steel, Hardened | K5-A65 | 0,30 | 12 | K5-NM45 | 1,12 | 45 |
| Steel, Hardened | K5-A63 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | K5-NM85 | 0,70 | 28 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | K5-J95 | 0,30 | 12 | K5-DM07 | 0,83 | 33 |
| Brass, Soft | K5-J95 | 0,40 | 16 | K5-J83 | 0,40 | 16 |
| Bronze | K5-J95 | 0,30 | 12 | K5-J95 | 0,30 | 12 |
| Carbide | K5-DM07 | 0,08 | 3 | K5-DM07 | 0,08 | 3 |
| Cast Iron | K5-J95 | 0,13 | 5 | K5-DM07 | 0,50 | 20 |
| Ceramic | K5-DM07 | 0,38 | 15 | K5-DM07 | 0,38 | 15 |
| Glass | K5-DM07 | 0,38 | 15 | K5-DM07 | 0,38 | 15 |
| Steel, Soft | K5-J95 | 0,10 | 4 | K5-NM05 | 0,40 | 16 |
| Steel, Hardened | K5-J83 | 0,13 | 5 | K5-NM05 | 0,18 | 7 |

## L5 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | L5-J67 | 0,83 | 33 | L5-DM87 | 1,25 | 50 |
| Brass, Soft | L5-J65 | 0,83 | 33 | L5-J65 | 0,83 | 33 |
| Bronze | L5-J67 | 0,83 | 33 | L5-J67 | 0,83 | 33 |
| Carbide | L5-DM57 | 0,50 | 20 | L5-DM57 | 0,50 | 20 |
| Cast Iron | L5-J67 | 0,30 | 12 | L5-DM57 | 2,00 | 80 |
| Ceramic | L5-DM57 | 1,00 | 40 | L5-DM57 | 1,00 | 40 |
| Glass | L5-DM57 | 1,75 | 70 | L5-DM57 | 1,75 | 70 |
| Steel, Soft | L5A67 | 0,75 | 30 | L5-NM45 | 1,25 | 50 |
| Steel, Hardened | L5-A65 | 0,30 | 12 | L5-NM45 | 1,12 | 45 |
| Steel, Hardened | L5-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | L5-NM65 | 0,70 | 28 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | L5-J95 | 0,30 | 12 | L5-DM07 | 0,83 | 33 |
| Brass, Soft | L5-J95 | 0,40 | 16 | L5-J85 | 0,40 | 16 |
| Bronze | L5-J95 | 0,30 | 12 | L5-J95 | 0,30 | 12 |
| Carbide | L5-DM07 | 0,08 | 3 | L5-DM07 | 0,08 | 3 |
| Cast Iron | L5-J95 | 0,13 | 5 | L5-DM07 | 0,50 | 20 |
| Ceramic | L5-DM07 | 0,38 | 15 | L5-DM07 | 0,38 | 15 |
| Glass | L5-DM07 | 0,38 | 15 | L5-DM07 | 0,38 | 15 |
| Steel, Soft | L5-J95 | 0,10 | 4 | L5-NM05 | 0,40 | 16 |
| Steel, Hardened | L5-J85 | 0,13 | 5 | L5-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

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## K6 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | K6-J57 | 1,38 | 55 | K6-DM87 | 1,25 | 50 |
| Brass, Soft | K6-J65 | 0,83 | 33 | K6-J65 | 0,83 | 33 |
| Bronze | K6-J57 | 1,38 | 55 | K6-J57 | 1,38 | 55 |
| Carbide | K6-DM57 | 0,50 | 20 | K6-DM57 | 0,50 | 20 |
| Cast Iron | K6-J57 | 0,50 | 20 | K6-DM57 | 2,00 | 80 |
| Ceramic | K6-DM57 | 1,00 | 40 | K6-DM57 | 1,00 | 40 |
| Glass | K6-DM57 | 1,75 | 70 | K6-DM57 | 1,75 | 70 |
| Steel, Soft | K6-A57 | 0,75 | 30 | K6-NM45 | 1,25 | 50 |
| Steel, Hardened | K6-A55 | 0,30 | 12 | K6-NM45 | 1,12 | 45 |
| Steel, Hardened | K6-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | K6-NM65 | 0,70 | 28 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | K6-J95 | 0,30 | 12 | K6-DM07 | 0,83 | 33 |
| Brass, Soft | K6-J85 | 0,40 | 16 | K6-J85 | 0,40 | 16 |
| Bronze | K6-J95 | 0,30 | 12 | K6-J95 | 0,30 | 12 |
| Carbide | K6-DM07 | 0,08 | 3 | K6-DM07 | 0,08 | 3 |
| Cast Iron | K6-J95 | 0,13 | 5 | K6-DM07 | 0,50 | 20 |
| Ceramic | K6-DM07 | 0,38 | 15 | K6-DM07 | 0,38 | 15 |
| Glass | K6-DM07 | 0,38 | 15 | K6-DM07 | 0,38 | 15 |
| Steel, Soft | K6-J95 | 0,10 | 4 | K6-NM05 | 0,40 | 16 |
| Steel, Hardened | K6-J85 | 0,13 | 5 | K6-NM05 | 0,18 | 7 |

## L6 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | L6-J57 | 1,38 | 55 | L6-DM87 | 1,25 | 50 |
| Brass, Soft | L6-J65 | 0,83 | 33 | L6-J65 | 0,83 | 33 |
| Bronze | L6-J57 | 1,38 | 55 | L6-J57 | 1,38 | 55 |
| Carbide | L6-DM57 | 0,50 | 20 | L6-DM57 | 0,50 | 20 |
| Cast Iron | L6-J57 | 0,50 | 20 | L6-DM57 | 2,00 | 80 |
| Ceramic | L6-DM57 | 1,00 | 40 | L6-DM57 | 1,00 | 40 |
| Glass | L6-DM57 | 1,75 | 70 | L6-DM57 | 1,75 | 70 |
| Steel, Soft | L6-A57 | 0,75 | 30 | L6-NM45 | 1,25 | 50 |
| Steel, Hardened* | L6-A55 | 0,30 | 12 | L6-NM45 | 1,12 | 45 |
| Steel, Hardened** | L6-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard*** | L6-NM65 | 0,70 | 28 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | L6-J95 | 0,30 | 12 | L6-DM07 | 0,83 | 33 |
| Brass, Soft | L6-J85 | 0,40 | 16 | L6-J85 | 0,40 | 16 |
| Bronze | L6-J95 | 0,30 | 12 | L6-J95 | 0,30 | 12 |
| Carbide | L6-DM07 | 0,08 | 3 | L6-DM07 | 0,08 | 3 |
| Cast Iron | L6-J95 | 0,13 | 5 | L6-DM07 | 0,50 | 20 |
| Ceramic | L6-DM07 | 0,38 | 15 | L6-DM07 | 0,38 | 15 |
| Glass | L6-DM07 | 0,38 | 15 | L6-DM07 | 0,38 | 15 |
| Steel, Soft | L6-J95 | 0,10 | 4 | L6-NM05 | 0,40 | 16 |
| Steel, Hardened | L6-J85 | 0,13 | 5 | L6-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

## K8 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | K8-J57 | 1,38 | 55 | K8-DM85 | 1,25 | 50 |
| Brass, Soft | K8-J65 | 0,83 | 33 | K8-J65 | 0,83 | 33 |
| Bronze | K8-J57 | 1,38 | 55 | K8-J57 | 1,38 | 55 |
| Carbide | K8-DM55 | 0,50 | 20 | K8-DM55 | 0,50 | 20 |
| Cast Iron | K8-J57 | 0,50 | 20 | K8-DM55 | 2,00 | 80 |
| Ceramic | K8-DM55 | 1,00 | 40 | K8-DM55 | 1,00 | 40 |
| Glass | K8-DM55 | 1,75 | 70 | K8-DM55 | 1,75 | 70 |
| Steel, Soft | K8-A57 | 0,75 | 30 | K8-NM55 | 1,25 | 50 |
| Steel, Hardened | K8-A55 | 0,30 | 12 | K8-NM55 | 1,00 | 40 |
| Steel, Hardened | K8-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | K8-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | K8-J95 | 0,30 | 12 | K8-DM05 | 0,83 | 33 |
| Brass, Soft | K8-J85 | 0,40 | 16 | K8-J85 | 0,40 | 16 |
| Bronze | K8-J95 | 0,30 | 12 | K8-J95 | 0,30 | 12 |
| Carbide | K8-DM05 | 0,08 | 3 | K8-DM05 | 0,08 | 3 |
| Cast Iron | K8-J95 | 0,13 | 5 | K8-DM05 | 0,50 | 20 |
| Ceramic | K8-DM05 | 0,38 | 15 | K8-DM05 | 0,38 | 15 |
| Glass | K8-DM05 | 0,38 | 15 | K8-DM05 | 0,38 | 15 |
| Steel, Soft | K8-J95 | 0,10 | 4 | K8-NM05 | 0,40 | 16 |
| Steel, Hardened | K8-J85 | 0,13 | 5 | K8-NM05 | 0,18 | 7 |

## L8 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | L8-J57 | 1,38 | 55 | L8-DM85 | 1,25 | 50 |
| Brass, Soft | L8-J65 | 0,83 | 33 | L8-J65 | 0,83 | 33 |
| Bronze | L8-J57 | 1,38 | 55 | L8-J57 | 1,38 | 55 |
| Carbide | L8-DM55 | 0,50 | 20 | L8-DM55 | 0,50 | 20 |
| Cast Iron | L8-J57 | 0,50 | 20 | L8-DM55 | 2,00 | 80 |
| Ceramic | L8-DM55 | 1,00 | 40 | L8-DM55 | 1,00 | 40 |
| Glass | L8-DM55 | 1,75 | 70 | L8-DM55 | 1,75 | 70 |
| Steel, Soft | L8-A57 | 0,75 | 30 | L8-NM55 | 1,25 | 50 |
| Steel, Hardened | L8-A55 | 0,30 | 12 | L8-NM55 | 1,00 | 40 |
| Steel, Hardened | L8-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | L8-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | L8-J95 | 0,30 | 12 | L8-DM05 | 0,83 | 33 |
| Brass, Soft | L8-J85 | 0,40 | 16 | L8-J85 | 0,40 | 16 |
| Bronze | L8-J95 | 0,30 | 12 | L8-J95 | 0,30 | 12 |
| Carbide | L8-DM05 | 0,08 | 3 | L8-DM05 | 0,08 | 3 |
| Cast Iron | L8-J95 | 0,13 | 5 | L8-DM05 | 0,50 | 20 |
| Ceramic | L8-DM05 | 0,38 | 15 | L8-DM05 | 0,38 | 15 |
| Glass | L8-DM05 | 0,38 | 15 | L8-DM05 | 0,38 | 15 |
| Steel, Soft | L8-J95 | 0,10 | 4 | L8-NM05 | 0,40 | 16 |
| Steel, Hardened | L8-J85 | 0,13 | 5 | L8-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

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## K10 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | K10-J57 | 1,38 | 55 | K10-DM85 | 1,25 | 50 |
| Brass, Soft | K10-J65 | 0,83 | 33 | K10-J65 | 0,83 | 33 |
| Bronze | K10-J57 | 1,38 | 55 | K10-J57 | 1,38 | 55 |
| Carbide | K10-DM55 | 0,50 | 20 | K10-DM55 | 0,50 | 20 |
| Cast Iron | K10-J57 | 0,50 | 20 | K10-DM55 | 2,00 | 80 |
| Ceramic | K10-DM55 | 1,00 | 40 | K10-DM55 | 1,00 | 40 |
| Glass | K10-DM55 | 1,75 | 70 | K10-DM55 | 1,75 | 70 |
| Steel, Soft | K10-A57 | 0,75 | 30 | K10-NM55 | 1,25 | 50 |
| Steel, Hardened | K10-A55 | 0,30 | 12 | K10-NM55 | 1,00 | 40 |
| Steel, Hardened | K10-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | K10-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | K10-J95 | 0,30 | 12 | K10-DM05 | 0,83 | 33 |
| Brass, Soft | K10-J85 | 0,40 | 16 | K10-J85 | 0,40 | 16 |
| Bronze | K10-J95 | 0,30 | 12 | K10-J95 | 0,30 | 12 |
| Carbide | K10-DM05 | 0,08 | 3 | K10-DM05 | 0,08 | 3 |
| Cast Iron | K10-J95 | 0,13 | 5 | K10-DM05 | 0,50 | 20 |
| Ceramic | K10-DM05 | 0,38 | 15 | K10-DM05 | 0,38 | 15 |
| Glass | K10-DM05 | 0,38 | 15 | K10-DM05 | 0,38 | 15 |
| Steel, Soft | K10-J95 | 0,10 | 4 | K10-NM05 | 0,40 | 16 |
| Steel, Hardened | K10-J85 | 0,13 | 5 | K10-NM05 | 0,18 | 7 |

## L10 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | L10-J57 | 1,38 | 55 | L10-DM85 | 1,25 | 50 |
| Brass, Soft | L10-J65 | 0,83 | 33 | L10-J65 | 0,83 | 33 |
| Bronze | L10-J57 | 1,38 | 55 | L10-J57 | 1,38 | 55 |
| Carbide | L10-DM55 | 0,50 | 20 | L10-DM55 | 0,50 | 20 |
| Cast Iron | L10-J57 | 0,50 | 20 | L10-DM55 | 2,00 | 80 |
| Ceramic | L10-DM55 | 1,00 | 40 | L10-DM55 | 1,00 | 40 |
| Glass | L10-DM55 | 1,75 | 70 | L10-DM55 | 1,75 | 70 |
| Steel, Soft | L10-A57 | 0,75 | 30 | L10-NM55 | 1,25 | 50 |
| Steel, Hardened* | L10-A55 | 0,30 | 12 | L10-NM55 | 1,00 | 40 |
| Steel, Hardened** | L10-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard*** | L10-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | L10-J95 | 0,30 | 12 | L10-DM05 | 0,83 | 33 |
| Brass, Soft | L10-J85 | 0,40 | 16 | L10-J85 | 0,40 | 16 |
| Bronze | L10-J95 | 0,30 | 12 | L10-J95 | 0,30 | 12 |
| Carbide | L10-DM05 | 0,08 | 3 | L10-DM05 | 0,08 | 3 |
| Cast Iron | L10-J95 | 0,13 | 5 | L10-DM05 | 0,50 | 20 |
| Ceramic | L10-DM05 | 0,38 | 15 | L10-DM05 | 0,38 | 15 |
| Glass | L10-DM05 | 0,38 | 15 | L10-DM05 | 0,38 | 15 |
| Steel, Soft | L10-J95 | 0,10 | 4 | L10-NM05 | 0,40 | 16 |
| Steel, Hardened | L10-J85 | 0,13 | 5 | L10-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

## K12 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | K12-J57 | 1,38 | 55 | K12-DM85 | 1,25 | 50 |
| Brass, Soft | K12-J65 | 0,83 | 33 | K12-J65 | 0,83 | 33 |
| Bronze | K12-J57 | 1,38 | 55 | K12-J57 | 1,38 | 55 |
| Carbide | K12-DM55 | 0,50 | 20 | K12-DM55 | 0,50 | 20 |
| Cast Iron | K12-J57 | 0,50 | 20 | K12-DM55 | 2,00 | 80 |
| Ceramic | K12-DM55 | 1,00 | 40 | K12-DM55 | 1,00 | 40 |
| Glass | K12-DM55 | 1,75 | 70 | K12-DM55 | 1,75 | 70 |
| Steel, Soft | K12-A57 | 0,75 | 30 | K12-NM55 | 1,25 | 50 |
| Steel, Hardened | K12-A55 | 0,30 | 12 | K12-NM55 | 1,00 | 40 |
| Steel, Hardened | K12-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | K12-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | K12-J95 | 0,30 | 12 | K12-DM05 | 0,83 | 33 |
| Brass, Soft | K12-J85 | 0,40 | 16 | K12-J85 | 0,40 | 16 |
| Bronze | K12-J95 | 0,30 | 12 | K12-J95 | 0,30 | 12 |
| Carbide | K12-DM05 | 0,08 | 3 | K12-DM05 | 0,08 | 3 |
| Cast Iron | K12-J95 | 0,13 | 5 | K12-DM05 | 0,50 | 20 |
| Ceramic | K12-DM05 | 0,38 | 15 | K12-DM05 | 0,38 | 15 |
| Glass | K12-DM05 | 0,38 | 15 | K12-DM05 | 0,38 | 15 |
| Steel, Soft | K12-J95 | 0,10 | 4 | K12-NM05 | 0,40 | 16 |
| Steel, Hardened | K12-J85 | 0,13 | 5 | K12-NM05 | 0,18 | 7 |

## L12 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | L12-J57 | 1,38 | 55 | L12-DM85 | 1,25 | 50 |
| Brass, Soft | L12-J65 | 0,83 | 33 | L12-J65 | 0,83 | 33 |
| Bronze | L12-J57 | 1,38 | 55 | L12-J57 | 1,38 | 55 |
| Carbide | L12-DM55 | 0,50 | 20 | L12-DM55 | 0,50 | 20 |
| Cast Iron | L12-J57 | 0,50 | 20 | L12-DM55 | 2,00 | 80 |
| Ceramic | L12-DM55 | 1,00 | 40 | L12-DM55 | 1,00 | 40 |
| Glass | L12-DM55 | 1,75 | 70 | L12-DM55 | 1,75 | 70 |
| Steel, Soft | L12-A57 | 0,75 | 30 | L12-NM55 | 1,25 | 50 |
| Steel, Hardened | L12-A55 | 0,30 | 12 | L12-NM55 | 1,00 | 40 |
| Steel, Hardened | L12-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | L12-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | L12-J95 | 0,30 | 12 | L12-DM05 | 0,83 | 33 |
| Brass, Soft | L12-J85 | 0,40 | 16 | L12-J85 | 0,40 | 16 |
| Bronze | L12-J95 | 0,30 | 12 | L12-J95 | 0,30 | 12 |
| Carbide | L12-DM05 | 0,08 | 3 | L12-DM05 | 0,08 | 3 |
| Cast Iron | L12-J95 | 0,13 | 5 | L12-DM05 | 0,50 | 20 |
| Ceramic | L12-DM05 | 0,38 | 15 | L12-DM05 | 0,38 | 15 |
| Glass | L12-DM05 | 0,38 | 15 | L12-DM05 | 0,38 | 15 |
| Steel, Soft | L12-J95 | 0,10 | 4 | L12-NM05 | 0,40 | 16 |
| Steel, Hardened | L12-J85 | 0,13 | 5 | L12-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

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## K16 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | K16-J57 | 1,38 | 55 | K16-DM85 | 1,25 | 50 |
| Brass, Soft | K16-J65 | 0,83 | 33 | K16-J65 | 0,83 | 33 |
| Bronze | K16-J57 | 1,38 | 55 | K16-J57 | 1,38 | 55 |
| Carbide | K16-DM55 | 0,50 | 20 | K16-DM55 | 0,50 | 20 |
| Cast Iron | K16-J57 | 0,50 | 20 | K16-DM55 | 2,00 | 80 |
| Ceramic | K16-DM55 | 1,00 | 40 | K16-DM55 | 1,00 | 40 |
| Glass | K16-DM55 | 1,75 | 70 | K16-DM55 | 1,75 | 70 |
| Steel, Soft | K16-A57 | 0,75 | 30 | K16-NM55 | 1,25 | 50 |
| Steel, Hardened | K16-A55 | 0,30 | 12 | K16-NM55 | 1,00 | 40 |
| Steel, Hardened | K16-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | K16-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | K16-J95 | 0,30 | 12 | K16-DM05 | 0,83 | 33 |
| Brass, Soft | K16-J85 | 0,40 | 16 | K16-J85 | 0,40 | 16 |
| Bronze | K16-J95 | 0,30 | 12 | K16-J95 | 0,30 | 12 |
| Carbide | K16-DM05 | 0,08 | 3 | K16-DM05 | 0,08 | 3 |
| Cast Iron | K16-J95 | 0,13 | 5 | K16-DM05 | 0,50 | 20 |
| Ceramic | K16-DM05 | 0,38 | 15 | K16-DM05 | 0,38 | 15 |
| Glass | K16-DM05 | 0,38 | 15 | K16-DM05 | 0,38 | 15 |
| Steel, Soft | K16-J95 | 0,10 | 4 | K16-NM05 | 0,40 | 16 |
| Steel, Hardened | K16-J85 | 0,13 | 5 | K16-NM05 | 0,18 | 7 |

## L16 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | L16-J57 | 1,38 | 55 | L16-DM85 | 1,25 | 50 |
| Brass, Soft | L16-J65 | 0,83 | 33 | L16-J65 | 0,83 | 33 |
| Bronze | L16-J57 | 1,38 | 55 | L16-J57 | 1,38 | 55 |
| Carbide | L16-DM55 | 0,50 | 20 | L16-DM55 | 0,50 | 20 |
| Cast Iron | L16-J57 | 0,50 | 20 | L16-DM55 | 2,00 | 80 |
| Ceramic | L16-DM55 | 1,00 | 40 | L16-DM55 | 1,00 | 40 |
| Glass | L16-DM55 | 1,75 | 70 | L16-DM55 | 1,75 | 70 |
| Steel, Soft | L16-A57 | 0,75 | 30 | L16-NM55 | 1,25 | 50 |
| Steel, Hardened* | L16-A55 | 0,30 | 12 | L16-NM55 | 1,00 | 40 |
| Steel, Hardened** | L16-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard*** | L16-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | L16-J95 | 0,30 | 12 | L16-DM05 | 0,83 | 33 |
| Brass, Soft | L16-J85 | 0,40 | 16 | L16-J85 | 0,40 | 16 |
| Bronze | L16-J95 | 0,30 | 12 | L16-J95 | 0,30 | 12 |
| Carbide | L16-DM05 | 0,08 | 3 | L16-DM05 | 0,08 | 3 |
| Cast Iron | L16-J95 | 0,13 | 5 | L16-DM05 | 0,50 | 20 |
| Ceramic | L16-DM05 | 0,38 | 15 | L16-DM05 | 0,38 | 15 |
| Glass | L16-DM05 | 0,38 | 15 | L16-DM05 | 0,38 | 15 |
| Steel, Soft | L16-J95 | 0,10 | 4 | L16-NM05 | 0,40 | 16 |
| Steel, Hardened | L16-J85 | 0,13 | 5 | L16-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

## K20 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | K20-J57 | 1,38 | 55 | K20-DM85 | 1,25 | 50 |
| Brass, Soft | K20-J65 | 0,83 | 33 | K20-J65 | 0,83 | 33 |
| Bronze | K20-J57 | 1,38 | 55 | K20-J57 | 1,38 | 55 |
| Carbide | K20-DM55 | 0,50 | 20 | K20-DM55 | 0,50 | 20 |
| Cast Iron | K20-J57 | 0,50 | 20 | K20-DM55 | 2,00 | 80 |
| Ceramic | K20-DM55 | 1,00 | 40 | K20-DM55 | 1,00 | 40 |
| Glass | K20-DM55 | 1,75 | 70 | K20-DM55 | 1,75 | 70 |
| Steel, Soft | K20-A57 | 0,75 | 30 | K20-NM55 | 1,25 | 50 |
| Steel, Hardened | K20-A55 | 0,30 | 12 | K20-NM55 | 1,00 | 40 |
| Steel, Hardened | K20-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | K20-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | K20-J95 | 0,30 | 12 | K20-DM05 | 0,83 | 33 |
| Brass, Soft | K20-J85 | 0,40 | 16 | K20-J85 | 0,40 | 16 |
| Bronze | K20-J95 | 0,30 | 12 | K20-J95 | 0,30 | 12 |
| Carbide | K20-DM05 | 0,08 | 3 | K20-DM05 | 0,08 | 3 |
| Cast Iron | K20-J95 | 0,13 | 5 | K20-DM05 | 0,50 | 20 |
| Ceramic | K20-DM05 | 0,38 | 15 | K20-DM05 | 0,38 | 15 |
| Glass | K20-DM05 | 0,38 | 15 | K20-DM05 | 0,38 | 15 |
| Steel, Soft | K20-J95 | 0,10 | 4 | K20-NM05 | 0,40 | 16 |
| Steel, Hardened | K20-J85 | 0,13 | 5 | K20-NM05 | 0,18 | 7 |

## L20 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | L20-J57 | 1,38 | 55 | L20-DM85 | 1,25 | 50 |
| Brass, Soft | L20-J65 | 0,83 | 33 | L20-J65 | 0,83 | 33 |
| Bronze | L20-J57 | 1,38 | 55 | L20-J57 | 1,38 | 55 |
| Carbide | L20-DM55 | 0,50 | 20 | L20-DM55 | 0,50 | 20 |
| Cast Iron | L20-J57 | 0,50 | 20 | L20-DM55 | 2,00 | 80 |
| Ceramic | L20-DM55 | 1,00 | 40 | L20-DM55 | 1,00 | 40 |
| Glass | L20-DM55 | 1,75 | 70 | L20-DM55 | 1,75 | 70 |
| Steel, Soft | L20-A57 | 0,75 | 30 | L20-NM55 | 1,25 | 50 |
| Steel, Hardened | L20-A55 | 0,30 | 12 | L20-NM55 | 1,00 | 40 |
| Steel, Hardened | L20-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | L20-NM55 | 1,00 | 40 | — | — | — |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | L20-J95 | 0,30 | 12 | L20-DM05 | 0,83 | 33 |
| Brass, Soft | L20-J85 | 0,40 | 16 | L20-J85 | 0,40 | 16 |
| Bronze | L20-J95 | 0,30 | 12 | L20-J95 | 0,30 | 12 |
| Carbide | L20-DM05 | 0,08 | 3 | L20-DM05 | 0,08 | 3 |
| Cast Iron | L20-J95 | 0,13 | 5 | L20-DM05 | 0,50 | 20 |
| Ceramic | L20-DM05 | 0,38 | 15 | L20-DM05 | 0,38 | 15 |
| Glass | L20-DM05 | 0,38 | 15 | L20-DM05 | 0,38 | 15 |
| Steel, Soft | L20-J95 | 0,10 | 4 | L20-NM05 | 0,40 | 16 |
| Steel, Hardened | L20-J85 | 0,13 | 5 | L20-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

DAMEC

| AK20 STONE | | | | | | |
|---|---|---|---|---|---|---|
| **Fast removal** | | | | | | |
| **Tipo di materiale** ***Type of material*** | **Codice Pietra** ***Stone Code*** | **R.A.** **mm** | **R.A. micro pollici** ***micro inch*** | **Codice Pietra** ***Stone Code*** | **R.A.** **mm** | **R.A. micro pollici** ***micro inch*** |
| Aluminum | K20-J57 | 1,38 | 55 | K20-DM85 | 1,25 | 50 |
| Brass, Soft | K20-J65 | 0,83 | 33 | K20-J65 | 0,83 | 33 |
| Bronze | K20-J57 | 1,38 | 55 | K20-J57 | 1,38 | 55 |
| Carbide | K20-DM55 | 0,50 | 20 | K20-DM55 | 0,50 | 20 |
| Cast Iron | K20-J57 | 0,50 | 20 | K20-DM55 | 2,00 | 80 |
| Ceramic | K20-DM55 | 1,00 | 40 | K20-DM55 | 1,00 | 40 |
| Glass | K20-DM55 | 1,75 | 70 | K20-DM55 | 1,75 | 70 |
| Steel, Soft | K20-A57 | 0,75 | 30 | K20-NM55 | 1,25 | 50 |
| Steel, Hardened | K20-A55 | 0,30 | 12 | K20-NM55 | 1,00 | 40 |
| Steel, Hardened | K20-A65 | 0,30 | 12 | — | — | — |
| Steel, Very Hard | K20-NM55 | 1,00 | 40 | — | — | — |
| **Fine finishing** | | | | | | |
| Aluminum | K20-J95 | 0,30 | 12 | K20-DM05 | 0,83 | 33 |
| Brass, Soft | K20-J85 | 0,40 | 16 | K20-J85 | 0,40 | 16 |
| Bronze | K20-J95 | 0,30 | 12 | K20-J95 | 0,30 | 12 |
| Carbide | K20-DM05 | 0,08 | 3 | K20-DM05 | 0,08 | 3 |
| Cast Iron | K20-J95 | 0,13 | 5 | K20-DM05 | 0,50 | 20 |
| Ceramic | K20-DM05 | 0,38 | 15 | K20-DM05 | 0,38 | 15 |
| Glass | K20-DM05 | 0,38 | 15 | K20-DM05 | 0,38 | 15 |
| Steel, Soft | K20-J95 | 0,10 | 4 | K20-NM05 | 0,40 | 16 |
| Steel, Hardened | K20-J85 | 0,13 | 5 | K20-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

## P28 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | P28-J57 | 1,38 | 55 | P28-DM85 | 1,25 | 50 |
| Brass, Soft | P28-J65 | 0,83 | 33 | P28-J65 | 0,83 | 33 |
| Bronze | P28-J57 | 1,38 | 55 | P28-J57 | 1,38 | 55 |
| Carbide | P28-DM55 | 0,50 | 20 | P28-DM55 | 0,50 | 20 |
| Cast Iron | P28-J57 | 0,50 | 20 | P28-DM55 | 2,00 | 80 |
| Ceramic | P28-DM55 | 1,00 | 40 | P28-DM55 | 1,00 | 40 |
| Glass | P28-DM55 | 1,75 | 70 | P28-DM55 | 1,75 | 70 |
| Steel, Soft | P28-A57 | 0,75 | 30 | P28-NM55 | 1,25 | 50 |
| Steel, Hardened | P28-A55 | 0,30 | 12 | P28-NM55 | 1,00 | 40 |
| Steel, Hardened | P28-A65 | 0,30 | 12 | - | - | - |
| Steel, Very Hard | P28-NM65 | 1,00 | 40 | - | - | - |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | P28-J95 | 0,30 | 12 | P28-DM05 | 0,83 | 33 |
| Brass, Soft | P28-J85 | 0,40 | 16 | P28-J85 | 0,40 | 16 |
| Bronze | P28-J95 | 0,30 | 12 | P28-J53 | 0,30 | 12 |
| Carbide | P28-DM05 | 0,08 | 3 | P28-DM05 | 0,08 | 3 |
| Cast Iron | P28-J95 | 0,13 | 5 | P28-DM05 | 0,50 | 20 |
| Ceramic | P28-DM05 | 0,38 | 15 | P28-DM05 | 0,38 | 15 |
| Glass | P28-DM05 | 0,38 | 15 | P28-DM05 | 0,38 | 15 |
| Steel, Soft | P28-J85 | 0,10 | 4 | P28-NM05 | 0,40 | 16 |
| Steel, Hardened | P28-J95 | 0.13 | 5 | P28-NM05 | 0,18 | 7 |
| Steel, Hardened | P28-J85 | 0,13 | 5 | P28-NM05 | 0,18 | 7 |

## P20 STONE

### Fast removal

| Tipo di materiale *Type of material* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* | Codice Pietra *Stone Code* | R.A. mm | R.A. micro pollici *micro inch* |
|---|---|---|---|---|---|---|
| Aluminum | P20-J57 | 1,38 | 55 | P20-DM85 | 1,25 | 50 |
| Brass, Soft | P20-J65 | 0,83 | 33 | P20-J65 | 0,83 | 33 |
| Bronze | P20-J57 | 1,38 | 55 | P20-J57 | 1,38 | 55 |
| Carbide | P20-DM55 | 0,50 | 20 | P20-DM55 | 0,50 | 20 |
| Cast Iron | P20-J57 | 0,50 | 20 | P20-DM55 | 2,00 | 80 |
| Ceramic | P20-DM55 | 1,00 | 40 | P20-DM55 | 1,00 | 40 |
| Glass | P20-DM55 | 1,75 | 70 | P20-DM55 | 1,75 | 70 |
| Steel, Soft | P20-A57 | 0,75 | 30 | P20-NM55 | 1,25 | 50 |
| Steel, Hardened | P20-A55 | 0,30 | 12 | P20-NM55 | 1,00 | 40 |
| Steel, Hardened | P20-A65 | 0,30 | 12 | - | - | - |
| Steel, Very Hard | P20-NM55 | 1,00 | 40 | - | - | - |

### Fine finishing

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminum | P20-J95 | 0,30 | 12 | P20-DM05 | 0,83 | 33 |
| Brass, Soft | P20-J85 | 0,40 | 16 | P20-J85 | 0,40 | 16 |
| Bronze | P20-J95 | 0,30 | 12 | P20-J95 | 0,30 | 12 |
| Carbide | P20-DM05 | 0,08 | 3 | P20-DM05 | 0,08 | 3 |
| Cast Iron | P20-J95 | 0,13 | 5 | P20-DM05 | 0,50 | 20 |
| Ceramic | P20-DM05 | 0,38 | 15 | P20-DM05 | 0,38 | 15 |
| Glass | P20-DM05 | 0,38 | 15 | P20-DM05 | 0,38 | 15 |
| Steel, Soft | P20-J95 | 0,10 | 4 | P20-NM05 | 0,40 | 16 |
| Steel, Hardened | P20-J85 | 0.13 | 5 | P20-NM05 | 0,18 | 7 |

** Il valore nella tabella è indicativo. Per maggiori informazioni consultare il nostro staff tecnico.**

*Values are approsimative. For further information contact our staff.*

DAMEC

# DSS
# DAMEC SINGLE STROKE

L'utensile è composto da un'asta, una bussola abrasiva e un pilota per espansione.

Questo mandrino si distingue per la sua elevata produttività, per la sua precisione di lavorazione e per la sua durabilità nel tempo. L'asportazione del sovrametallo da parte di questi utensili è ridotta rispetto ad un utensile standard (pochi centesimi).

La sua precisione deriva dalla regolazione meccanica eseguita grazie al pilota, che permette la ripetibilità dei fori da lavorare.
Gli utensili a singola passata possono essere di due tipologie: con bussola elettro deposta e con bussola sinterizzata.

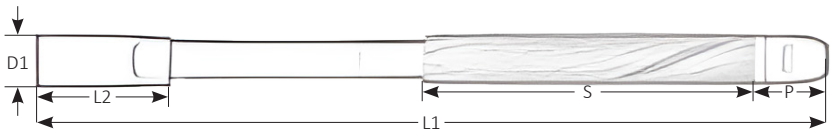
La bussola diamantata è disponibile in differenti tipologie di grana:
D00-D0-D1-D3-D5-D7-D8.

*HPT is composed by a wedge, an abrasive sleeve and an expansion pilot.*
*This type of spindle has features such as: high productivity, precision working and long-life in the time.*

*The stockremoval of these tools reduces more than a standard tool (few cents).*
*Their precision comes from the mechanical regulation of the pilot, which allows the repeatability of the honing holes.*
*Single pass tools can be realised in two types: with electroplated sleeve and with sintered sleeve.*

*Diamond sleeve is available in different types of grit:*
*D00- D0-D1-D3-D5-D7-D8.*

| GRANA - *GRIT* | | |
|---|---|---|
| COD. DAMEC | FEPA | MESH |
| D1 - K | 70 | 120 |
| D3 - N | 100 | 84 |
| D5 - M | 220 | 64 |
| D7 - P | 320 | 54 |
| D8 - R | 400 | 46 |
| D0 - S | 600 | 30 |
| D00 - Z | 1200 | 15 |




| Tool range | | L1 | | L2 | | D1 | | S | | P | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| 6,325- 6,401 | .249- .252 | 269,9 | 10.63 | 66,68 | 2.625 | 9,525 | 0.375 | 76,2 | 3 | 34,925 | 1.375 |
| 6,985- 7,061 | .275- .278 | 269,9 | 10.63 | 66,68 | 2.625 | 9,525 | 0.375 | 76,2 | 3 | 34,925 | 1.375 |
| 7,912- 7,988 | .3115- .3145 | 269,9 | 10.63 | 66,68 | 2.625 | 9,525 | 0.375 | 76,2 | 3 | 34,925 | 1.375 |
| 7,976- 8,052 | .314- .317 | 269,9 | 10.63 | 66,68 | 2.625 | 9,525 | 0.375 | 76,2 | 3 | 34,925 | 1.375 |
| 9,500- 9,576 | .374- .377 | 269,9 | 10.63 | 66,68 | 2.625 | 12,7 | 0.5 | 76,2 | 3 | 28,575 | 1.125 |
| 9,982- 10,058 | .393- .396 | 269,9 | 10.63 | 66,68 | 2.625 | 12,7 | 0.5 | 76,2 | 3 | 28,575 | 1.125 |
| 11,100- 11,176 | .437- .440 | 269,9 | 10.63 | 66,68 | 2.625 | 12,7 | 0.5 | 76,2 | 3 | 28,575 | 1.125 |
| 11,963- 12,040 | .471- .474 | 295,3 | 11.63 | 66,68 | 2.625 | 15,875 | 0.625 | 101,6 | 4 | 28,575 | 1.125 |
| 12,675- 12,751 | .499- .502 | 295,3 | 11.63 | 66,68 | 2.625 | 15,875 | 0.625 | 101,6 | 4 | 28,575 | 1.125 |
| 13,462- 13,538 | .530- .533 | 295,3 | 11.63 | 66,68 | 2.625 | 19,05 | 0.75 | 101,6 | 4 | 28,575 | 1.125 |
| 13,970- 14,046 | .550- .553 | 295,3 | 11.63 | 66,68 | 2.625 | 19,05 | 0.75 | 101,6 | 4 | 28,575 | 1.125 |
| 14,262- 14,338 | .5615- .5645 | 295,3 | 11.63 | 66,68 | 2.625 | 19,05 | 0.75 | 101,6 | 4 | 28,575 | 1.125 |
| 14,973- 15,050 | .5895- .5925 | 295,3 | 11.63 | 66,68 | 2.625 | 19,05 | 0.75 | 101,6 | 4 | 28,575 | 1.125 |
| 15,850- 15,926 | .624- .627 | 295,3 | 11.63 | 66,68 | 2.625 | 19,05 | 0.75 | 101,6 | 4 | 28,575 | 1.125 |
| 15,977- 16,053 | .629- .632 | 295,3 | 11.63 | 66,68 | 2.625 | 19,05 | 0.75 | 101,6 | 4 | 28,575 | 1.125 |
| 16,967- 17,043 | .668- .671 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 17,437- 17,513 | .6865- .6895 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 17,971- 18,047 | .7075- .7105 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 18,974- 19,050 | .747- .750 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 19,025- 19,101 | .749- .752 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 19,977- 20,053 | .7865- .7895 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 20,612- 20,688 | .8115- .8145 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 21,971- 22,047 | .865- .868 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 22,200- 22,276 | .874- .877 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 23,978- 24,054 | .944- .947 | 320,7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |
| 24,981- 25,057 | .9835- .9865 | 320.7 | 12.63 | 66,68 | 2.625 | 19,05 | 0.75 | 127 | 5 | 28,575 | 1.125 |

Sono disponibili anche misure di piccole dimensioni che vanno da 2.5mm a 3.6mm su richiesta.

*Smaller sizes ranging from 2.5mm to 3.6mm are also available upon request.*

DAMEC

# MST
# UTENSILE MULTIPIETRA
# *MULTI STONE TOOL*

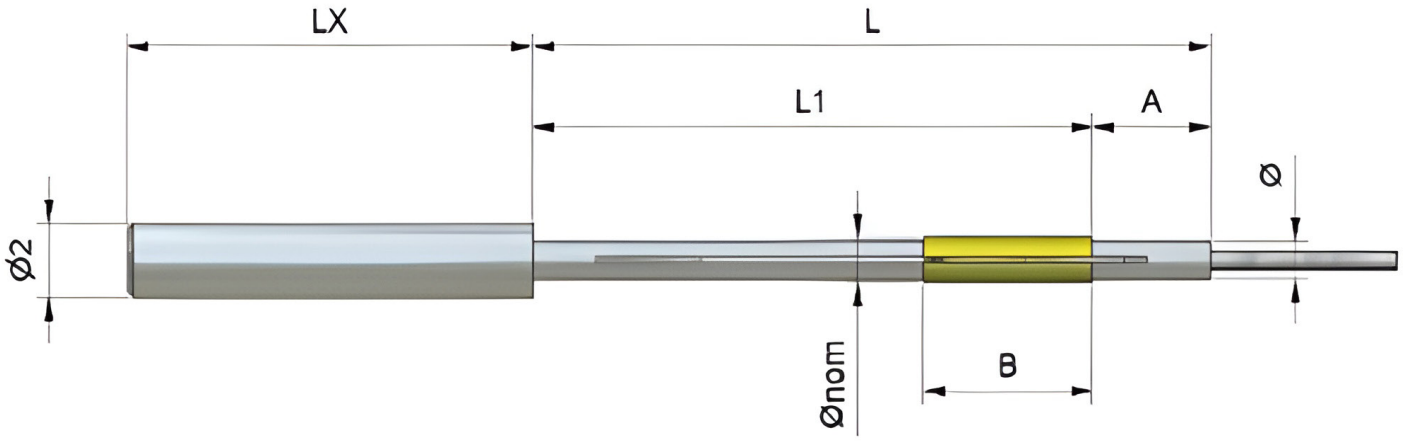
Ø 0.80 - Ø 2.20 RM404D

Questi utensili hanno un range da 0,80mm 2,2 mm. La loro particolarità è che in cima all'utensile è presente una vite o perno, che regola l'espansione grazie alla sua conicità. L'espansione è prevalentemente manuale e permette il raggiungimento della linearità e ripetitività del foro.

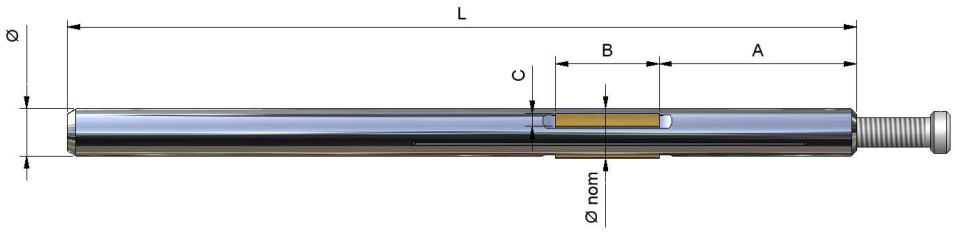
Per poter scegliere correttamente il mandrino da utilizzare, è necessario specificare: diametro del foro, lunghezza del foro, rugosità della superficie iniziale e finale. Possono essere montate su tutte levigatrici con i loro appositi adattatori

*These tools have a range between 0,80mm and 2,2mm. Their main characteristic is situated on the top of the tool where there is a screw, which regulates the expansion thanks to its conicity. The manual expansion allows to reach the linearity and repeatability of the hole.*

*In order to use the correct mandrel, it is necessary to specify: hole diameter, length of hole, roughness of the initial and final surface.*
*They can be mounted on all honing machines with their specific adapters.*




| Ønom | LX | L | L1 | A | B |
|---|---|---|---|---|---|
| 0.8 | 8.4 | 13 | 10 | 3 | 3 |
| 0.9 | 8.4 | 13 | 10 | 3 | 3 |
| 1.0 | 10.2 | 18 | 15 | 3 | 5 |
| 1.1 | 10.2 | 18 | 15 | 3 | 5 |
| 1.2 | 12 | 20 | 17 | 3 | 5 |
| 1.3 | 12 | 20 | 17 | 3 | 5 |
| 1.4 | 12 | 20 | 17 | 3 | 5 |
| 1.5 | 12 | 20 | 17 | 3 | 5 |
| 1.6 | 12 | 20 | 17 | 3 | 5 |
| 1.7 | 15 | 25 | 18 | 7 | 6 |
| 1.8 | 15 | 25 | 18 | 7 | 6 |
| 1.9 | 15 | 25 | 18 | 7 | 6 |
| 2.0 | 15 | 25 | 18 | 7 | 6 |
| 2.1 | 15 | 25 | 18 | 7 | 6 |
| 2.2 | 15 | 25 | 18 | 7 | 6 |

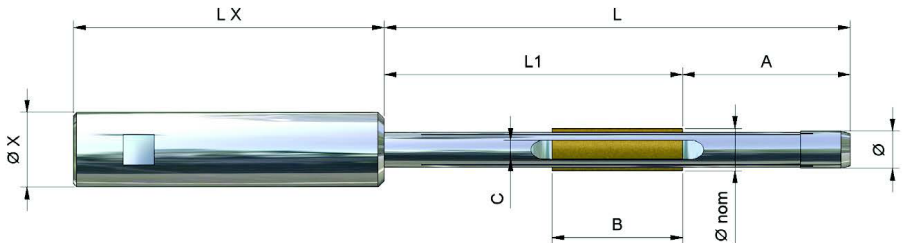



# MOLE MANUALI CON INSERTI DIAMANTATI D85 C50
## *MANUAL LAPS WITH DIAMOND INSERTS D85 C50*

Mola scanalata con vite di regolazione a cono per l'espansione e hanno una sola tipologia di abrasivo.

Slotted lap with setting screw with taper for expansion and have only one type of abrasive.

| ARTICLE | Ønom | Ø | L | A | B | C | # C |
|---|---|---|---|---|---|---|---|
| 13-002.50 | 2.5 | 2.0 | 65 | 14 | 10 | 0.8 | 3 |
| 13-003.00 | 3.0 | 2.5 | 65 | 14 | 10 | 0.8 | 3 |
| 13-003.50 | 3.5 | 3.0 | 70 | 17 | 10 | 1.0 | 3 |
| 13-004.00 | 4.0 | 3.5 | 70 | 17 | 10 | 1.0 | 3 |
| 13-004.50 | 4.5 | 4.0 | 80 | 20 | 12 | 1.5 | 3 |
| 13-005.00 | 5.0 | 4.5 | 80 | 20 | 12 | 1.5 | 3 |
| 13-005.50 | 5.5 | 5.0 | 100 | 22 | 16 | 2.0 | 3 |
| 13-006.00 | 6.0 | 5.5 | 100 | 22 | 16 | 2.0 | 3 |
| 13-006.50 | 6.5 | 6.0 | 120 | 22 | 16 | 3.0 | 3 |
| 13-007.00 | 7.0 | 6.5 | 120 | 22 | 16 | 3.0 | 3 |
| 13-007.50 | 7.5 | 7.0 | 140 | 28 | 21 | 3.0 | 3 |
| 13-008.00 | 8.0 | 7.5 | 140 | 28 | 21 | 3.0 | 3 |
| 13-008.50 | 8.5 | 8.0 | 140 | 28 | 21 | 3.0 | 3 |
| 13-009.00 | 9.0 | 8.5 | 140 | 28 | 21 | 3.0 | 3 |
| 13-009.50 | 9.50 | 9.0 | 160 | 28 | 21 | 3.0 | 3 |
| 13-010.00 | 10.0 | 9.5 | 160 | 40 | 21 | 3.0 | 3 |
| 13-010.50 | 10.5 | 10.0 | 160 | 40 | 21 | 3.0 | 3 |
| 13-011.00 | 11.0 | 10.5 | 160 | 40 | 21 | 3.0 | 3 |
| 13-011.50 | 11.5 | 11.0 | 160 | 40 | 21 | 3.0 | 3 |
| 13-012.00 | 12.0 | 11.5 | 160 | 40 | 21 | 3.0 | 3 |
| 13-012.50 | 12.5 | 12.0 | 160 | 40 | 21 | 3.0 | 3 |
| 13-013.00 | 13 | 12.0 | 160 | 40 | 21 | 4.0 | 4 |
| 13-014.00 | 14 | 13.0 | 165 | 50 | 21 | 4.0 | 4 |
| 13-015.00 | 15 | 14.0 | 165 | 50 | 21 | 4.0 | 4 |
| 13-016.00 | 16 | 15.0 | 165 | 50 | 21 | 4.0 | 4 |
| 13-017.00 | 17 | 16.0 | 185 | 60 | 21 | 4.0 | 4 |
| 13-018.00 | 18 | 17.0 | 185 | 60 | 21 | 4.0 | 4 |
| 13-019.00 | 19 | 18.0 | 185 | 60 | 21 | 4.0 | 4 |
| 13-020.00 | 20 | 19.0 | 205 | 60 | 21 | 4.0 | 4 |
| 13-021.00 | 21 | 20.0 | 205 | 60 | 21 | 4.0 | 4 |

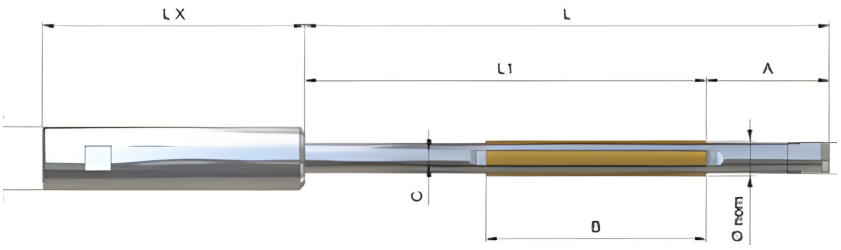



## *MACHINE LAPS TYPE 039*

Mola per macchina da utilizzare con dispositivo di lappatura o con macchina per levigatura dotata di apposito adattatore

Machine lap to be used with lapping device or with honing machine equipped with appropriated adaptor.

| ARTICLE | Ønom | Ø | ØX | LX | L | L1 | A | B | C | # C |
|---|---|---|---|---|---|---|---|---|---|---|
| 15-001.90 | 1,95- 2,49 | 1.9 | 12 | 50 | 30 | 21.5 | 8.5 | 10 | 0.8 | 3 |
| 15-002.40 | 2,50- 3,09 | 2.4 | 12 | 50 | 30 | 21.5 | 8.5 | 10 | 0.8 | 3 |
| 15-002.90 | 3,00- 3,49 | 2.9 | 12 | 50 | 50 | 35 | 15 | 16 | 1.5 | 3 |
| 15-003.40 | 3,50- 4,10 | 3.4 | 12 | 50 | 60 | 42 | 18 | 16 | 1.5 | 3 |
| 15-003.80 | 3,90- 4,39 | 3.8 | 12 | 50 | 60 | 42 | 18 | 16 | 2.0 | 3 |
| 15-004.30 | 4,40- 4,89 | 4.3 | 12 | 50 | 67 | 45 | 22 | 16 | 2.0 | 3 |
| 15-004.80 | 4,90- 5,59 | 4.8 | 12 | 50 | 67 | 45 | 22 | 16 | 2.0 | 3 |
| 15-005.50 | 5,60- 6,09 | 5.5 | 12 | 50 | 75 | 48 | 27 | 21 | 2.0 | 3 |
| 15-006.00 | 6,10- 6,79 | 6.0 | 12 | 50 | 75 | 48 | 27 | 21 | 3.0 | 3 |
| 15-006.70 | 6,80- 7,59 | 6.7 | 12 | 50 | 80 | 51 | 29 | 21 | 3.0 | 3 |
| 15-007.50 | 7,60- 8,59 | 7.5 | 12 | 50 | 80 | 51 | 29 | 21 | 3.0 | 3 |
| 15-008.50 | 8,60- 9,59 | 8.5 | 12 | 50 | 85 | 54 | 31 | 21 | 3.0 | 4 |
| 15-009.50 | 9,60- 10,79 | 9.5 | 12 | 50 | 85 | 54 | 31 | 21 | 3.0 | 4 |
| 15-010.70 | 10,80- 11,69 | 10.7 | 12 | 50 | 90 | 56 | 34 | 21 | 4.0 | 4 |
| 15-011.60 | 11,70- 12,59 | 11.6 | 12 | 50 | 90 | 56 | 34 | 21 | 4.0 | 4 |

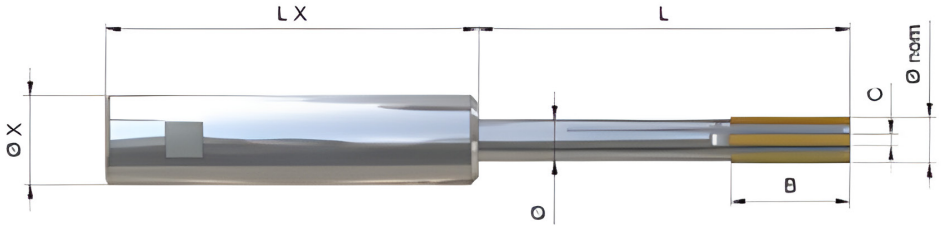



# MACHINE LAPS TYPE 039

Mola per macchina da utilizzare con dispositivo di lappatura o con macchina per levigatura dotata di apposito adattatore

Machine lap to be used with lapping device or with honing machine equipped with appropriated adaptor.

| ARTICLE | Ønom | Ø | ØX | LX | L | L1 | A | B | C | # C |
|---|---|---|---|---|---|---|---|---|---|---|
| 16-001.90 | 1,95- 2,49 | 1.9 | 12 | 50 | 40 | 32 | 8 | 10 | 0.8 | 3 |
| 16-002.40 | 2,50- 3,09 | 2.4 | 12 | 50 | 40 | 32 | 8 | 10 | 0.8 | 3 |
| 16-002.90 | 3,00- 3,49 | 2.9 | 12 | 50 | 66 | 50.5 | 15.5 | 20 | 1.0 | 3 |
| 16-003.40 | 3,50- 4,10 | 3.4 | 12 | 50 | 75 | 57.5 | 17.5 | 24 | 1.5 | 3 |
| 16-003.80 | 3,90- 4,39 | 3.8 | 12 | 50 | 75 | 57.5 | 17.5 | 24 | 2.0 | 3 |
| 16-004.30 | 4,40- 4,89 | 4.3 | 12 | 50 | 90 | 70 | 20 | 40 | 2.0 | 3 |
| 16-004.80 | 4,90- 5,59 | 4.8 | 12 | 50 | 90 | 70 | 20 | 40 | 2.0 | 3 |
| 16-005.50 | 5,60- 6,09 | 5.5 | 12 | 50 | 100 | 77 | 23 | 42 | 3.0 | 3 |
| 16-006.00 | 6,10- 6,79 | 6.0 | 12 | 50 | 100 | 77 | 23 | 42 | 3.0 | 3 |
| 16-006.70 | 6,80- 7,59 | 6.7 | 12 | 50 | 110 | 83 | 27 | 42 | 3.0 | 3 |
| 16-007.50 | 7,60- 8,59 | 7.5 | 12 | 50 | 110 | 83 | 27 | 42 | 3.0 | 3 |
| 16-008.50 | 8,60- 9,59 | 8.5 | 12 | 50 | 120 | 89 | 31 | 42 | 3.0 | 4 |
| 16-009.50 | 9,60- 10,79 | 9.5 | 12 | 50 | 120 | 89 | 31 | 42 | 3.0 | 4 |
| 16-010.70 | 10,80- 11,69 | 10.7 | 12 | 50 | 120 | 89 | 31 | 42 | 4.0 | 4 |
| 16-011.60 | 11,70- 12,59 | 11.6 | 12 | 50 | 120 | 89 | 31 | 42 | 4.0 | 4 |




## *MACHINE LAPS TYPE 039*

Mola per macchina da utilizzare con dispositivo di lappatura o con macchina per levigatura dotata di apposito adattatore

Machine lap to be used with lapping device or with honing machine equipped with appropriated adaptor.

| ARTICLE | Ønom | Ø | ØX | LX | L | B | C | # C |
|---|---|---|---|---|---|---|---|---|
| 17-002.20 | 2,30- 2,79 | 2,2 | 12 | 50 | 40 | 10 | 0.8 | 4 |
| 17-002.70 | 2,80- 3,29 | 2,7 | 12 | 50 | 50 | 10 | 1.0 | 4 |
| 17-003.20 | 3,30- 3,69 | 3,0 | 12 | 50 | 50 | 10 | 1.0 | 4 |
| 17-003.60 | 3,70- 4,50 | 3,6 | 12 | 50 | 50 | 10 | 1.0 | 4 |
| 17-004.00 | 4,10- 5,00 | 4,0 | 12 | 50 | 50 | 16 | 1.0 | 6 |
| 17-004.50 | 4,60- 5,60 | 4,5 | 12 | 50 | 50 | 16 | 1.0 | 6 |
| 17-005.10 | 5,20- 5,90 | 5,1 | 12 | 50 | 50 | 16 | 1.5 | 6 |
| 17-005.70 | 5,80- 6,70 | 5,7 | 12 | 50 | 50 | 16 | 1.5 | 6 |
| 17-006.30 | 6,40- 7,50 | 6,3 | 12 | 50 | 50 | 16 | 2.0 | 6 |
| 17-007.10 | 7,20- 8,30 | 7,1 | 12 | 50 | 50 | 16 | 2.0 | 6 |
| 17-008.10 | 8,20- 9,30 | 8,1 | 12 | 50 | 50 | 16 | 3.0 | 6 |
| 17-009.10 | 9,20- 10,29 | 9,1 | 12 | 50 | 50 | 16 | 3.0 | 6 |
| 17-010.20 | 10,30- 11,50 | 10,0 | 12 | 50 | 70 | 21 | 3.0 | 6 |
| 17-011.20 | 11,30- 12,59 | 11,2 | 12 | 50 | 70 | 21 | 3.0 | 6 |

DAMEC

# MST 047 N
# UTENSILE MULTIPIETRA
# *MULTI STONE TOOL*

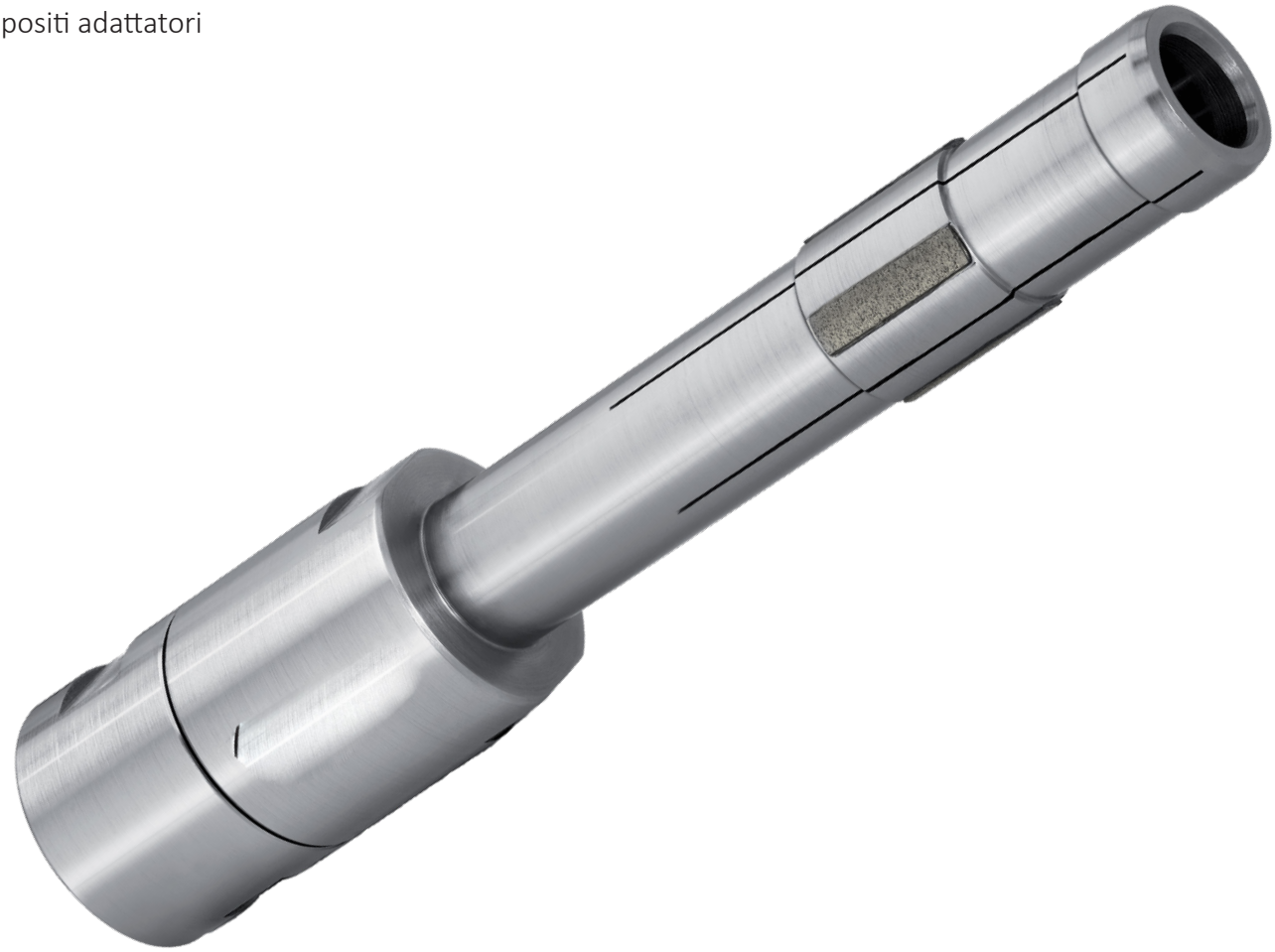
Ø 13.00 - Ø 30.00 047 N

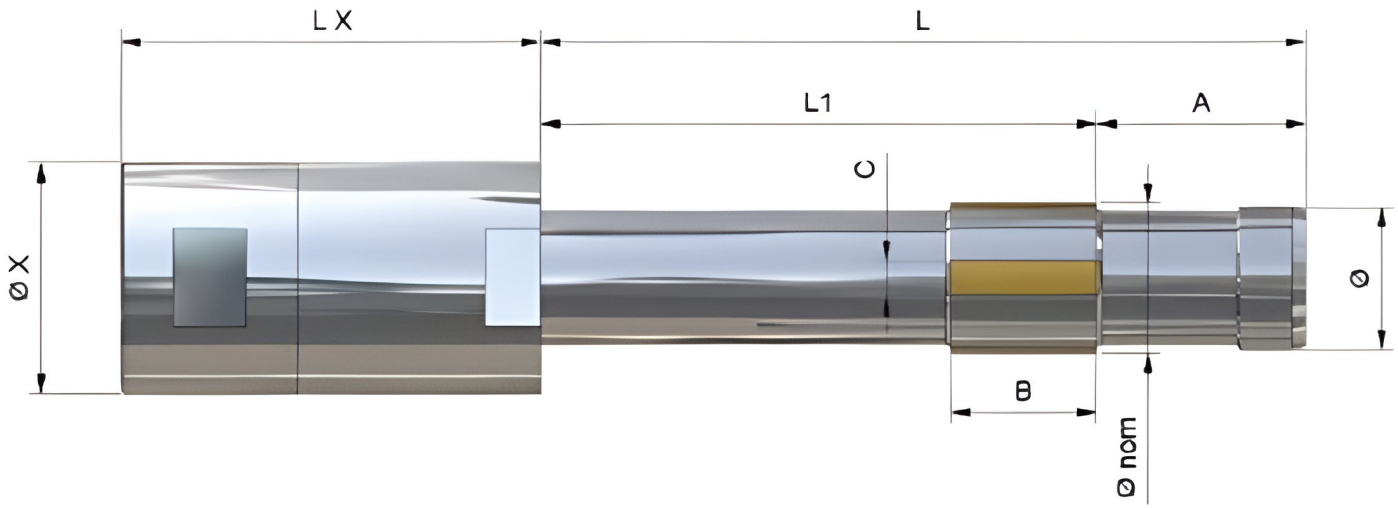
Questi tipi di utensili si possono usare su qualsiasi macchina lappatrice, grazie agli appositi adattatori. Per poter scegliere correttamente il mandrino da utilizzare, è necessario specificare: diametro del foro, lunghezza del foro, rugosità della superficie, sovrametallo da rimuovere e materiale.

Questi utensili partono da un diametro minimo di 1,95 mm e possono essere montate su tutte levigatrici con i loro appositi adattatori

*These tools can be equipped on any kind of honing machine with an appropriate adapter. In order to use the correct mandrel, it is necessary to specify: hole diameter, length of hole, roughness of the initial and final surface.*

*MST 047 the minimum diameter starts from 1,95 mm and can be mounted on all honing machines with their specific adapters.*






| ARTICLE | Ønom | Ø | ØX | LX | L | L1 | A | B | C | # C |
|---|---|---|---|---|---|---|---|---|---|---|
| **20-012.50** | **12,60 – 13,59** | 12,5 | 25 | 65 | 90 | 65 | 25 | 21 | 4,0 | 4 |
| **20-013.50** | **13,60 – 14,59** | 13,5 | 25 | 65 | 90 | 65 | 25 | 21 | 4,0 | 4 |
| **20-014.50** | **14,60 – 15,59** | 14,5 | 25 | 65 | 90 | 65 | 25 | 21 | 5,0 | 4 |
| **20-015.50** | **15,60 – 16,59** | 15,5 | 25 | 65 | 90 | 65 | 25 | 21 | 5,0 | 4 |
| **20-016.50** | **16,60 – 17,59** | 16,5 | 25 | 65 | 100 | 75 | 25 | 21 | 5,0 | 4 |
| **20-017.50** | **17,60 – 18,59** | 17,5 | 25 | 65 | 100 | 75 | 25 | 21 | 5,0 | 4 |
| **20-018.50** | **18,60 – 19,59** | 18,5 | 25 | 65 | 100 | 75 | 25 | 21 | 5,0 | 4 |
| **20-019.50** | **19,60 – 20,59** | 19,5 | 25 | 65 | 100 | 75 | 25 | 21 | 5,0 | 4 |
| **20-020.50** | **20,60 – 21,59** | 20,5 | 33 | 60 | 110 | 80 | 30 | 21 | 5,0 | 4 |
| **20-021.50** | **21,60 – 22,59** | 21,5 | 33 | 60 | 110 | 80 | 30 | 21 | 5,0 | 4 |
| **20-022.50** | **22,60 – 23,59** | 22,5 | 33 | 60 | 110 | 80 | 30 | 21 | 5,0 | 6 |
| **20-023.50** | **23,60 – 24,59** | 23,5 | 33 | 60 | 110 | 80 | 30 | 21 | 5,0 | 6 |
| **20-024.50** | **24,60 – 25,59** | 24,5 | 33 | 60 | 120 | 90 | 30 | 21 | 5,0 | 6 |
| **20-025.50** | **25,60 – 26,59** | 25,5 | 33 | 60 | 120 | 90 | 30 | 21 | 5,0 | 6 |
| **20-026.50** | **26,60 – 27,59** | 26,5 | 33 | 60 | 120 | 90 | 30 | 21 | 5,0 | 6 |
| **20-027.50** | **24,60 – 28,59** | 27,5 | 33 | 60 | 120 | 90 | 30 | 21 | 5,0 | 6 |
| **20-028.50** | **28,60 – 29,59** | 28,5 | 33 | 60 | 120 | 90 | 30 | 21 | 5,0 | 6 |
| **20-029.50** | **29,60 – 30,59** | 29,5 | 33 | 60 | 120 | 90 | 30 | 21 | 5,0 | 6 |

DAMEC

# MST 047 L
# UTENSILE MULTIPIETRA
# *MULTI STONE TOOL*

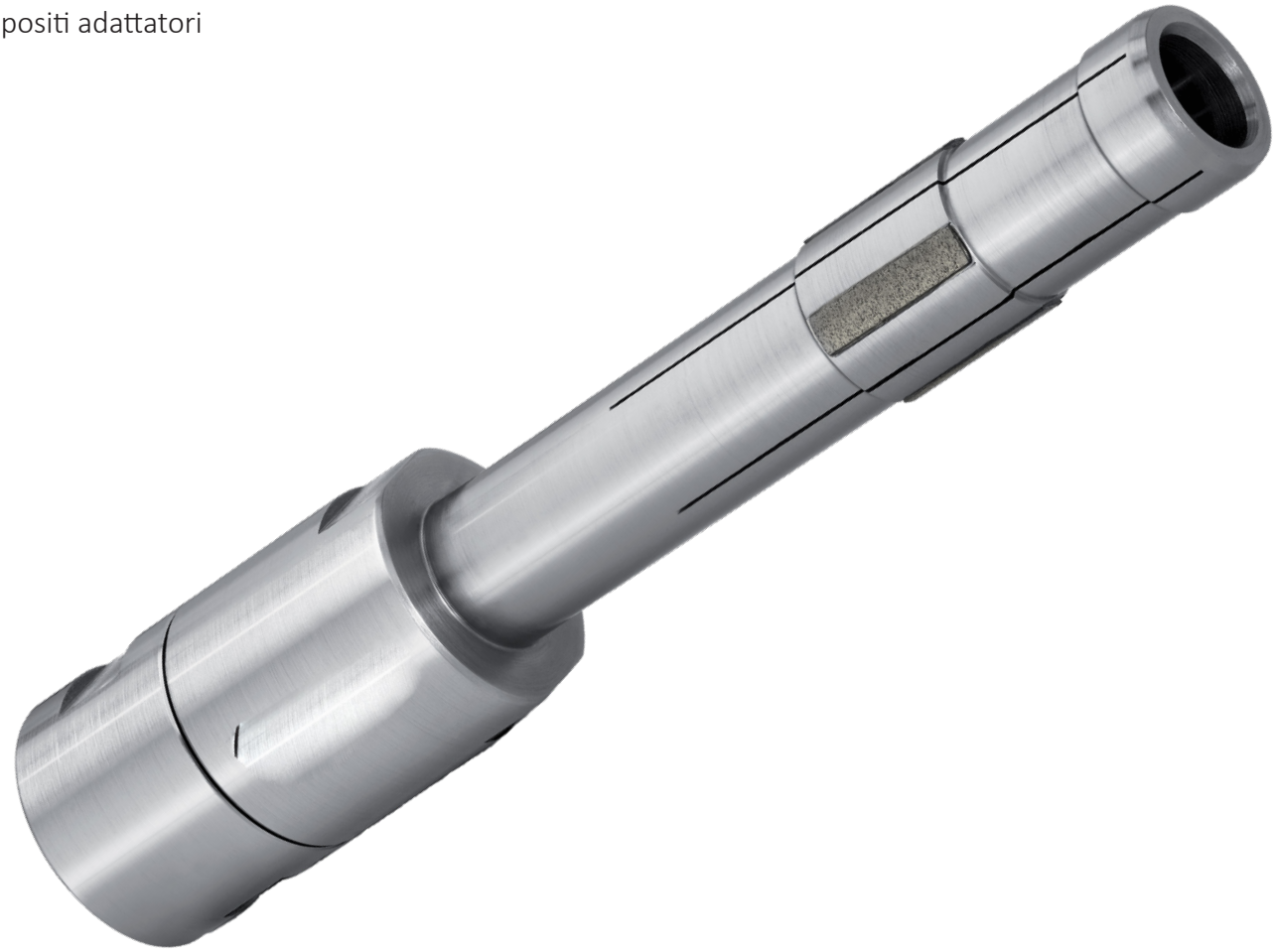
Ø 13.00 - Ø 30.00 047 L

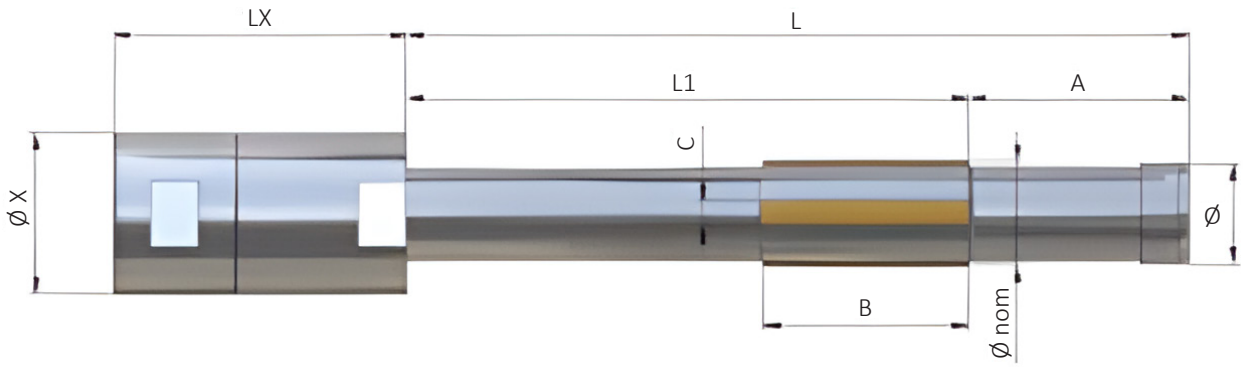
Questi tipi di utensili si possono usare su qualsiasi macchina lappatrice, grazie agli appositi adattatori. Per poter scegliere correttamente il mandrino da utilizzare, è necessario specificare: diametro del foro, lunghezza del foro, rugosità della superficie, sovrametallo da rimuovere e materiale.

Questi utensili partono da un diametro minimo di 1,95 mm e possono essere montate su tutte levigatrici con i loro appositi adattatori

*These tools can be equipped on any kind of honing machine with an appropriate adapter. In order to use the correct mandrel, it is necessary to specify: hole diameter, length of hole, roughness of the initial and final surface.*

*MST 047 the minimum diameter starts from 1,95 mm and can be mounted on all honing machines with their specific adapters.*






| ARTICLE | Ønom | Ø | ØX | LX | L | L1 | A | B | C | # C |
|---|---|---|---|---|---|---|---|---|---|---|
| **21-012.50** | **12,60 – 13,59** | 12,5 | 25 | 65 | 130 | 95 | 35 | 42 | 4,0 | 4 |
| **21-013.50** | **13,60 – 14,59** | 13,5 | 25 | 65 | 130 | 95 | 35 | 42 | 4,0 | 4 |
| **21-014.50** | **14,60 – 15,59** | 14,5 | 25 | 65 | 130 | 95 | 35 | 42 | 5,0 | 4 |
| **21-015.50** | **15,60 – 16,59** | 15,5 | 25 | 65 | 130 | 95 | 35 | 42 | 5,0 | 4 |
| **21-016.50** | **16,60 – 17,59** | 16,5 | 25 | 65 | 140 | 105 | 35 | 42 | 5,0 | 4 |
| **21-017.50** | **17,60 – 18,59** | 17,5 | 25 | 65 | 140 | 105 | 35 | 42 | 5,0 | 4 |
| **21-018.50** | **18,60 – 19,59** | 18,5 | 25 | 65 | 140 | 105 | 35 | 42 | 5,0 | 4 |
| **21-019.50** | **19,60 – 20,59** | 19,5 | 25 | 65 | 140 | 105 | 35 | 42 | 5,0 | 4 |
| **21-020.50** | **20,60 – 21,59** | 20,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 4 |
| **21-021.50** | **21,60 – 22,59** | 21,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 4 |
| **21-022.50** | **22,60 – 23,59** | 22,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 6 |
| **21-023.50** | **23,60 – 24,59** | 23,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 6 |
| **21-024.50** | **24,60 – 25,59** | 24,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 6 |
| **21-025.50** | **25,60 – 26,59** | 25,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 6 |
| **21-026.50** | **26,60 – 27,59** | 26,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 6 |
| **21-027.50** | **24,60 – 28,59** | 27,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 6 |
| **21-028.50** | **28,60 – 29,59** | 28,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 6 |
| **21-029.50** | **29,60 – 30,59** | 29,5 | 33 | 60 | 160 | 115 | 45 | 42 | 5,0 | 6 |

DAMEC

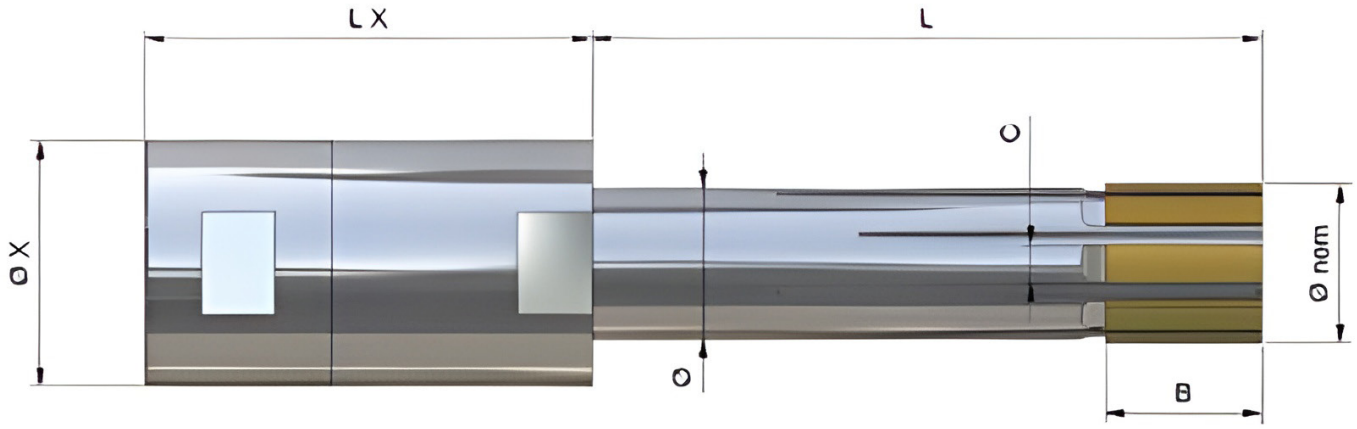
# MST 047 B
# UTENSILE MULTIPIETRA PER FORO CIECO
# *MULTI STONE TOOL FOR BLIND HOLE*

Ø 13.00 - Ø 30.00 047 B

Con questi tipi di utensili si possono lavorare fori ciechi, essatamente come i precedenti MST 047, si possono montare su tutte le macchine lappatrici grazie ai loro adattatori.

Per poter scegliere correttamente il mandrino da utilizzare, è necessario specificare: diametro del foro, lunghezza del foro, rugosità della superficie iniziale e finale.
Questi utensili partono da un diametro minimo di 2,30 mm e possono essere montate su tutte levigatrici con i loro appositi adattatori

*MST 047B work on blind holes, as the previous one MST 047, can be equipped on the honing machine, thanks to their adapters.*
*In order to use the correct mandrel, it is necessary to specify: hole diameter, length of hole, roughness of the initial and final surface. MST 047B the minimum diameter starts from 2,30 mm and can be mounted on all honing machines with their specific adapters.*




| ARTICLE | Ønom | Ø | ØX | LX | L | B | C | # C |
|---|---|---|---|---|---|---|---|---|
| **22-012.10** | **12,20 - 13,19** | 12,1 | 25 | 65 | 80 | 21 | 4.0 | 6 |
| **22-013.10** | **13,20 - 14,19** | 13,1 | 25 | 65 | 80 | 21 | 4.0 | 6 |
| **22-014.10** | **14,20 - 15,19** | 14,1 | 25 | 65 | 80 | 21 | 4.0 | 6 |
| **22-015.10** | **15,20 - 16,19** | 15,1 | 25 | 65 | 80 | 21 | 4.0 | 6 |
| **22-016.10** | **16,20 - 17,19** | 16,1 | 25 | 65 | 90 | 21 | 4.0 | 6 |
| **22-017.10** | **17,20 - 18,19** | 17,1 | 25 | 65 | 90 | 21 | 4.0 | 6 |
| **22-018.10** | **18,20 - 19,19** | 18,1 | 25 | 65 | 90 | 21 | 4.0 | 6 |
| **22-019.10** | **19,20 - 20,19** | 19,1 | 25 | 65 | 90 | 21 | 4.0 | 6 |
| **22-020.10** | **20,20 - 21,19** | 20,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |
| **22-021.10** | **21,20 - 22,19** | 21,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |
| **22-022.10** | **22,20 - 23,19** | 22,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |
| **22-023.10** | **23,20 - 24,19** | 23,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |
| **22-024.10** | **24,20 - 25,19** | 24,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |
| **22-025.10** | **25,20 - 26,19** | 25,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |
| **22-026.10** | **26,20 - 27,19** | 26,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |
| **22-027.10** | **27,20 - 28,19** | 27,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |
| **22-028.10** | **28,20 - 29,19** | 28,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |
| **22-029.10** | **29,20 - 30,19** | 29,1 | 33 | 60 | 90 | 21 | 5.0 | 8 |

# APPARECCHIO PER LAPPATURA AH 039 < Ø12.5
## *LAPPING DEVICE AH 039 < Ø12.5*

Questi apparecchi di alta precisione servono per montare lappatori speciali sulle macchine tradizionali, come i torni e rettifiche.

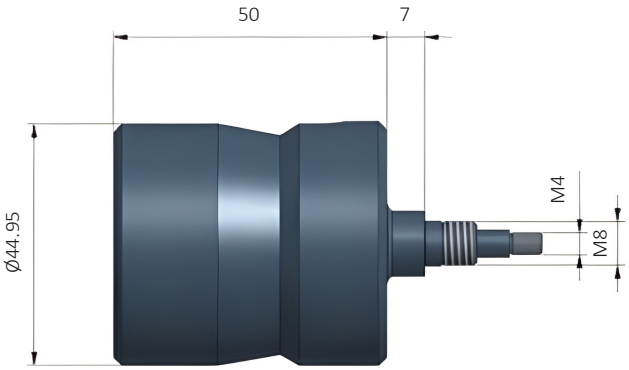
Questo permette di eseguire una lappatura sul foro interno dei pezzi da lavorare, pur non avendo una macchina lappatrice utilizzando solo multipietra DAMEC.

Cod. Articolo: 88-000.00

*These high precision devices, work as special tools on traditional machines, such as lathe and grinding.*

*It allows to obtain an inner hole honing of the work pieces, even without a honing machine only using DAMEC multi-stone tools.*

Article N°: 88-000.00




# APPARECCHIO PER LAPPATURA AH 047 > Ø12.5
## *LAPPING DEVICE AH 047 > Ø 12.5*

Questi apparecchi di alta precisione servono per montare lappatori speciali sulle macchine tradizionali, come i torni e rettifiche.

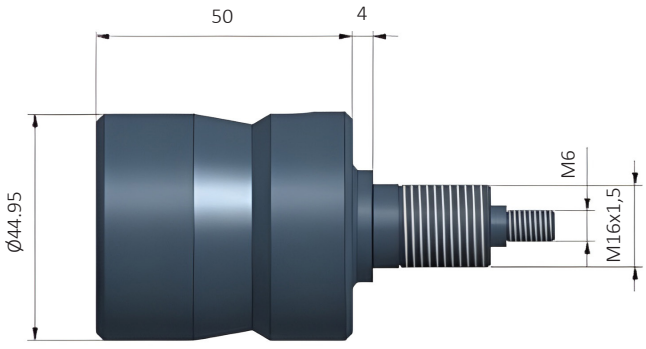
Questo permette di eseguire una lappatura sul foro interno dei pezzi da lavorare, pur non avendo una macchina lappatrice utilizzando solo multipietra DAMEC

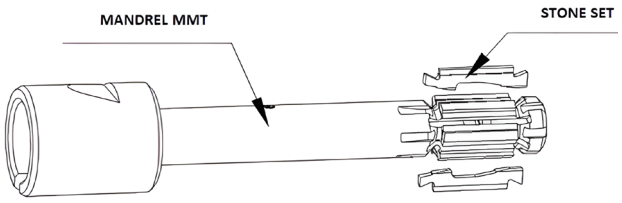
Cod. Articolo: 90-000.00

*These high precision devices, work as special tools on traditional machines, such as lathe and grinding.*

*It allows to obtain an inner hole honing of the work pieces, even without a honing machine only using DAMEC multi-stone tools.*

Article N°: 90-000.00



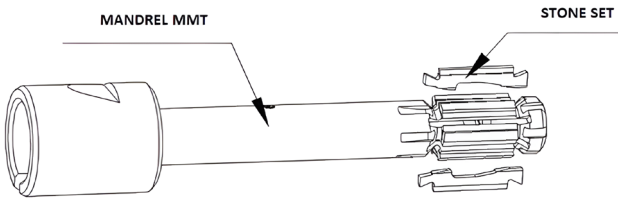

# MULTIPIETRA STANDARD
## *STANDARD MULTI-STONE TOOL*

I mandrini Multi-pietra forniscono una maggior velocità e maggior precisione su applicazioni che vengono utilizzate su macchine di alta produzione, incluse le lappatrici Damec quali: DHM, DDH, DCB 530 e DCE 60. Questi mandrini sono utilizzati per diametri di foratura > 20 mm.

Multi-stone mandrels provide superior speed and accuracy on applications using a variety of high-production machines, including the Damecs DHM, DDH, DCB 530 and DCE 60. These mandrels are used for bore diameters > 20 mm.

Lunghezza pietra 35mm *Length of stone is 35mm*
Lunghezza foro <45mm *Length of parts <45mm*

| **Codes** | **Diameter range** |
|---|---|
| D4K8-20 | 19.8-20.66 |
| D4K8-20.5 | 20.30-21.16 |
| D4K8-21 | 20.80-21.66 |
| D4K8-21.5 | 21.30-22.16 |
| D4K10-22 | 21.70-22.64 |
| D4K10-22.5 | 22.20-23.14 |
| D4K10-23 | 22.70-23.64 |
| D4K10-23.5 | 23.20-24.14 |
| D6K10-24 | 23.70-24.64 |
| D6K10-24.5 | 24.20-25.14 |
| D6K10-25 | 24.70-25.64 |
| D6BL10-25.5 | 25.20-26.14 |
| D6K12-26 | 25.7-27.30 |
| D6K12-27 | 26.7-28.30 |
| D6K12-28 | 27.7-29.30 |
| D6K12-29 | 28.7-30.30 |
| D6K12-30 | 29.7-31.30 |
| D6K12-31 | 30.70-32.30 |
| D6K12-32 | 31.70-33.30 |
| D6K12-33 | 32.70-34.30 |
| D6K12-34 | 33.70-35.30 |
| D6K12-35 | 34.70-36.30 |

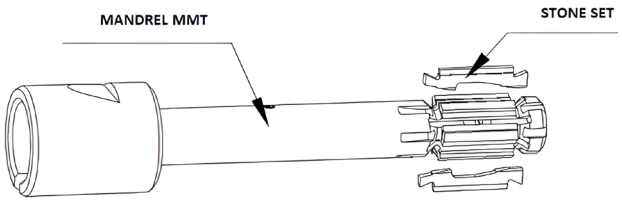



Lunghezza pietra 60mm
Lunghezza foro 40mm-70mm

| **Codes** | **Diameter range** |
|---|---|
| D4L8-20 | 19.8-20.66 |
| D4L8-20.5 | 20.30-21.16 |
| D4L8-21 | 20.80-21.66 |
| D4L8-21.5 | 21.30-22.16 |
| D4L10-22 | 21.70-22.64 |
| D4L10-22.5 | 22.20-23.14 |
| D4L10-23 | 22.70-23.64 |
| D4L10-23.5 | 23.20-24.14 |
| D6L10-24 | 23.70-24.64 |
| D6L10-24.5 | 24.20-25.14 |
| D6L10-25 | 24.70-25.64 |
| D6L10-25.5 | 25.20-26.14 |
| D61P5K12-26 | 25.7-27.30 |
| D61P5K12-27 | 26.7-28.30 |
| D61P5K12-28 | 27.7-29.30 |
| D61P5K12-29 | 28.7-30.30 |
| D61P5K12-30 | 29.7-31.30 |
| D61P5K12-31 | 30.70-32.30 |
| D61P5K12-32 | 31.70-33.30 |
| D61P5K12-33 | 32.70-34.30 |
| D61P5K12-34 | 33.70-35.30 |
| D61P5K12-35 | 34.70-36.30 |

*Length of stones is 60mm*
*Lengths of parts are 40mm-70mm*

| | |
|---|---|
| D6K16-36 | 35.7-38.27 |
| D6K16-38 | 37.7-40.27 |
| D6K16-40 | 39.7-42.27 |
| D6K16-42 | 41.7-44.27 |
| D6K20-44 | 43.7-46.27 |
| D6K20-46 | 45.7-48.27 |
| D6K20-48 | 47.70-50.27 |
| D6K20-50 | 49.70-52.27 |
| D6K20-52 | 51.7-54.27 |
| D6K20-54 | 53.7-56.27 |
| D6K20-56 | 55.7-58.27 |
| D6K20-58 | 57.7-60.27 |

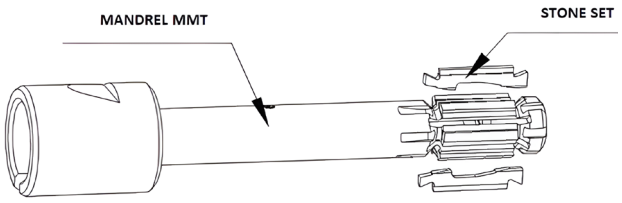



Lunghezza pietra 85mm
Lunghezza foro 60mm-100mm

| Codes | Diameter range |
|---|---|
| D41P5L8-20 | 19.8-20.66 |
| D41P5L8-20.5 | 20.30-21.16 |
| D41P5L8-21 | 20.80-21.66 |
| D41P5L8-21.5 | 21.30-22.16 |
| D41P5L10-22 | 21.70-22.64 |
| D41P5L10-22.5 | 22.20-23.14 |
| D41P5L10-23 | 22.70-23.64 |
| D41P5L10-23.5 | 23.20-24.14 |
| D41P5L10-24 | 23.70-24.64 |
| D41P5L10-24.5 | 24.20-25.14 |
| D41P5L10-25 | 24.70-25.64 |
| D4(6)1P5L10-25.5 | 25.20-26.14 |
| D4(6)1P5L10-26 | 25.7-26.64 |
| D4(6)1P5L10-26.5 | 26.2-27.14 |
| D4(6)1P5L10-27 | 26.7-27.64 |
| D4(6)1P5L10-27.5 | 27.2-28.14 |
| D6L12-28 | 27.7-29.30 |
| D6L12-29 | 28.7-30.30 |
| D6L12-30 | 29.7-31.30 |
| D6L12-31 | 30.70-32.30 |
| D6L12-32 | 31.70-33.30 |
| D6L12-33 | 32.70-34.30 |

*Length of stone is 85mm*
*Lengths of parts are 60mm-100mm*

| | |
|---|---|
| D6L12-34 | 33.70-35.30 |
| D6L12-35 | 34.70-36.30 |
| D61P5K16-36 | 35.7-38.27 |
| D61P5K16-38 | 37.7-40.27 |
| D61P5K16-40 | 39.7-42.27 |
| D61P5K16-42 | 41.7-44.27 |
| D61P3K20-44 | 43.7-46.27 |
| D61P3K 20-46 | 45.7-48.27 |
| D61P3K 20-48 | 47.70-50.27 |
| D61P3K 20-50 | 49.70-52.27 |
| D61P3K20-52 | 51.7-54.34 |
| D61P3K 20-54 | 53.7-56.34 |
| D61P3K 20-56 | 55.7-58.34 |
| D61P3K 20-58 | 57.7-60.34 |

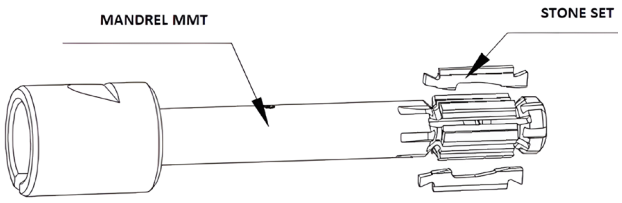



Lunghezza pietra114mm
Lunghezza foro 90mm-155mm

| **Codes** | **Diameter range** |
|---|---|
| D42L8-20 | 19.8-20.66 |
| D42L8-20.5 | 20.30-21.16 |
| D42L8-21 | 20.80-21.66 |
| D42L8-21.5 | 21.30-22.16 |
| D42L10-22 | 21.70-22.64 |
| D42L10-22.5 | 22.20-23.14 |
| D42L10-23 | 22.70-23.64 |
| D42L10-23.5 | 23.20-24.14 |
| D42L10-24 | 23.70-24.64 |
| D42L10-24.5 | 24.20-25.14 |
| D42L10-25 | 24.70-25.64 |
| D42L10-25.5 | 25.20-26.14 |
| D42L10-26 | 25.7-26.64 |
| D42L10-26.5 | 26.2-27.14 |
| D42L10-27 | 26.7-27.64 |
| D42L10-27.5 | 27.2-28.14 |
| D61P25L12-28 | 27.70-29.3 |
| D61P25L12-29 | 28.70-30.30 |
| D61P25L12-30 | 29.7-31.30 |
| D61P25L12-31 | 30.70-32.30 |
| D61P25L12-32 | 31.70-33.30 |
| D61P25L12-33 | 32.70-34.30 |

*Length of stone is 114mm*
*Lengths of parts are 90mm-155mm*

| | |
|---|---|
| D61P25L12-34 | 33.70-35.30 |
| D61P25L12-35 | 34.70-36.30 |
| D6L16-36 | 35.7-38.27 |
| D6L16-38 | 37.7-40.27 |
| D6L16-40 | 39.7-42.27 |
| D6L16-42 | 41.7-44.27 |
| D6L20-44 | 43.7-46.27 |
| D6L16-46 | 45.7-48.27 |
| D6L16-48 | 47.70-50.27 |
| D6L16-50 | 49.70-52.27 |

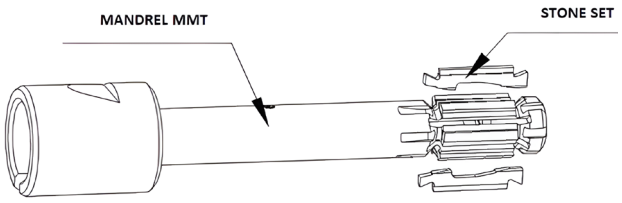



Lunghezza pietra160mm
Lunghezza foro 150mm-240mm

| Codes | Diameter range |
|---|---|
| D42P8L10-20 | 19.8-20.66 |
| D42P8L10-20.5 | 20.30-21.16 |
| D42P8L10-21 | 20.80-21.66 |
| D42P8L10-21.5 | 21.30-22.16 |
| D42P8L10-22 | 21.70-22.64 |
| D42P8L10-22.5 | 22.20-23.14 |
| D42P8L10-23 | 22.70-23.64 |
| D42P8L10-23.5 | 23.20-24.14 |
| D41P8N90-24 | 23.70-24.64 |
| D41P8N90-24.5 | 24.20-25.14 |
| D41P8N90-25 | 24.70-25.64 |
| D41P8N90-25.5 | 25.20-26.14 |
| D41P8N90-26 | 25.7-26.64 |
| D41P8N90-26.5 | 26.2-27.14 |
| D41P8N90-27 | 26.7-27.64 |
| D41P8N90-27.5 | 27.2-28.14 |
| D63SK12-28 | 27.70-29.3 |
| D63SK12-29 | 28.70-30.30 |
| D63SK12-30 | 29.7-31.30 |
| D63SK12-31 | 30.70-32.30 |
| D63SK12-32 | 31.70-33.30 |
| D63SK12-33 | 32.70-34.30 |

*Length of stone is 160mm*
*Lengths of parts are 150mm-240mm*

| | |
|---|---|
| D63SK12-34 | 33.70-35.30 |
| D63SK12-35 | 34.70-36.30 |
| D62P8K16-36 | 35.7-38.27 |
| D62P8K 16-38 | 37.7-40.27 |
| D62P8K 16-40 | 39.7-42.27 |
| D62P8K 16-42 | 41.7-44.27 |
| D62P8K 16-44 | 43.7-46.27 |
| D62P8K 16-46 | 45.7-48.27 |
| D62P8K 16-48 | 47.70-50.27 |
| D62P8K 16-50 | 49.70-52.27 |

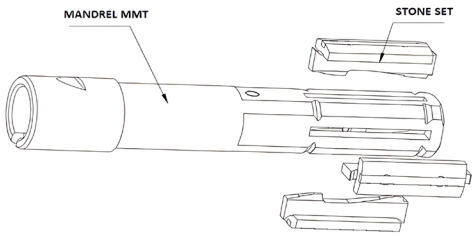



Lunghezza pietra 210mm
Lunghezza foro 200mm-350mm

| **Codes** | **Diameter range** |
|---|---|
| D43P7L10-20 | 19.8-20.66 |
| D43P7L10-20.5 | 20.30-21.16 |
| D43P7L10-21 | 20.80-21.66 |
| D43P7L10-21.5 | 21.30-22.16 |
| D43P7L10-22 | 21.70-22.64 |
| D43P7L10-22.5 | 22.20-23.14 |
| D43P7L10-23 | 22.70-23.64 |
| D43P7L10-23.5 | 23.20-24.14 |
| D43P7L10-24 | 23.70-24.64 |
| D43P7L10-24.5 | 24.20-25.14 |
| D43P7L10-25 | 24.70-25.64 |
| D43P7L10-25.5 | 25.20-26.14 |
| D42P3N90-26 | 25.7-26.64 |
| D42P3N90-26.5 | 26.2-27.14 |
| D42P3N90-27 | 26.7-27.64 |
| D42P3N90-27.5 | 27.2-28.14 |
| D42P3N90-28 | 27.7-28.64 |
| D42P3N90-28.5 | 28.20-29.14 |
| D42P3N90-29 | 28.70-29.64 |
| D42P3N90-29.5 | 29.20-30.14 |
| D63P7K16-30 | 29.7-31.30 |
| D63P7K16-31 | 30.70-32.30 |

*Length of stone is 210mm*
*Lengths of parts are 200mm-350mm*

| | |
|---|---|
| D63P7K16-32 | 31.70-33.30 |
| D63P7K16-33 | 32.70-34.30 |
| D63P7K16-34 | 33.70-35.30 |
| D63P7K16-35 | 34.70-36.30 |
| D63P7K16-36 | 35.7-38.27 |
| D63P7K16-37 | 36.7-38.27 |
| D63P7K16-38 | 37.7-40.27 |
| D63P7K16-40 | 39.7-42.27 |
| D63P7K16-42 | 41.7-44.27 |
| D63P7K16-44 | 43.7-46.27 |




# MULTIPIETRA Y
# *Y MULTI-STONE TOOL*

Adatto per i fori di grande diametro che presentano una cava, dove sono richieste elevate precisioni di rotondità e rugosità superficiale
*It is for the big bore which has key slot, there is the high requirement of the roundness and roughness*

Diameter range is Ø 24- Ø 65

| **Codes** | **Available range** |
|---|---|
| D4Y24-44 | Diameters Ø 24mm- Ø 25mm Ø Length of part <60mm |
| D4Y28-44 | DIA Ø 24- Ø 25, L <60mm |
| D4Y29p5-80 | DIA Ø 29.5- Ø 30.5, L 60-100mm |
| D4Y32-160 | DIA Ø 32- Ø 33.5, L 150-240mm |
| D4Y32-210 | DIA Ø 32- Ø 33.5, L 150-240mm |
| D4Y35-44 | DIA Ø 35- Ø 36.5, L <60mm |
| D4Y35-88 | DIA Ø 35- Ø 36.5, L 60-100mm |
| D4Y39-100 | DIA Ø 39- Ø 40.5, L 90-155mm |
| D4Y40-150 | DIA Ø 40- Ø 42, L 140-230mm |
| D4Y43-100 | DIA Ø 43- Ø 45, LL90-155mm |
| D4Y39-100 | DIA Ø 43- Ø 45, L L90-155mm |
| D4Y52-63 | DIA Ø 52- Ø 53, L L40-80mm |
| D4Y52-114 | DIA Ø 52- Ø 53, L L90-155mm |
| D4Y52-160 | DIA Ø 52- Ø 53, L 150-240mm |
| D4Y52P3-125 | DIA Ø 52.3- Ø 53.3, L 100-165mm |
| D4Y53P5-114 | DIA Ø 53.8- Ø 54.5, L90-155mm |
| D4Y63-63 | DIA Ø 63- Ø 64,L40-80mm |
| D4Y63-114 | DIA Ø 63- Ø 64, L 90-155mm |
| D4Y65-125 | DIA Ø 65- Ø 66, L 100-165mm |

# PINZA PRESA PEZZO
# *LOOP GRIP HOLDING FIXTURES*

Particolarmente utile per parti difficili da bloccare come tubi a parete sottile, cilindri di vetro, valvole, piccoli particolari con superfici lisce e particolari con sporgenze taglienti come frese.
I particolari possono essere inseriti e rimossi facilmente. La maniglia della attrezzatura poggia sulla barra anti-coppia per assorbire la coppia di levigatura e ridurre l'affaticamento dell'operatore.

*Especially useful for hard-to-hold parts such as thinwall tubes, glass barrels, valve spools, small parts with smooth surfaces, and parts with sharp projections such as milling cutters.*
*Parts can be inserted and removed easily. Fixture handle rests on torque bar to absorb honing torque and reduce operator fatigue.*

| PINZA / *FIXTURE PART* | LARGHEZZA PINZA / *EMERY CLOTH* WIDTH mm | TELA ABRASIVA / *ABRASIVE CLOTH* |
|---|---|---|
| HF-75 | 19,0 | TF-20 |
| HF-200 | 50,0 | TF-50 |
| HF-300 | 76,2 | TF-80 |

# DASC - TAMPONE DI MISURA
# *DASC - SENSING UNITS*

I tastatori sono costituiti da un tappo fessurato con vite di registrazione centrale. La regolazione compensa l'usura e prolunga la durata del tastatore. È possibile utilizzare lo stesso tastatore sia per la sgrossatura che per la finitura.

*Sensing Tips consist of a split plug with central adjusting screw. Adjustment compensates for wear—extends the life of the sensing tip. You can also use the same sensing tip for rough and finish honing.*

| Part N° | Nominal Ø | Ø Range | |
|---|---|---|---|
| | mm | low mm | high mm |
| DASC-0125 | 3,18 | 3,05 | 3,53 |
| DASC-0141 | 3,57 | 3,42 | 3,91 |
| DASC-0156 | 4 | 3,81 | 4,29 |
| DASC-0172 | 4,36 | 4,22 | 4,70 |
| DASC-0188 | 4,76 | 4,57 | 5,05 |
| DASC-0203 | 5 | 4,85 | 5,33 |
| DASC-0219 | 5,56 | 5,36 | 5,84 |
| DASC-0234 | 6 | 5,74 | 6,22 |
| DASC-0250 | 6,35 | 6,10 | 6,58 |
| DASC-0266 | 6,75 | 6,50 | 6,99 |
| DASC-0281 | 7 | 6,83 | 7,32 |
| DASC-0297 | 7,54 | 7,29 | 7,77 |
| DASC-0312 | 8 | 7,72 | 8,20 |
| DASC-0328 | 8,33 | 8,08 | 8,56 |
| DASC-0344 | 8,73 | 8,48 | 8,97 |
| DASC-0359 | 9 | 8,81 | 9,30 |
| DASC-0375 | 9,53 | 9,27 | 9,75 |
| DASC-0391 | 10 | 9,73 | 10,21 |
| DASC-0406 | 10,32 | 10,06 | 10,54 |
| DASC-0422 | 10,72 | 10,47 | 10,95 |
| DASC-0438 | 11 | 10,82 | 11,30 |
| DASC-0453 | 11,51 | 11,25 | 11,74 |
| DASC-0469 | 12 | 11,71 | 12,19 |
| DASC-0484 | 12,3 | 12,04 | 12,52 |
| DASC-0500 | 12,7 | 12,45 | 12,93 |
| DASC-0516 | 13 | 12,83 | 13,31 |
| DASC-0531 | 13,50 | 13,23 | 13,72 |
| DASC-0547 | 14 | 13,72 | 14,20 |
| DASC-0562 | 14,29 | 14,02 | 14,50 |
| DASC-0578 | 14,68 | 14,43 | 14,91 |
| DASC-0594 | 15 | 14,81 | 15,29 |
| DASC-0609 | 15,48 | 15,22 | 15,70 |
| DASC-0625 | 15,88 | 15,62 | 16,10 |
| DASC-0630 | 16 | 15,75 | 16,23 |
| DASC-0641 | 16,27 | 16,03 | 16,51 |
| DASC-0656 | 16,67 | 16,41 | 16,89 |
| DASC-0672 | 17 | 16,79 | 17,27 |
| DASC-0688 | 17,46 | 17,22 | 17,70 |
| DASC-0703 | 18 | 17,70 | 18,19 |
| DASC-0719 | 18,26 | 18,01 | 18,49 |
| DASC-0734 | 18,65 | 18,39 | 18,87 |
| DASC-0750 | 19 | 18,80 | 19,28 |
| DASC-0766 | 19,45 | 19,20 | 19,69 |
| DASC-0781 | 20 | 19,69 | 20,17 |
| DASC-0797 | 20,24 | 19,99 | 20,47 |
| DASC-0812 | 20,64 | 20,37 | 20,85 |
| DASC-0828 | 21 | 20,78 | 21,26 |
| DASC-0844 | 21,43 | 21,18 | 21,67 |
| DASC-0859 | 22 | 21,67 | 22,15 |
| DASC-0875 | 22,22 | 21,97 | 22,45 |
| DASC-0891 | 22,62 | 22,38 | 22,86 |
| DASC-0906 | 23 | 22,76 | 23,24 |
| DASC-0922 | 23,42 | 23,17 | 23,65 |
| DASC-0938 | 24 | 23,67 | 24,16 |
| DASC-0953 | 24,21 | 23,95 | 24,44 |
| DASC-0969 | 24,61 | 24,36 | 24,84 |
| DASC-0984 | 25 | 24,69 | 25,17 |
| DASC-1000 | 25,40 | 25,15 | 25,63 |
| DASC-1016 | 26 | 25,68 | 26,16 |

# PTH
# UTENSILE PER LA LAPPATURA PORTATILE
# *PORTABLE HONING TOOL*

Questo dispositivo per lappatura con azionamento manuale è composto da: una testa lappatrice, un supporto abrasivo, una barra di estensione, un adattatore e un set di abrasivi.
Vi sono differenti serie di utensili a seconda della tipologia di macchina e/o lavorazione di levigatura, che possono essere applicate su differenti tipologie di macchine utensili, come trapano a mano, trapani a colonna, macchine perforatrici radiali e torni con precisione centesimale.

Questi strumenti sono studiati per le piccole serie, per le campionature o per la lavorazione dei singoli pezzi avendo tolleranze centesimali e la possibilità di essere montati su torni e trapani industriali.

*This tool has a manual operation, which is composed by: honing head, abrasive's support, wedge, adaptor.*

*There are different types of tools, depending on the machine's type and / or on honing process.Moreover, they can work on different types of machines, hand drill, drilling machines and lathe* con precisione centesimale.

*These tools are designed for small batches, prototypes or single workpiece machining, with tolerances in the hundredths and the possibility to be mounted on industrial lathes and drilling machines*

# FILTRI
# *FILTERS*

Damec offre ai propri clienti diverse tipologie di sistemi di filtraggio.
I Contenitori filtranti PFC 05/06 sono costruiti in AISI 304 o AISI 316, al loro interno possono montare cartucce con differenti gradi di filtrazione. I gradi filtranti delle cartucce si misurano in micron: 05µ- 10µ- 20µ- 30µ- 40µ.

Inoltre, essi possiedono una chiusura rapida e sono idonei per liquidi non pericolosi appartenenti al gruppo 2 (in accordo alla Direttiva 97/23/CE PED).
Hanno una configurazione standard ad "L" con uscita sul fondo per permette il totale drenaggio del filtro.

Scheda tecnica:

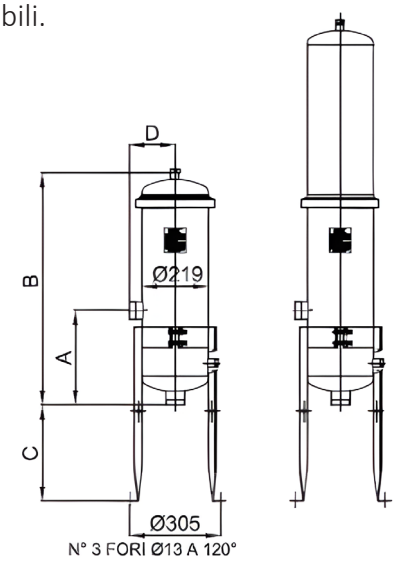
» Finitura standard: decapato;
» Altre finiture su richiesta: satinato esternamente, elettro lucidato;
» Guarnizione di chiusura: EPDM;
» Viton, Buna-N, Silicone, PTFE (guaine su richiesta);
» Gambe di sostegno regolabili.

*DAMEC offers to its customer different types of system of filtration.*
*DAMEC containers PFC 05/06 are built in AISI 304 or AISI 316, into which you can put different cartridges of different filtration' grades.*
*The filtration grades of cartridges are measured in micron: 05µ- 10µ - 20µ - 30µ- 40µ.*

*They also have a special close, which are suitable for dangerous liquids of the second group (according to Norm 97/23/CE/ PED). They have "L" form with an exit at the bottom, which allows the whole drainage of the filter.*

*Technical schedule:*

» *Standard finishing;*
» *Other finishing upon requests: external satin, electropolished;*
» *closing seal: EPDM;*
» *Viton, Buna-N, Silicon, PTFE (sleeves upon request);*
» *Adjustable support legs.*



| MODEL | MAX. PRESSURE (Ps) | STANDARD INPUT AND OUTPUT (In/Out) | ELEMENTS (Pollici) | VOLUME (L) | SIZE | FLOW (mc/h) | NET WEIGHT (Kg) | LIQUIDS OF GROUP 2 WITH STEAM VOLTAGE < 0.5 (Law PED) |
|---|---|---|---|---|---|---|---|---|
| A | | | B | | C Variabile | | D | |
| PFC...10 | 10 Bar@100°C | 2" Gas M | 10" | 17 | 315 | 510 | 150 ÷ 300 | 150 | 6/7 | 18 | Art. 3 Par. 3 |
| PFC...20 | 10 Bar@100°C | 2" Gas M | 20" | 27 | 315 | 775 | 150 ÷ 300 | 150 | 12/14 | 25 | Art. 3 Par. 3 |
| PFC...30 | 10 Bar@100°C | 2" Gas M | 30" | 36 | 315 | 1030 | 150 ÷ 300 | 150 | 18/21 | 29 | Art. 3 Par. 3 |
| PFC...40 | 10 Bar@100°C | 2" Gas M | 40" | 45 | 315 | 1270 | 150 ÷ 300 | 150 | 24/28 | 33 | Art. 3 Par. 3 |

| Campi di applicazione dei filtri - Fields of application - | |
|---|---|
| Vernici e inchiostri<br>Paint and ink<br><br>Industria elettronica<br>Electrical Industry<br><br>Industria automobilistica<br>Automotive Industry<br><br>Resine e materie plastiche<br>Resins and plastic materials<br><br>Trattamento metalli<br>Metallic treatment | Industria chimica e<br>Industria petrolchimica<br>Chemical industry and oil Industry<br><br>Filtrazione acqua industriale<br>Filtration of water<br><br>Industria farmaceutica<br>Pharmaceutical industry<br><br>Industria alimentare<br>Food industry |

All’interno del contenitore in acciaio inox, si possono inserire sacchi o cartucce filtranti nell’apposito cestello in metallo.

Essi si differenziano in base alla loro capacità filtrante (dimensione dei fori della maglia filtrante); al codice identificativo a seconda del tipo di contenitore (PF105-PF110-PF120-PF130).

Inner the steel container, you can put filtration bags or cartridges with a metal coating.

They are different depending on their filtration capacity (holes’ dimension of filtration mesh); their identified code depending on container’s type (PF105-PF110-PF120-PF130).

| Filtration Range in micron: PF 105 – PF 110 – PF 120 – PF 130 | | | |
|---|---|---|---|
| Bags’ dimension | Diameter (mm) | Lenght (mm) | Filter’s area (mq) |
| 1 | 180 | 435 | 0.25 |
| 2 | 180 | 810 | 0.50 |
| 3 | 104 | 230 | 0.07 |
| 4 | 104 | 380 | 0.12 |

# DAMECOIL 25 - DAMECOIL BIO 35 - DAMECOIL N25

Uno dei prodotti di punta della nostra azienda è l'olio da taglio, fondamentale per ottenere un'eccellente lappatura.

L'olio ha diverse caratteristiche:

» la salvaguardia dell'abrasivo (si arriva ad ottenere un risparmio del 30% dell'abrasivo utilizzando l'olio DAMEC);
» la dissipazione del calore;
» la lubrificazione del pezzo e l'ele vata capacità di taglio.

DAMEC offre principalmente tre tipologie di olio: DAMECOIL 25, DAMECOIL BIO 35 e DAMECOIL N25.

*One of our best honing products is cutting oil, which is very important for the honing process.*

*It has different features:*

» *safe the abrasive (you can save 30% of the abrasive with correct DAMEC*
» *honing oil)*
» *dissipation of heat;*
» *tool's lubrication and high capaci ty of cutting.*

*Damec S.r.l. sells three different types of honing oil: DAMECOIL 25, DAMECOILBIO 35 and DAMECOIL N25.*

# DAMECOIL 25 - DARK BROWN

DAMECOIL 25 è un olio da taglio intero realizzato con basi minerali raffinate, untuose e con speciali additivi E.P. esenti da cloro; non nebulizza e non dà luogo a fenomeni di fumosità, ha un ottimo potere anti-ruggine sui pezzi lappati e sulla lappatrice stessa.

È un prodotto specificatamente studiato per operazioni di lappatura e di superfinitura effettuate su metalli ferrosi e non ferrosi, che si presenta con un colore scuro.
Ottimo per la lavorazione su ghisa, acciaio, materiali ferrosi e sui materiali sottoposto ai trattamenti (sinterizzati, cementati, carbonitrurati, fosfatati, nichelati e temprati).

*DAMECOIL 25 is made of refinement mineral bases, oily and special E.P. additives without chlorine. It does not nebulize or create smokiness; it works as anti-rust on work pieces and honing machine.*

*It has been devoloped spesicfically for the process of honing, and superfinising out on ferrous and non-ferrous metals and has dark color.*
*Excellent for machining on cast iron, steel, ferrous materials, and on materials subjected to treatments (sintered, cemented, carbonitrided, phosphated, nickel-plated, and tempered)*

| **DETERMINAZIONE** ***FEATURES*** | **UNITA' DI MISURA** ***UNIT OF MEASUREMENT*** | **VALORI STANDARD** ***STANDARD VALUES*** |
|---|---|---|
| **ASPETTO** ***APPEARANCE*** | - | Limpido Clear |
| **COLORE** ***COLOUR*** | - | Marrone scuro Dark brown |
| **DENSITA' A 15°C** ***DENSITY AT 15°C*** | Kg/dm3 | 0,911 |
| **VISCOSITA' A 40 °C** ***VISCOSITY AT 40 °C*** | cSt | 27,5 |
| **P.TO DI INFIAMMABILITA'** ***POINT OF FLAMMABILITY*** | °C | 150 |

# DAMECOIL BIO 35

DAMECOIL BIO 35 è un lubrorefrigerante esente da olio minerale, boro, cloro, ammine secondarie e battericidi donatori di formaldeide. Emulsionabile in acqua, è costituito da esteri sintetici, additivi antiruggine, emulganti ed antifermentativi.

Grazie alla speciale formulazione a basso impatto ambientale e sanitario, presenta un'elevata resistenza alla degradazione batterica ed una bassa tendenza alla formazione di schiuma superficiale.

È stato specificatamente studiato per le operazioni gravose di taglio su metalli teneri come: leghe ed alluminio. L'impiego può essere esteso anche alle leghe gialle (ottone, bronzo) ed alla ghisa.

Il prodotto è diluibile in acqua in percentuali variabili dal 4 al 10 % a seconda della gravosità delle operazioni da effettuare; può essere rimosso dai pezzi lavorati tramite acqua o soluzioni alcaline.

*DAMECOIL BIO 35 is the coolant without mineral oil, chlorine, boron, secondary ammines and bactericides donators of formaldehyde.*
*It can be emulsified into the water, composed by synthetic, anti-rust, emulgants and anti-fermentation.*

*Thanks to the special formula with low environmental and health impact, it has a high resistance of the bactericides' degradation and slow foam.*
*It has been studied that cutting working on soft metals such as: alloys and aluminium.*
*It can be used also for yellow alloys (such as bronze and brass) and cast-iron.*

*The product is dilutable in water from 4 to 10 %, based on effective operations.*
*It can be removed from the final pieces through water or alkaline solutions.*

| **DETERMINAZIONE** ***FEATURES*** | **UNITA' DI MISURA** ***UNIT OF MEASUREMENT*** | **VALORI STANDARD** ***STANDARD VALUES*** |
|---|---|---|
| **ASPETTO** ***APPEARANCE*** | - | Limpido Clear |
| **COLORE** ***COLOUR*** | - | Ambrato Amber |
| **PESO SPECIFICO A 15.5°C** ***SPECIFIC WEIGHT AT 15.5°C*** | Kg/Lt | 0,980 |
| **pH EMULSIONE AL 5%** ***pH EMULSION AT 5%*** | - | 8,6 |
| **ASPETTO EMULSIONE** ***EMULSION APPEARANCE*** | - | Lattescente/Traslucido Milky/Traslucent |
| **INDICE REFRATTOMETRICO** ***REFRACTOMETER INDEX*** | - | 1,3 |

# DAMECOIL N25 - GREEN

DAMECOIL N25 è un olio da taglio intero molto fluido esente da cloro, formulato con oli minerali severamente raffinati ed una calibrata additivazione a base di esteri e composti E.P. inattivi.
Il prodotto si distingue per la sua ottima azione lubrificante che garantisce alte prestazioni di taglio e di durata delle pietre abrasive.
DAMECOIL N25 viene utilizzato con soddisfazione in operazioni di lappatura e di superfinitura su metalli ferrosi e non ferrosi ove è richiesto un elevato grado di detergenza degli utensili abrasivi.
Ottimo per la lavorazione di acciaio, tutti i materiali ferrosi duri e sui materiali sottoposto ai trattamenti (sinterizzati, cementati, carbonitrurati, fosfatati, nichelati e temprati).

*DAMECOIL N25 is a very fluid, chlorine-free, full-form cutting oil. It is formulated with severely refined mineral oils and a calibrated blend of ester and inactive E.P. additives.*
*The product stands out for its excellent lubricating action, which guarantees high cutting performance and extends abrasive's life.*
*DAMECOIL N25 is used with great success in honing and super-finishing operations on ferrous and non-ferrous metals where high levels of abrasive tool cleanliness are required.*
*Excellent for processing steel, all hard ferrous materials and on materials subjected to treatments (sintered, cemented, carbonitrided, phosphated, nickel-plated, and hardened).*

| **DETERMINAZIONE** ***FEATURES*** | **UNITA' DI MISURA** ***UNIT OF MEASUREMENT*** | **VALORI STANDARD** ***STANDARD VALUES*** |
|---|---|---|
| **ASPETTO** ***APPEARANCE*** | - | Limpido Clear |
| **COLORE** ***COLOUR*** | - | Verde Green |
| **DENSITA' A 15°C** ***DENSITY AT 15°C*** | Kg/dm3 | 0,825 |
| **VISCOSITA' A 40 °C** ***VISCOSITY AT 40 °C*** | cSt | 4,4 |
| **P.TO DI INFIAMMABILITA'** ***POINT OF FLAMMABILITY*** | °C | 130 |

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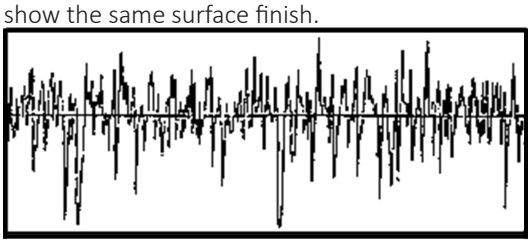
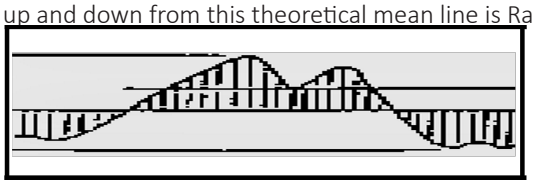
# DATI TECNICI - Informazioni sulla finitura superficiale
## *TECHNICAL DATA - Surface finish information*

This is what a rough honed surface looks like, magnified 400 times:

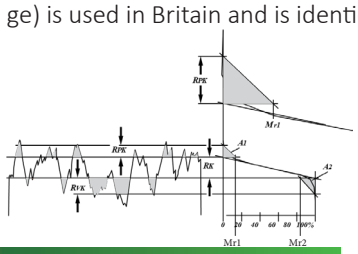
But it usually is shown like this:
The vertical magnification is now 4000 times, so it can be seen better. The
horizontal magnification is now only 40 times, to save paper. Both graphs
show the same surface finish.



Surface Finish Parameters
Modern surface texture analyzers have the capability of measuring a variety of surface texture parameters. Every parameter has its advantages and limitations. A summary of some of the more commonly used parameters is given below.
**Ra** is the most widely used description of a surface. If you could level all the peaks to fill in all the valleys you would have a mean line. The arithmetic average of the deviations up and down from this theoretical mean line is Ra.



**Rt** is the distance from the highest peak to the deepest valley. Rt is rarely specified, but it is useful for detecting honing problems, like pick-up or areas which have not cleaned up. If Rt is much more than 10 times Ra you either have a honing problem or a plateau-honed surface. CLA (center line average) is used in Britain and is identical to Ra.




**Rz DIN**, also known as Rtm is the same as Rt, but while Rt is established over the entire measuring length, Rz DIN divides the measured length into five equal lengths and then averages the Rt readings of each of the five lengths. Rz DIN is likely to be a slightly smaller number than Rt because one deeper scratch is diminished by the finer finish of the other four values.
**Rz ISO** (ten point high). The average height difference between the five highest peaks and five deepest valleys. This is the best method for short surfaces.
**Rmax** (same as Ry or Rma) is the distance of the highest peak to the deepest valley in any of the five sections mentioned in Rz DIN.
**Rp** (maximum peak height above mean line). The height of the highest peak above the mean line in five sampling distances.
**Rpm** (mean peak height above mean line). The average of the distances above the mean line of the five highest peaks in the total sampling distance.
**RMS, Rq** (root mean square). An obsolete definition; same method as Ra,
but using a different mathematical principle. Results in a value about 15% higher than Ra.
**Rk** The main bearing area of a surface, ignoring the highest peaks and deepest valleys. The magnitude of these peaks and valleys can be defined
as Rpk and Rvk respectively.

**Parameter Conversion Formula***
For a one grit size developed surface finish to convert a known Ra value to a different parameter, use the following formula (These ratios do not apply to composite grit surface finishes- such as “plateau” or surface finishes from other machining processes):
Ra x Parameter Factor = Desired Parameter
Ex: 1.0 micrometer Ra x 8.7 (Rt Factor) = 8.7 micrometer Rt
Ex: 40 microinch Ra x 8.7 (Rt Factor) = 348 microinch Rt
* These conversions are approximate values for general information only and apply only when checking a standard honed finish.

| Parameter | Factor | Symbol | Definition |
|---|---|---|---|
| Rt | 8.7 | $R_k$ | Core roughness depth |
| Rz | 7.2 | $R_{pk}$ | Reduced peak height |
| Rz ISO | 7.6 | $R_{vk}$ | Reduced valley depth |
| Rmax | 8.0 | $M_{r1}$ | Peak material ratio |
| Rp | 3.6 | $M_{r2}$ | Valley material ratio |
| RPM | 2.9 | | |
| RMS | 1.1 | | |

# DATI TECNICI - Glossario dei termini
## *TECHNICAL DATA - Glossary of terms*

**Adapter** - A part used with certain mandrels to adapt them to fit the spindle chuck on the honing machine.
**Alignment Bushing** - A concentric bushing used to minimize conical and parallel runout on machines with fully adjustable spindle noses.
**Altered Stone** - A standard honing stone, which has been shortened or otherwise changed for a specific application.
**Aluminum Oxide** - A man-made abrasive most often used in honing soft and medium hard steel.
**Barrel Shape** - A condition where the extreme ends of a bore are smaller in diameter than the middle.
**Bellmouth** - A condition where the extreme end or ends of a bore are larger in diameter than the middle.
**Blind Hole** - A bore that is constricted or closed at one end.
**Bond** - The material that holds the abrasive grains together in a honing stone. Conventional Abrasives use fused clay or glass and are know as Vitrified bonded stones. Superabrasive stones use a metal bond, resinoid bond, or a vitrified bond.
**CBN** - A man-made abrasive (cubic boron nitride) especially useful for honing the tough alloy steels and other abrasive resistant materials.
**Cork Bond** - A bonding material composed of powdered cork and phenolic resin. Cork bonded honing stones are used where extremely fine surface finished is required. (Best results are achieved when used with bronze guide shoes.)
**Deburring** - A honing process used to remove burrs, sharp edges or similar materials from rough bores.
**Diamond** - A very hard abrasive grain, which is essential to the honing of carbide, glass and ceramic materials.
**Diamond Dresser** - A diamond abrasive used to dress honing stones other than Borazon or diamond.
**Fixturing** - a method used to hold the workpiece while honing.
**Glazed Stone** - A stone with cutting action impaired because the abrasive particles failed to break out of the bond when the cutting edges wore off.
This condition shows up when the bond is too hard.
**Guide Shoes** - A part of the honing unit that stabilizes the bore being honed on the tool.
**Hardness** - As applied to a honing stone, describes the strength of the bond that holds the abrasive grains longer; a soft bond will permit the stone to "break down" faster, exposing new sharp abrasive grains.
**Hard-Tip Stone** - A honing stone having a tip or end of harder abrasive than the body of the stone. Used for honing blind holes where relief cannot be provided.
**Hard-Tip Stones** - Used primarily for blind hole applications, the tip of the stone is engineered to be more wear-resistent than rest of the stone.
**Honing** - An abrasive machining process primarily used for stock removal, precision sizing, and surfaces. It is characterized by the use of a self-sharpening abrasive stone, a relatively large area of contact with the work, and relatively low cutting speeds.
**Honing Length** - The actual length of the surface being honed.
**Honing Stone** - An abrasive stick consisting of thousands of small abrasive grains bonded together.
**Honing Unit** - A complete honing tool consisting of an adapter (if required), a mandrel and wedge, stone(s), guide shoes, truing sleeve, and stone retainer or tension block.
**Loaded Stone** - A honing stone with cutting action impaired due to the cutting surface being partially covered with a foreign material, usually the material being honed. This condition is sometimes encountered when honing soft materials.
**Mandrel** - That part of a honing unit which holds and positions the honing stone and guide shoes in their correct relative positions.
**Metal Bond** - A powdered metal bond often used with diamond or Borazon abrasives.
**Overstroke** - The distance that the workpiece is stroked beyond the end of the stone. This distance is generally one-third the length of the stone (or of the part, whichever is the shortest).
**Rainbow (or bow)** - Sometimes called camber or banana shape. A condition where a bore's diameter may be the same over its full length but whose axis or center-line is curved. Correction of rainbow by honing requires a mandrel in which the stone and guide show length is at least 1-1/2 times the length of the bore.
**Relief** - An enlargement of diameter at the bottom of a blind hole which makes it possible for the end of the honing stone to pass beyond the bottom end of the surface being hones.
**Runout** - Off-center rotation of the honing unit which causes eccentric motion of the workpiece.
**Silicon Carbide** - A man-made abrasive most often used for stock removal in materials such as cast iron, brass, bronze or aluminum. Also used for fine finishes in all materials.
**Stacking** - A technique for honing short parts.
Faces of the parts must be square with the bore prior to honing. A holding fixture is necessary for aligning and holding the parts on a common center.
**Taper** - A bore condition where the diameter of a bore gradually increases from one end of the bore to the other.
**Truing Sleeve** - A cylinder or workpiece whose purpose is to make the guide shoes and stone straight and parallel to each other, and radiused to the approximate diameter to be honed.
**Waviness** - A longitudinal wave, series of waves or ripple in a bore surface.
**Wedge** - The part of the honing unit that expands the honing stone and applies cutting pressure.

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# TABELLA DI CONVERSIONE DELLA DUREZZA
## *HARDNESS CONVERSION TABLE*

| Brinell Hard-ness | Rockwell hardness number | | | | | | Rockwell superficial hardness number | | | | | | Tensile Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | 15-N | 30-N | 45-N | 15-T | 30-T | 45-T | |
| 10-mm std. Ball 3000-kgf load | Diamond pene-trator 60-kgf load | 1.588-mm 1/16" ball 100-kgf load | Diamond pene-trator 150-kgf load | Diamond pene-trator 100-kgf load | 3.175-mm 1/8" Ball 100-kgf load | 1.588-mm 1/16" Ball 60-kgf load | Super-ficial Diamond pene-trator 30-kgd | Super-ficial Diamond pene-trator 30-kgd | Super-ficial Diamond pene-trator 45-kgd | 1.588-mm 1/16" Ball 15-kgf load | 1.588-mm 1/16" Ball 30-kgf load | 1.588-mm 1/16" Ball 45-kgf load | KSI |
| 750 | 85.0 | – | 66.0 | 76.0 | – | – | 93.0 | 83.0 | 73.0 | – | – | – | – |
| 710 | 84.0 | – | 64.0 | 74.0 | – | – | 92.0 | 81.0 | 71.0 | – | – | – | – |
| 682 | 83.0 | – | 62.0 | 73.0 | – | – | 91.0 | 79.0 | 69.0 | – | – | – | – |
| 653 | 81.0 | – | 60.0 | 71.0 | – | – | 90.0 | 78.0 | 67.0 | – | – | – | 314 |
| 578 | 80.0 | – | 58.0 | 69.0 | – | – | 89.0 | 76.0 | 64.0 | – | – | – | 299 |
| 555 | 79.0 | – | 56.0 | 68.0 | – | – | 88.0 | 74.0 | 62.0 | – | – | – | 284 |
| 534 | 78.0 | – | 54.0 | 66.0 | – | – | 87.0 | 72.0 | 60.0 | – | – | – | 270 |
| 495 | 77.0 | – | 52.0 | 65.0 | – | – | 86.0 | 70.0 | 57.0 | – | – | – | 256 |
| 479 | 75.5 | – | 50.0 | 63.0 | – | – | 85.5 | 68.0 | 54.5 | – | – | – | 244 |
| 450 | 74.5 | – | 48.0 | 61.5 | – | – | 84.5 | 66.5 | 52.5 | – | – | – | 228 |
| 425 | 73.5 | – | 46.0 | 60.0 | – | – | 83.5 | 64.5 | 50.0 | – | – | – | 212 |
| 403 | 72.5 | – | 44.0 | 58.5 | – | – | 82.5 | 63.0 | 47.5 | – | – | – | 201 |
| 382 | 71.5 | – | 42.0 | 57.0 | – | – | 81.5 | 61.0 | 45.5 | – | – | – | 189 |
| 363 | 70.5 | – | 40.0 | 55.5 | – | – | 80.5 | 59.5 | 43.0 | – | – | – | 178 |
| 346 | 69.5 | – | 38.0 | 54.0 | – | – | 79.5 | 58.0 | 41.0 | – | – | – | 167 |
| 329 | 68.5 | – | 36.0 | 52.5 | – | – | 78.5 | 56.0 | 38.5 | – | – | – | 160 |
| 313 | 67.5 | – | 34.0 | 50.5 | – | – | 77.5 | 54.5 | 36.0 | – | – | – | 153 |
| 298 | 66.5 | 106 | 32.0 | 49.5 | – | 116.5 | 76.5 | 52.5 | 34.0 | 94.5 | 85.5 | 77.0 | 144 |
| 275 | 64.5 | 104 | 28.5 | 46.5 | – | 115.5 | 75.0 | 49.5 | 30.0 | 94.0 | 84.5 | 75.0 | 130 |
| 258 | 63.0 | 102 | 25.5 | 44.5 | – | 114.5 | 73.5 | 47.0 | 26.5 | 93.0 | 83.0 | 73.0 | 121 |
| 241 | 61.5 | 100 | 22.5 | 42.0 | – | 113.0 | 72.0 | 44.5 | 23.0 | 92.5 | 81.5 | 71.0 | 114 |
| 228 | 60.5 | 98 | 20.0 | 40.0 | – | 112.0 | 70.5 | 42.0 | 20.0 | 92.0 | 80.5 | 69.0 | 107 |
| 215 | 59.0 | 96 | 17.0 | 38.0 | – | 111.0 | 69.0 | 39.5 | 17.0 | 91.0 | 79.0 | 67.0 | 101 |
| 204 | 57.5 | 94 | 14.5 | 36.0 | – | 110.0 | 68.0 | 37.5 | 14.0 | 90.5 | 77.5 | 65.0 | 98 |
| 194 | 56.5 | 92 | 12.0 | 34.0 | – | 108.5 | 66.5 | 35.5 | 11.0 | 89.5 | 76.0 | 63.0 | 93 |
| 184 | 55.0 | 90 | 9.0 | 32.0 | 108.5 | 107.5 | 65.0 | 32.5 | 7.5 | 89.0 | 75.0 | 61.0 | 89 |
| 176 | 53.5 | 88 | 6.5 | 30.0 | 107.0 | 106.5 | 64.0 | 30.5 | 5.0 | 88.0 | 73.5 | 59.5 | 85 |
| 168 | 52.5 | 86 | 4.0 | 28.0 | 106.0 | 105.0 | 62.5 | 28.5 | 2.0 | 87.5 | 72.0 | 57.5 | 87 |
| 161 | 51.5 | 84 | 2.0 | 26.5 | 104.5 | 104.0 | 61.5 | 26.5 | -.5 | 87.0 | 70.5 | 55.5 | 78 |
| 155 | 50.0 | 82 | – | 24.5 | 103.0 | 103.0 | – | – | – | 86.0 | 69.5 | 53.5 | 75 |
| 149 | 49.0 | 80 | – | 22.5 | 102.0 | 101.5 | – | – | – | 85.5 | 68.0 | 51.5 | 72 |
| 144 | 47.5 | 78 | – | 21.0 | 100.5 | 100.5 | – | – | – | 84.5 | 66.5 | 49.5 | 69 |
| 139 | 46.5 | 76 | – | 19.0 | 99.5 | 99.5 | – | – | – | 84.0 | 65.5 | 47.5 | 67 |
| 134 | 45.5 | 74 | – | 17.5 | 98.0 | 98.5 | – | – | – | 83.0 | 64.0 | 45.5 | 65 |
| 129 | 44.0 | 72 | – | 16.0 | 97.0 | 97.0 | – | – | – | 82.5 | 62.5 | 43.5 | 63 |
| 125 | 43.0 | 70 | – | 14.5 | 95.5 | 96.0 | – | – | – | 82.0 | 61.0 | 41.5 | 61 |
| 121 | 42.0 | 68 | – | 13.0 | 94.5 | 95.0 | – | – | – | 81.0 | 60.0 | 39.5 | 59 |
| 118 | 41.0 | 66 | – | 11.5 | 93.0 | 93.5 | – | – | – | 80.5 | 58.5 | 37.5 | 57 |
| 114 | 40.0 | 64 | – | 10.0 | 91.5 | 92.5 | – | – | – | 79.5 | 57.0 | 35.5 | 55 |
| 111 | 39.0 | 62 | – | 8.0 | 90.5 | 91.5 | – | – | – | 79.0 | 56.0 | 33.5 | 53 |
| 108 | – | 60 | – | – | 89.0 | 90.0 | – | – | – | 78.5 | 54.5 | 31.5 | 51 |
| 108 | – | 58 | – | – | 88.0 | 89.0 | – | – | – | 77.5 | 53.0 | 29.5 | – |
| 103 | – | 56 | – | – | 86.5 | 88.0 | – | – | – | 77.0 | 51.5 | 27.5 | – |
| 100 | – | 54 | – | – | 85.5 | 87.0 | – | – | – | 76.0 | 50.5 | 25.5 | – |
| 98 | – | 52 | – | – | 84.0 | 85.5 | – | – | – | 75.5 | 49.0 | 23.5 | – |
| 95 | – | 50 | – | – | 83.0 | 84.5 | – | – | – | 74.5 | 47.5 | 21.5 | – |
| 93 | – | 48 | – | – | 81.5 | 83.5 | – | – | – | 74.0 | 46.5 | 19.5 | – |
| 91 | – | 46 | – | – | 80.5 | 82.0 | – | – | – | 73.5 | 45.0 | 17.0 | – |

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DAMEC

*we have a way or we find one*