

DEX DRILLS

Drilling system with exchangeable head

Application



- | | |
|--|---|
| <ul style="list-style-type: none"> • Flat surface • Concave surface • Convex surface • Stacked plates • Pipes | <ul style="list-style-type: none"> • Flache Flächen • Konkave Flächen • Konvexe Flächen • Paketbohren • Rohre |
| <ul style="list-style-type: none"> • Superfici piane • Superfici concave • Superfici convesse • Foratura a pacco • Tubi | <ul style="list-style-type: none"> • Surfaces planes • Surfaces concaves • Surfaces convexes • Perçage en empilement • Tubes |

Application range - ISO 513



Features and benefits

- | | |
|---|--|
| <ul style="list-style-type: none"> • Drills with highly reliable exchangeable head system. • Exchangeable head with 3D geometry, for high feed rate and high efficiency machining. • Excellent technical and economical alternative to solid carbide drills | <ul style="list-style-type: none"> • Sehr zuverlässiges mechanisches Schnellwechsel-Bohrsystem. • Wechseleinsätze aus Hartmetall mit 3D-Geometrie für große Vorschübe ermöglichen eine hocheffiziente Bearbeitung. • Kosteneffektives Preis/Leistungsverhältnis pro Bohrung, gute Alternative zum Nachschleifen herkömmlicher Hartmetallbohrer. |
| <ul style="list-style-type: none"> • Punta con sistema di cambio cuspidi altamente affidabile. • Cuspidi in metallo duro con geometria 3D per elevati avanzamenti ed elevata efficienza operativa. • Ottima alternativa tecnica ed economica alle punte in metallo duro integrale. | <ul style="list-style-type: none"> • Forets avec système d'embout interchangeable très fiable • Embouts en carbure à géométrie 3D pour avances élevées garantissent un usinage haute efficacité. • Excellente alternative technique et économique aux forets carbure monobloc |

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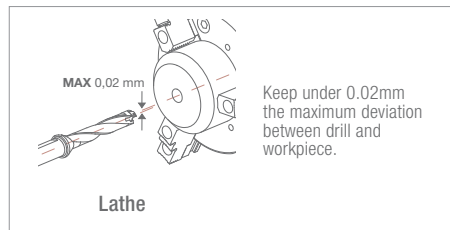
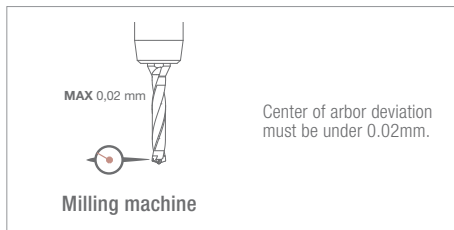
Drilling holders

- Weldon shank with internal coolant
- 3xD, 5xD and 8xD available from D10 to D26
- Special length (1.5D and 12D) and step type available upon request

- Attacco Weldon con refrigerante interno
- 3xD, 5xD e 8xD disponibili da D10 a D26
- Lunghesse speciali (1.5D e 12D) e geometria a gradino disponibili su richiesta

- Weldon-Aufnahme mit internem Kühlschmiermittel
- 3xD, 5xD und 8xD erhältlich von D10 bis D26
- Sonderlängen (1.5D und 12D) und abgestufte Körper auf Anfrage erhältlich

- Queue Weldon avec arrosage interne
- Disponibles en 3xD et 5xD du D10 au D26
- Longueurs spéciales (1,5D, 8D et 12D) et corps « étagés » disponibles sur demande



Inserts

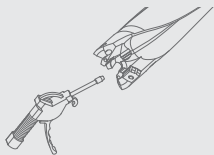
- Available D10-26, can make special diameters or step type
- PVD coated carbide grades
- Geometries: GP, SC, TE, FT (flat)

- Disponibili D10-26, si possono realizzare diametri speciali o geometria a gradino.
- Gradi in metallo duro rivestito PVD
- Geometrie: GP, SC, TE, FT (flat)

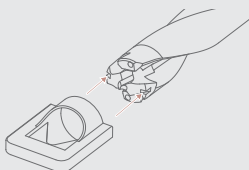
- In den Größen D10-26 erhältlich, auch Sonderdurchmesser oder Stufenkörper können realisiert werden
- PVD-beschichtete Hartmetallqualitäten
- Geometrien: GP, SC, TE, FT (flat)

- Disponibles du D10-26, possibilité de réaliser des diamètres spéciaux ou des corps « étagés »
- Nuances en carbure revêtues PVD
- Géométries : GP, SC, TE, FT (flat)

DRILLING HEADS INSTALLATION



- Clean pocket with air blast. Put insert into drill holder.
- Pulire la sede con aria compressa. Posizionare l'inserto nella sede.
- Die Tasche mit Druckluft reinigen. Die Wendschneidplatten in die Aufnahme einsetzen.
- Nettoyer le logement à l'air comprimé. Positionner l'embout dans le logement.



- Set wrench into slots on insert flanks. Slowly turn the wrench clockwise until stop.
- Posizionare la chiave nelle guide sui fianchi della cuspid. Girare lentamente la chiave in senso orario fino all'arresto.
- Den Schlüssel in die Führungen an den Seiten der Wendschneidplatte einsetzen. Den Schlüssel langsam im Uhrzeigersinn drehen, bis zum Anschlag.
- Placer la clé dans les guides sur les côtés de l'embout. Tourner lentement la clé dans le sens horaire jusqu'en butée.



INDEXABLE

A - TURNING

B - THREADING

C - GROOVING

D - MILLING

E - DRILLING

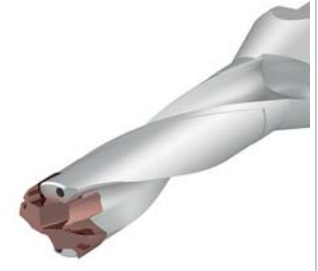
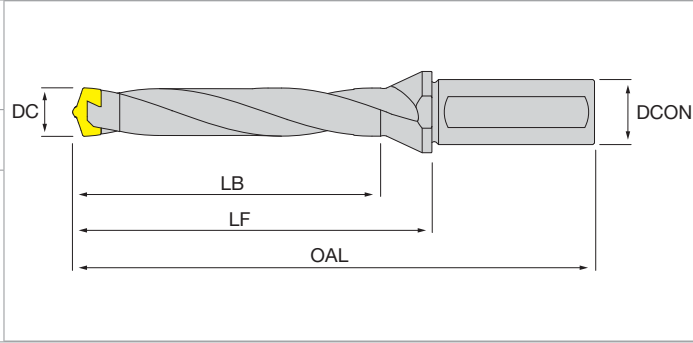
F - ACCESSORIES

G - SPARE PARTS

NT-DEX-3D

DEX drill

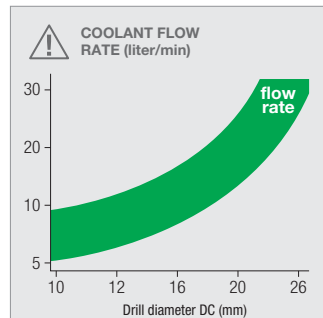
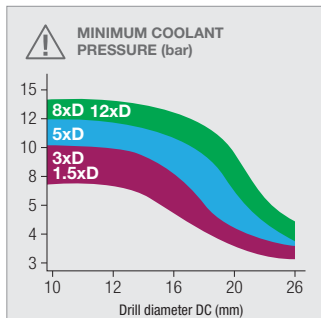
- Different drill heads can fit into the same body, please check MIID column
- Special diameters or stepped type available upon requests
- Under **stable conditions**, hole tolerance **0/+0.10 mm**



Designation	DC	DCON	OAL	LF	LB	MIID						Stock
NT-DEX-3D D10-S16F	10	16	95	47	38	DEX10∞						●
NT-DEX-3D D11-S16F	11	16	98	50	39	DEX11∞						●
NT-DEX-3D D12-S16F	12	16	104	56	44	DEX12∞						●
NT-DEX-3D D13-S16F	13	16	108	60	47	DEX13∞						●
NT-DEX-3D D14-S16F	14	16	112	64	50	DEX14∞						●
NT-DEX-3D D15-S20F	15	20	118	68	53	DEX15∞						●
NT-DEX-3D D16-S20F	16	20	122	72	56	DEX16∞						●
NT-DEX-3D D17-S20F	17	20	126	76	59	DEX17∞						●
NT-DEX-3D D18-S25F	18	25	136	80	62	DEX18∞						●
NT-DEX-3D D19-S25F	19	25	140	84	65	DEX19∞						●
NT-DEX-3D D20-S25F	20	25	144	88	68	DEX20∞						●
NT-DEX-3D D21-S25F	21	25	152	96	75	DEX21∞						●
NT-DEX-3D D22-S25F	22	25	157	101	81	DEX22∞						●
NT-DEX-3D D23-S32F	23	32	165	105	82	DEX23∞						●
NT-DEX-3D D24-S32F	24	32	170	110	86	DEX24∞						●
NT-DEX-3D D25/26-S32F	25	32	175	115	89	DEX25∞						●

★ 1st choice, ☆ suitable, ● stock standard, ◎ non-stock standard (no MOQ), ○ non-stock standard (MOQ), ▲ upcoming product, ▽ stock exhaustion

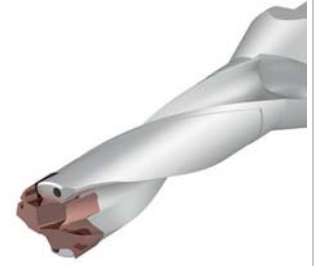
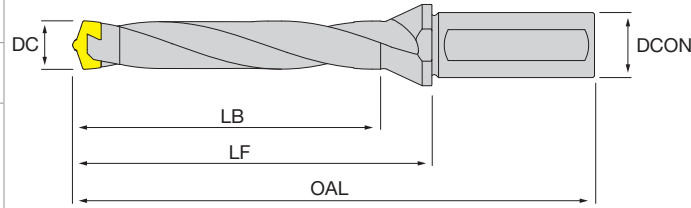
Spare parts	Wrench
NT-DEX-3D (DC10-11)	NT-WR1011
NT-DEX-3D (DC12-17)	NT-WR1217
NT-DEX-3D (DC18-20)	NT-WR1820
NT-DEX-3D (DC21-25)	NT-WR2126



NT-DEX-5D

DEX drill

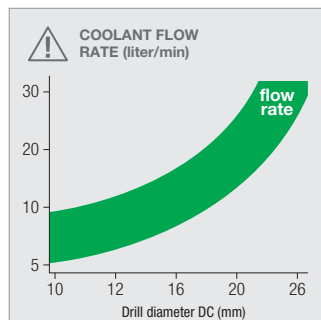
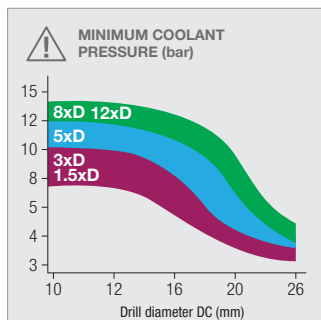
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- Under **stable conditions**, hole tolerance **0/+0.10 mm**



Designation	DC	DCON	OAL	LF	LB	MIID						Stock
NT-DEX-5D D10-S16F	10	16	116	68	59	DEX10∞						●
NT-DEX-5D D11-S16F	11	16	121	73	62	DEX11∞						●
NT-DEX-5D D12-S16F	12	16	130	82	70	DEX12∞						●
NT-DEX-5D D13-S16F	13	16	136	88	75	DEX13∞						●
NT-DEX-5D D14-S16F	14	16	142	94	80	DEX14∞						●
NT-DEX-5D D15-S20F	15	20	150	100	85	DEX15∞						●
NT-DEX-5D D16-S20F	16	20	156	106	90	DEX16∞						●
NT-DEX-5D D17-S20F	17	20	162	112	95	DEX17∞						●
NT-DEX-5D D18-S25F	18	25	174	118	100	DEX18∞						●
NT-DEX-5D D19-S25F	19	25	180	124	105	DEX19∞						●
NT-DEX-5D D20-S25F	20	25	186	130	110	DEX20∞						●
NT-DEX-5D D21-S25F	21	25	194	138	117	DEX21∞						●
NT-DEX-5D D22-S25F	22	25	201	145	125	DEX22∞						●
NT-DEX-5D D23-S32F	23	32	211	151	128	DEX23∞						●
NT-DEX-5D D24-S32F	24	32	218	158	134	DEX24∞						●
NT-DEX-5D D25/26-S32F	25	32	225	165	139	DEX25∞						●

★ 1st choice, ☆ suitable, ● stock standard, ◎ non-stock standard (no MOQ), ○ non-stock standard (MOQ), ▲ upcoming product, ▽ stock exhaustion

Spare parts	Wrench
NT-DEX-5D (DC10-11)	NT-WR1011
NT-DEX-5D (DC12-17)	NT-WR1217
NT-DEX-5D (DC18-20)	NT-WR1820
NT-DEX-5D (DC21-25)	NT-WR2126

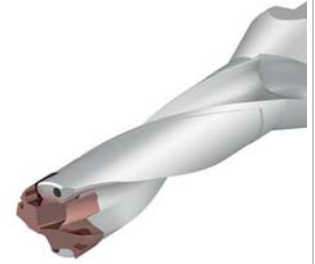
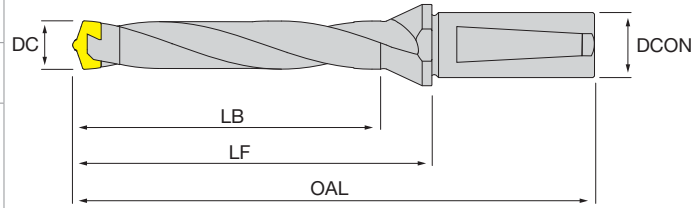


INDEXABLE

NT-DEX-8D

DEX drill

- Different drill heads can fit into the same body, please check MIID column
- Special diameters or stepped type available upon requests
- Under **stable conditions**, hole tolerance **0/+0.10 mm**



A - TURNING

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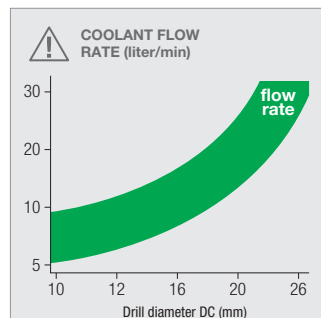
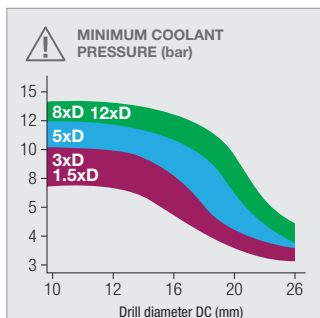
G - SPARE PARTS



Designation	DC	DCON	OAL	LF	LB	MIID						Stock
NT-DEX-8D D10-S16F	10	16	158	110	99	DEX10∞						●
NT-DEX-8D D11-S16F	11	16	168	120	108	DEX11∞						●
NT-DEX-8D D12-S16F	12	16	176	128	118	DEX12∞						●
NT-DEX-8D D13-S16F	13	16	185	137	126	DEX13∞						●
NT-DEX-8D D14-S16F	14	16	192	144	134	DEX14∞						●
NT-DEX-8D D15-S20F	15	20	208	158	144	DEX15∞						●
NT-DEX-8D D16-S20F	16	20	214	164	152	DEX16∞						●
NT-DEX-8D D17-S20F	17	20	227	177	162	DEX17∞						●
NT-DEX-8D D18-S25F	18	25	245	189	171	DEX18∞						●
NT-DEX-8D D19-S25F	19	25	252	196	179	DEX19∞						●
NT-DEX-8D D20-S25F	20	25	264	208	189	DEX20∞						●
NT-DEX-8D D21-S25F	21	25	273	217	198	DEX21∞						●
NT-DEX-8D D22-S25F	22	25	279	223	207	DEX22∞						●
NT-DEX-8D D23-S32F	23	32	299	239	215	DEX23∞						●
NT-DEX-8D D24-S32F	24	32	308	248	225	DEX24∞						●
NT-DEX-8D D25/26-S32F	25	32	319	259	235	DEX25∞						●

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Spare parts	Wrench
NT-DEX-8D (DC10-11)	NT-WR1011
NT-DEX-8D (DC12-17)	NT-WR1217
NT-DEX-8D (DC18-20)	NT-WR1820
NT-DEX-8D (DC21-25)	NT-WR2126



ISO 513	MATERIAL	HARDNESS HB	L/D	JP5630			JP5725		
				min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	3xD - 5xD	80	120	160	80	120	160
			8xD	65	100	135	65	100	135
			12xD	55	85	115	55	85	115
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	3xD - 5xD	-	-	-	60	90	120
			8xD	-	-	-	50	75	100
			12xD	-	-	-	40	60	80
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	3xD - 5xD	-	-	-	40	60	80
			8xD	-	-	-	35	50	65
			12xD	-	-	-	30	40	50
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5630					
				min	start	max			
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	3xD - 5xD	60	80	100			
			8xD	50	65	80			
			12xD	40	55	70			
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	3xD - 5xD	30	40	50			
			8xD	25	35	45			
			12xD	25	30	35			
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	3xD - 5xD	40	60	80			
			8xD	35	50	65			
			12xD	30	40	50			
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		3xD - 5xD	30	50	70			
			8xD	25	40	55			
			12xD	20	35	50			
ISO 513	MATERIAL	HARDNESS HB	L/D	JP5725			JP7625		
				min	start	max	min	start	max
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	3xD - 5xD	80	110	140	100	130	160
			8xD	70	90	110	80	100	120
			12xD	60	80	100	70	90	110
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	3xD - 5xD	80	100	120	100	120	140
			8xD	70	90	110	80	100	120
			12xD	60	80	100	70	90	110

Complete workpiece materials p. H1.

INDEXABLE

A - TURNING

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F - ACCESSORIES

G - SPARE PARTS

ISO 513	MATERIAL	HARDNESS HB	L/D	DC 10.00 ÷ 10.99			DC 11.00 ÷ 11.99			DC 12.00 ÷ 12.99		
				min	start	max	min	start	max	min	start	max
P1 - P2	Free cutting steel and low carbon (ex. 1.0715/9 smn 28/avp, 1.0503/c45)	≤ 200	3xD - 5xD	0.10	0.16	0.22	0.10	0.17	0.24	0.12	0.19	0.26
			8xD	0.08	0.13	0.18	0.08	0.14	0.20	0.10	0.15	0.20
			12xD	-	-	-	-	-	0.08	0.13	0.18	
P3 - P4	Medium and high alloy steel (ex. 1.7225/42 CrMo 4, 1.3505/100 Cr 6)	200 ÷ 300	3xD - 5xD	0.12	0.19	0.26	0.12	0.20	0.28	0.14	0.22	0.30
			8xD	0.10	0.15	0.20	0.10	0.16	0.22	0.11	0.17	0.23
			12xD	-	-	-	-	-	0.10	0.15	0.20	
P5 - P6	High tensile strength and tool steel (ex. 1.2344/X 40 CrMoV 5 1/ORVAR, Hardox400®)	300 ÷ 400	3xD - 5xD	0.12	0.18	0.24	0.12	0.19	0.26	0.14	0.21	0.28
			8xD	0.10	0.14	0.18	0.10	0.15	0.20	0.11	0.16	0.21
			12xD	-	-	-	-	-	0.10	0.14	0.18	
P7	Ferritic and martensitic stainless steel (ex. 1.4021/X 20 Cr 13/AISI420)	≤ 200	3xD - 5xD	0.11	0.15	0.19	0.11	0.16	0.21	0.13	0.18	0.23
			8xD	0.09	0.14	0.15	0.09	0.13	0.17	0.11	0.15	0.19
			12xD	-	-	-	-	-	0.09	0.12	0.15	
P8	Precipitation hardening stainless steel (ex. 1.4548/X 5 CrNiCuNb 17 4/17-4-PH)	≤ 450	3xD - 5xD	0.09	0.14	0.19	0.09	0.15	0.21	0.11	0.16	0.21
			8xD	0.07	0.11	0.15	0.07	0.12	0.17	0.09	0.13	0.17
			12xD	-	-	-	-	-	0.08	0.11	0.14	
M1	Austenitic stainless steel (ex. 1.4305/X 10 CrNiS 18 9/AISI303)	> 200	3xD - 5xD	0.10	0.14	0.18	0.10	0.15	0.20	0.12	0.16	0.20
			8xD	0.08	0.11	0.14	0.08	0.12	0.16	0.10	0.13	0.16
			12xD	-	-	-	-	-	0.08	0.11	0.14	
M2 - M3	Austenitic and Duplex stainless steel (ex. 1.4401/X 5 CrNiMo 17 12 2/AISI316)		3xD - 5xD	0.10	0.13	0.16	0.10	0.14	0.18	0.12	0.15	0.18
			8xD	0.08	0.10	0.12	0.08	0.11	0.14	0.10	0.12	0.14
			12xD	-	-	-	-	-	0.08	0.10	0.12	
K1	Grey cast iron (ex. 0.6025/GG 25/EN-GJL-250)	150 ÷ 250	3xD - 5xD	0.14	0.22	0.30	0.14	0.24	0.34	0.16	0.26	0.36
			8xD	0.11	0.18	0.25	0.11	0.19	0.27	0.12	0.20	0.28
			12xD	-	-	-	-	-	0.11	0.18	0.25	
K2	Nodular cast iron (ex. 0.7050/GGG 50/EN-GJS-500-7)	150 ÷ 350	3xD - 5xD	0.12	0.18	0.24	0.12	0.20	0.28	0.13	0.21	0.29
			8xD	0.10	0.15	0.20	0.10	0.16	0.22	0.11	0.17	0.23
			12xD	-	-	-	-	-	0.09	0.14	0.19	

Complete workpiece materials p. M1.

(fn: mm/rev)

DC 13.00 ÷ 13.99			DC 14.00 ÷ 14.99			DC 15.00 ÷ 16.99			DC 17.00 ÷ 19.99			DC 20.00 ÷ 22.99			DC 23.00 ÷ 26.00		
min	start	max	min	start	max	min	start	max	min	start	max	min	start	max	min	start	max
0.12	0.20	0.28	0.16	0.23	0.30	0.16	0.25	0.34	0.16	0.29	0.42	0.20	0.32	0.44	0.20	0.34	0.48
0.10	0.16	0.22	0.12	0.18	0.24	0.12	0.20	0.28	0.12	0.23	0.34	0.16	0.26	0.36	0.16	0.27	0.38
0.08	0.14	0.20	0.11	0.16	0.21	0.11	0.17	0.23	0.11	0.20	0.29	0.14	0.22	0.30	0.14	0.24	0.34
0.14	0.23	0.32	0.18	0.26	0.34	0.18	0.29	0.40	0.18	0.33	0.48	0.24	0.37	0.50	0.24	0.40	0.56
0.11	0.18	0.25	0.14	0.20	0.26	0.14	0.23	0.32	0.14	0.26	0.38	0.20	0.30	0.40	0.20	0.32	0.44
0.10	0.16	0.22	0.13	0.18	0.23	0.13	0.20	0.27	0.13	0.23	0.33	0.17	0.26	0.35	0.17	0.28	0.39
0.14	0.22	0.30	0.18	0.25	0.32	0.18	0.28	0.38	0.18	0.32	0.46	0.24	0.36	0.48	0.24	0.38	0.52
0.11	0.17	0.23	0.14	0.20	0.26	0.14	0.22	0.30	0.14	0.25	0.36	0.20	0.29	0.38	0.20	0.31	0.42
0.10	0.15	0.20	0.13	0.17	0.21	0.13	0.20	0.27	0.13	0.23	0.33	0.17	0.25	0.33	0.17	0.27	0.37
0.13	0.19	0.25	0.17	0.22	0.27	0.17	0.24	0.31	0.17	0.27	0.37	0.22	0.31	0.40	0.22	0.32	0.42
0.11	0.16	0.21	0.14	0.18	0.22	0.14	0.19	0.24	0.14	0.22	0.30	0.18	0.25	0.32	0.18	0.26	0.34
0.09	0.13	0.17	0.12	0.15	0.18	0.12	0.17	0.22	0.12	0.19	0.26	0.15	0.21	0.27	0.15	0.22	0.29
0.11	0.17	0.23	0.15	0.20	0.25	0.15	0.22	0.29	0.15	0.25	0.35	0.19	0.28	0.37	0.19	0.29	0.39
0.09	0.14	0.19	0.11	0.16	0.21	0.12	0.17	0.22	0.12	0.20	0.28	0.15	0.22	0.29	0.15	0.23	0.31
0.08	0.12	0.16	0.09	0.13	0.17	0.10	0.15	0.20	0.10	0.17	0.24	0.13	0.19	0.25	0.13	0.20	0.27
0.12	0.17	0.22	0.16	0.20	0.24	0.16	0.22	0.28	0.16	0.25	0.34	0.20	0.28	0.36	0.20	0.29	0.38
0.10	0.14	0.18	0.12	0.16	0.20	0.12	0.17	0.22	0.12	0.19	0.26	0.16	0.22	0.28	0.16	0.23	0.30
0.08	0.12	0.16	0.11	0.14	0.17	0.11	0.15	0.19	0.11	0.17	0.23	0.14	0.20	0.26	0.14	0.21	0.28
0.12	0.16	0.20	0.16	0.19	0.22	0.16	0.20	0.24	0.16	0.23	0.30	0.20	0.26	0.32	0.20	0.27	0.34
0.10	0.13	0.16	0.12	0.15	0.18	0.12	0.16	0.20	0.12	0.18	0.24	0.16	0.21	0.26	0.16	0.22	0.28
0.08	0.11	0.14	0.11	0.13	0.15	0.11	0.14	0.17	0.11	0.16	0.21	0.14	0.18	0.22	0.14	0.19	0.24
0.16	0.28	0.40	0.22	0.32	0.42	0.22	0.35	0.48	0.22	0.40	0.58	0.28	0.45	0.62	0.28	0.48	0.68
0.12	0.22	0.32	0.18	0.26	0.34	0.18	0.28	0.38	0.18	0.32	0.46	0.22	0.36	0.50	0.22	0.38	0.54
0.11	0.19	0.27	0.15	0.22	0.29	0.15	0.25	0.35	0.15	0.27	0.39	0.20	0.32	0.44	0.20	0.34	0.48
0.13	0.22	0.31	0.18	0.26	0.34	0.18	0.28	0.38	0.18	0.32	0.46	0.22	0.36	0.50	0.22	0.38	0.54
0.11	0.18	0.25	0.14	0.20	0.26	0.14	0.22	0.30	0.14	0.25	0.36	0.18	0.27	0.40	0.18	0.30	0.42
0.09	0.15	0.21	0.13	0.18	0.23	0.13	0.20	0.27	0.13	0.23	0.33	0.15	0.25	0.35	0.15	0.26	0.37

Complete workpiece materials p. M1.

(fn: mm/rev)

INDEXABLE

A - TURNING

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