



GRINTA



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F-MHD AP

p. 162



MHD AP

p. 162



F-MHD RD

p. 163



MHD RD

p. 163



MHD SE

p. 164



F-MHD SP

p. 165



F-MHD SP

p. 165



F-MHD' 16 - 20 - 25 - 32



GRINTA is a new D'Andrea solution for milling operations. The program comprises a series of milling cutter bodies that utilize classical milling cutter geometry styles and ISO inserts, thereby increasing the working range of the MHD' Modular System. The MHD' Modular System, already known worldwide for its roughing and finishing boring tools, now makes available to the milling operation its large-capacity and its inherent perfect concentricity and extreme resistance to torsion. At the heart of the system is the coupling: for diameters from 16mm to 32mm the **GRINTA** system takes advantage of dual couplings, that is, the milling heads have a threaded end along with a ground guide accompanied by the modular MHD' connection. For cutter diameters 40mm, 50mm and 63mm, the cutter bodies incorporate the modular MHD' connection.

GRINTA ist eine neue D'Andrea Lösung für Fräsbearbeitungen. Das Programm beinhaltet eine Fräser Linie, welche die klassische Fräsergeometrie und ISO Wendeschneidplatten verwendet, dadurch vergrößert sich der Verwendungsbereich des modularen MHD' Systems. Das modulare MHD' System, weltweit bekannt durch seine Schrupp- und Feinstbohrköpfe, stellt jetzt für Fräsbearbeitungen sein großes Leistungsvermögen, dem dazugehörigen perfekten Rundlauf und die extreme Verdrehfestigkeit zur Verfügung. Das Herz des Systems ist die Kupplung: Für die Durchmesser 16mm bis 32mm verwendet das **GRINTA** System den Vorteil einer Doppel-Kupplung, die Fräsköpfe werden durch den geschliffenen MHD' Anschluß geführt und haben am Ende ein Einschraubgewinde. Bei den Fräsdurchmessern 40mm, 50mm und 63mm werden die Fräskörper über den modulare MHD' Anschluß verbunden.



GRINTA es la nueva solución D'Andrea para el fresado. El programa, está compuesto por una serie de cuerpos de fresa que utilizan las clásicas geometrías de corte y plaquitas ISO. Crece así la posibilidad de mecanizar con el sistema MHD' de las herramientas de mandrinado en desbaste y en acabado, conocido en todo el mundo y ello para tener disponible también en fresado las grandes capacidades del sistema modular MHD', inherentes sea a la perfecta concentricidad del sistema MHD', que a la extrema resistencia a la torsión. Corazón del sistema es el acoplamiento: para los Ø de 16 mm. a Ø 32 mm. el sistema **GRINTA** aprovecha el doble acoplamiento, o bien cabezales de fresado roscados con perno de guía rectificado y cono de acoplamiento MHD' modular, mientras que para los diámetros mayores de 40 mm., 50 mm. y 63 mm. cuerpos de fresa realizados con acoplamiento directo modular MHD'.

GRINTA est une nouvelle solution D'Andrea pour les opérations de fraisage. Le programme comprend une série de porte-outils qui utilisent des géométries de fraisage classiques et des plaquettes ISO, ce qui augmente la capacité d'usinage du système modulaire MHD'. Le système modulaire MHD' déjà mondialement connu pour ses outils d'ébauche et de finition, met sa grande capacité, sa concentricité et sa grande résistance à la torsion au service du fraisage. Un accouplement se trouve au cœur du système, : pour les diamètres de 16 à 32 mm, le système **GRINTA** tire profit des accouplement en duo, ce qui signifie que les têtes de fraisage ont une extrémité filetée prolongée par un guide de base utilisé en parallèle avec le système d'assemblage modulaire MHD'. Pour les fraises d'un diamètre de 40 mm, 50 mm et 63 mm les porte-outils intègrent l'assemblage modulaire MHD'.

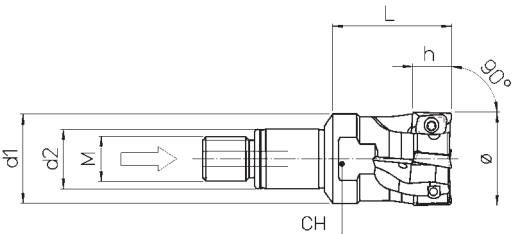
GRINTA è la nuova soluzione D'Andrea per la fresatura. Il programma è composto da una serie di corpi fresa che utilizzano le classiche geometrie di taglio ed inserti ISO. Cresce così la possibilità di lavorazioni con il sistema MHD' degli utensili di barenatura a sgrossare e finire, già noti in tutto il mondo e ciò per rendere disponibili anche in fresatura le grandi capacità del sistema modulare MHD' inerenti sia alla perfetta concentricità del sistema MHD' che alla estrema resistenza alla torsione. Cuore del sistema è l'attacco: per i Ø da 16 mm a Ø 32 mm. il sistema **GRINTA** sfrutta il doppio attacco, ovvero testine di fresatura filettate con perno di guida rettificato e cono di accoppiamento MHD' modulare, mentre per i diametri maggiori da 40 mm, 50 mm e 63 mm i corpi fresa sono realizzati con l'attacco diretto modulare MHD'.



MHD' 40 - 50 - 63

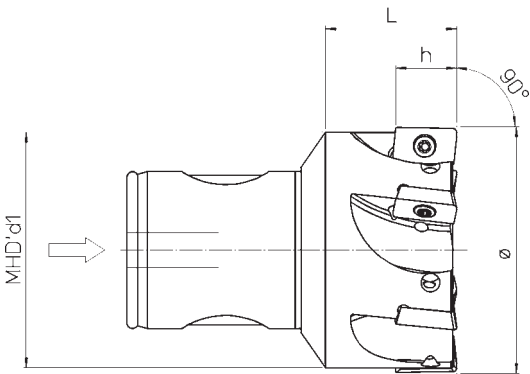


F-MHD AP

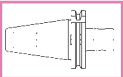
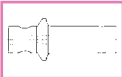


REF.	CODE	Ø	M	d ₁	d ₂	L	h	z	CH			
F-MHD16 AP10-Z2	7516AP10Z220	16	M8	15	10	20	10	2	13	APKT 1003	DG12255	TORX T08
F-MHD20 AP10-Z3	7520AP10Z325	20	M10	19	13	25	10	3	16	APKT 1003	DG12255	TORX T08
F-MHD25 AP10-Z4	7525AP10Z432	25	M12	24	16	32	10	4	21	APKT 1003	DG12255	TORX T08
F-MHD32 AP10-Z5	7532AP10Z540	32	M16	31	20	40	10	5	27	APKT 1003	DG12255	TORX T08

MHD AP



REF.	CODE	Ø	MHD'd ₁	L	h	z			
MHD'40 AP16-Z4	7540AP16Z435	42	40	35	17	4	APKT 1604	DGC04011	TORX T15
MHD'50 AP16-Z5	7550AP16Z535	52	50	35	17	5	APKT 1604	DGC04011	TORX T15
MHD'63 AP16-Z6	7563AP16Z635	66	63	35	17	6	APKT 1604	DGC04011	TORX T15



Milling cutters with
round inserts

Fraeser mit runden
platten

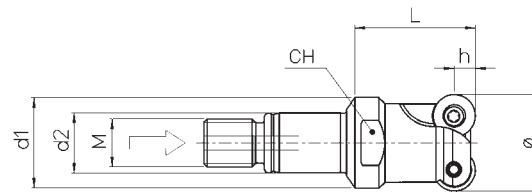
Fresas con plaquitas
redondo

Fraise à plaquettes
rondes

Frese con inserti
tondi



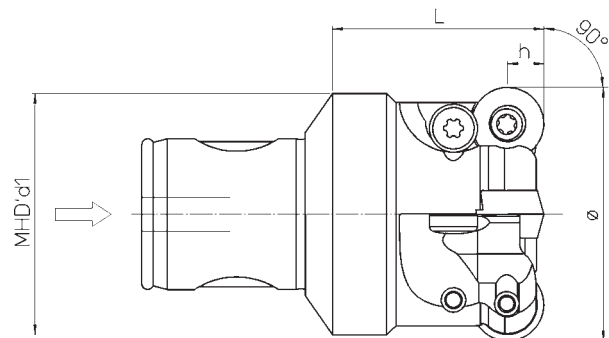
F-MHD RD



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F-MHD16 RD07-Z2	7516RD07Z220	16	M8	15	10	20	3.5	2	13	RDHX 0702	DG122549	TORX T07
F-MHD20 RD07-Z3	7520RD07Z325	20	M10	19	13	25	3.5	3	16	RDHX 0702	DG122549	TORX T07
F-MHD25 RD10-Z3	7525RD10Z332	25	M12	24	16	32	5	3	21	RDHX 1003	DG123507	TORX T15
F-MHD32 RD10-Z4	7532RD10Z440	32	M16	31	20	40	5	4	27	RDHX 1003	DG123507	TORX T15



MHD RD



REF.	CODE	Ø	MHD'd ₁	L	h	z			
MHD'40 RD12-Z4	7540RD12Z435	42	40	35	6	4	RDHX 12T3	DG123509	TORX T15
MHD'50 RD12-Z5	7550RD12Z535	52	50	35	6	5	RDHX 12T3	DG123509	TORX T15
MHD'63 RD16-Z5	7563RD16Z535	66	63	35	8	5	RDHX 1604	DG124510	TORX T20

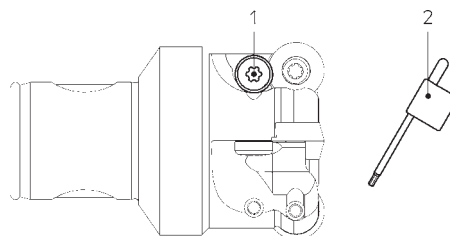
Spare parts
MHD RD

Ersatzteile
MHD RD

Piezas de recambio
MHD RD

Pièces détachées
MHD RD

Parti di ricambio
MHD RD



REF.	CODE 1	CODE 2
MHD'40 RD12-Z4 - MHD'50 RD12-Z5	49 10 1 0002435	10 150 09 0 1500
MHD'63 RD16-Z5	49 10 1 0002445	10 150 09 0 2000

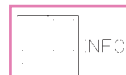
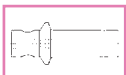
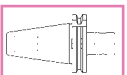
p. 73-85

p. 90

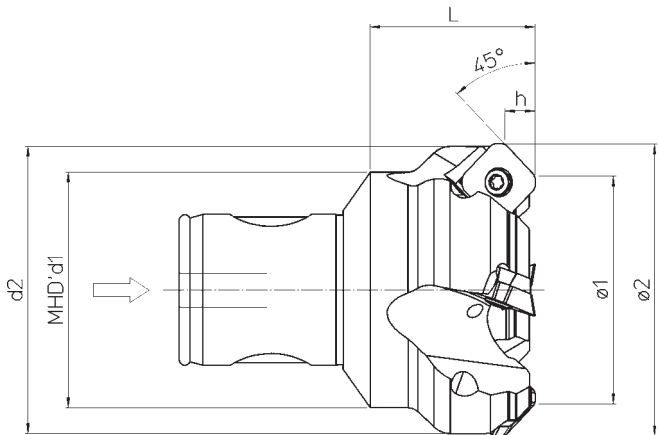
p. 192

p. 172-173

p. 203

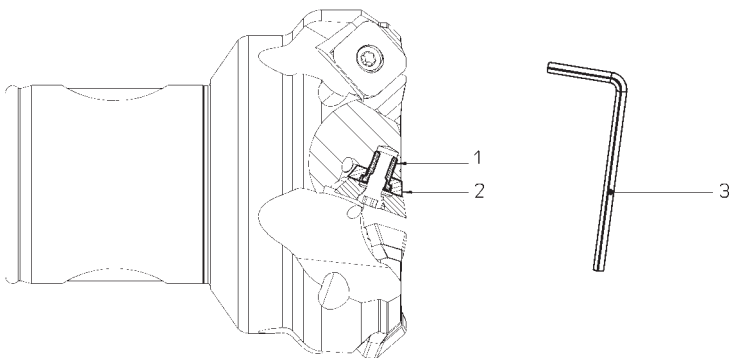


MHD SE

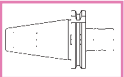
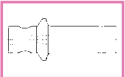


REF.	CODE	Ø1	Ø2	MHD'd1	d2	L	h	z			
MHD'40 SE13-Z3	7540SE13Z335	40	53	40	51	35	6	3	SEET 13T3	DG123512P	TORX T15
MHD'50 SE13-Z4	7550SE13Z435	50	63	50	61	35	6	4	SEET 13T3	DG123512P	TORX T15
MHD'63 SE13-Z5	7563SE13Z535	63	76	63	74	35	6	5	SEET 13T3	DG123512P	TORX T15

Spare parts MHD SE	Ersatzteile MHD SE	Piezas de recambio MHD SE	Pièces detachées MHD SE	Parti di ricambio MHD SE
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REF.	CODE 1	CODE 2	CODE 3
MHD'40 SE13-Z3	49 20 1 0003512	49 20 3 0003512	10 150 01 00350
MHD'50 SE13-Z4	49 20 1 0003512	49 20 3 0003512	10 150 01 00350
MHD'63 SE13-Z5	49 20 1 0003512	49 20 3 0003512	10 150 01 00350



Chamfering milling
cutters

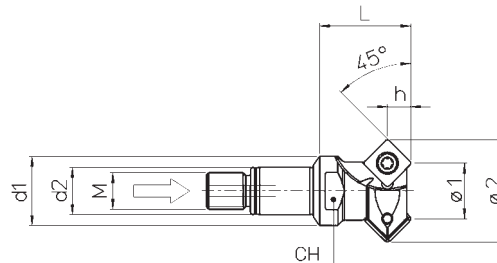
Fräser zum fasen

Fresas para achanflamar

Fraises à chanfreiner

Frese per smussare

F-MHD SP



REF.	CODE	Ø ₁	Ø ₂	M	d ₁	d ₂	L	h	z	CH			
F-MHD'20 SP09-Z2	7520SP09Z225	16	28	M10	19	13	25	5.8	2	16	SPEW 09T3	DG123509	TORX T15
F-MHD'25 SP12-Z2	7525SP12Z232	25	41.5	M12	24	16	32	8	2	21	SPEW 1204	DG124510	TORX T20

Milling cutters spheric
head

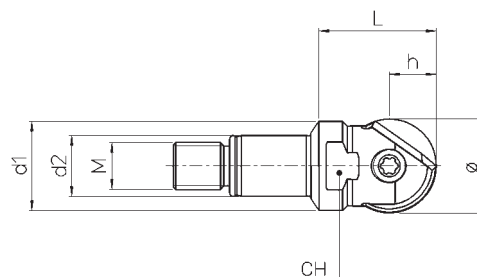
Mit kugelpopf

Fresas de cabezal
esferico

Fraises à tête
sphérique

Frese a testa sferica

F-MHD RA



REF.	CODE	Ø ₁	M	d ₁	d ₂	L	h	z	CH			
F-MHD16 RA16-Z1	7516RA16Z120	16	M8	15	10	20	8	2	13	RAD 16.40	DG12RA16	TORX T15
F-MHD20 RA20-Z1	7520RA20Z125	20	M10	19	13	25	10	2	16	RAD 20.50	DG12RA20	TORX T20
F-MHD25 RA25-Z1	7525RA25Z132	25	M12	24	16	32	12.5	2	21	RAD 25.60	DG12RA25	TORX T30
F-MHD32 RA32-Z1	7532RA32Z140	32	M16	31	20	40	16	2	27	RAD 32.70	DG12RA32	TORX T40

p. 73-85

p. 90

p. 172-173

p. 205

