

GEWINDEDREHEN THREAD TURNING FILETTATURA



Gewindedrehen

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- Halter und Ersatzteile
- Wendeschneidplatten
- Unterlegplatten für Halter
- Übersicht Ersatzteile

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- Insert Preselection
- Holders and Spare Parts
- Indexable Inserts
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Filettatura

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Gewindedrehen – Übersicht

Thread Turning – Overview

Tornitura di filettatura – Prospetto

We have a passion for precision.

Wendeschneidplatte

Indexable insert

Inserto a fissaggio meccanico

Außengewinde
External Thread
Filettatura esterna
Seite / Page / Pagina

Innengewinde
Internal Thread
Filettatura interna
Seite / Page / Pagina

Halter

Holder

Utensile

Außengewinde
External Thread
Filettatura esterna
Seite / Page / Pagina

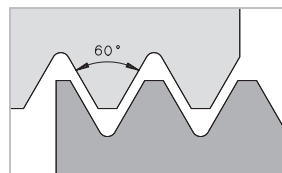
Innengewinde
Internal Thread
Filettatura interna
Seite / Page / Pagina

Teilprofil

Partial profile

Profilo parziale

60°



348 – 349

350 – 352

332 – 337

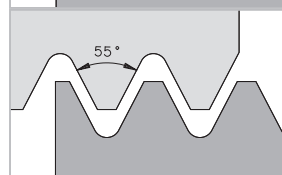
338 – 346

Teilprofil

Partial profile

Profilo parziale

55°



353 – 354

355 – 357

332 – 337

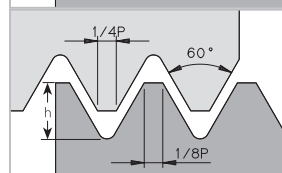
338 – 346

Metrisch

Metric

Metrico

ISO



358 – 361

362 – 366

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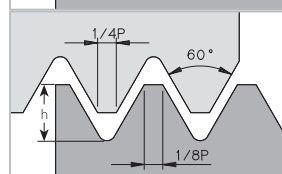
338 – 346

Amerikanisches ISO-Zollgewinde

American thread

Filettatura norme americane

UN



367 – 369

370 – 372

332 – 337

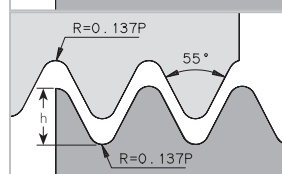
338 – 346

Whitworth Rohrgewinde

Whitworth pipe thread

Filettatura Whitworth

BSW, BSP



373 – 375

376 – 379

332 – 337

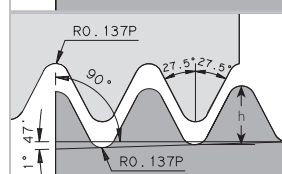
338 – 346

Konisches Rohrgewinde

Tapered pipe thread

Filettatura tubi conica

BSPT



380

381 – 382

332 – 337

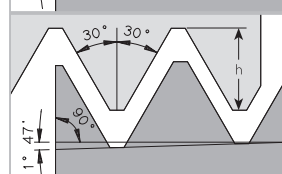
338 – 346

Kegeliges Rohrgewinde

Tapered pipe thread

Filettatura tubi conica

NPT



383 – 384

385 – 386

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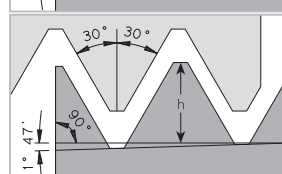
338 – 346

Kegeliges Feinrohrgevinde

Tapered fine pitch pipe thread

Filettatura tubi conica passo fine

NPTF



387

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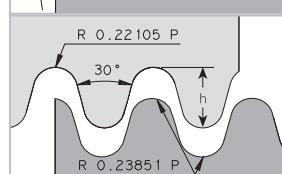
338 – 346

Rundgewinde

Round thread

Filettatura tonda

DIN 405



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332 – 337

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Halter

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Innengewinde
Internal Thread
Filettatura interna
Seite / Page / Pagina

Außengewinde
External Thread
Filettatura esterna
Seite / Page / Pagina

Innengewinde
Internal Thread
Filettatura interna
Seite / Page / Pagina

Rundgewinde

Round thread

Filettatura tonda

DIN 20400

Trapezgewinde

Trapezoidal thread

Filettatura trapezoidale

DIN 103

Amerikanisches Trapezgewinde

American trapezoidal thread

Filettatura trapezoidale americana

ACME

Amerikanisches abgeflachtes Trapezgewinde

American flat trapezoidal thread

Filettatura a norma americana trapezoidale piano

Stub ACME

Luftfahrtgewinde

Aerospace thread

Filettatura aeronautica

UNJ

Spitzgewinde DIN 5855

V-thread DIN 5855

Filettatura DIN 5855

MJ

Metrisches Säbengewinde

DIN 513

Metric buttress thread DIN 513

Filetto a dente di sega

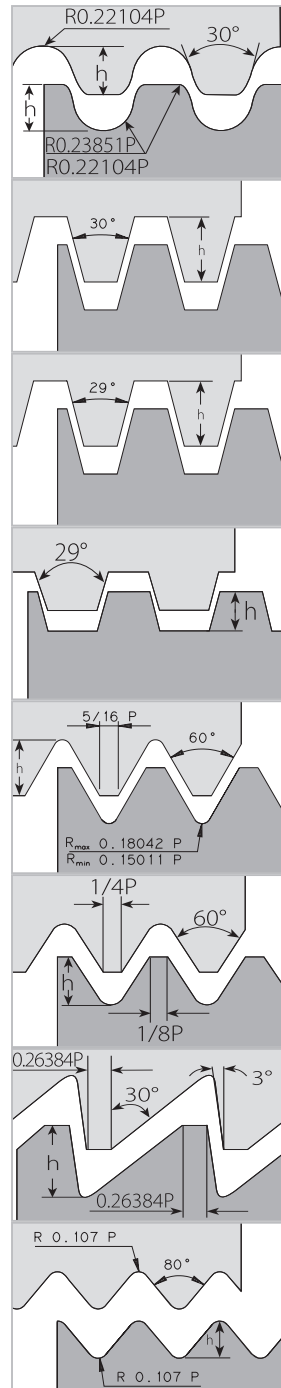
SAGE

Stahlpanzerrohrgewinde

PG-thread

Filettatura PG

DIN 40430



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Sonderwerkzeuge

Auf Anfrage sind Wendeschneidplatten und Halter in verschiedenen Sonderformen lieferbar.

MICRO-Gewindedrehwerkzeuge für die Innenbearbeitung ab Durchmesser 2,2 mm schlagen Sie bitte im Katalog „Werkzeuge und Wendeschneidplatten zum Ein- und Abstecken“ nach.

HINWEISE: Wendeschneidplatten mit Mehrzahnprofil und Klemmhalter sowie Schneidköpfe für Standard-Wendeschneidplatten auf Anfrage.

Special tools

Special holders and inserts are available on request (e.g. multi-tooth-profile inserts, custom tooling systems for standard inserts).

MICRO-threading tools for internal machining from diameter 2.2 mm are available in our catalog “Tools and Inserts for Parting and Grooving”.

INFORMATION: Inserts with multi-tooth-profiles and toolholders as well as tooling systems for standard threading inserts are on request.

Soluzioni speciali

Inserti ed utensili speciali possono essere forniti su richiesta.

Per dettagli su utensili ed inserti MICRO per filettatura Interna da Diametro 2,2 mm fare riferimento al catalogo “SIM – Utensili di tornitura Interna Modulare”.

NOTA: Inserti a pettine e relativi utensili così come sistemi standard di filettatura possono essere forniti su richiesta.

Kennbuchstaben	Kurzbezeichnungen Beispiel	Benennung	Norm	Zur Verfügung stehende Gewindeprofile
M	M 30	ISO-Metrisch-allg. Regelgewinde	DIN 13 T1	<ul style="list-style-type: none"> Teilprofil 60° ISO-Metrisch (Vollprofil)
	M 20 x 1	allgemein mit großer Steigung	DIN 13 T2-11	
	DIN 6630 - M 64 x 4	Faßverschraubung, außen	DIN 6630	
	DIN 158 - M 30 x 2 keg	metrisch kegeliges Außengewinde	DIN 158	<ul style="list-style-type: none"> Auf Anfrage
G	G 1½	Zylindrisches Rohrgewinde, nicht im Gewinde dichtend, Innengewinde	DIN ISO 228 T1	<ul style="list-style-type: none"> Teilprofil 55° Whitworth Rohrgewinde BSW, BSP (Vollprofil)
	G 1½ A	Außengewinde	DIN ISO 228 T1	
Rp	DIN 2999 - Rp ½	Zylindrisches Rohrgewinde, im Gewinde dichtend, Innengewinde	DIN 2999 T1	<ul style="list-style-type: none"> Teilprofil 55° Whitworth Rohrgewinde BSW, BSP (Vollprofil)
	DIN 3858 - Rp ⅛		DIN 3858	
R	DIN 2999 - R ½	kegeliges Rohrgewinde, im Gewinde dichtend, Außengewinde	DIN 2999 T1	<ul style="list-style-type: none"> Kegeliges Rohrgewinde BSPT (Vollprofil)
	DIN 3858 - R ⅛ - 1		DIN 3858	
Tr	Tr 40 x 7	Metrisches ISO-Trapezgewinde, allgemein	DIN 103 T1-8	<ul style="list-style-type: none"> Trapezgewinde DIN 103 (Vollprofil)
S	S 48 x 8	Sägewinde, allgemein	DIN 513 T2	<ul style="list-style-type: none"> Auf Anfrage
Rd	Rd 40 x ⅛	Rundgewinde, allgemein	DIN 405	<ul style="list-style-type: none"> Rundgewinde DIN 405 (Vollprofil)
	Rd 40 x 5	Zylindrisches Rundgewinde im Bergbau	DIN 20400	<ul style="list-style-type: none"> Auf Anfrage
E	DIN 40400 - E 27	Elektrosgewinde	DIN 40400	<ul style="list-style-type: none"> Auf Anfrage
W	DIN 477 - W 21,8 x ⅛	Zylindrisches Whitworth-Gewinde	DIN 477 T1	<ul style="list-style-type: none"> Teilprofil 55° Whitworth Rohrgewinde BSW, BSP (Vollprofil)
	DIN 477 - W 28,8 x ⅛ keg	Kegeliges Whitworth-Gewinde		<ul style="list-style-type: none"> Kegeliges Whitworth-Gewinde (Vollprofil)
Pg	DIN 40430 - Pg 21	Stahlpanzerrohrgewinde	DIN 40430	<ul style="list-style-type: none"> Stahlpanzerrohrgewinde DIN 40430 (Vollprofil)
UN	¼ - 20 UNC - 2A	Amerikanisches ISO-Zollgewinde Einheitsgewinde, grob		<ul style="list-style-type: none"> Amerikanisches ISO-Zollgewinde UN (Vollprofil)
	¼ - 28 UNF - 3A	Einheitsgewinde, fein		
UNJ	¼ - 28 UNJ - 3A	Luftfahrtgewinde		<ul style="list-style-type: none"> Luftfahrtgewinde UNJ (Vollprofil)
MJ	MJ 6 x 1 - 4h6h MJ 6 x 1 - 4H6H	Luft- und Raumfahrt	DIN ISO 5855-1 und DIN ISO 5855-2	<ul style="list-style-type: none"> Luftfahrtgewinde MJ (Vollprofil)
NPT	¾ - 18 NPT	Kegeliges Rohrgewinde		<ul style="list-style-type: none"> Kegeliges Rohrgewinde NPT (Vollprofil)
NPTF	⅛ - 27 NPTF - 1	Kegeliges Feinrohrsgewinde		<ul style="list-style-type: none"> Kegeliges Feinrohrsgewinde NPTF (Vollprofil)
ACME	1¾ - ACME - 2G	Amerikanisches Trapezgewinde		<ul style="list-style-type: none"> Amerikanisches Trapezgewinde ACME (Vollprofil)
Stub-ACME	½ - 20 Stub-ACME	Amerikanisches abgeflachtes Trapezgewinde		<ul style="list-style-type: none"> Amerikanisches abgeflachtes Trapezgewinde (Vollprofil)

HINWEIS: In der Tabelle sind die gängigsten Gewindearten aufgeführt. Weitere Gewindearten auf Anfrage.

Identification	Short description example	Description	DIN-Standard	Available threading insert
M	M 30	ISO-metric thread	DIN 13 T1	<ul style="list-style-type: none"> Partial profile 60° ISO-metric (full profile)
	M 20 x 1	Coarse pitch	DIN 13 T2-11	
	DIN 6630 - M 64 x 4	Barrel fittings, external	DIN 6630	
	DIN 158 - M 30 x 2 keg	Metric tapered external thread	DIN 158	<ul style="list-style-type: none"> On request
G	G 1½	Cylindrical pipe thread, no sealing thread, internal thread	DIN ISO 228 T1	<ul style="list-style-type: none"> Partial profile 55° Whitworth pipe thread BSW, BSP (full profile)
	G 1½ A	External Thread	DIN ISO 228 T1	
Rp	DIN 2999 - Rp ½	Cylindrical pipe thread, sealing thread, internal thread	DIN 2999 T1	<ul style="list-style-type: none"> Partial profile 55° Whitworth pipe thread BSW, BSP (full profile)
	DIN 3858 - Rp ⅛		DIN 3858	
R	DIN 2999 - R ½	Tapered pipe thread, sealing thread, external thread	DIN 2999 T1	<ul style="list-style-type: none"> Tapered pipe thread BSPT (full profile)
	DIN 3858 - R ⅛ - 1		DIN 3858	
Tr	Tr 40 x 7	ISO-trapezoidal thread, general	DIN 103 T1-8	<ul style="list-style-type: none"> Trapezoidal thread DIN 103 (full profile)
S	S 48 x 8	Buttress thread, general	DIN 513 T2	<ul style="list-style-type: none"> On request
Rd	Rd 40 x ⅛	Round thread, general	DIN 405	<ul style="list-style-type: none"> Round thread DIN 405 (full profile)
	Rd 40 x 5	Cylindrical round thread for mining	DIN 20400	<ul style="list-style-type: none"> On request
E	DIN 40400 - E 27	Electric thread	DIN 40400	<ul style="list-style-type: none"> On request
W	DIN 477 - W 21,8 x ⅛	Cylindrical Whitworth thread	DIN 477 T1	<ul style="list-style-type: none"> Partial profile 55° Whitworth pipe thread BSW, BSP (full profile)
	DIN 477 - W 28,8 x ⅛ keg	Tapered Whitworth thread		<ul style="list-style-type: none"> Tapered Whitworth thread (full profile)
Pg	DIN 40430 - Pg 21	PG thread	DIN 40430	<ul style="list-style-type: none"> PG-thread DIN 40430 (full profile)
UN	¼ - 20 UNC - 2A	American UN thread, coarse pitch		<ul style="list-style-type: none"> American UN thread (full profile)
	¼ - 28 UNF - 3A	American UN thread fine pitch		
UNJ	¼ - 28 UNJ - 3A	Aerospace thread		<ul style="list-style-type: none"> Aerospace thread UNJ (full profile)
MJ	MJ 6 x 1 - 4h6h MJ 6 x 1 - 4H6H	V-thread	DIN ISO 5855-1 und DIN ISO 5855-2	<ul style="list-style-type: none"> V-thread MJ (full profile)
NPT	¾ - 18 NPT	Tapered pipe thread		<ul style="list-style-type: none"> Tapered pipe thread NPT (full profile)
NPTF	⅛ - 27 NPTF - 1	Tapered fine pitch pipe thread		<ul style="list-style-type: none"> Tapered fine pitch pipe thread NPTF (full profile)
ACME	1¾ - ACME - 2G	American trapezoidal thread		<ul style="list-style-type: none"> American trapezoidal thread ACME (full profile)
Stub-ACME	½ - 20 Stub-ACME	American flat trapezoidal thread		<ul style="list-style-type: none"> American flat trapezoidal thread (full profile)

REMARK: The above table shows the most common threads. Other threads are available on request.

codice identi- ficativo	Denominazione esempio	Descrizione	Norma	Tipologie di inserti disponibili
M	M 30	ISO-Metrica- filettatura normale	DIN 13 T1	<ul style="list-style-type: none"> • Profilo parziale 60° • ISO-Metrica (Profilo completo)
	M 20 x 1	Filettatura a passo Grosso	DIN 13 T2-11	
	DIN 6630 - M 64 x 4	Filettatura fusti, esterna	DIN 6630	
	DIN 158 - M 30 x 2 keg	Filettatura metrica Esterna conica	DIN 158	<ul style="list-style-type: none"> • A richiesta
G	G 1½	Filettatura cilindrica per raccordi, filettatura a tenuta, filettatura interna	DIN ISO 228 T1	<ul style="list-style-type: none"> • Profilo parziale 55° • Filetto tubi Whitworth BSW, BSP (Profilo completo)
	G 1½ A	Esterna conica	DIN ISO 228 T1	
Rp	DIN 2999 - Rp ½	Filettatura cilindrica per raccordi, filetto a tenuta, filettatura interna	DIN 2999 T1	<ul style="list-style-type: none"> • Profilo parziale 55° • Filetto tubi Whitworth BSW, BSP (Profilo completo)
	DIN 3858 - Rp ½		DIN 3858	
R	DIN 2999 - R ½	Filettatura conica per raccordi, ifiletto a tenuta, Esterna conica	DIN 2999 T1	<ul style="list-style-type: none"> • Filetto conico tubi BSPT (Profilo completo)
	DIN 3858 - R ½ - 1		DIN 3858	
Tr	Tr 40 x 7	Filettatura Metrica Trapezoidale, normale	DIN 103 T1-8	<ul style="list-style-type: none"> • Filetto trapezoidale DIN 103 (Profilo completo)
S	S 48 x 8	Filetto a dente di sega, normale	DIN 513 T2	<ul style="list-style-type: none"> • A richiesta
Rd	Rd 40 x ⅛	Filettatura tonda, normale	DIN 405	<ul style="list-style-type: none"> • Filettatura tonda DIN 405 (Profilo completo)
	Rd 40 x 5	Filettatura tonda settore minerario	DIN 20400	<ul style="list-style-type: none"> • A richiesta
E	DIN 40400 - E 27	Filettatura per settore elettrico	DIN 40400	<ul style="list-style-type: none"> • A richiesta
W	DIN 477 - W 21,8 x ⅛	Filettatura cilindrica Whitworth	DIN 477 T1	<ul style="list-style-type: none"> • Profilo parziale 55° • Filetto tubi Whitworth BSW, BSP (Profilo completo)
	DIN 477 - W 28,8 x ⅛ keg	Filettatura conica Whitworth		<ul style="list-style-type: none"> • A richiesta
Pg	DIN 40430 - Pg 21	Filettatura PG	DIN 40430	<ul style="list-style-type: none"> • Filettatura pg DIN 40430 (Profilo completo)
UN	¼ - 20 UNC - 2A	Filettatura a norma americana UN, filettatura normale, passo grosso		<ul style="list-style-type: none"> • Filettatura a norma standard americana UN (Profilo completo)
	¼ - 28 UNF - 3A	Filettatura normale, passo fine		
UNJ	¼ - 28 UNJ - 3A	Filettatura aeronautica		<ul style="list-style-type: none"> • Filettatura aeronautica UNJ (Profilo completo)
MJ	MJ 6 x 1 - 4h6h MJ 6 x 1 - 4H6H	Aerospaziali	DIN ISO 5855-1 e DIN ISO 5855-2	<ul style="list-style-type: none"> • Filettatura applicazioni aerospaziali MJ (Profilo completo)
NPT	¾ - 18 NPT	Filetto conico tubi		<ul style="list-style-type: none"> • Filetto conico tubi NPT (Profilo completo)
NPTF	⅛ - 27 NPTF - 1	Filettatura tubi conica a passo fine		<ul style="list-style-type: none"> • Filettatura tubi conica a passo fine NPTF (Profilo completo)
ACME	1¾ - ACME - 2G	Filettatura a norma americana ACME trapezoidale		<ul style="list-style-type: none"> • Filetto trapezoidale ACME (Profilo completo)
Stub- ACME	½ - 20 Stub-ACME	Filettatura a norma americana ACME Trapezoidale piana		<ul style="list-style-type: none"> • A richiesta

NOTA: La tabella riporta i più comuni filetti utilizzati. Altre tipologie disponibili a richiesta.

Wendeschneidplatten – Ausführung

Indexable Insert Types

Inserti per filettatura – Tipi di esecuzione

We have a passion for precision.

Standardausführung

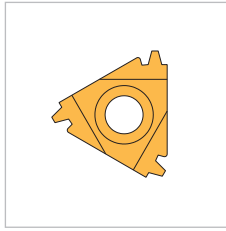
Wendeschneidplatte für alle Gewindeprofile. Gewindedrehen bis fast an die Schulter, da die Spitze des Profils der Wendeschneidplatte so nah wie möglich an der theoretischen Spitze des Rohlingdreiecks liegt.

Standard geometry

Threading inserts for all thread types. Threading almost against the work piece shoulder due to the thread profile being as close as possible to the theoretical corner of the insert blank.

Esecuzione Standard

Geometria idonea a tutte le tipologie di filettatura. Il profilo è realizzato in una posizione dell'inserto che permetta la lavorazione anche in prossimità di spallamenti.



MINI 3 - Ausführung

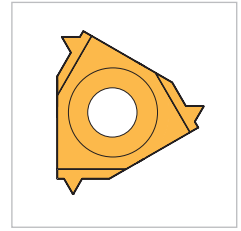
Für die Innenbearbeitung von kleinen Durchmessern ab 9,3 mm.
3 Schneidkanten

MINI 3 - geometry

*For internal threading in small diameters starting at 9.3 mm.
3 cutting edges*

Esecuzione MINI 3

Per la filettatura interna da diametro 9,3 mm.
3 taglienti utili



U-Ausführung

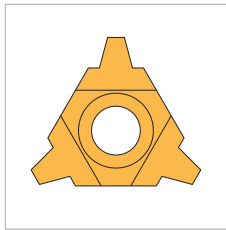
Stabile Wendeschneidplatte.
Speziell für Gewinde mit großen Steigungen.

U-geometry

Strong threading insert for large pitch threads.

Esecuzione -U

Inserto molto robusto. Ideale per filetti a passoso largo.



MINI 2 - Ausführung

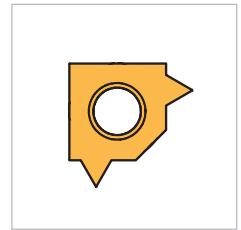
Für die Innenbearbeitung von kleinen Durchmessern ab 7,3 mm.
2 Schneidkanten

MINI 2 - geometry

*For internal threading in small diameters starting at 7.3 mm.
2 cutting edges*

Esecuzione MINI 2

Per la filettatura interna da diametro 7,3 mm.
2 taglienti utili



V-Ausführung

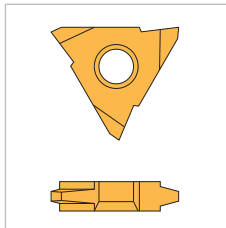
Vertikal stehende Wendeschneidplatte für die Bearbeitung großer Profile, bei Steigungen von 6–10 mm und die Außenbearbeitung hinter dem Bund.

V-geometry

Vertical threading inserts for machining large profiles and pitches from 6–10 mm, also for threading behind the shoulders.

Esecuzione -V

Inserto tangenziale per la filettatura di larghi profili o passi larghi da 6 a 10 mm. Idoneo anche per la lavorazione in prossimità di spallamenti.



SB-Ausführung

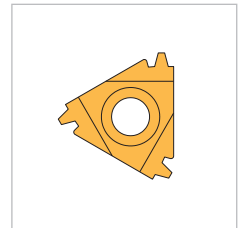
Gesinterte Spanleitsufe für langspanende Werkstoffe. TiAlN-beschichtet (AI100)

SB-execution

Sintered chipbreaker for long chipping materials, TiAlN-coated (AI100).

Esecuzione -SB

Rompitruciolo sinterizzato per materiale a lungo turciolo. Rivestito TiAlN (AI100)



5

Hartmetall beschichtet / Carbide coated / Metallo duro rivestito

AL100

TiAlN-beschichtete Hartmetallsorte zur Bearbeitung von Stahlwerkstoffen, rostfreiem Stahl, Gusswerkstoffen und exotischen Materialien wie Hastelloy, Waspaloy und Inconel. Auch für die Hartzerspanung geeignet.

TiAlN coated carbide grade for machining steel, stainless steel, cast and exotic materials such as Hastelloy, Waspaloy and Inconel. Grade can also be used for hard machining.

Qualità rivestita TiAlN per la lavorazione di acciaio, acciaio inossidabile, acciaio da fusione e materiali esotici quali Hastelloy, Waspaloy ed Inconel. Qualità idonea anche per materiali duri.

AM15C

TiN-beschichtete Feinkorn-Hartmetallsorte mit sehr hoher Zähigkeit. Bearbeitung von Stahl, rostfreiem Stahl, Nickelbasislegierungen, Aluminium und Grauguss. Besonders geeignet für exotische Werkstoffe und säurebeständige Stähle.

TiN coated sub micron grade with high toughness. Machining steel, stainless steel, nickel based alloys, aluminum and cast iron. Specially suitable for exotic materials and acid resistant materials.

Qualità rivestita TiN su base Sub-micrograna con elevata tenacità. Per la lavorazione di acciaio, acciaio inossidabile, leghe a base Nichel, alluminio e ghisa. Specialmente valida per lavorazioni di materiali esotici e leghe anti-corrosive.

AM7C

Mehrlagig TiN-beschichtete Hartmetallsorte mit sehr hoher Verschleißfestigkeit für die Bearbeitung von rostfreien Stählen mit ausgezeichnetem Standzeitverhalten. Auf Grund hoher Kantenstabilität geeignet für unterbrochene Schnitte.

Multilayer TiN coated carbide grade with high wear resistance for machining stainless steel. Excellent tool life can be achieved. Also suitable for interrupted cuts due to the cutting edge stability.

Qualità con rivestimento multistrato TiN con elevata resistenza all'usura per la lavorazione di acciaio inossidabile. Si può ottenere una eccellente vita inserto. Valida anche per taglio interrotto grazie ad un tagliente stabile.

Hartmetall unbeschichtet / Carbide uncoated / Metallo duro non rivestito

AK20

Bearbeitung von NE-Metallen und Grauguss bei kleinen Schnittgeschwindigkeiten. Außerdem geeignet für hochwarmfeste Werkstoffe. Gute Kantenschärfe.

Machining of non-ferrous materials and grey cast iron at normal cutting speeds. Also suitable for heat-resistant materials. Good cutting edge stability.

Qualità per la lavorazione di materiali non ferrosi e ghisa grigia a normali velocità di taglio. Idonea anche per leghe refrattarie. Buona stabilità del tagliente.

AK20P

Sorte AK20 mit polierter Spanleitsufe für Aluminium. Verbesserte Oberfläche und Reduzierung der Aufbauschneidenbildung.

Grade AK20 with polished chip breaker for machining aluminum. Better surface finish and reduction of build up on the edge.

Qualità AK20 con tagliente affilato, rettifica periferica e lappato in superficie per una riduzione del tagliente di riporto. Specifica per materiali non ferrosi.

HSS-Schneidstoffe / HSS coated / HSS- Acciaio super rapido

HSS-TiN

TiN-beschichteter Schnellarbeitsstahl. Bearbeitung bei sehr kleinen Schnittgeschwindigkeiten (z. B. bei konventionellen Drehmaschinen), von Teilen mit kleinen Durchmessern und Profilen mit sehr hoher Genauigkeitsanforderung. Hervorragend geeignet zum Gewindedrehen von Stahl und Buntmetallen auch bei unterbrochenem Schnitt.

TiN coated HSS grade. Machining at very low cutting speeds (e.g. manual turning lathes), parts with small diameters and profiles where high accuracy is required. Specially suitable for machining steel, stainless steel, and non-ferrous materials, even in interrupted cutting.

Qualità HSS rivestita TiN per lavorazioni a basse velocità di taglio, parti di piccole dimensioni e dove sono richieste precisioni di esecuzione dei profili di filettatura. Specialmente idoneo alla lavorazione di acciaio, acciaio inossidabile e materiali non ferrosi anche con taglio interrotto.

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ISO		Hartmetall beschichtet Carbide coated Metallo duro rivestito	Hartmetall unbeschichtet Carbide uncoated Metallo duro non rivestito	Schneidstoff Cutting material Materiale da taglio	Anwendung Application Parametri
P Stahl, Stahlguss, langspanender Temperguss <i>Steel, cast steel, malleable iron</i> Acciaio, acciaio da fusione, ghisa malleabile da truciolo lungo	10				
	20	AL100			
	30	AM15C			
	40				
	50				
				Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento Schnittgeschwindigkeit Cutting speed / Velocità di taglio
M Rostfreier Stahl, Stahlguss, Manganstahl, Automatenstahl <i>Stainless steel, cast steel, manganese steel, free cutting steel</i> Acciaio Inossidabile, Acciaio da Fusione, Acciaio al Manganese, Acciaio Automatico	10	AL100			
	20	AM7C			
	30	AM15C			
	40				
	50				
				Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento Schnittgeschwindigkeit Cutting speed / Velocità di taglio
K Grauguss, Kokillenhartguss, kurzspanender Temperguss <i>Grey cast iron, chilled hard cast iron, short chipping malleable iron</i> Ghisa grigia, ghisa sferoidale, ghisa malleabile a truciolo corto	10	AL100			
	20	AM15C			
	30	AM7C			
	40				
	50				
			AK20	Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento Schnittgeschwindigkeit Cutting speed / Velocità di taglio
N Aluminium und Al-Legierungen, nichtmetallische Werkstoffe <i>Aluminum and Al-alloys, non-ferrous materials</i> Alluminio e sue leghe, materiali non ferrosi o non metallici	10				
	20	AM7C			
	30	AM15C			
	40				
	50				
			AK20	Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento Schnittgeschwindigkeit Cutting speed / Velocità di taglio
S Warmfeste Legierungen, Titanlegierungen <i>High temperature resistant alloys, titanium alloys</i> Leghe refrattarie, leghe esotiche, leghe di titanio	10	AL100			
	20		AK20		
	30				
	40				
	50				
				Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento Schnittgeschwindigkeit Cutting speed / Velocità di taglio
H Gehärteter Stahl, Hartguss <i>Hardened steel, hard cast iron</i> Acciaio temprato, ghisa temprata	10	AL100			
	20	AM15C			
	30				
	40				
	50				
				Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento Schnittgeschwindigkeit Cutting speed / Velocità di taglio

Hauptanwendungsbereich / Main application area / Applicazione principale

AL100 — Sorte / Grade / Qualità
Empfohlener Anwendungsbereich / Recommended application area / Applicazione consigliata

Nebenanwendungsbereich / Secondary application area / Applicazione dsecondaria

AL100 — Sorte / Grade / Qualità
Empfohlener Anwendungsbereich / Recommended application area / Applicazione consigliata

Klemmhalter

Tool holders

Utensili

Außengewinde

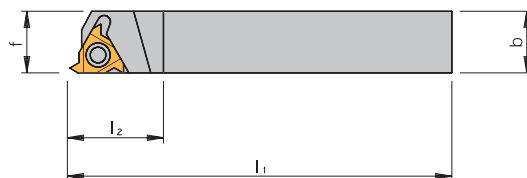
External Thread

Filettatura esterna



We have a passion for precision.

Ausführung / Type / Esecuzione
Standard



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	$h = h_1 = b$	f	l_1	l_2
11	NL8-2 R/L	8	11	136,4	17,5
11	NL10-2 R/L	10	11	70,0	17,5
11	NL12-2 R/L	12	12	80,0	17,5
16	NL12-3 R/L	12	16	83,2	22,0
16	AL3/8-3 R/L	9,52	16	63,6	20,5
16	AL12-3 R/L	12	16	83,2	22,0
16	AL16-3 R/L	16	16	100,0	20,5
16	AL20-3 R/L	20	20	128,6	30,0
16	AL25-3 R/L	25	25	153,6	30,0
16	AL32-3 R/L	32	32	173,6	30,0
22	AL25-4 R/L	25	25	155,7	36,0
22	AL32-4 R/L	32	32	175,7	36,0
22	AL40-4 R/L	40	40	205,7	36,0
27	AL25-5 R/L	25	32	151,6	35,0
27	AL32-5 R/L	32	32	176,6	40,0
27	AL40-5 R/L	40	40	206,6	40,0
27	AL50-5 R/L	50	50	256,6	40,0

HINWEIS:

Die Klemmhalter haben einen Neigungswinkel von 1,5°.

Unterlegplatten für andere Neigungswinkel finden Sie auf Seite 421 – 423.
Diese müssen separat bestellt werden.

REMARK:

All toolholders are supplied with a helix angle of 1.5°.

For different a helix angle please refer to page 421 – 423.
They have to be ordered separately.

NOTA:

Gli utensili sono studiati per un angolo di elica di 1,5°.

Per supporti con altri angoli di elica vedere pagina 421 – 423.
Questi supporti vanno ordinati separatamente.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schraube + Scheibe für Unterlegplatte Screw + washer for support pad Vite + bussola per supporto	Schlüssel Key Chiave	Unterlegplatte Support pad Supporto R	Unterlegplatte Support pad Supporto L
11	SN2T	–	KS 1751	–	–
16	SA3T	SY3T	KS 2510	YE3	YI3
22	SA4T	SY4T	KS 2520	YE4	YI4
27	SA5T	SY5T	KS 2525	YE5	YI5

Klemmhalter

Tool holders

Utensili

Außengewinde

External Thread

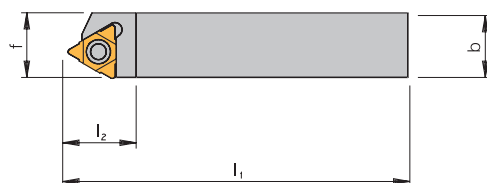
Filettatura esterna



We have a passion for precision.

Ausführung / Type / Esecuzione

U



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	$h = h_1 = b$	f	l_1	l_2
22 U	AL25-4U R/L	25	25	178,4	38
22 U	AL32-4U R/L	32	32	178,4	38
22 U	AL40-4U R/L	40	40	208,4	38
27 U	AL25-5U R/L	25	25	179,1	40
27 U	AL32-5U R/L	32	32	179,1	40
27 U	AL40-5U R/L	40	40	209,1	40
27 U	AL50-5U R/L	50	50	259,1	40

HINWEIS:

Die Klemmhalter haben einen Neigungswinkel von 1,5°.
Unterlegplatten für andere Neigungswinkel finden Sie auf Seite 421 – 423.
Diese müssen separat bestellt werden.

REMARK:

All toolholders are supplied with a helix angle of 1.5°.
For different a helix angle please refer to page 421 – 423.
They have to be ordered separately.

NOTA:

Gli utensili sono studiati per un angolo di elica di 1,5°.
Per supporti con altri angoli di elica vedere pagina 421 – 423.
Questi supporti vanno ordinati separatamente.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schraube + Scheibe für Unterlegplatte Screw + washer for support pad Vite + bussola per supporto	Schlüssel Key Chiave	Unterlegplatte Support pad Supporto R	Unterlegplatte Support pad Supporto L
22U	SA4T	SY4T	KS 2520	YE4U	YI4U
27U	SA5T	SY5T	KS 2525	YE5U	YI5U

Klemmhalter

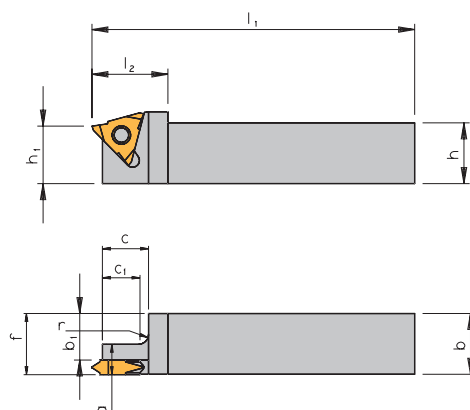
Tool holders

Utensili

Außengewinde

External Thread

Filettatura esterna



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Ausführung / Type / Esecuzione

Slim Throat

Slim Throat

Stelo scaricato

Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	$h = h_1 = b$	f	a	b_1	c	c_1	l_1	l_2	r
	11 V NL8-2V R/L	8	10	7	4,8	12,5	11,5	60,0	14,0	1
	11 V NL10-2V R/L	10	10	7	6,8	12,5	11,5	70,0	14,0	1
	11 V NL12-2V R/L	12	12	7	8,8	14,5	11,5	80,0	14,0	3
	11 V NL16-2V R/L	16	16	7	12,8	14,5	11,5	100,0	14,0	3
	16 V NL10-3V R/L	10	14	7	6,4	14,5	11,5	70,0	18,5	3
	16 V NL12-3V R/L	12	14	7	8,4	14,5	11,5	80,0	18,5	3
	16 V NL16-3V R/L	16	16	7	12,4	14,5	11,5	100,0	25,0	3
	16 V NL20-3V R/L	20	20	7	16,4	16,5	11,5	125,0	30,0	3
	16 V NL25-3V R/L	25	25	7	21,4	16,5	11,5	150,0	30,0	5
	16 V NL32-3V R/L	32	32	7	28,4	16,5	11,5	170,0	30,0	5
	16 V NL40-3V R/L	40	40	7	36,4	16,5	11,5	200,0	30,0	5
	22 V NL25-4V R/L	25	25	12	20,2	16,5	11,5	150,0	30,0	5
	22 V NL32-4V R/L	32	32	12	27,2	16,5	11,5	170,0	30,0	5
	22 V NL40-4V R/L	40	40	12	35,2	16,5	11,5	200,0	30,0	5

HINWEIS:

Die Klemmhalter haben einen Neigungswinkel von 1,5°.

REMARK:

All toolholders are supplied with a helix angle of 1.5°.

NOTA:

Gli utensili sono studiati per un angolo di elica di 1,5°.

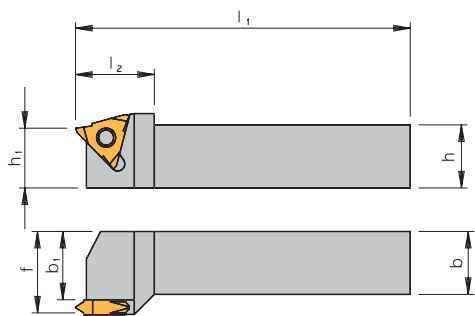
Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
11V	SN2T	KS 1751
16V	SN3T	KS 2510
22V	SN4T	KS 2520

Klemmhalter

Tool holders
Utensili

Außengewinde
External Thread
Filettatura esterna




We have a passion for precision.

Ausführung / Type / Esecuzione
V

Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile


	Bezeichnung Designation Articolo	$h = h_1 = b$	b_1	l_1	l_2	f
27 V	NL32-5V-6 R/L	32	25,5	170	40	32,0
27 V	NL32-5V-8 R/L	32	25,5	170	40	34,1
27 V	NL32-5V-10 R/L	32	25,5	170	40	35,8
27 V	NL40-5V-6 R/L	40	33,5	200	40	40,0
27 V	NL40-5V-8 R/L	40	33,5	200	40	42,1
27 V	NL40-5V-10 R/L	40	33,5	200	40	43,8

HINWEIS:
Die Klemmhalter haben einen Neigungswinkel von 1,5°.

REMARK:
All toolholders are supplied with a helix angle of 1.5°.

NOTA:
Gli utensili sono studiati per un angolo di elica di 1,5°.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
27V	SN6T	KS 2525

5

Klemmhalter

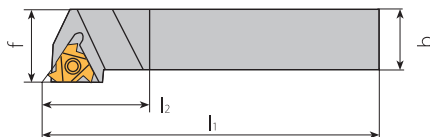
Tool holders

Utensili

Außengewinde

External Thread

Filettatura esterna



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Ausführung / Type / Esecuzione

Versetzter Kopf

Off set head


Stelo inverso

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	$h = h_1 = b$	l_1	l_2	f
16	AL20-3FQ R/L	20	125	25	25
16	AL25-3FQ R/L	25	150	25	32
16	AL32-3FQ R/L	32	170	32	40
22	AL25-4FQ R/L	25	150	30	32
22	AL32-4FQ R/L	32	170	30	40
27	AL32-5FQ R/L	32	170	35	40

Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schraube + Scheibe für Unterlegplatte Screw + washer for support pad Vite + bussola per supporto	Schlüssel Key Chiave	Unterlegplatte Support pad Supporto R	Unterlegplatte Support pad Supporto L
16	SA3T	SY3T	KS 2510	YE3	YI3
22	SA4T	SY4T	KS 2520	YE4	YI4
27	SA5T	SY5T	KS 2525	YE5	YI5

Klemmhalter

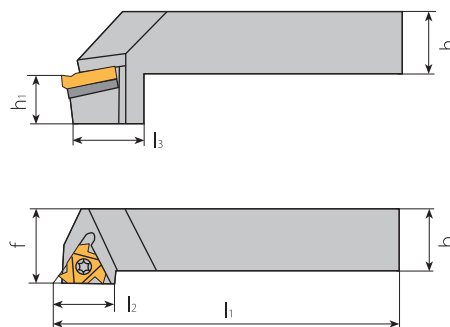
Tool holders

Utensili

Außengewinde

External Thread

Filettatura esterna



We have a passion for precision.

Ausführung / Type / Esecuzione


Abgekröpfter Kopf

Drop head


Stelo piegato

Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

		Bezeichnung Designation Articolo	h = b	h ₁	b ₁	c	c ₁	l ₁
16		AL20-3CQ R/L	20	17,5	25	125	24	38
16		AL25-3CQ R/L	25	22,2	32	150	24	38
16		AL32-3CQ R/L	32	22,2	40	170	24	38
22		AL25-4CQ R/L	25	22,2	32	150	30	38
22		AL32-4CQ R/L	32	22,2	40	170	30	38
27		AL32-5CQ R/L	32	25,4	40	170	33	43

Ersatzteile / Spare parts / Ricambi

		Klemmschraube Clamping screw Vite di bloccaggio	Schraube + Scheibe für Unterlegplatte Screw + washer for support pad Vite + bussola per supporto	Schlüssel Key Chiave	Unterlegplatte Support pad Supporto R	Unterlegplatte Support pad Supporto L
16		SA3T	SY3T	KS 2510	YE3	YI3
22		SA4T	SY4T	KS 2520	YE4	YI4
27		SA5T	SY5T	KS 2525	YE5	YI5

5

Klemmhalter

Tool holders

Utensili

Innengewinde

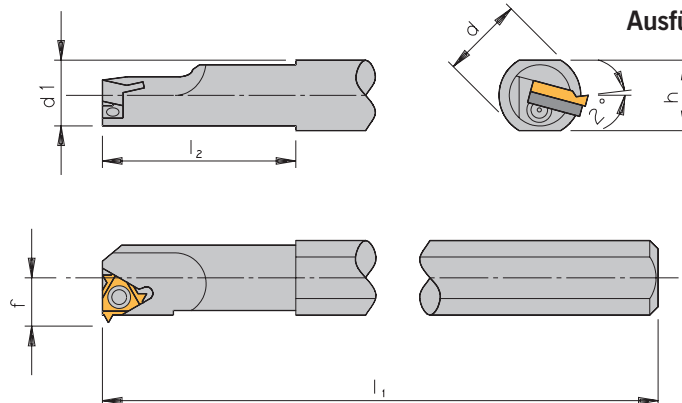
ohne innere Kühlmittelzufuhr

Internal Thread

without through tool coolant

Filettatura interna

senza adduzione interna



We have a passion for precision.

Ausführung / Type / Esecuzione
Standard

Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	h	l ₁	l ₂	d	d ₁	f	min. Kernloch-Ø min. bore-Ø min. ingresso-Ø
11	NVR10D-2 R/L	-	100	-	10	10,0	7,3	13,0
11	NVR10-2 R/L	18,0	180	25	20	10,0	7,3	13,0
11	NVR13-2 R/L	18,0	180	32	20	13,0	8,9	16,0
16	NVR13-3 R/L	18,0	180	32	20	12,7	10,3	17,0
16	NVR16-3 R/L	18,0	180	40	20	16,0	11,5	20,0
16	NVR16D-3 R/L	15,2	150	32	16	16,0	11,3	20,0
16	AVR20-3 R/L	18,0	180	40	20	20,0	13,4	24,0
16	AVR25-3 R/L	29,0	250	60	32	25,0	16,3	29,0
16	AVR25D-3 R/L	22,6	200	45	25	24,6	16,1	29,0
16	AVR32-3 R/L	29,0	250	60	32	32,0	19,6	36,0
16	AVR40-3 R/L	36,0	300	60	40	40,0	23,8	44,0
22	NVR20-4 R/L	18,0	180	50	20	20,0	15,6	27,0
22	AVR25-4 R/L	29,0	250	60	32	25,0	17,4	32,0
22	AVR25D-4 R/L	22,6	200	45	25	24,6	17,2	32,0
22	AVR32-4 R/L	29,0	250	60	32	32,0	21,5	39,0
22	AVR40-4 R/L	36,0	300	60	40	40,0	25,8	47,0
22	AVR50-4 R/L	45,0	350	75	50	50,0	30,8	57,0
27	AVR32-5 R/L	29,0	250	60	32	32,0	22,4	40,0
27	AVR40-5 R/L	36,0	300	60	40	40,0	26,4	48,0
27	AVR50-5 R/L	45,0	350	75	50	50,0	31,4	58,0
27	AVR60-5 R/L	54,0	400	75	60	60,0	36,4	69,0

HINWEIS:

Die Klemmhalter haben einen Neigungswinkel von 1,5°.
Unterlegplatten für andere Neigungswinkel finden Sie auf Seite 421 – 423.
Diese müssen separat bestellt werden.
Klemmhalter mit der Bezeichnung „N.“ werden ohne Unterlegplatte benutzt.

REMARK:

All toolholders are supplied with a helix angle of 1.5°.
For different a helix angle please refer to page 421 – 423.
They have to be ordered separately.
Tool holders designated with "N." are used without support pad.

NOTA:

Gli utensili sono studiati per un angolo di elica di 1,5°.
Per supporti con altri angoli di elica vedere pagina 421 – 423.
Questi supporti vanno ordinati separatamente.
Utensili identificati con "N." vengono forniti senza supporto.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schraube + Scheibe für Unterlegplatte Screw + washer for support pad Vite + bussola per supporto	Schlüssel Key Chiave	Unterlegplatte Support pad Supporto R	Unterlegplatte Support pad Supporto L
11	SN2T	-	KS 1751	-	-
16 ①	SA3T	SY3T	KS 2510	Y13	YE3
22 ②	SA4T	SY4T	KS 2520	Y14	YE4
27	SA5T	SY5T	KS 2525	Y15	YE5

① NVR 16-3 R/L erfordert Klemmschraube SN3T.
② NVR 20-4 R/L erfordert Klemmschraube SN4T.

① NVR 16-3 R/L uses clamping screw SN3T.
② NVR 20-4 R/L uses clamping screw SN4T.

① NVR 16-3 R/L necessita della vite SN3T.
② NVR 20-4 R/L necessita della vite SN4T.

Klemmhalter

Tool holders

Utensili

Innengewinde

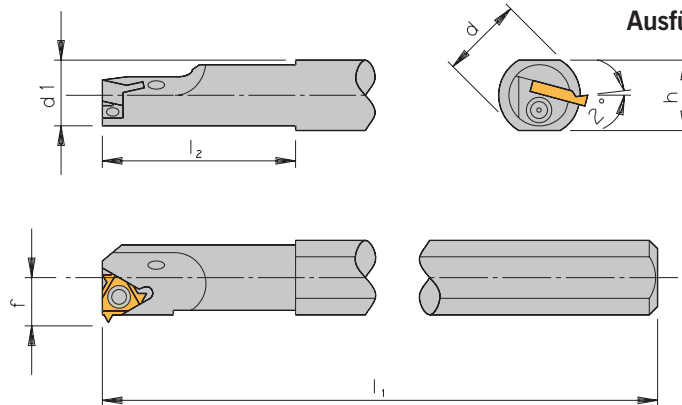
mit innerer Kühlmittelzufuhr

Internal Thread

with through tool coolant

Filettatura interna

con adduzione interna



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Ausführung / Type / Esecuzione

Standard für

Regelgewinde

Standard for

coarse pitch threads

Standard per filettatura

dimensioni standard

Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	h	l ₁	l ₂	d	d ₁	f	Grad Degree Angolo
11	NVRC10-2 156/001 R/L	18	180	25	20	10,1	6,53	3,0°
16	NVRC11-3 156/005 R/L	18	180	25,4	20	11,2	8,30	4,5°
16	NVRC13-3 156/006 R/L	18	180	32	20	13,0	9,05	4,0°
16	NVRC13-3 156/016 R/L	18	180	34	20	13,8	8,90	2,5°
22	NVRC17-4 156/007 R/L	18	180	40	20	16,7	11,45	4,0°
22	NVRC20-4 156/008 R/L	18	180	50	20	19,6	12,55	3,5°
22	NVRC20-4 156/009 R/L	18	180	50	20	19,6	12,55	3,0°
27	NVRC25-5 156/012 R/L	29	250	60	32	25,0	16,78	3,3°
27	NVRC28-5 156/010 R/L	29	250	50	32	28,0	17,80	3,5°

HINWEIS:
Die Klemmhalter haben einen Neigungswinkel von 1,5°.

REMARK:
All toolholders are supplied with a helix angle of 1.5°.

NOTA:
Gli utensili sono studiati per un angolo di elica di 1,5°.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
11	SN2T	KS 1751
16 ①	SN2TM	KS 1751
16	SN3T	KS 2510
22	SN4T	KS 2520
27	SN5T	KS 2525

① Ersatzteile für Halter NVRC 17-4 R/L.
① Spare parts for holder NVRC 17-4 R/L.
① Ricambi per utensile NVRC 17-4 R/L.

Klemmhalter

Tool holders

Utensili

We have a passion for precision.

Innengewinde

mit innerer Kühlmittelzufuhr

Internal Thread

with through tool coolant

Filettatura interna

con adduzione interna

Ausführung / Type / Esecuzione

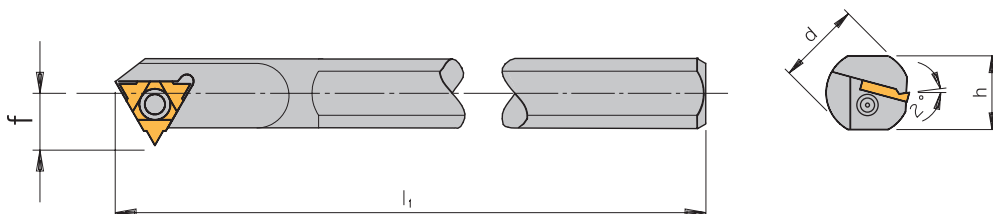
U für Regelgewinde

U style for

coarse pitch threads

U per filettatura

dimensioni standard



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	h	l ₁	l ₂	d	d ₁	f	Grad Degree Angolo
6,0 U	NVRC8-6,0U 156/003 R/L	18	180	24	20	8,0	5,86	4,0°
11 U	NVRC10-2U 156/004 R/L	18	180	32	20	10,0	7,40	4,0°
11 U	NVRC11-2U 156/002 R/L	18	180	32	20	11,2	7,30	3,0°
16 U	NVRC11-3U 156/020 R/L	18	180	32	20	11,0	8,23	4,5°
16 U	NVRC14-3U 156/018 R/L	18	180	38	20	13,4	9,99	4,5°
16 U	NVRC15-3U 156/019 R/L	18	180	38	20	15,4	10,99	4,0°
22 U	NVRC20-4U 156/011 R/L	18	180	40	20	19,2	13,68	4,0°
22 U	NVRC25-4U 156/013 R/L	29	250	60	32	25,0	17,63	3,5°
22 U	NVRC32-4U 156/014 R/L	29	250	60	32	29,7	18,76	3,3°
27 U	NVRC32-5U 156/015 R/L	29	250	60	32	31,6	20,96	3,2°

HINWEIS:
Die Klemmhalter haben einen Neigungswinkel von 1,5°.

REMARK:
All toolholders are supplied with a helix angle of 1.5°.

NOTA:
Gli utensili sono studiati per un angolo di elica di 1,5°.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
6,0 U	SN6MT	KS 1886
11 U	SM2T8	KS 1751
16 U	SN3T	KS 2510
22 U	SN4T	KS 2520
27 U	SN5T	KS 2525

Klemmhalter

Tool holders

Utensili

Innengewinde

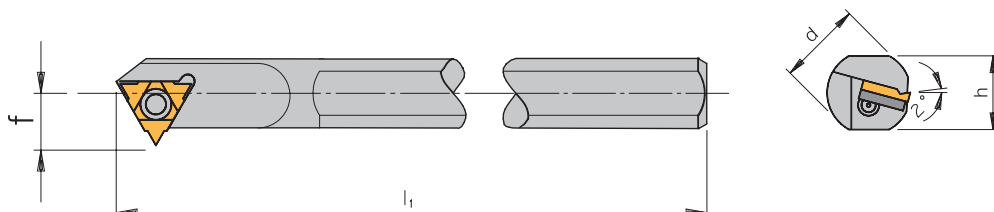
Internal Thread

Filettatura interna

We have a passion for precision.

Ausführung / Type / Esecuzione

U



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	h	l ₁	l ₂	d	d ₁	f	min. Kernloch-Ø min. bore-Ø min. ingresso-Ø
22 U	AVR32-4U R/L	29	250	60	32	32	25,5	42,0
22 U	AVR40-4U R/L	36	300	60	40	40	29,5	51,0
27 U	NVR32-5U R/L	29	250	60	32	32	24,7	42,0
27 U	AVR40-5U R/L	36	300	60	40	40	29,4	53,0
27 U	AVR50-5U R/L	45	350	75	50	50	34,3	63,0
27 U	AVR60-5U R/L	54	400	75	60	60	39,3	74,0

HINWEIS:

Die Klemmhalter haben einen Neigungswinkel von 1,5°.

Klemmhalter mit der Bezeichnung „N..“ werden ohne Unterlegplatte benutzt.

REMARK:

All toolholders are supplied with a helix angle of 1.5°.

Tool holders designated with "N.." are used without support pad.

NOTA:

Gli utensili sono studiati per un angolo di elica di 1,5°.

Utensili identificati con "N.." vengono forniti senza supporto.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schraube + Scheibe für Unterlegplatte Screw + washer for support pad Vite + bussola per supporto	Schlüssel Key Chiave	Unterlegplatte Support pad Supporto R	Unterlegplatte Support pad Supporto L
22U	SA4T	SY4T	KS 2520	YI4U	YE4U
27U	SA5T	SY5T	KS 2525	YI5U	YE5U

5

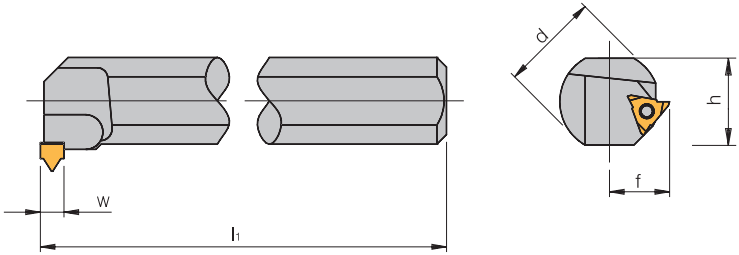
Klemmhalter

Tool holders
Utensili

We have a passion for precision.


Ausführung / Type / Esecuzione
V

Innengewinde Internal Thread Filettatura interna



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile


	Bezeichnung Designation Articolo	h	l ₁	d	f	w
27 V	NVR40-5V R/L	36	300	40	28,4	6,5
27 V	NVR50-5V R/L	45	350	50	33,4	6,5
27 V	NVR60-5V R/L	54	400	60	38,0	6,5

HINWEIS:
Die Klemmhalter haben einen Neigungswinkel von 1°.

REMARK:
All toolholders are supplied with a helix angle of 1°.

NOTA:
Gli utensili sono studiati per un angolo di elica di 1,5°.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
27V	SN6T	KS 2520

We have a passion for precision.

Innengewinde

mit innerer Kühlmittelzufuhr

Internal Thread

with through tool coolant

Filettatura interna

con adduzione interna

Ausführung / Type / Esecuzione

Standard

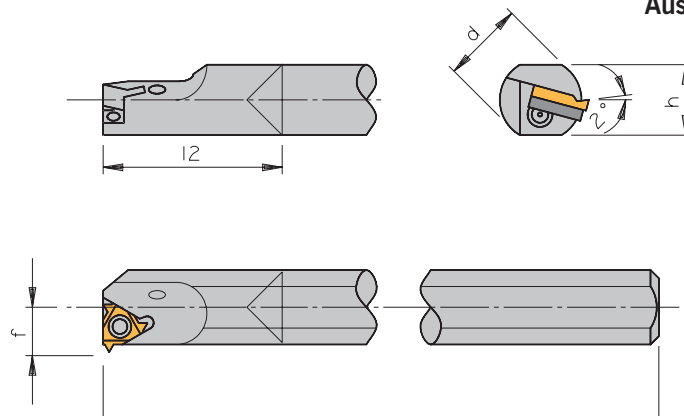
mit Hartmetallschaft

Standard

with carbide shank

Standard

con stelo in metallo duro



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	d	h	f	l ₁	l ₂	min. Kernloch-Ø min. bore-Ø min. ingresso-Ø
11	CNVRC10-2 R/L	10	9,5	7,3	150	19	13,0
11	CNVRC12-2 R/L	12	11,7	8,3	180	25	15,0
16	CNVRC16-3 R/L	16	15,6	11,5	200	27	20,0
22	CNVRC20-4 R/L	20	19,5	13,8	250	35	25,0

HINWEIS:

Die Klemmhalter haben einen Neigungswinkel von 1,5°. Unterlegplatten für andere Neigungswinkel finden Sie auf Seite 421 – 423. Diese müssen separat bestellt werden. Klemmhalter mit der Bezeichnung „N.“ werden ohne Unterlegplatte benutzt.

REMARK:

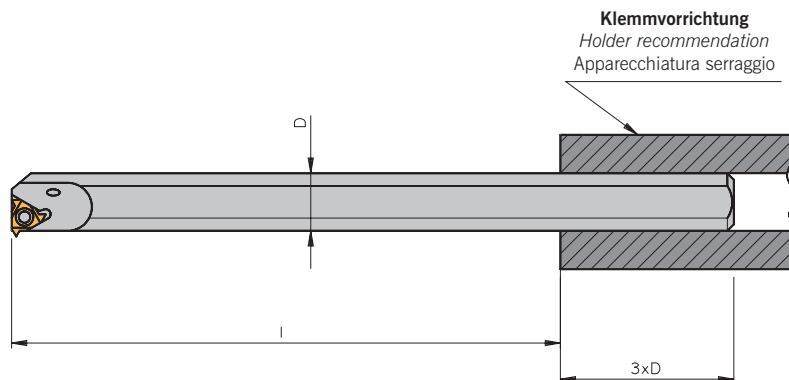
All toolholders are supplied with a helix angle of 1.5°. For different a helix angle please refer to page 421 – 423. They have to be ordered separately. Tool holders designated with "N." are used without support pad.

NOTA:

Gli utensili sono studiati per un angolo di elica di 1,5°. Per supporti con altri angoli di elica vedere pagina 421 – 423. Questi supporti vanno ordinati separatamente. Utensili identificati con "N." vengono forniti senza supporto.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schraube + Scheibe für Unterlegplatte Screw + washer for support pad Vite + bussola per supporto	Schlüssel Key Chiave	Unterlegplatte Support pad Supporto R	Unterlegplatte Support pad Supporto L
11	SN2T	-	KS 1751	-	-
16 (d 16)	SN3T	-	KS 2510	-	-
16 (d 20)	SA3T	SY3T	KS 2510	YI3	YE3
22	SN4T	-	KS 2520	-	-



HINWEIS:

Klemmhalter mit Vollhartmetallschaft für höchste Stabilität beim Innengewindedrehen. Bevorzugter Einsatz bei großer Auskraglänge des Halters, mehr als 3x Schaftdurchmesser. Um Vibrationen zu vermeiden ist darauf zu achten, die Auskraglänge so klein wie möglich zu halten. Die minimale Länge des Halters in der Werkzeugaufnahme sollte 3x Schaftdurchmesser nicht unterschreiten.

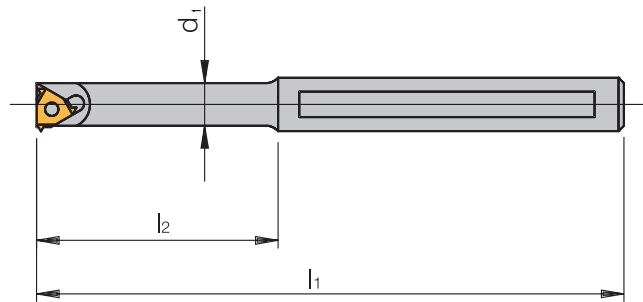
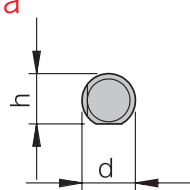
REMARK:

Tool holders with carbide shank should be used when extra accuracy is required or when the bar length to bar diameter ratio exceeds 3:1. The overhang to bar diameter ratio should be as small as possible to eliminate possible vibrations. The minimum length in the clamping device should be 3 times the diameter of the bar.

NOTA:


Utensili con stelo in metallo duro vanno utilizzati nei casi in cui è richiesta maggiore precisione o quando lo stelo utensile sporge oltre ad un rapporto l:D superiore a 3:1. La sporgenza va comunque sempre ridotta al minimo per evitare possibilità di vibrazioni. La parte nel portautensile deve sempre essere minimo 3 volte il diametro dello stelo.

Innengewinde Internal Thread Filettatura interna



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile


	Bezeichnung Designation Articolo	h	l ₁	l ₂	d	d ₁
4,0	CNVR 5-4.0K R	5,2	100	26	6	5,10
4,0	SNVR 5-4.0K R	11	100	12	12	5,10
10	SNVR 12U-6.0 R	11,4	82	16	12	8,00
10	BNVR 10S-6.0 R	9,4	89	22	10	8,00
10	BNVR 10M-6.0 R	9,4	98	31	10	8,00
10	BNVR 10L-6.0 R	9,4	110	43	10	8,00

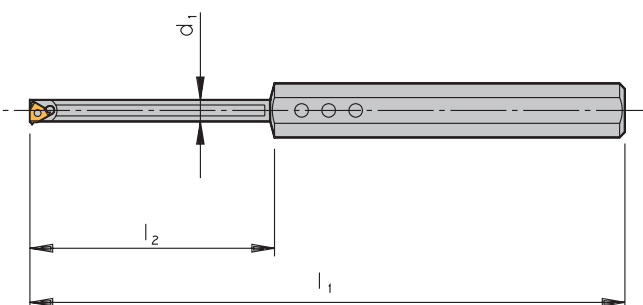
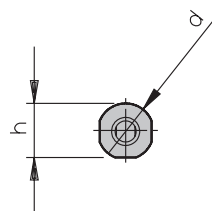
HINWEIS:
Klemmhalter mit der Bezeichnung „B.“ und „C.“ sind mit einem Hartmetallkern zur Minimierung von Vibrationen ausgeführt.

REMARK:
The toolholders designated with "B." and "C." are supplied with a carbide center in order to minimize vibration.

NOTA:
Utensile con Articolo "B." e "C." hanno un nucleo in metallo duro per ridurre le vibrazioni.


Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
4,0	SN4MT	KS 1886
10	SN6MT	KS 1886



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

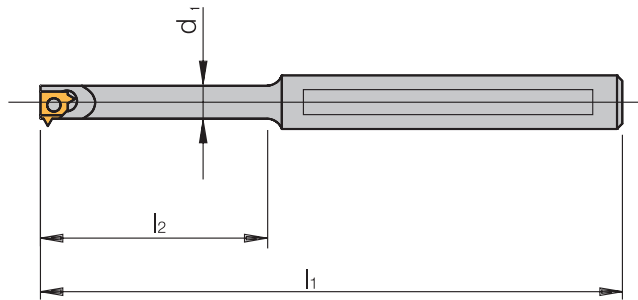
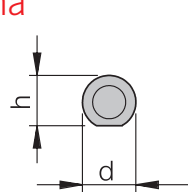
Klemmhalter verstellbar / Toolholder adjustable / Portainsero registrabile

	Bezeichnung Hülse Designation sleeve Articolo Bussola	Bezeichnung Halter Designation holder Articolo Utensile	h	l ₁	l ₂	d	d ₁
10	SV16-8.0	BNVR8.0T-6.0 R	15,6	100	8-56	16	8

Ersatzteile / Spare parts / Ricambi

	Klemmschraube für Halter Clamping screw for holder Vite di bloccaggio per lo stelo	Schlüssel für Halter Key for holder Chiave per lo stelo	Klemmschraube für Hülse Clamping screw for sleeve Vite di bloccaggio per la bussola	Schlüssel für Hülse Key for sleeve Chiave per la bussola
10	SN6MT	KS 1886	S4.0	KP 3421

Innengewinde Internal Thread Filettatura interna



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Halter / Holder / Utensile

	Bezeichnung Designation Articolo	h	l ₁	l ₂	d	d ₁
5.0L	SNVR 10U-5L R	9,4	81	16	10	6,20
5.0L	BNVR 10S-5L R	9,4	87	22	10	6,20
5.0L	BNVR 10M-5L R	9,4	97	31	10	6,20
5.0L	BNVR10L-5L R	9,4	109	43	10	6,20

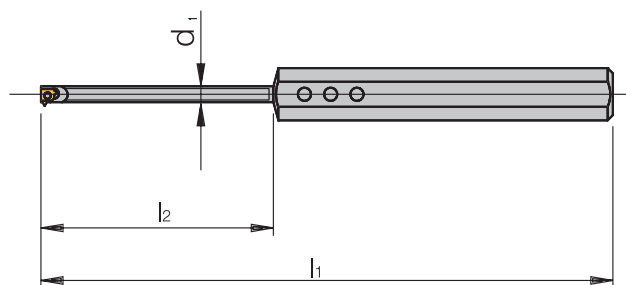
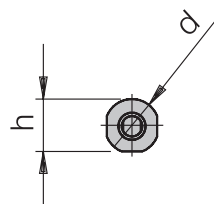
HINWEIS:
Klemmhalter mit der Bezeichnung „B...“ sind mit einem Hartmetallkern zur Minimierung von Vibrationen ausgeführt.

REMARK:
The toolholders designated with "B..." are supplied with a carbide center in order to minimize vibration.

NOTA:
Utensile con Articolo "B..." hanno un nucleo in metallo duro per ridurre le vibrazioni.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
5.0L	SN5LT	KS 2505



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Klemmhalter verstellbar / Toolholder adjustable / Portainsero registrabile

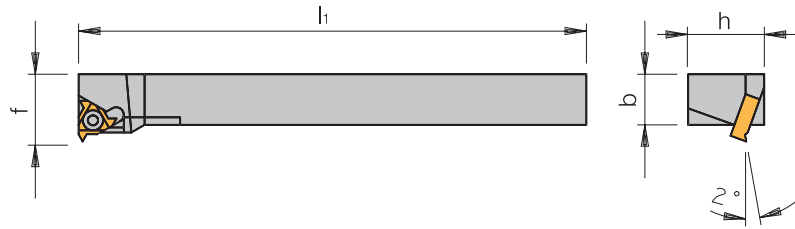
	Bezeichnung Hülse Designation sleeve Articolo Bussola	Bezeichnung Halter Designation holder Articolo Utensile	h	l ₁	l ₂	d	d ₁
5.0L	SV16-6.2	BNVR6.2T-5L R	15,6	100	8-44	16	6,2

Ersatzteile / Spare parts / Ricambi

	Klemmschraube für Halter Clamping screw for holder Vite di bloccaggio per lo stelo	Schlüssel für Halter Key for holder Chiave per lo stelo	Klemmschraube für Hülse Clamping screw for sleeve Vite di bloccaggio per la bussola	Schlüssel für Hülse Key for sleeve Chiave per la bussola
5.0L	SN5LT	KS 2505	S4.0	KP 3421


Außen- und Innengewinde External and Internal Threading Filettatura interna ed esterna

Ausführung / Type / Esecuzione
Minihalter
Miniature square
Utensile Mini



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Minihalter mit Vierkantschaft / Mini Holder with square shank / Stelo quadro mini portainseriti

	Bezeichnung Designation Articolo	b = h	l ₁	f	min. Kernloch-Ø min. bore-Ø min. ingresso-Ø
11	OV 8-2 R/L	8	100	12	29,20
11	OV 10-2 R/L	10	100	14	36,10

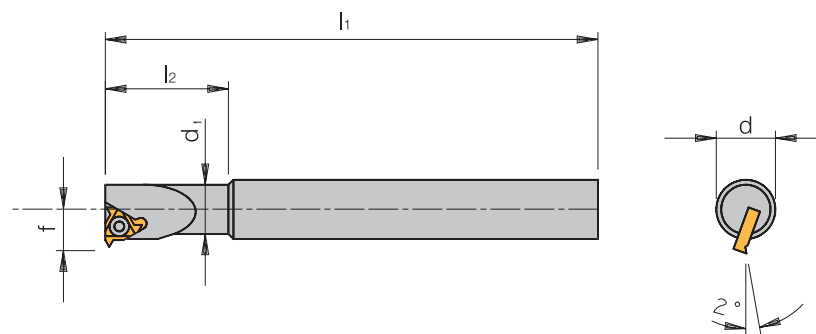
HINWEIS:
Minihalter in runder oder rechteckiger Schaftausführung sind speziell für den Einsatz auf Drehautomaten, die in der optischen und feinmechanischen Industrie ihre Anwendung finden.
Die Halter können für Außen- und Innengewinde eingesetzt werden.

REMARK:
Mini holders on round or square execution are designated for use on automatic lathes for the optical and other precision industries. They can be used for external and internal threading.

NOTA:
Utensili Mini a stelo quadro e cilindrico sono studiati per un utilizzo su torni a fantina mobile per l'industria di precisione. Possono venire utilizzati sia per filettatura esterna che interna.


Gewinde / Thread / Filetto	ER	EL	IR	IL
WSP / Insert / Inserto	ER	EL	IR	IL
Minihalter / Holder execution / Mini utensile	L	R	R	L

E = Außen / I = Innen / R = Rechts / L = Links. Der Neigungswinkel beträgt 0,5°.
E = External / I = Internal / R = Right / L = Left. The helix angle is 0,5°.
E = Esterno / I = Interno / R = Destro / L = Sinistro. Utensili sono forniti con angolo elica 0,5°.



Rechte Ausführung abgebildet
Right-hand execution shown
Versione destra in figura

Minihalter mit Zylinderschaft / Mini Holder with cylindrical shank / Stelo cilindrico mini portainseriti

	Bezeichnung Designation Articolo	l ₁	l ₂	d	d ₁	f	min. Kernloch-Ø min. bore-Ø min. ingresso-Ø
11	OVR 12-2 R/L	100	25	12	10,00	7,4	13,0
11	OVR 15-2 R/L	100	32	15	13,00	8,9	16,0
11	OVR 16D-2 R/L	100	32	16	13,00	8,9	16,0

HINWEIS:
Minihalter in runder oder rechteckiger Schaftausführung sind speziell für den Einsatz auf Drehautomaten, die in der optischen und feinmechanischen Industrie ihre Anwendung finden.
Die Halter können für Außen- und Innengewinde eingesetzt werden.

REMARK:
Mini holders on round or square execution are designated for use on automatic lathes for the optical and other precision industries. They can be used for external and internal threading.

NOTA:
Utensili Mini a stelo quadro e cilindrico sono studiati per un utilizzo su torni a fantina mobile per l'industria di precisione. Possono venire utilizzati sia per filettatura esterna che interna.

Gewinde / Thread / Filetto	ER	EL	IR	IL
WSP / Insert / Inserto	ER	EL	IR	IL
Minihalter / Holder execution / Mini utensile	L	R	R	L

E = Außen / I = Innen / R = Rechts / L = Links. Der Neigungswinkel beträgt 0,5°.
E = External / I = Internal / R = Right / L = Left. The helix angle is 0,5°.
E = Esterno / I = Interno / R = Destro / L = Sinistro. Utensili sono forniti con angolo elica 0,5°.

Ersatzteile / Spare parts / Ricambi

	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
11	SN2T	KS 1751

ARNO SHARK-CUT® zum Drehen und Bohren mit nur einem Werkzeug.

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ARNO Shark-CUT® Foratura e barenatura con un unico utensile!



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Die speziell entwickelten Multifunktionswerkzeuge zum Drehen und Bohren.

- Problemlöser bei fehlenden Werkzeugplätzen an der Maschine
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- Reduzierte Lagerhaltung von Werkzeugen und Wendeschneidplatten
- Geringe Kosten für die Werkzeugbeschaffung

The multi purpose tool for drilling, boring and turning.

- *Produces a flat bottom hole*
- *Problem solver for insufficient machine tool posts*
- *Less programming*
- *Shorter set-up times. Reduced pre-setting times*
- *Reduced stock-keeping costs for tools and indexable inserts Lower tool purchasing costs*

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- Foratura con fondo piano
- Risolutore di problemi nei casi di limitate posizioni utensili
- Riduce la programmazione macchina
- Riduce i tempi di setup utensili
- Riduce i costi di magazzino di utensili ed inserti
- Riduce i costi di utensileria

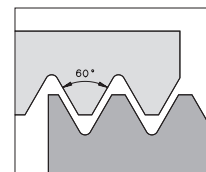
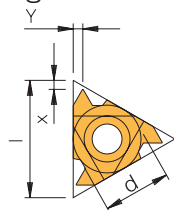
Weitere ARNO Highlights finden Sie unter:

For further ARNO highlights please see:

Per ulteriori informazioni visitate il nostro sito:

www.arno.de

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

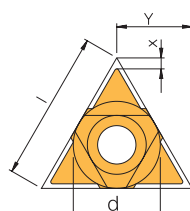
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

		Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	AL100	AM7C	AM15C	AK20	AK20P	Klemmhalter Tool holder Utensile							
		[mm]	[G/Inch]																		
11	0,5-1,5	48-16		11ER-T-A60	6,35	0,05	0,8	0,9	●	●	●	●	●	NL...-2							
11	0,5-1,5	48-16	11EL-T-A60		6,35	0,05	0,8	0,9	●	●	●	●	●	NL...-2							
16	0,5-1,5	48-16		16ER-T-A60	9,525	0,05	0,8	0,9	●	●	●	●	●	AL...-3							
16	0,5-1,5	48-16	16EL-T-A60		9,525	0,05	0,8	0,9	●	●	●	●	●	AL...-3							
16	1,75-3,0	14-8		16ER-T-G60	9,525	0,27	1,2	1,7	●	●	●	●	●	AL...-3							
16	1,75-3,0	14-8	16EL-T-G60		9,525	0,27	1,2	1,7	●	●	●	●	●	AL...-3							
16	0,5-3,0	48-8		16ER-T-AG60	9,525	0,08	1,2	1,7	●	●	●	●	●	AL...-3							
16	0,5-3,0	48-8	16EL-T-AG60		9,525	0,08	1,2	1,7	●	●	●	●	●	AL...-3							
16	0,5-1,5	48-16		16ER-T-A60-SB	9,525	0,05	0,6	0,8	●	●	●	●	●	AL...-3							
16	1,75-3,0	14-8		16ER-T-G60-SB	9,525	0,27	1,1	1,5	●	●	●	●	●	AL...-3							
16	0,5-3,0	48-8		16ER-T-AG60-SB	9,525	0,08	0,9	1,5	●	●	●	●	●	AL...-3							


P	●	○																				
M	●	●	●																			
K	○	○										●	●									
N												●	●									
S	○																					
H																						

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
U

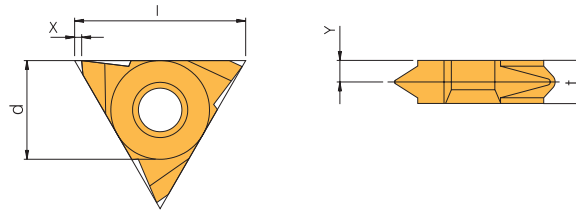
										Sorten / Grades / Qualità			
	Teilung <i>Pitch</i> Passo		Links / Rechts <i>Left / Right</i> Sinistra / Destra	d	r	x	y	beschichtet <i>coated</i> <i>rivestito</i>		unbe- schichtet <i>uncoated</i>	Klemmhalter <i>Tool holder</i> Utensile		
								AL100	AM15C	AK20			
	[mm]	[G/Inch]											
22	5,5-8,0	4,5-3,25	22UEI-T-U60	12,7	0,30	0,6	11,0	●	●		AL...-4U		
27	6,5-9,0	4,0-2,75	27UEI-T-U60	15,88	0,37	1,0	13,7		●	●	AL...-5U		

P	●	○																			
M	●	●																			
K	○										●	●									
N											●	●									
S	○																				
H																					

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

Slim Throat / Slim Throat / Stelo scaricato

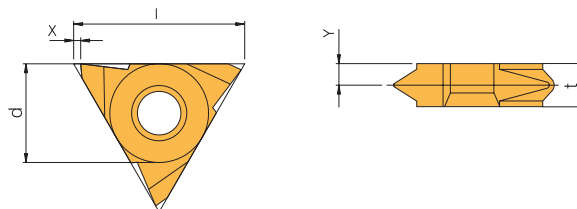
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

										Sorten / Grades / Qualità					
	Teilung Pitch Passo		Links Left Sinistra	Rechts Right Destra	d	r	x	y	t	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	AK20	Klemmhalter Tool holder Utensile
										AL100	AM7C	AM15C			
	[mm]	[G/Inch]													
11	0,5-1,5	48-16		11VER-T-A60	6,35	0,05	0,69	2,3	3,2	●	●	●	●		NL...-2V
11	0,5-1,5	48-16	11VEL-T-A60		6,35	0,05	0,69	2,3	3,2	●	●	●	●		NL...-2V
16	0,5-1,5	48-16		16VER-T-A60	9,525	0,05	1,1	2,7	3,6	●	●	●	●		NL...-3V
16	0,5-1,5	48-16	16VEL-T-A60		9,525	0,05	1,1	2,7	3,6	●	●	●	●		NL...-3V
16	1,75-3,0	14-8		16VER-T-G60	9,525	0,27	1,1	1,9	3,6	●	●	●	●		NL...-3V
16	1,75-3,0	14-8	16VEL-T-G60		9,525	0,27	1,1	1,9	3,6	●	●		●		NL...-3V
16	0,5-3,0	48-8		16VER-T-AG60	9,525	0,08	1,1	1,9	3,6	●	●	●	●		NL...-3V
16	0,5-3,0	48-8	16VEL-T-AG60		9,525	0,08	1,1	1,9	3,6	●		●	●		NL...-3V
22	3,5-5,0	7-5		22VER-T-N60	12,7	0,53	1,1	2,3	4,8	●	●	●	●		NL...-4V
22	3,5-5,0	7-5	22VEL-T-N60		12,7	0,53	1,1	2,3	4,8	●					NL...-4V

P	●	○	
M	●	●	●
K	○	○	
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale


○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

V

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

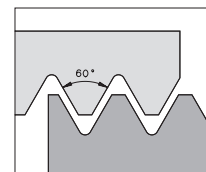
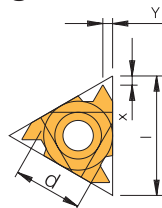
	Teilung		Links Left Sinistra	Rechts Right Destra	d	r	x	y	t	Sorten / Grades / Qualità					Klemmhalter Tool holder Utensile
	Pitch Passo	[mm]								[G/Inch]	beschichtet coated rivestito		unbe- schichtet uncoated non rivestito		
											AL100	AM15C		AK20	
27	6,0-10,0	4-2,5		27VER-T-V60	15,88	0,75	0,6	5,2	10	●	●	●	NL...-5V-10		
27	6,0-10,0	4-2,5	27VEL-T-V60		15,88	0,75	0,6	5,2	10	●	●	●	NL...-5V-10		

P	●	○	
M	●	●	●
K	○	○	
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale


○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

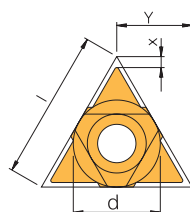
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Sorten / Grades / Qualità												unbe- schichtet uncoated non rivestito	AK20	Klemmhalter Tool holder Utensile
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	AL100	beschichtet coated rivestito	AM7C	AM15C			
	[mm]	[G/Inch]												
11	0,5-1,5	48-16		11IR-T-A60	6,35	0,05	0,8	0,9	●	●	●	●	NVR...2	
11	0,5-1,5	48-16	11IL-T-A60		6,35	0,05	0,8	0,9	●	●	●	●	NVR...2	
16	0,5-1,5	48-16		16IR-T-A60	9,525	0,05	0,8	0,9	●	●	●	●	AVR...3	
16	0,5-1,5	48-16	16IL-T-A60		9,525	0,05	0,8	0,9	●	●	●	●	AVR...3	
16	1,75-3,0	14-8		16IR-T-G60	9,525	0,16	1,2	1,7	●	●	●	●	AVR...3	
16	1,75-3,0	14-8	16IL-T-G60		9,525	0,16	1,2	1,7	●	●	●	●	AVR...3	
16	0,5-3,0	48-8		16IR-T-AG60	9,525	0,05	1,2	1,7	●	●	●	●	AVR...3	
16	0,5-3,0	48-8	16IL-T-AG60		9,525	0,05	1,2	1,7	●	●	●	●	AVR...3	
16	0,5-1,5	48-16		16IR-T-A60-SB	9,525	0,05	0,6	0,8	●	●	●	●	AVR...3	
16	1,75-3,0	14-8		16IR-T-G60-SB	9,525	0,16	1,0	1,5	●	●	●	●	AVR...3	
16	0,5-3,0	48-8		16IR-T-AG60-SB	9,525	0,05	0,9	1,5	●	●	●	●	AVR...3	
22	3,5-5,0	7-5		22IR-T-N60	12,7	0,30	1,7	2,5	●	●	●	●	AVR...4	
22	3,5-5,0	7-5	22IL-T-N60		12,7	0,30	1,7	2,5	●	●	●	●	AVR...4	
27	5,5-6,0	4,5-4		27IR-T-Q60	15,88	0,30	1,8	2,7	●	●	●	●	AVR...5	
27	5,5-6,0	4,5-4	27IL-T-Q60		15,88	0,30	1,8	2,7	●	●	●	●	AVR...5	


P	●	○	
M	●	●	●
K	○	○	●
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
U

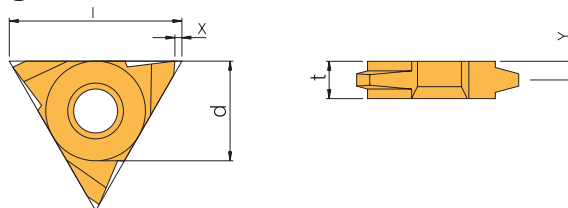
								Sorten / Grades / Qualità			
	Teilung <i>Pitch</i> Passo		Links / Rechts <i>Left / Right</i> Sinistra / Destra	d	r	x	y	beschichtet <i>coated</i> rivestito		unbe- schichtet <i>uncoated</i> non rivestito	Klemmhalter <i>Tool holder</i> Utensile
	[mm]	[G/Inch]						AL100	AM15C	AK20	
22	5,5-8,0	4,5-3,25	22UEI-T-U60	12,7	0,30	0,6	11,0	●	●	●	AVR...4U
27	6,5-9,0	4-2,75	27UEI-T-U60	15,88	0,37	1,0	13,7	●	●	●	AVR...5U

P	●	○	
M	●	●	●
K	○		●
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

V

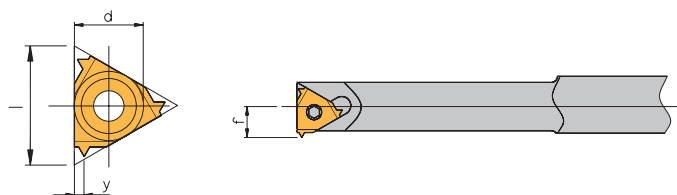
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	t	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
									beschichtet coated rivestito	unbe- schichtet uncoated non rivestito	
	[mm] [G/Inch]								AL100	AK20	
27	6,0-10,0 4-2,5		27VIR-T-V60	15,88	0,35	1,0	4,3	8	●	●	NVR...5V
27	6,0-10,0 4-2,5		27VIL-T-V60	15,88	0,35	1,0	4,3	8	●		NVR...5V

P	●	
M	●	
K	○	●
N		●
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo	Rechts Right Destra	d	r	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità				Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C	HSS-TiN	
	[mm] [G/Inch]											
6	0,5-1,25 48-20	4KIR-T-A60	4	0,05	0,6	3,7	6,35	●				...NVR.5-4,0K*
10	0,5-1,5 48-16	6IR-T-A60	6	0,05	0,9	5,3	10,00	●	●	●	●	...NVR 1...-6,0*

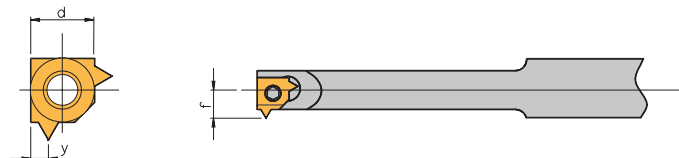
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

P	●		○	●
M	●	●	●	○
K	○	○		
N				
S	○			○
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità			
Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	y	f	Min Bohr ø min Drill ø D min foro	AL100	AM15C	HSS-TiN	Klemmhalter Tool holder Utensile
[mm]	[G/Inch]										
0,5-1,5	48-16	5LIR-T-A60	5	0,05	0,9	4,65	8,00	●	●	●	...NVR 10.-5L*
0,5-1,5	48-16	5LIL-T-A60	5	0,05	0,9	4,65	8,00			●	...NVR 10.-5L*

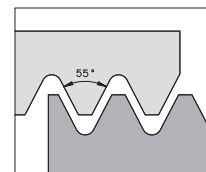
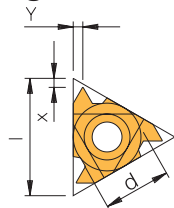
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	●	○	●
M	●	●	○
K	○		
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale


○ Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

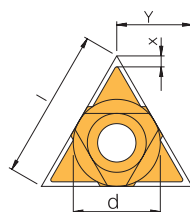
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

										Sorten / Grades / Qualità					
	Teilung Pitch Passo		Links Left Sinistra	Rechts Right Destra	d	r	x	y	AL100	beschichtet coated rivestito	AM15C	unbe- schichtet uncoated non rivestito	AK20	Klemmhalter Tool holder Utensile	
	[mm]	[G/Inch]													
11	0,5-1,5	48-16		11ER-T-A55	6,35	0,05	0,8	0,9	●	●	●	●	●	NL...-2	
11	0,5-1,5	48-16	11EL-T-A55		6,35	0,05	0,8	0,9	●		●		●	NL...-2	
16	0,5-1,5	48-16		16ER-T-A55	9,525	0,05	0,8	0,9	●	●	●	●	●	NL...-2	
16	0,5-1,5	48-16	16EL-T-A55		9,525	0,05	0,8	0,9	●		●		●	NL...-2	
16	1,75-3,0	14-8		16ER-T-G55	9,525	0,21	1,2	1,7	●	●	●	●	●	NL...-2	
16	1,75-3,0	14-8	16EL-T-G55		9,525	0,21	1,2	1,7	●	●	●		●	NL...-2	
16	0,5-3,0	48-8		16ER-T-AG55	9,525	0,07	1,2	1,7	●	●	●	●	●	NL...-2	
16	0,5-3,0	48-8	16EL-T-AG55		9,525	0,07	1,2	1,7	●	●	●		●	NL...-2	
16	0,5-1,5	48-16		16ER-T-A55-SB	9,525	0,05	0,6	0,8	●					AL...-3	
16	1,75-3,0	14-8		16ER-T-G55-SB	9,525	0,21	1,1	1,5	●					AL...-3	
16	0,5-3,0	48-8		16ER-T-AG55-SB	9,525	0,07	0,9	1,5	●					AL...-3	


P	●	○	
M	●	●	●
K	○	○	●
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
U

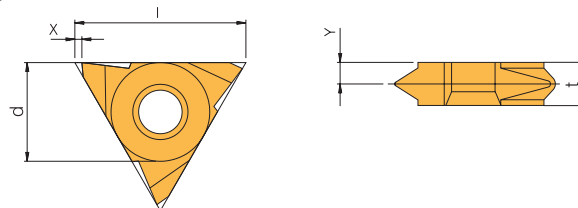
								Sorten / Grades / Qualità			
	Teilung <i>Pitch</i> Passo		Links / Rechts <i>Left / Right</i> Sinistra / Destra	d	r	x	y	AL100	AM7C	AM15C	Klemmhalter <i>Tool holder</i> Utensile
	[mm]	[G/Inch]									
22	5,5-8,0	4,5-3,25	22UEI-T-U55	12,7	0,60	0,9	11,0	●	●	●	AL...-4U
27	6,5-9,0	4-2,75	27UEI-T-U55	15,88	0,80	1,2	13,7	●	●	●	AL...-5U

P	●	○	
M	●	●	●
K	○	○	●
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

Slim Throat / Slim Throat / Stelo scaricato

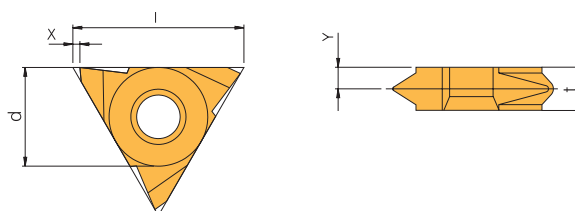
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

										Sorten / Grades / Qualità					
	Teilung Pitch Passo		Links Left Sinistra	Rechts Right Destra	d	r	x	y	t	AL100	beschichtet coated rivestito	AM15C	unbe- schichtet uncoated non rivestito	AK20	Klemmhalter Tool holder Utensile
	[mm]	[G/Inch]									AM7C				
11	0,5-1,5	48-16		11VER-T-A55	6,35	0,05	0,8	2,7	3,2	●	●				NL...-2V
11	0,5-1,5	48-16	11VEL-T-A55		6,35	0,05	0,8	2,7	3,2	●					NL...-2V
16	0,5-1,5	48-16		16VER-T-A55	9,525	0,05	1,1	2,7	3,6	●		●	●		NL...-3V
16	0,5-1,5	48-16	16VEL-T-A55		9,525	0,05	1,1	2,7	3,6	●		●	●		NL...-3V
16	1,75-3,0	14-8		16VER-T-G55	9,525	0,21	1,1	1,9	3,6	●		●	●		NL...-3V
16	0,5-3,0	48-8		16VER-T-AG55	9,525	0,07	1,1	1,9	3,6	●	●	●	●		NL...-3V
16	0,5-3,0	48-8	16VEL-T-AG55		9,525	0,07	1,1	1,9	3,6	●			●	●	NL...-3V
22	3,5-5,0	7-5		22VER-T-N55	12,7	0,43	1,1	2,3	4,8	●				●	NL...-4V

P	●	○	
M	●	●	●
K	○	○	
N			●
S	○		
H			

● **Hauptanwendung**
Main application
Applicazione principale


○ **Nebenanwendung**
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

V

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

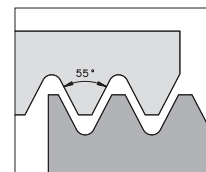
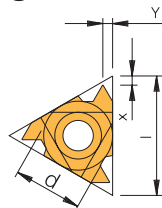
										Sorten / Grades / Qualità
	Teilung Pitch Passo		Rechts Right Destra	d	r	x	y	t	AL100	Klemmhalter Tool holder Utensile
	[mm]	[G/Inch]								
27	6.0-9.0	4-2.75	27VER-T-V55	15.88	0.70	1.0	4.3	8	●	NL...-5V-8

P	●	
M	●	
K	○	
N		
S	○	
H		

● **Hauptanwendung**
Main application
Applicazione principale

○ **Nebenanwendung**
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

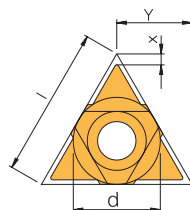
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

		Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	Sorten / Grades / Qualità			AK20	AK20P	Klemmhalter Tool holder Utensile
		[mm]	[G/Inch]						AL100	beschichtet coated rivestito	AM15C			
11	0,5-1,5	48-16		11IR-T-A55	6,35	0,05	0,8	0,9	●	●	●	●		NVR...2
11	0,5-1,5	48-16	11IL-T-A55		6,35	0,05	0,8	0,9	●	●		●		NVR...2
16	0,5-1,5	48-16		16IR-T-A55	9,525	0,05	0,8	0,9	●	●	●	●	●	AVR...3
16	0,5-1,5	48-16	16IL-T-A55		9,525	0,05	0,8	0,9	●		●			AVR...3
16	1,75-3,0	14-8		16IR-T-G55	9,525	0,21	1,2	1,7	●	●	●	●	●	AVR...3
16	1,75-3,0	14-8	16IL-T-G55		9,525	0,21	1,2	1,7	●		●			AVR...3
16	0,5-3,0	48-8		16IR-T-AG55	9,525	0,07	1,2	1,7	●	●	●	●	●	AVR...3
16	0,5-3,0	48-8	16IL-T-AG55		9,525	0,07	1,2	1,7	●		●			AVR...3
16	0,5-1,5	48-16		16IR-T-A55-SB	9,525	0,05	0,6	0,8	●					AVR...3
16	1,75-3,0	14-8		16IR-T-G55-SB	9,525	0,21	1,1	1,5	●					AVR...3
16	0,5-3,0	48-8		16IR-T-AG55-SB	9,525	0,07	0,9	1,5	●					AVR...3
22	3,5-5,0	7-5		22IR-T-N55	12,7	0,43	1,7	2,5	●	●	●	●		AVR...4
22	3,5-5,0	7-5	22IL-T-N55		12,7	0,43	1,7	2,5	●		●			AVR...4
27	5,5-6,0	4,5-4		27IR-T-Q55	15,88	0,60	2,0	2,9	●	●	●	●		AVR...5

P	●	○	
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
U

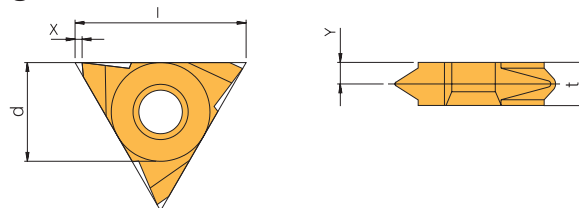
		Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	r	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
		[mm]	[G/Inch]					AL100	AM7C	AM15C	
22	5,5-8,0	4,5-3,25	22UEI-T-U55	12,7	0,60	0,9	11,0	●	●	●	AVR...-4U
27	6,5-9,0	4-2,75	27UEI-T-U55	15,88	0,80	1,2	13,7	●	●	●	AVR...-5U

P	●	○
M	●	●
K	○	○
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


Innengewinde / Internal threading / Filettatura interna



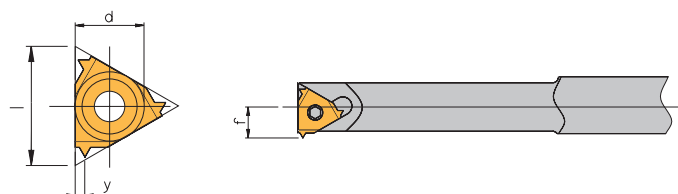
Ausführung / Type / Esecuzione:

V

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

			Sorten / Grades / Qualità										Klemmhalter Tool holder Utensile
	Teilung Pitch Passo	[mm] [G/Inch]	Rechts Right Destra	d	r	x	y	t	beschichtet coated rivestito		unbe- schichtet uncoated non rivestito		
									AL100	AM15C	AK20		
27	6 0-9 0	4-2 75	27VIR-T-V55	15 88	0 70	1 0	4 3	8	●	●	●	NVR...5V	


P	●	○		● Hauptanwendung Main application Applicazione principale
M	●	●		
K	○		●	○ Nebenanwendung Secondary application Applicazione secondaria
N			●	
S	○			
H				



Ausführung / Type / Esecuzione:

MINI 3

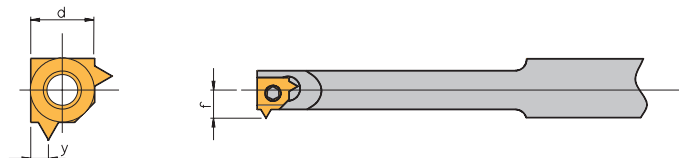
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

			Sorten / Grades / Qualità										
	Teilung Pitch Passo	Rechts Right Destra	d	r	y	f	Min Bohr ø min Drill ø D min foro	AL100	AM15C	HSS-TiN	Klemmhalter Tool holder Utensile		
	[mm]	[G/Inch]											
6	0,5-1,25	48-20	4KIR-T-A55	4	0,05	0,6	3,8	6,45	●			...NVR 5-4,0K*	
10	0,5-1,5	48-16	6IR-T-A55	6	0,05	0,9	5,3	10,00		●	●	...NVR 1...-6,0*	

P	●	○	●	● Hauptanwendung Main application Applicazione principale
M	●	●	○	
K	○			○ Nebenanwendung Secondary application Applicazione secondaria
N				
S	○		○	
H				

*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità				
Teilung Pitch Passo		Rechts Right Destra	d	r	y	f	Min Bohr ø min Drill ø D min foro	AL100	AM7C	AM15C	HSS-TiN	Klemmhalter Tool holder Utensile
[mm]	[G/Inch]											
0,5-1,5	48-16	5LIR-T-A55	5	0,05	0,9	4,65	8,00	●	●	●	●	...NVR 10.-5L*

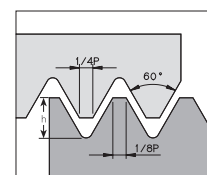
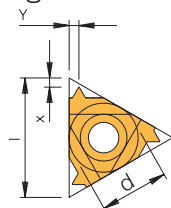
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	●	○	●
M	●	●	○
K	○	○	
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

Standard


Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Sorten / Grades / Qualità													
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
								AL100	AM7C	AM15C	AK20	AK20P		
	[mm]													
11	0,25		11ER-V-IS00,25	6,35	0,14	0,4	0,2	●						NL...-2
11	0,3		11ER-V-IS00,30	6,35	0,19	0,7	0,3	●						NL...-2
11	0,35		11ER-V-IS00,35	6,35	0,21	0,8	0,4	●	●	●	●			NL...-2
11	0,35	11EL-V-IS00,35		6,35	0,21	0,8	0,4	●				●		NL...-2
11	0,4		11ER-V-IS00,40	6,35	0,25	0,7	0,4	●	●	●	●	●		NL...-2
11	0,45		11ER-V-IS00,45	6,35	0,28	0,7	0,4	●	●	●	●			NL...-2
11	0,45	11EL-V-IS00,45		6,35	0,28	0,7	0,4	●				●		NL...-2
11	0,5		11ER-V-IS00,50	6,35	0,31	0,6	0,4	●	●	●	●	●	●	NL...-2
11	0,5	11EL-V-IS00,50		6,35	0,31	0,6	0,4	●			●	●		NL...-2
11	0,6		11ER-V-IS00,60	6,35	0,37	0,6	0,6	●		●	●	●		NL...-2
11	0,7		11ER-V-IS00,70	6,35	0,43	0,6	0,6	●	●	●	●	●		NL...-2
11	0,75		11ER-V-IS00,75	6,35	0,46	0,6	0,6	●	●	●	●	●		NL...-2
11	0,75	11EL-V-IS00,75		6,35	0,46	0,6	0,6	●				●		NL...-2
11	0,8		11ER-V-IS00,80	6,35	0,49	0,6	0,6	●	●	●	●	●		NL...-2
11	0,8	11EL-V-IS00,80		6,35	0,49	0,6	0,6	●			●			NL...-2
11	1,0		11ER-V-IS01,00	6,35	0,61	0,7	0,7	●	●	●	●	●	●	NL...-2
11	1,0	11EL-V-IS01,00		6,35	0,61	0,7	0,7	●	●	●	●	●		NL...-2
11	1,25		11ER-V-IS01,25	6,35	0,77	0,8	0,9	●	●	●	●	●		NL...-2
11	1,25	11EL-V-IS01,25		6,35	0,77	0,8	0,9	●			●	●		NL...-2
11	1,5		11ER-V-IS01,50	6,35	0,92	0,8	1,0	●	●	●	●	●		NL...-2
11	1,5	11EL-V-IS01,50		6,35	0,92	0,8	1,0	●			●	●		NL...-2
11	1,75		11ER-V-IS01,75	6,35	1,07	0,8	1,1	●	●	●	●	●		NL...-2
11	1,75	11EL-V-IS01,75		6,35	1,07	0,8	1,1	●				●		NL...-2
16	0,25		16ER-V-IS00,25	9,525	0,14	0,4	0,2	●	●	●	●	●	●	AL...-3
16	0,25	16EL-V-IS00,25		9,525	0,14	0,4	0,2						●	AL...-3
16	0,35		16ER-V-IS00,35	9,525	0,21	0,8	0,4	●	●	●	●	●	●	AL...-3
16	0,35	16EL-V-IS00,35		9,525	0,21	0,8	0,4	●			●	●		AL...-3
16	0,4		16ER-V-IS00,40	9,525	0,25	0,7	0,4	●	●	●	●	●	●	AL...-3
16	0,4	16EL-V-IS00,40		9,525	0,25	0,7	0,4	●			●	●		AL...-3
16	0,45		16ER-V-IS00,45	9,525	0,28	0,7	0,4	●	●	●	●	●		AL...-3
16	0,45	16EL-V-IS00,45		9,525	0,28	0,7	0,4	●			●			AL...-3
16	0,5		16ER-V-IS00,50	9,525	0,31	0,6	0,4	●	●	●	●	●	●	AL...-3
16	0,5	16EL-V-IS00,50		9,525	0,31	0,6	0,4	●	●	●	●	●	●	AL...-3
16	0,6		16ER-V-IS00,60	9,525	0,37	0,6	0,6	●	●	●	●	●		AL...-3
16	0,6	16EL-V-IS00,60		9,525	0,37	0,6	0,6	●	●	●	●	●		AL...-3
16	0,7		16ER-V-IS00,70	9,525	0,43	0,6	0,6	●	●	●	●	●	●	AL...-3
16	0,7	16EL-V-IS00,70		9,525	0,43	0,6	0,6	●			●		●	AL...-3
16	0,75		16ER-V-IS00,75	9,525	0,46	0,6	0,6	●	●	●	●	●	●	AL...-3
16	0,75	16EL-V-IS00,75		9,525	0,46	0,6	0,6	●	●	●	●	●	●	AL...-3
16	0,8		16ER-V-IS00,80	9,525	0,49	0,6	0,6	●	●	●	●	●	●	AL...-3
16	0,8	16EL-V-IS00,80		9,525	0,49	0,6	0,6	●	●	●	●	●		AL...-3
16	1,0		16ER-V-IS01,00	9,525	0,61	0,7	0,7	●	●	●	●	●	●	AL...-3
16	1,0	16EL-V-IS01,00		9,525	0,61	0,7	0,7	●	●	●	●	●	●	AL...-3
16	1,25		16ER-V-IS01,25	9,525	0,77	0,8	0,9	●	●	●	●	●	●	AL...-3
16	1,25	16EL-V-IS01,25		9,525	0,77	0,8	0,9	●	●	●	●	●		AL...-3
16	1,5		16ER-V-IS01,50	9,525	0,92	0,8	1,0	●	●	●	●	●	●	AL...-3
16	1,5	16EL-V-IS01,50		9,525	0,92	0,8	1,0	●	●	●	●	●	●	AL...-3
16	1,75		16ER-V-IS01,75	9,525	1,07	0,9	1,2	●	●	●	●	●	●	AL...-3
16	1,75	16EL-V-IS01,75		9,525	1,07	0,9	1,2	●	●	●	●	●		AL...-3
16	2,0		16ER-V-IS02,00	9,525	1,23	1,0	1,3	●	●	●	●	●	●	AL...-3
16	2,0	16EL-V-IS02,00		9,525	1,23	1,0	1,3	●			●			AL...-3
16	2,5		16ER-V-IS02,50	9,525	1,53	1,1	1,5	●	●	●	●	●	●	AL...-3
16	2,5	16EL-V-IS02,50		9,525	1,53	1,1	1,5	●	●	●	●	●		AL...-3
16	3,0		16ER-V-IS03,00	9,525	1,84	1,2	1,6	●	●	●	●	●	●	AL...-3
16	3,0	16EL-V-IS03,00		9,525	1,84	1,2	1,6	●	●	●	●	●	●	AL...-3
16	3,5		16ER-V-IS03,50	9,525	2,15	1,6	1,9	●	●	●				AL...-3
16	3,5	16EL-V-IS03,50		9,525	2,15	1,6	1,9	●						AL...-3
16	0,5		16ER-V-IS00,50-SB	9,525	0,31	1,2	0,5	●						AL...-3
16	0,75		16ER-V-IS00,75-SB	9,525	0,46	1,2	0,5	●						AL...-3
16	0,8		16ER-V-IS00,80-SB	9,525	0,49	1,2	0,5	●						AL...-3
16	1,0		16ER-V-IS01,00-SB	9,525	0,61	0,7	0,8	●						AL...-3
16	1,25		16ER-V-IS01,25-SB	9,525	0,77	0,7	0,8	●						AL...-3

Außengewinde / External threading / Filettatura esterna

Ausführung / Type / Esecuzione:

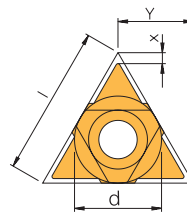
Standard

	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile			
								beschichtet coated rivestito			unbeschichtet uncoated non rivestito		AK20	AK20P
								AL100	AM7C	AM15C				
16	1,5		16ER-V-ISO1,50-SB	9,525	0,92	0,7	0,8	●					AL...-3	
16	1,75		16ER-V-ISO1,75-SB	9,525	1,07	1,2	1,5	●					AL...-3	
16	2,0		16ER-V-ISO2,00-SB	9,525	1,23	1,2	1,5	●					AL...-3	
16	2,5		16ER-V-ISO2,50-SB	9,525	1,53	1,2	1,5	●					AL...-3	
16	3,0		16ER-V-ISO3,00-SB	9,525	1,84	1,3	1,5	●					AL...-3	
22	3,5		22ER-V-ISO3,50	12,7	2,15	1,6	2,3	●	●	●	●		AL...-4	
22	3,5	22EL-V-ISO3,50		12,7	2,15	1,6	2,3	●	●	●	●		AL...-4	
22	4,0		22ER-V-ISO4,00	12,7	2,45	1,6	2,3	●	●	●	●		AL...-4	
22	4,0	22EL-V-ISO4,00		12,7	2,45	1,6	2,3	●	●	●	●		AL...-4	
22	4,5		22ER-V-ISO4,50	12,7	2,76	1,7	2,4	●	●	●	●		AL...-4	
22	4,5	22EL-V-ISO4,50		12,7	2,76	1,7	2,4	●	●	●	●		AL...-4	
22	5,0		22ER-V-ISO5,00	12,7	3,07	1,7	2,5	●	●	●	●		AL...-4	
22	5,0	22EL-V-ISO5,00		12,7	3,07	1,7	2,5	●	●	●	●		AL...-4	
22	6,0		22ER-V-ISO6,00	12,7	3,68	2,0	2,9	●	●	●	●		AL...-4	
22	6,0	22EL-V-ISO6,00		12,7	3,68	2,0	2,9	●	●	●	●		AL...-4	
27	5,5		27ER-V-ISO5,50	15,88	3,37	1,9	2,7	●	●	●	●		AL...-5	
27	5,5	27EL-V-ISO5,50		15,88	3,37	1,9	2,7	●	●	●	●		AL...-5	
27	6,0		27ER-V-ISO6,00	15,88	3,68	2,0	2,9	●	●	●	●		AL...-5	
27	6,0	27EL-V-ISO6,00		15,88	3,68	2,0	2,9	●	●	●	●		AL...-5	

P	●	○		
M	●	●	●	
K	○	○		
N				
S	○			
H				


● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

U

										Sorten / Grades / Qualità			
	Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile		
							AL100	AM7C	AM15C				
	[mm]												
22	5,0	22UEN-V-ISO5,00	12,7	3,07	2,2	11,0	●				AL...-4U		
22	5,5	22UEN-V-ISO5,50	12,7	3,37	2,3	11,0	●		●	●	AL...-4U		
22	6,0	22UEN-V-ISO6,00	12,7	3,68	2,6	11,0	●	●	●	●	AL...-4U		
27	8,0	27UEN-V-ISO8,00	15,88	4,91	2,4	13,7	●		●	●	AL...-5U		

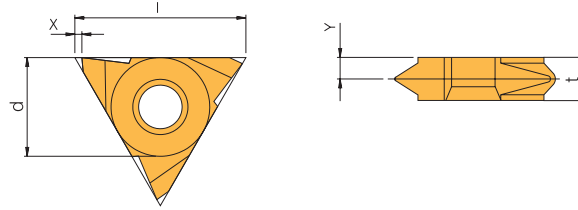
P	●	○		
M	●	●	●	
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

Slim Throat / Slim Throat / Stelo scaricato

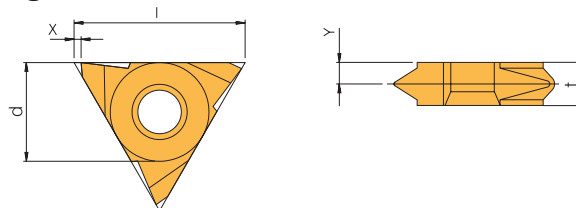
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			AK20	AK20P	Klemmhalter Tool holder Utensile
									beschichtet coated rivestito	AL100	AM7C	AM15C	unbeschichtet uncoated non rivestito	
11	0,75		11VER-V-ISO0,75	6,35	0,46	0,7	2,6	3,2	●	●	●			NL...-2V
11	0,75	11VEL-V-ISO0,75		6,35	0,46	0,7	2,6	3,2	●					NL...-2V
11	1,0		11VER-V-ISO1,00	6,35	0,61	0,7	2,5	3,2	●	●	●		●	NL...-2V
11	1,0	11VEL-V-ISO1,00		6,35	0,61	0,7	2,5	3,2	●	●	●			NL...-2V
11	1,5		11VER-V-ISO1,50	6,35	0,92	0,7	2,2	3,2	●	●	●			NL...-2V
11	1,5	11VEL-V-ISO1,50		6,35	0,92	0,7	2,2	3,2	●	●	●			NL...-2V
11	1,75		11VER-V-ISO1,75	6,35	1,07	0,7	2,1	3,2	●		●		●	NL...-2V
11	2,0		11VER-V-ISO2,00	6,35	1,23	0,7	1,9	3,2		●	●		●	NL...-2V
11	2,0	11VEL-V-ISO2,00		6,35	1,23	0,7	1,9	3,2		●	●			NL...-2V
16	0,35		16VER-V-ISO0,35	9,525	0,20	1,1	3,25	3,6	●				●	NL...-3V
16	0,35	16VEL-V-ISO0,35		9,525	0,20	1,1	3,25	3,6	●					NL...-3V
16	0,4		16VER-V-ISO0,40	9,525	0,25	1,1	3,2	3,6				●	●	NL...-3V
16	0,5		16VER-V-ISO0,50	9,525	0,31	1,1	3,0	3,6	●	●	●		●	NL...-3V
16	0,5	16VEL-V-ISO0,50		9,525	0,31	1,1	3,0	3,6	●	●			●	NL...-3V
16	0,75		16VER-V-ISO0,75	9,525	0,46	1,1	3,0	3,6	●	●	●		●	NL...-3V
16	0,75	16VEL-V-ISO0,75		9,525	0,46	1,1	3,0	3,6		●	●		●	NL...-3V
16	0,8		16VER-V-ISO0,80	9,525	0,49	1,1	3,0	3,6	●	●	●			NL...-3V
16	0,8	16VEL-V-ISO0,80		9,525	0,49	1,1	3,0	3,6		●	●			NL...-3V
16	1,0		16VER-V-ISO1,00	9,525	0,61	1,1	2,9	3,6	●	●	●		●	NL...-3V
16	1,0	16VEL-V-ISO1,00		9,525	0,61	1,1	2,9	3,6	●	●	●		●	NL...-3V
16	1,25		16VER-V-ISO1,25	9,525	0,77	1,1	2,7	3,6	●	●	●		●	NL...-3V
16	1,25	16VEL-V-ISO1,25		9,525	0,77	1,1	2,7	3,6		●	●			NL...-3V
16	1,5		16VER-V-ISO1,50	9,525	0,92	1,1	2,6	3,6	●	●	●		●	NL...-3V
16	1,5	16VEL-V-ISO1,50		9,525	0,92	1,1	2,6	3,6	●	●	●		●	NL...-3V
16	1,75		16VER-V-ISO1,75	9,525	1,07	1,1	2,45	3,6	●	●	●		●	NL...-3V
16	1,75	16VEL-V-ISO1,75		9,525	1,07	1,1	2,45	3,6	●	●	●		●	NL...-3V
16	2,0		16VER-V-ISO2,00	9,525	1,23	1,1	2,3	3,6	●	●	●		●	NL...-3V
16	2,0	16VEL-V-ISO2,00		9,525	1,23	1,1	2,3	3,6	●	●	●		●	NL...-3V
16	2,5		16VER-V-ISO2,50	9,525	1,53	1,1	2,1	3,6	●	●	●		●	NL...-3V
16	2,5	16VEL-V-ISO2,50		9,525	1,53	1,1	2,1	3,6	●	●	●		●	NL...-3V
16	3,0		16VER-V-ISO3,00	9,525	1,84	1,1	2,0	3,6	●	●	●		●	NL...-3V


P	●		○	
M	●	●	●	
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna**Ausführung** / Type / Esecuzione:**V**

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

									Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	beschichtet coated rivestito		unbe- schichtet uncoated non rivestito	
									AL100	AM15C	AK20	
27	6		27VER-V-ISO6,00	15,88	3,68	1,0	3,3	6	●	●		NL...-5V-6
27	6	27VEL-V-ISO6,00		15,88	3,68	1,0	3,3	6	●	●		NL...-5V-6
27	8		27VER-V-ISO8,00	15,88	4,91	1,0	4,3	8	●	●	●	NL...-5V-8
27	8	27VEL-V-ISO8,00		15,88	4,91	1,0	4,3	8	●	●		NL...-5V-8
27	10		27VER-V-ISO10,00	15,88	6,13	1,0	5,2	10	●	●		NL...-5V-10

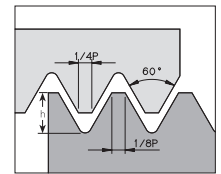
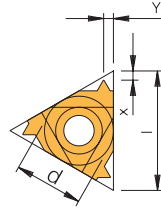
P	●	○	
M	●	●	
K	○		●
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.


Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:


Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Sorten / Grades / Qualità												
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	AL100	beschichtet coated rivestito		unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile
									AM7C	AM15C	AK20	AK20P	
	[mm]												
11	0,35		11IR-V-ISO0,35	6,35	0,20	0,8	0,3	●	●	●	●		NVR...-2
11	0,35	11IL-V-ISO0,35		6,35	0,20	0,8	0,3	●					NVR...-2
11	0,4		11IR-V-ISO0,40	6,35	0,23	0,8	0,4	●		●			NVR...-2
11	0,45		11IR-V-ISO0,45	6,35	0,26	0,8	0,4	●			●		NVR...-2
11	0,5		11IR-V-ISO0,50	6,35	0,29	0,6	0,4	●	●	●	●	●	NVR...-2
11	0,5	11IL-V-ISO0,50		6,35	0,29	0,6	0,4	●	●	●	●	●	NVR...-2
11	0,6		11IR-V-ISO0,60	6,35	0,35	0,6	0,6	●			●		NVR...-2
11	0,7		11IR-V-ISO0,70	6,35	0,40	0,6	0,6	●	●	●	●		NVR...-2
11	0,7	11IL-V-ISO0,70		6,35	0,40	0,6	0,6		●				NVR...-2
11	0,75		11IR-V-ISO0,75	6,35	0,43	0,6	0,6	●	●	●	●	●	NVR...-2
11	0,75	11IL-V-ISO0,75		6,35	0,43	0,6	0,6	●		●	●	●	NVR...-2
11	0,8		11IR-V-ISO0,80	6,35	0,46	0,6	0,6	●	●	●	●		NVR...-2
11	0,8	11IL-V-ISO0,80		6,35	0,46	0,6	0,6	●		●			NVR...-2
11	1		11IR-V-ISO1,00	6,35	0,58	0,6	0,7	●	●	●	●	●	NVR...-2
11	1	11IL-V-ISO1,00		6,35	0,58	0,6	0,7	●	●	●	●	●	NVR...-2
11	1,25		11IR-V-ISO1,25	6,35	0,72	0,8	0,9	●	●	●	●	●	NVR...-2
11	1,25	11IL-V-ISO1,25		6,35	0,72	0,8	0,9	●		●	●	●	NVR...-2
11	1,5		11IR-V-ISO1,50	6,35	0,87	0,8	1,0	●	●	●	●	●	NVR...-2
11	1,5	11IL-V-ISO1,50		6,35	0,87	0,8	1,0	●	●	●	●	●	NVR...-2
11	1,75		11IR-V-ISO1,75	6,35	1,01	0,9	1,1	●	●	●	●		NVR...-2
11	1,75	11IL-V-ISO1,75		6,35	1,01	0,9	1,1	●		●			NVR...-2
11	2		11IR-V-ISO2,00	6,35	1,15	0,9	1,1	●	●	●	●	●	NVR...-2
11	2	11IL-V-ISO2,00		6,35	1,15	0,9	1,1	●	●	●	●		NVR...-2
11	2,5		11IR-V-ISO2,50	6,35	1,44	0,8	1,1	●	●	●	●		NVR...-2
11	2,5	11IL-V-ISO2,50		6,35	1,44	0,8	1,1	●	●	●			NVR...-2
11	0,5		11IR-V-ISO0,50-SB	6,35	0,29	1,2	0,5	●					NVR...-2
11	0,75		11IR-V-ISO0,75-SB	6,35	0,43	1,2	0,5	●					NVR...-2
11	0,8		11IR-V-ISO0,80-SB	6,35	0,46	1,2	0,5	●					NVR...-2
11	1		11IR-V-ISO1,00-SB	6,35	0,58	0,7	0,8	●					NVR...-2
11	1,25		11IR-V-ISO1,25-SB	6,35	0,72	0,7	0,8	●					NVR...-2
11	1,5		11IR-V-ISO1,50-SB	6,35	0,87	0,7	0,8	●					NVR...-2
16	0,35		16IR-V-ISO0,35	9,525	0,20	0,8	0,3	●		●	●		AVR...-3
16	0,35	16IL-V-ISO0,35		9,525	0,20	0,8	0,3				●		AVR...-3
16	0,4		16IR-V-ISO0,40	9,525	0,23	0,8	0,4	●	●	●	●		AVR...-3
16	0,4	16IL-V-ISO0,40		9,525	0,23	0,8	0,4	●					AVR...-3
16	0,45		16IR-V-ISO0,45	9,525	0,26	0,8	0,4	●					AVR...-3
16	0,45	16IL-V-ISO0,45		9,525	0,26	0,8	0,4	●					AVR...-3
16	0,5		16IR-V-ISO0,50	9,525	0,29	0,6	0,4	●	●	●	●	●	AVR...-3
16	0,5	16IL-V-ISO0,50		9,525	0,29	0,6	0,4	●	●	●	●		AVR...-3
16	0,6		16IR-V-ISO0,60	9,525	0,35	0,6	0,6	●	●	●	●		AVR...-3
16	0,6	16IL-V-ISO0,60		9,525	0,35	0,6	0,6	●	●	●			AVR...-3
16	0,7		16IR-V-ISO0,70	9,525	0,40	0,6	0,6	●	●	●	●		AVR...-3
16	0,7	16IL-V-ISO0,70		9,525	0,40	0,6	0,6	●	●	●			AVR...-3
16	0,75		16IR-V-ISO0,75	9,525	0,43	0,6	0,6	●	●	●	●	●	AVR...-3
16	0,75	16IL-V-ISO0,75		9,525	0,43	0,6	0,6	●	●	●	●		AVR...-3
16	0,8		16IR-V-ISO0,80	9,525	0,46	0,6	0,6	●	●	●	●		AVR...-3
16	0,8	16IL-V-ISO0,80		9,525	0,46	0,6	0,6	●	●	●	●		AVR...-3
16	1,0		16IR-V-ISO1,00	9,525	0,58	0,6	0,7	●	●	●	●	●	AVR...-3
16	1,0	16IL-V-ISO1,00		9,525	0,58	0,6	0,7	●	●	●	●	●	AVR...-3
16	1,25		16IR-V-ISO1,25	9,525	0,72	0,8	0,9	●	●	●	●	●	AVR...-3
16	1,25	16IL-V-ISO1,25		9,525	0,72	0,8	0,9	●	●	●	●		AVR...-3
16	1,5		16IR-V-ISO1,50	9,525	0,87	0,8	1,0	●	●	●	●	●	AVR...-3
16	1,5	16IL-V-ISO1,50		9,525	0,87	0,8	1,0	●	●	●	●	●	AVR...-3
16	1,75		16IR-V-ISO1,75	9,525	1,01	0,9	1,2	●	●	●	●	●	AVR...-3
16	1,75	16IL-V-ISO1,75		9,525	1,01	0,9	1,2	●	●	●			AVR...-3
16	2,0		16IR-V-ISO2,00	9,525	1,15	1,0	1,3	●	●	●	●	●	AVR...-3
16	2,0	16IL-V-ISO2,00		9,525	1,15	1,0	1,3	●	●	●	●		AVR...-3
16	2,5		16IR-V-ISO2,50	9,525	1,44	1,1	1,5	●	●	●	●	●	AVR...-3
16	2,5	16IL-V-ISO2,50		9,525	1,44	1,1	1,5	●	●	●	●		AVR...-3
16	3,0		16IR-V-ISO3,00	9,525	1,73	1,1	1,5	●	●	●	●	●	AVR...-3
16	3,0	16IL-V-ISO3,00		9,525	1,73	1,1	1,5	●	●	●	●		AVR...-3
16	3,5		16IR-V-ISO3,50	9,525	2,02	1,2	1,5	●	●	●			AVR...-3

Innengewinde / Internal threading / Filettatura interna

Ausführung / Type / Esecuzione:
Standard

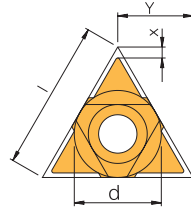
										Sorten / Grades / Qualità							
	Teilung	Links	Rechts	d	h _{min}	x	y	AL100	beschichtet			unbeschichtet		AK20	AK20P	Klemmhalter	
	Pitch	Left	Right						coated			uncoated					
	Passo	Sinistra	Destra						rivestito			non rivestito					
	[mm]								AM7C	AM15C						Tool holder	
16	3,5	16IL-V-ISO3,50		9,525	2,02	1,2	1,5	●			●					AVR...3	
16	1,0		16IR-V-ISO1,00-SB	9,525	0,58	0,7	0,8	●								AVR...3	
16	1,25		16IR-V-ISO1,25-SB	9,525	0,72	0,7	0,8	●								AVR...3	
16	1,5		16IR-V-ISO1,50-SB	9,525	0,87	0,7	0,8	●								AVR...3	
16	1,75		16IR-V-ISO1,75-SB	9,525	1,01	1,1	1,5	●								AVR...3	
16	2,0		16IR-V-ISO2,00-SB	9,525	1,15	1,1	1,5	●								AVR...3	
16	2,5		16IR-V-ISO2,50-SB	9,525	1,44	1,1	1,5	●								AVR...3	
16	3,0		16IR-V-ISO3,00-SB	9,525	1,73	1,1	1,5	●								AVR...3	
22	3,5		22IR-V-ISO3,50	12,7	2,02	1,6	2,3	●	●		●		●			AVR...4	
22	3,5	22IL-V-ISO3,50		12,7	2,02	1,6	2,3	●	●	●	●		●			AVR...4	
22	4,0		22IR-V-ISO4,00	12,7	2,31	1,6	2,3	●	●	●	●		●			AVR...4	
22	4,0	22IL-V-ISO4,00		12,7	2,31	1,6	2,3	●	●	●	●		●			AVR...4	
22	4,5		22IR-V-ISO4,50	12,7	2,60	1,6	2,4	●	●	●	●		●			AVR...4	
22	4,5	22IL-V-ISO4,50		12,7	2,60	1,6	2,4	●	●	●	●		●			AVR...4	
22	5,0		22IR-V-ISO5,00	12,7	2,89	1,6	2,3	●	●	●	●		●			AVR...4	
22	5,0	22IL-V-ISO5,00		12,7	2,89	1,6	2,3	●	●	●	●		●			AVR...4	
22	5,5		22IR-V-ISO5,50	12,7	3,17	1,6	2,3	●	●	●	●		●			AVR...4	
22	5,5	22IL-V-ISO5,50		12,7	3,17	1,6	2,3	●	●	●	●		●			AVR...4	
22	6,0		22IR-V-ISO6,00	12,7	3,46	1,8	2,5	●	●	●	●		●			AVR...4	
22	6,0	22IL-V-ISO6,00		12,7	3,46	1,8	2,5	●	●	●	●		●			AVR...4	
27	4,5		27IR-V-ISO4,50	15,88	2,60	1,6	2,4	●	●							AVR...5	
27	5,0		27IR-V-ISO5,00	15,88	2,89	1,6	2,3	●								AVR...5	
27	5,5		27IR-V-ISO5,50	15,88	3,17	1,6	2,3	●	●	●	●		●			AVR...5	
27	5,5	27IL-V-ISO5,50		15,88	3,17	1,6	2,3	●		●	●		●			AVR...5	
27	6,0		27IR-V-ISO6,00	15,88	3,46	1,8	2,5	●	●	●	●		●			AVR...5	
27	6,0	27IL-V-ISO6,00		15,88	3,46	1,8	2,5	●		●	●		●			AVR...5	

P	●		○	
M	●	●		●
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale


○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

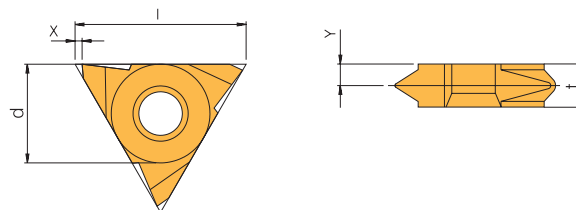
U

							Sorten / Grades / Qualità		
							beschichtet coated rivestito		
	Teilung <i>Pitch</i> Passo	Links / Rechts <i>Left / Right</i> Sinistra / Destra	d	h _{min}	x	y	AL100	AM15C	Klemmhalter <i>Tool holder</i> Utensile
	[mm]								
22	5,5	22UIN-V-ISO5,50	12,7	3,17	2,4	11,0	●		AVR...-4U
22	6	22UIN-V-ISO6,00	12,7	3,46	2,1	11,0	●	●	AVR...-4U
27	8	27UIN-V-ISO8,00	15,88	4,62	2,4	13,7	●	●	AVR...-5U

P	●	○
M	●	●
K	○	
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

V

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

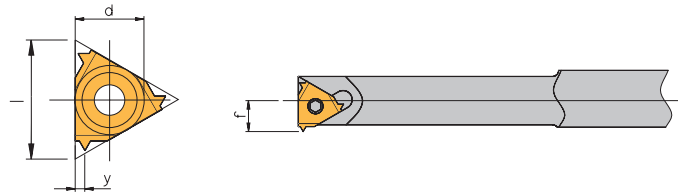
	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
									beschichtet coated rivestito		unbe- schichtet uncoated non rivestito	
									AL100	AM15C	AK20	
27	6,0		27VIR-V-ISO6,00	15,88	3,46	1,0	3,3	6	●	●		NVR...5V
27	6,0	27VIL-V-ISO6,00		15,88	3,46	1,0	3,3	6	●			NVR...5V
27	8,0		27VIR-V-ISO8,00	15,88	4,62	1,0	4,3	8	●	●	●	NVR...5V
27	8,0	27VIL-V-ISO8,00		15,88	4,62	1,0	4,3	8	●			NVR...5V
27	10,0		27VIR-V-ISO10,00	15,88	5,77	1,0	5,2	10	●	●		NVR...5V
27	10,0	27VIL-V-ISO10,00		15,88	5,77	1,0	5,2	10		●		NVR...5V

P	●	○
M	●	●
K	○	
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
									AL100	AM15C	HSS-TiN	
6	0,25		4KIR-V-ISO0,25	4	0,15	0,25	3,3	5,95	●			...NVR.5-4.0K*
6	0,5		4KIR-V-ISO0,50	4	0,29	0,5	3,4	6,05	●			...NVR.5-4.0K*
6	0,75		4KIR-V-ISO0,75	4	0,43	0,5	3,5	6,15	●			...NVR.5-4.0K*
6	1,0		4KIR-V-ISO1,00	4	0,58	0,7	3,6	6,25	●			...NVR.5-4.0K*
6	1,25		4KIR-V-ISO1,25	4	0,72	0,6	3,7	6,35	●			...NVR.5-4.0K*
10	0,5		6IR-V-ISO0,50	6	0,29	0,6	4,4	9,30	●	●	●	...NVR1...-6.0*
10	0,5	6IL-V-ISO0,50		6	0,29	0,6	4,4	9,30	●	●		...NVR1...-6.0*
10	0,75		6IR-V-ISO0,75	6	0,43	0,6	4,6	9,50	●	●	●	...NVR1...-6.0*
10	0,75	6IL-V-ISO0,75		6	0,43	0,6	4,6	9,50	●	●	●	...NVR1...-6.0*
10	1,0		6IR-V-ISO1,00	6	0,58	0,7	4,7	9,60	●	●	●	...NVR1...-6.0*
10	1,0	6IL-V-ISO1,00		6	0,58	0,7	4,7	9,60	●	●	●	...NVR1...-6.0*
10	1,25		6IR-V-ISO1,25	6	0,72	0,9	4,9	9,80	●	●	●	...NVR1...-6.0*
10	1,25	6IL-V-ISO1,25		6	0,72	0,9	4,9	9,80	●	●	●	...NVR1...-6.0*
10	1,5		6IR-V-ISO1,50	6	0,87	1,0	5,0	9,90	●	●	●	...NVR1...-6.0*
10	1,5	6IL-V-ISO1,50		6	0,87	1,0	5,0	9,90	●	●	●	...NVR1...-6.0*
10	1,75		6IR-V-ISO1,75	6	1,01	1,05	5,2	10,00	●	●	●	...NVR1...-6.0*
10	1,75	6IL-V-ISO1,75		6	1,01	1,05	5,2	10,00	●	●	●	...NVR1...-6.0*
10	2,0		6IR-V-ISO2,00	6	1,15	1,05	5,3	10,00	●	●	●	...NVR1...-6.0*
10	2,0	6IL-V-ISO2,00		6	1,15	1,05	5,3	10,00	●	●	●	...NVR1...-6.0*

*Grundhalter finden Sie auf Seite 344.

Please see page 344 for holder.

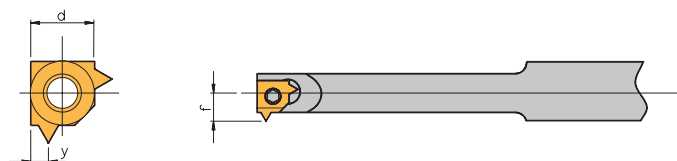
Utensile vedi pagina 344.

P	●	○	●
M	●	●	○
K	○		
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

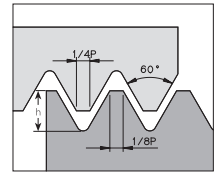
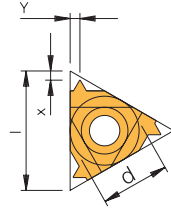
Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
								AL100	AM15C	HSS-TiN	
0,35		5LIR-V-ISO0,35	5	0,20	0,3	3,75	7,30		●		...NVR10.-5L*
0,5		5LIR-V-ISO0,50	5	0,29	0,4	3,75	7,30	●	●	●	...NVR10.-5L*
0,5	5LIL-V-ISO0,50		5	0,29	0,4	3,75	7,30		●		...NVR10.-5L*
0,75		5LIR-V-ISO0,75	5	0,43	0,6	3,91	7,50	●	●	●	...NVR10.-5L*
0,75	5LIL-V-ISO0,75		5	0,43	0,6	3,91	7,50		●		...NVR10.-5L*
1,0		5LIR-V-ISO1,00	5	0,58	0,7	4,06	7,70	●	●	●	...NVR10.-5L*
1,0	5LIL-V-ISO1,00		5	0,58	0,7	4,06	7,70		●	●	...NVR10.-5L*
1,25		5LIR-V-ISO1,25	5	0,72	0,9	4,21	7,80		●	●	...NVR10.-5L*
1,25	5LIL-V-ISO1,25		5	0,72	0,9	4,21	7,80		●	●	...NVR10.-5L*
1,5		5LIR-V-ISO1,50	5	0,87	1,0	4,35	7,90	●	●	●	...NVR10.-5L*
1,5	5LIL-V-ISO1,50		5	0,87	1,0	4,35	7,90		●	●	...NVR10.-5L*
1,75		5LIR-V-ISO1,75	5	1,01	1,05	4,51	8,00		●	●	...NVR10.-5L*
1,75	5LIL-V-ISO1,75		5	1,01	1,05	4,51	8,00		●		...NVR10.-5L*
2,0		5LIR-V-ISO2,00	5	1,15	1,05	4,65	8,00		●	●	...NVR10.-5L*
2,0	5LIL-V-ISO2,00		5	1,15	1,05	4,65	8,00		●		...NVR10.-5L*

*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	●	○	●	● Hauptanwendung Main application Applicazione principale
M	●	●	○	
K	○			○ Nebenanwendung Secondary application Applicazione secondaria
N				
S	○		○	
H				

We have a passion for precision.


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

Standard


Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

										Sorten / Grades / Qualità							Klemmhalter Tool holder Utensile
	Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito						
								AL100	AM7C	AM15C	AK20	AK20P					
11	72		11ER-V-UN72	6,35	0,22	0,8	0,4			●						NL...2	
11	64		11ER-V-UN64	6,35	0,24	0,8	0,4	●		●						NL...2	
11	56		11ER-V-UN56	6,35	0,28	0,7	0,4			●						NL...2	
11	48		11ER-V-UN48	6,35	0,32	0,6	0,6			●						NL...2	
11	48	11EL-V-UN48		6,35	0,32	0,6	0,6				●	●	●			NL...2	
11	40		11ER-V-UN40	6,35	0,39	0,6	0,6	●		●		●	●			NL...2	
11	36		11ER-V-UN36	6,35	0,43	0,6	0,6	●	●	●		●	●			NL...2	
11	32		11ER-V-UN32	6,35	0,49	0,6	0,6	●		●		●	●			NL...2	
11	32	11EL-V-UN32		6,35	0,49	0,6	0,6	●		●		●	●			NL...2	
11	28		11ER-V-UN28	6,35	0,56	0,6	0,7	●		●		●	●			NL...2	
11	24		11ER-V-UN24	6,35	0,65	0,7	0,8	●		●		●	●			NL...2	
11	24	11EL-V-UN24		6,35	0,65	0,7	0,8					●	●			NL...2	
11	20		11ER-V-UN20	6,35	0,78	0,8	0,9			●		●	●			NL...2	
11	18		11ER-V-UN18	6,35	0,87	0,8	1,0		●	●		●	●	●		NL...2	
11	16		11ER-V-UN16	6,35	0,97	0,9	1,1	●		●		●	●			NL...2	
11	14		11ER-V-UN14	6,35	1,11	0,9	1,1	●				●	●			NL...2	
11	14	11EL-V-UN14		6,35	1,11	0,9	1,1						●	●		NL...2	
16	80		16ER-V-UN80	9,525	0,18	0,8	0,3	●	●							AL...3	
16	72		16ER-V-UN72	9,525	0,22	0,8	0,4	●	●	●		●	●			AL...3	
16	64		16ER-V-UN64	9,525	0,24	0,8	0,4					●	●			AL...3	
16	64	16EL-V-UN64		9,525	0,24	0,8	0,4					●	●			AL...3	
16	56		16ER-V-UN56	9,525	0,28	0,7	0,4	●		●		●	●			AL...3	
16	56	16EL-V-UN56		9,525	0,28	0,7	0,4					●	●			AL...3	
16	48		16ER-V-UN48	9,525	0,32	0,6	0,6	●	●	●		●	●			AL...3	
16	48	16EL-V-UN48		9,525	0,32	0,6	0,6	●	●	●		●	●			AL...3	
16	44		16ER-V-UN44	9,525	0,35	0,6	0,6	●	●	●		●	●			AL...3	
16	44	16EL-V-UN44		9,525	0,35	0,6	0,6	●	●	●		●	●			AL...3	
16	40		16ER-V-UN40	9,525	0,39	0,6	0,6	●	●	●		●	●			AL...3	
16	40	16EL-V-UN40		9,525	0,39	0,6	0,6	●	●	●		●	●			AL...3	
16	36		16ER-V-UN36	9,525	0,43	0,6	0,6	●	●	●		●	●	●		AL...3	
16	36	16EL-V-UN36		9,525	0,43	0,6	0,6	●	●	●		●	●			AL...3	
16	32		16ER-V-UN32	9,525	0,49	0,6	0,6	●	●	●		●	●			AL...3	
16	32	16EL-V-UN32		9,525	0,49	0,6	0,6	●	●	●		●	●			AL...3	
16	28		16ER-V-UN28	9,525	0,56	0,6	0,7	●	●	●		●	●	●		AL...3	
16	28	16EL-V-UN28		9,525	0,56	0,6	0,7	●	●	●		●	●			AL...3	
16	27		16ER-V-UN27	9,525	0,58	0,7	0,8	●	●	●		●	●			AL...3	
16	27	16EL-V-UN27		9,525	0,58	0,7	0,8	●	●	●		●	●			AL...3	
16	24		16ER-V-UN24	9,525	0,65	0,7	0,8	●	●	●		●	●			AL...3	
16	24	16EL-V-UN24		9,525	0,65	0,7	0,8	●	●	●		●	●			AL...3	
16	20		16ER-V-UN20	9,525	0,78	0,8	0,9	●	●	●		●	●	●		AL...3	
16	20	16EL-V-UN20		9,525	0,78	0,8	0,9	●	●	●		●	●			AL...3	
16	18		16ER-V-UN18	9,525	0,87	0,8	1,0	●	●	●		●	●			AL...3	
16	18	16EL-V-UN18		9,525	0,87	0,8	1,0	●	●	●		●	●			AL...3	
16	16		16ER-V-UN16	9,525	0,97	0,9	1,1	●	●	●		●	●	●		AL...3	
16	16	16EL-V-UN16		9,525	0,97	0,9	1,1	●	●	●		●	●			AL...3	
16	14		16ER-V-UN14	9,525	1,11	1,0	1,2	●	●	●		●	●			AL...3	
16	14	16EL-V-UN14		9,525	1,11	1,0	1,2	●	●	●		●	●			AL...3	
16	13		16ER-V-UN13	9,525	1,20	1,0	1,3	●	●	●		●	●			AL...3	
16	13	16EL-V-UN13		9,525	1,20	1,0	1,3	●	●	●		●	●			AL...3	
16	12		16ER-V-UN12	9,525	1,30	1,1	1,4	●	●	●		●	●			AL...3	
16	12	16EL-V-UN12		9,525	1,30	1,1	1,4	●	●	●		●	●			AL...3	
16	11,5		16ER-V-UN11.5	9,525	1,35	1,1	1,5	●		●		●	●			AL...3	
16	11		16ER-V-UN11	9,525	1,42	1,1	1,5	●	●	●		●	●			AL...3	
16	11	16EL-V-UN11		9,525	1,42	1,1	1,5	●	●	●		●	●			AL...3	
16	10		16ER-V-UN10	9,525	1,56	1,1	1,5	●	●	●		●	●			AL...3	
16	10	16EL-V-UN10		9,525	1,56	1,1	1,5	●	●	●		●	●			AL...3	
16	9		16ER-V-UN9	9,525	1,73	1,2	1,7	●	●	●		●	●	●		AL...3	
16	9	16EL-V-UN9		9,525	1,73	1,2	1,7	●	●	●		●	●			AL...3	
16	8		16ER-V-UN8	9,525	1,95	1,2	1,6	●	●	●		●	●			AL...3	
16	8	16EL-V-UN8		9,525	1,95	1,2	1,6	●	●	●		●	●			AL...3	

Außengewinde / External threading / Filettatura esterna

Ausführung / Type / Esecuzione:

Standard

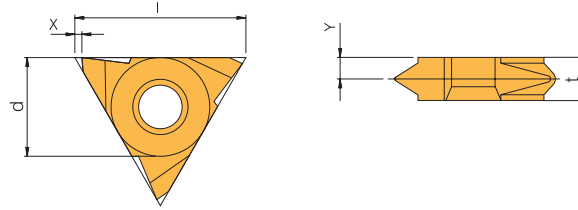
Sorten / Grades / Qualità														
	Teilung	Links	Rechts	d	h _{min}	x	y	AL100	beschichtet		unbeschichtet		Klemmhalter	
	Pitch	Left	Right						coated	AM7C	AM15C	AK20		AK20P
	Passo	Sinistra	Destra							rivestito		non rivestito	Utensile	
[G/Inch]														
16	36		16ER-V-UN36-SB	9,525	0,43	1,2	0,5	●						AL...-3
16	32		16ER-V-UN32-SB	9,525	0,49	1,2	0,5	●						AL...-3
16	28		16ER-V-UN28-SB	9,525	0,56	0,7	0,8	●						AL...-3
16	24		16ER-V-UN24-SB	9,525	0,65	0,7	0,8	●						AL...-3
16	20		16ER-V-UN20-SB	9,525	0,78	0,7	0,8	●						AL...-3
16	18		16ER-V-UN18-SB	9,525	0,87	0,7	0,8	●						AL...-3
16	16		16ER-V-UN16-SB	9,525	0,97	0,8	0,8	●						AL...-3
16	14		16ER-V-UN14-SB	9,525	1,11	1,2	1,5	●						AL...-3
16	13		16ER-V-UN13-SB	9,525	1,20	1,2	1,5	●						AL...-3
16	12		16ER-V-UN12-SB	9,525	1,30	1,3	1,5	●						AL...-3
16	10		16ER-V-UN10-SB	9,525	1,56	1,2	1,5	●						AL...-3
16	9		16ER-V-UN9-SB	9,525	1,73	1,2	1,5	●						AL...-3
16	8		16ER-V-UN8-SB	9,525	1,95	1,3	1,5	●						AL...-3
22	7		22ER-V-UN7	12,7	2,22	1,6	2,3	●	●	●	●			AL...-4
22	7	22EL-V-UN7		12,7	2,22	1,6	2,3	●	●	●				AL...-4
22	6		22ER-V-UN6	12,7	2,60	1,6	2,3	●	●	●	●	●		AL...-4
22	6	22EL-V-UN6		12,7	2,60	1,6	2,3	●	●	●				AL...-4
22	5		22ER-V-UN5	12,7	3,12	1,7	2,5	●	●	●	●	●	●	AL...-4
22	5	22EL-V-UN5		12,7	3,12	1,7	2,5		●	●	●	●		AL...-4
27	4,5		27ER-V-UN4.5	15,88	3,46	1,9	2,7	●	●	●	●	●		AL...-5
27	4,5	27EL-V-UN4.5		15,88	3,46	1,9	2,7	●						AL...-5
27	4		27ER-V-UN4	15,88	3,89	2,1	3,0		●	●	●	●		AL...-5
27	4	27EL-V-UN4		15,88	3,89	2,1	3,0					●		AL...-5

P	●		○	
M	●	●	●	
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

Slim Throat / Slim Throat / Stelo scaricato

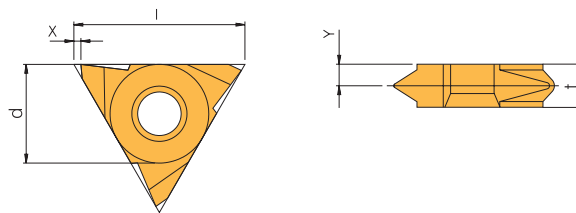
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

		Sorten / Grades / Qualità											
	Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	
									AL100	AM7C	AM15C	AK20	Klemmhalter Tool holder Utensile
	11	20		11VER-V-UN20	6,35	0,78	0,69	2,3	3,2	●			NL...2V
	11	18	11VEL-V-UN18		6,35	0,87	0,69	2,2	3,2			●	NL...2V
	11	16		11VER-V-UN16	6,35	0,97	0,69	2,2	3,2			●	NL...2V
	16	32		16VER-V-UN32	9,525	0,48	1,1	3,0	3,6	●	●	●	NL...3V
	16	28		16VER-V-UN28	9,525	0,56	1,1	3,0	3,6	●		●	NL...3V
	16	24		16VER-V-UN24	9,525	0,65	1,1	2,9	3,6	●		●	NL...3V
	16	20		16VER-V-UN20	9,525	0,78	1,1	2,7	3,6	●	●	●	NL...3V
	16	20	16VEL-V-UN20		9,525	0,78	1,1	2,7	3,6	●		●	NL...3V
	16	18		16VER-V-UN18	9,525	0,87	1,1	2,6	3,6	●		●	NL...3V
	16	18	16VEL-V-UN18		9,525	0,87	1,1	2,6	3,6	●			NL...3V
	16	16		16VER-V-UN16	9,525	0,97	1,1	2,55	3,6	●	●	●	NL...3V
	16	16	16VEL-V-UN16		9,525	0,97	1,1	2,55	3,6	●	●		NL...3V
	16	14		16VER-V-UN14	9,525	1,11	1,1	2,4	3,6	●		●	NL...3V
	16	14	16VEL-V-UN14		9,525	1,11	1,1	2,4	3,6	●			NL...3V
	16	12		16VER-V-UN12	9,525	1,3	1,1	2,2	3,6	●		●	NL...3V
	16	12	16VEL-V-UN12		9,525	1,3	1,1	2,2	3,6	●		●	NL...3V
	16	10		16VEL-V-UN10	9,525	1,56	1,1	2,1	3,6	●			NL...3V
	16	8		16VEL-V-UN8	9,525	1,95	1,1	2,0	3,6			●	NL...3V

P	●	○	
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale


○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

V

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

		Sorten / Grades / Qualità											
	Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	
									AL100	AM7C	AM15C	AK20	Klemmhalter Tool holder Utensile
	27	4		27VER-V-UN4	15,88	3,89	1,0	3,3	6	●			NL...5V-6
	27	4	27VEL-V-UN4		15,88	3,89	1,0	3,3	6	●			NL...5V-6

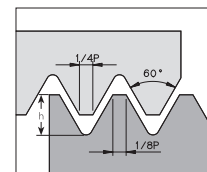
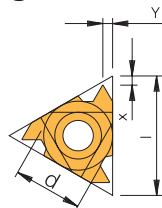
P	●	○	
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.


Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

Standard


Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Sorten / Grades / Qualità										unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
beschichtet coated rivestito										AK20	AK20P		
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	AL100	AM7C	AM15C			
[G/Inch]													
11	72		11IR-V-UN72	6,35	0,20	0,8	0,3				●	NVR...-2	
11	64		11IR-V-UN64	6,35	0,23	0,8	0,4	●		●	●	NVR...-2	
11	56		11IR-V-UN56	6,35	0,26	0,7	0,4	●		●	●	NVR...-2	
11	48		11IR-V-UN48	6,35	0,31	0,6	0,6				●	NVR...-2	
11	40		11IR-V-UN40	6,35	0,37	0,6	0,6	●		●	●	NVR...-2	
11	36		11IR-V-UN36	6,35	0,41	0,6	0,6	●		●	●	NVR...-2	
11	32		11IR-V-UN32	6,35	0,46	0,6	0,6	●	●	●	●	NVR...-2	
11	32	11IL-V-UN32		6,35	0,46	0,6	0,6	●		●	●	NVR...-2	
11	28		11IR-V-UN28	6,35	0,52	0,6	0,7	●	●	●	●	NVR...-2	
11	28	11IL-V-UN28		6,35	0,52	0,6	0,7	●		●	●	NVR...-2	
11	27		11IR-V-UN27	6,35	0,54	0,7	0,8	●		●	●	●	NVR...-2
11	24		11IR-V-UN24	6,35	0,61	0,7	0,8	●	●	●	●	●	NVR...-2
11	24	11IL-V-UN24		6,35	0,61	0,7	0,8	●	●	●	●	●	NVR...-2
11	20		11IR-V-UN20	6,35	0,73	0,8	0,9	●	●	●	●	●	NVR...-2
11	20	11IL-V-UN20		6,35	0,73	0,8	0,9		●	●			NVR...-2
11	18		11IR-V-UN18	6,35	0,81	0,8	1,0	●	●	●	●	●	NVR...-2
11	18	11IL-V-UN18		6,35	0,81	0,8	1,0	●	●	●			NVR...-2
11	16		11IR-V-UN16	6,35	0,92	0,9	1,1	●	●	●	●		NVR...-2
11	16	11IL-V-UN16		6,35	0,92	0,9	1,1	●		●			NVR...-2
11	14		11IR-V-UN14	6,35	1,05	0,9	1,1		●	●	●		NVR...-2
11	14	11IL-V-UN14		6,35	1,05	0,9	1,1	●		●	●		NVR...-2
11	12		11IR-V-UN12	6,35	1,22	0,8	1,1	●		●			NVR...-2
11	12	11IL-V-UN12		6,35	1,22	0,8	1,1			●			NVR...-2
11	11		11IR-V-UN11	6,35	1,33	0,8	1,1	●		●			NVR...-2
11	11	11IL-V-UN11		6,35	1,33	0,8	1,1	●			●		NVR...-2
11	36		11IR-V-UN36-SB	6,35	0,41	1,1	0,5	●					NVR...-2
11	32		11IR-V-UN32-SB	6,35	0,46	1,2	0,5	●					NVR...-2
11	28		11IR-V-UN28-SB	6,35	0,52	0,6	0,8	●					NVR...-2
11	24		11IR-V-UN24-SB	6,35	0,61	0,7	0,8	●					NVR...-2
11	20		11IR-V-UN20-SB	6,35	0,73	0,6	0,8	●					NVR...-2
11	18		11IR-V-UN18-SB	6,35	0,81	0,6	0,8	●					NVR...-2
11	16		11IR-V-UN16-SB	6,35	0,97	0,7	0,8	●					NVR...-2
16	72		16IR-V-UN72	9,525	0,20	0,8	0,3			●			AVR...-3
16	56		16IR-V-UN56	9,525	0,26	0,7	0,4				●		AVR...-3
16	48		16IR-V-UN48	9,525	0,31	0,6	0,6	●	●	●	●		AVR...-3
16	48	16IL-V-UN48		9,525	0,31	0,6	0,6	●	●				AVR...-3
16	44		16IR-V-UN44	9,525	0,33	0,6	0,6	●	●	●			AVR...-3
16	44	16IL-V-UN44		9,525	0,33	0,6	0,6	●	●				AVR...-3
16	40		16IR-V-UN40	9,525	0,37	0,6	0,6	●	●	●	●		AVR...-3
16	40	16IL-V-UN40		9,525	0,37	0,6	0,6	●	●	●			AVR...-3
16	36		16IR-V-UN36	9,525	0,41	0,6	0,6	●	●	●	●		AVR...-3
16	36	16IL-V-UN36		9,525	0,41	0,6	0,6	●	●	●			AVR...-3
16	32		16IR-V-UN32	9,525	0,51	0,6	0,6	●	●	●	●		AVR...-3
16	32	16IL-V-UN32		9,525	0,51	0,6	0,6	●	●	●			AVR...-3
16	28		16IR-V-UN28	9,525	0,52	0,6	0,7	●	●	●	●		AVR...-3
16	28	16IL-V-UN28		9,525	0,52	0,6	0,7	●	●	●			AVR...-3
16	27		16IR-V-UN27	9,525	0,54	0,7	0,8	●	●	●			AVR...-3
16	27	16IL-V-UN27		9,525	0,54	0,7	0,8	●	●				AVR...-3
16	24		16IR-V-UN24	9,525	0,61	0,7	0,8	●	●	●	●		AVR...-3
16	24	16IL-V-UN24		9,525	0,61	0,7	0,8	●	●	●	●		AVR...-3
16	20		16IR-V-UN20	9,525	0,73	0,8	0,9	●	●	●	●		AVR...-3
16	20	16IL-V-UN20		9,525	0,73	0,8	0,9	●	●	●	●		AVR...-3
16	18		16IR-V-UN18	9,525	0,81	0,8	1,0	●	●	●	●		AVR...-3
16	18	16IL-V-UN18		9,525	0,81	0,8	1,0	●	●	●	●		AVR...-3
16	16		16IR-V-UN16	9,525	0,92	0,9	1,1	●	●	●	●	●	AVR...-3
16	16	16IL-V-UN16		9,525	0,92	0,9	1,1	●	●	●	●	●	AVR...-3
16	14		16IR-V-UN14	9,525	1,05	0,9	1,2	●	●	●	●	●	AVR...-3
16	14	16IL-V-UN14		9,525	1,05	0,9	1,2	●	●	●	●	●	AVR...-3
16	13		16IR-V-UN13	9,525	1,13	1,0	1,3	●	●	●	●		AVR...-3
16	13	16IL-V-UN13		9,525	1,13	1,0	1,3	●	●	●	●		AVR...-3
16	12		16IR-V-UN12	9,525	1,22	1,1	1,4	●	●	●	●		AVR...-3
16	12	16IL-V-UN12		9,525	1,22	1,1	1,4	●	●	●	●		AVR...-3

Innengewinde / Internal threading / Filettatura interna

Ausführung / Type / Esecuzione:

Standard

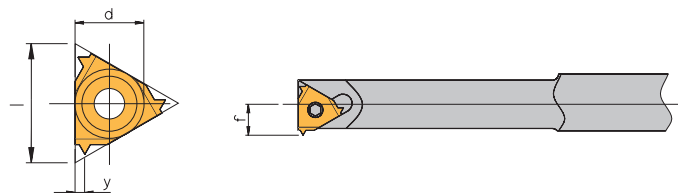
Sorten / Grades / Qualità														
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
								AL100	AM7C	AM15C	AK20	AK20P		
[G/Inch]														
16	11,5		16IR-V-UN11,5	9,525	1,28	1,1	1,5	●		●		●		AVR...3
16	11		16IR-V-UN11	9,525	1,33	1,1	1,5	●	●	●		●	●	AVR...3
16	11	16IL-V-UN11		9,525	1,33	1,1	1,5	●	●	●		●	●	AVR...3
16	10		16IR-V-UN10	9,525	1,47	1,1	1,5	●	●	●		●		AVR...3
16	10	16IL-V-UN10		9,525	1,47	1,1	1,5	●	●	●		●		AVR...3
16	9		16IR-V-UN9	9,525	1,63	1,2	1,7	●	●	●		●		AVR...3
16	9	16IL-V-UN9		9,525	1,63	1,2	1,7	●	●	●				AVR...3
16	8		16IR-V-UN8	9,525	1,83	1,1	1,5	●	●	●		●		AVR...3
16	8	16IL-V-UN8		9,525	1,83	1,1	1,5	●	●	●		●		AVR...3
16	28		16IR-V-UN28-SB	9,525	0,52	0,6	0,8	●						AVR...3
16	24		16IR-V-UN24-SB	9,525	0,61	0,7	0,8	●						AVR...3
16	20		16IR-V-UN20-SB	9,525	0,73	0,6	0,8	●						AVR...3
16	18		16IR-V-UN18-SB	9,525	0,81	0,6	0,8	●						AVR...3
16	16		16IR-V-UN16-SB	9,525	0,92	0,7	0,8	●						AVR...3
16	14		16IR-V-UN14-SB	9,525	1,05	1,1	1,5	●						AVR...3
16	13		16IR-V-UN13-SB	9,525	1,13	1,1	1,5	●						AVR...3
16	12		16IR-V-UN12-SB	9,525	1,22	1,1	1,5	●						AVR...3
16	10		16IR-V-UN10-SB	9,525	1,47	1,1	1,5	●						AVR...3
16	9		16IR-V-UN9-SB	9,525	1,63	1,2	1,7	●						AVR...3
16	8		16IR-V-UN8-SB	9,525	1,83	1,1	1,5	●						AVR...3
22	7		22IR-V-UN7	12,7	2,09	1,6	2,3	●	●	●		●		AVR...4
22	7	22IL-V-UN7		12,7	2,09	1,6	2,3	●	●	●				AVR...4
22	6		22IR-V-UN6	12,7	2,44	1,6	2,3	●	●	●		●		AVR...4
22	6	22IL-V-UN6		12,7	2,44	1,6	2,3	●	●	●				AVR...4
22	5		22IR-V-UN5	12,7	2,93	1,6	2,3	●	●	●		●		AVR...4
22	5	22IL-V-UN5		12,7	2,93	1,6	2,3	●	●	●				AVR...4
27	4,5		27IR-V-UN4,5	15,88	3,26	1,7	2,4	●		●		●		AVR...5
27	4,5	27IL-V-UN4,5		15,88	3,26	1,7	2,4			●				AVR...5
27	4		27IR-V-UN4	15,88	3,67	1,8	2,7	●		●		●		AVR...5

P	●	○	
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

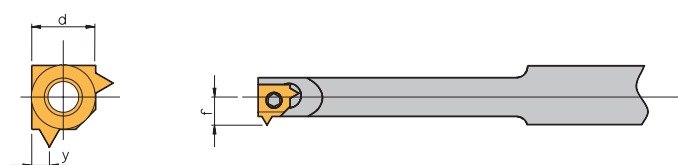
Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
								AL100	AM15C	HSS-TiN	
6	32	4KIR-V-UN32	4	0,46	0,5	3,50	6,15	●			...NVR.5-4.0K*
6	28	4KIR-V-UN28	4	0,52	0,6	3,50	6,15	●			...NVR.5-4.0K*
6	24	4KIR-V-UN24	4	0,61	0,6	3,60	6,25	●			...NVR.5-4.0K*
6	24	4KIL-V-UN24	4	0,61	0,6	3,60	6,25	●			...NVR.5-4.0K*
6	20	4KIR-V-UN20	4	0,73	0,6	3,70	6,35	●			...NVR.5-4.0K*
6	18	4KIR-V-UN18	4	0,81	0,7	3,70	6,35	●			...NVR.5-4.0K*
10	40	6IL-V-UN40	6	0,37	0,6	4,50	9,5		●		...NVR1...-6.0*
10	32	6IR-V-UN32	6	0,46	0,6	4,60	9,5		●	●	...NVR1...-6.0*
10	28	6IR-V-UN28	6	0,52	0,65	4,70	9,6		●	●	...NVR1...-6.0*
10	24	6IR-V-UN24	6	0,61	0,75	4,80	9,7		●	●	...NVR1...-6.0*
10	20	6IR-V-UN20	6	0,73	0,9	4,90	9,8		●	●	...NVR1...-6.0*
10	18	6IR-V-UN18	6	0,81	1,0	5,00	9,9	●	●	●	...NVR1...-6.0*
10	18	6IL-V-UN18	6	0,81	1,0	5,00	9,9		●	●	...NVR1...-6.0*
10	16	6IR-V-UN16	6	0,92	1,05	5,10	10,0		●	●	...NVR1...-6.0*
10	14	6IR-V-UN14	6	1,05	1,05	5,20	10,0		●	●	...NVR1...-6.0*

*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

P	●	○	●
M	●	●	○
K	○		
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
								AL100	AM15C	HSS-TiN	
32		5LIR-V-UN32	5	0,46	0,6	3,92	7,5		●	●	...NVR10.-5L*
28		5LIR-V-UN28	5	0,52	0,65	3,99	7,6		●	●	...NVR10.-5L*
24		5LIR-V-UN24	5	0,61	0,75	4,09	7,7		●	●	...NVR10.-5L*
24	5LIL-V-UN24		5	0,61	0,75	4,09	7,7		●	●	...NVR10.-5L*
20		5LIR-V-UN20	5	0,73	0,9	4,21	7,8	●	●	●	...NVR10.-5L*
18		5LIR-V-UN18	5	0,81	1,0	4,30	7,9		●	●	...NVR10.-5L*
16		5LIR-V-UN16	5	0,92	1,05	4,41	8,0		●	●	...NVR10.-5L*
14		5LIR-V-UN14	5	1,05	1,05	4,54	8,0		●	●	...NVR10.-5L*

*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

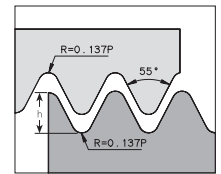
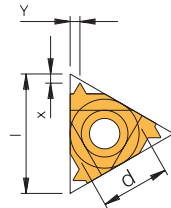
P	●	○	●
M	●	●	○
K	○		
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:



Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità						
	Teilung	Links	Rechts	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
	Pitch	Left	Right					AL100	AM7C	AM15C	AK20	AK20P		
	Passo	Sinistra	Destra											
[G/Inch]														
11	36		11ER-V-W36	6,35	0,45	0,6	0,6						NL...2	
11	28		11ER-V-W28	6,35	0,58	0,6	0,7	●	●	●			NL...2	
11	28	11EL-V-W28		6,35	0,58	0,6	0,7						NL...2	
11	26		11ER-V-W26	6,35	0,63	0,7	0,8				●		NL...2	
11	24		11ER-V-W24	6,35	0,68	0,7	0,8	●		●			NL...2	
11	24	11EL-V-W24		6,35	0,68	0,7	0,8	●					NL...2	
11	22		11ER-V-W22	6,35	0,74	0,8	0,9	●					NL...2	
11	20		11ER-V-W20	6,35	0,81	0,8	0,9	●					NL...2	
11	19		11ER-V-W19	6,35	0,86	0,8	1,0	●	●	●	●		NL...2	
11	19	11EL-V-W19		6,35	0,86	0,8	1,0		●	●			NL...2	
11	18		11ER-V-W18	6,35	0,90	0,8	1,0			●	●		NL...2	
11	14		11ER-V-W14	6,35	1,16	1,0	1,2	●	●	●	●	●	NL...2	
11	14	11EL-V-W14		6,35	1,16	1,0	1,2			●			NL...2	
16	60		16ER-V-W60	9,525	0,27	0,7	0,4			●			AL...3	
16	48		16ER-V-W48	9,525	0,34	0,6	0,6		●	●	●		AL...3	
16	48	16EL-V-W48		9,525	0,34	0,6	0,6		●	●			AL...3	
16	40		16ER-V-W40	9,525	0,41	0,6	0,6	●	●	●	●		AL...3	
16	40	16EL-V-W40		9,525	0,41	0,6	0,6		●	●			AL...3	
16	36		16ER-V-W36	9,525	0,45	0,6	0,6	●	●	●	●		AL...3	
16	36	16EL-V-W36		9,525	0,45	0,6	0,6		●	●	●		AL...3	
16	32		16ER-V-W32	9,525	0,51	0,6	0,6	●	●	●	●		AL...3	
16	32	16EL-V-W32		9,525	0,51	0,6	0,6		●	●	●		AL...3	
16	28		16ER-V-W28	9,525	0,58	0,6	0,7	●	●	●	●	●	AL...3	
16	28	16EL-V-W28		9,525	0,58	0,6	0,7	●	●	●			AL...3	
16	26		16ER-V-W26	9,525	0,63	0,7	0,8	●	●	●	●		AL...3	
16	26	16EL-V-W26		9,525	0,63	0,7	0,8		●	●			AL...3	
16	24		16ER-V-W24	9,525	0,68	0,7	0,8	●	●	●	●		AL...3	
16	24	16EL-V-W24		9,525	0,68	0,7	0,8	●	●	●	●		AL...3	
16	22		16ER-V-W22	9,525	0,74	0,8	0,9	●	●	●	●		AL...3	
16	22	16EL-V-W22		9,525	0,74	0,8	0,9		●	●			AL...3	
16	20		16ER-V-W20	9,525	0,81	0,8	0,9	●	●	●	●		AL...3	
16	20	16EL-V-W20		9,525	0,81	0,8	0,9	●	●	●			AL...3	
16	19		16ER-V-W19	9,525	0,86	0,8	1,0	●	●	●	●	●	AL...3	
16	19	16EL-V-W19		9,525	0,86	0,8	1,0	●	●	●	●	●	AL...3	
16	18		16ER-V-W18	9,525	0,90	0,8	1,0	●	●	●	●		AL...3	
16	18	16EL-V-W18		9,525	0,90	0,8	1,0	●	●	●			AL...3	
16	16		16ER-V-W16	9,525	1,02	0,9	1,1	●	●	●	●	●	AL...3	
16	16	16EL-V-W16		9,525	1,02	0,9	1,1	●	●	●			AL...3	
16	14		16ER-V-W14	9,525	1,16	1,0	1,2	●	●	●	●	●	AL...3	
16	14	16EL-V-W14		9,525	1,16	1,0	1,2	●	●	●	●	●	AL...3	
16	12		16ER-V-W12	9,525	1,36	1,1	1,4	●	●	●	●		AL...3	
16	12	16EL-V-W12		9,525	1,36	1,1	1,4	●	●	●	●		AL...3	
16	11		16ER-V-W11	9,525	1,48	1,1	1,5	●	●	●	●	●	AL...3	
16	11	16EL-V-W11		9,525	1,48	1,1	1,5	●	●	●	●		AL...3	
16	10		16ER-V-W10	9,525	1,63	1,1	1,5	●	●	●	●		AL...3	
16	10	16EL-V-W10		9,525	1,63	1,1	1,5	●	●	●	●		AL...3	
16	9		16ER-V-W9	9,525	1,81	1,2	1,7	●	●	●	●		AL...3	
16	9	16EL-V-W9		9,525	1,81	1,2	1,7		●	●			AL...3	
16	8		16ER-V-W8	9,525	2,03	1,2	1,5	●	●	●	●		AL...3	
16	8	16EL-V-W8		9,525	2,03	1,2	1,5	●	●	●			AL...3	
16	36		16ER-V-W36-SB	9,525	0,45	1,2	0,5	●					AL...3	
16	32		16ER-V-W32-SB	9,525	0,51	1,2	0,5	●					AL...3	
16	28		16ER-V-W28-SB	9,525	0,58	0,7	0,8	●					AL...3	
16	24		16ER-V-W24-SB	9,525	0,68	0,7	0,8	●					AL...3	
16	20		16ER-V-W20-SB	9,525	0,81	0,7	0,8	●					AL...3	
16	19		16ER-V-W19-SB	9,525	0,86	0,7	0,8	●					AL...3	
16	18		16ER-V-W18-SB	9,525	0,90	0,8	0,8	●					AL...3	
16	16		16ER-V-W16-SB	9,525	1,02	0,8	0,8	●					AL...3	
16	14		16ER-V-W14-SB	9,525	1,16	1,3	1,5	●					AL...3	
16	12		16ER-V-W12-SB	9,525	1,36	1,3	1,5	●					AL...3	

Außengewinde / External threading / Filettatura esterna

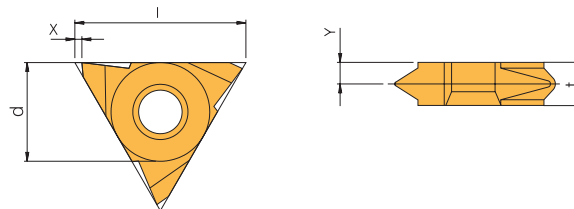
Ausführung / Type / Esecuzione:
Standard

		Sorten / Grades / Qualità											
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C	AK20	AK20P	
	[G/Inch]												
16	11		16ER-V-W11-SB	9,525	1,48	1,3	1,5	●					AL...-3
16	8		16ER-V-W8-SB	9,525	2,03	1,3	1,5	●					AL...-3
22	7		22ER-V-W7	12,7	2,41	1,6	2,3	●	●	●	●		AL...-4
22	7	22EL-V-W7		12,7	2,41	1,6	2,3		●	●			AL...-4
22	6		22ER-V-W6	12,7	2,71	1,6	2,3	●	●	●	●		AL...-4
22	6	22EL-V-W6		12,7	2,71	1,6	2,3		●	●			AL...-4
22	5		22ER-V-W5	12,7	3,25	1,7	2,4	●	●	●	●		AL...-4
22	5	22EL-V-W5		12,7	3,25	1,7	2,4		●	●			AL...-4
27	4,5		27ER-V-W4,5	15,88	3,61	1,8	2,6	●		●	●		AL...-5
27	4		27ER-V-W4	15,88	4,07	2,0	2,9	●		●	●		AL...-5



P	●		○	
M	●	●	●	
K	○	○		●
N				●
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Ausführung / Type / Esecuzione:
Slim Throat / Slim Throat / Stelo scaricato

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

		Sorten / Grades / Qualità											
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	beschichtet coated rivestito			unbeschichtet uncoated non rivestito	
									AL100	AM7C	AM15C	AK20	Klemmhalter Tool holder Utensile
	[G/Inch]												
11	19		11VER-V-W19	6,35	0,86	0,69	2,30	3,20		●	●		NL...-2V
11	14		11VER-V-W14	6,35	1,16	0,69	2,00	3,20		●	●		NL...-2V
11	14	11VEL-V-W14		6,35	1,16	0,69	2,00	3,20			●		NL...-2V
11	11		11VER-V-W11	6,35	1,48	0,69	1,70	3,20	●		●	●	NL...-2V
16	19		16VER-V-W19	9,525	0,68	1,10	2,70	3,60	●	●	●	●	NL...-3V
16	19	16VEL-V-W19		9,525	0,68	1,10	2,70	3,60	●	●		●	NL...-3V
16	16		16VER-V-W16	9,525	1,02	1,10	2,60	3,60	●				NL...-3V
16	14		16VER-V-W14	9,525	1,16	1,10	2,40	3,60	●	●	●	●	NL...-3V
16	14	16VEL-V-W14		9,525	1,16	1,10	2,40	3,60	●	●	●	●	NL...-3V
16	12		16VER-V-W12	9,525	1,36	1,10	2,20	3,60	●				NL...-3V
16	11		16VER-V-W11	9,525	1,48	1,10	2,10	3,60	●	●	●	●	NL...-3V
16	11	16VEL-V-W11		9,525	1,48	1,10	2,10	3,60	●		●		NL...-3V

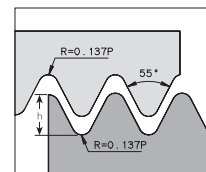
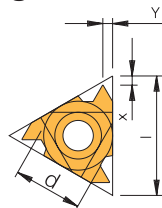
P	●		○	
M	●	●	●	
K	○	○		●
N				●
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.



Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

Standard


Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Sorten / Grades / Qualità													
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
								AL100	AM7C	AM15C	AK20	AK20P		
	[G/Inch]													
11	48		11IR-V-W48	6,35	0,34	0,6	0,6							NVR...-2
11	40		11IR-V-W40	6,35	0,41	0,6	0,6	●	●	●				NVR...-2
11	36		11IR-V-W36	6,35	0,45	0,6	0,6			●	●			NVR...-2
11	36	11IL-V-W36		6,35	0,45	0,6	0,6			●				NVR...-2
11	32		11IR-V-W32	6,35	0,51	0,6	0,6	●	●	●				NVR...-2
11	28		11IR-V-W28	6,35	0,58	0,6	0,7	●	●		●			NVR...-2
11	26		11IR-V-W26	6,35	0,63	0,7	0,8	●	●	●	●			NVR...-2
11	26	11IL-V-W26		6,35	0,63	0,7	0,8	●		●	●			NVR...-2
11	24		11IR-V-W24	6,35	0,68	0,7	0,8	●	●	●	●			NVR...-2
11	24	11IL-V-W24		6,35	0,68	0,7	0,8	●	●					NVR...-2
11	22		11IR-V-W22	6,35	0,74	0,8	0,9	●		●				NVR...-2
11	20		11IR-V-W20	6,35	0,81	0,8	0,9	●		●	●			NVR...-2
11	20	11IL-V-W20		6,35	0,81	0,8	0,9			●				NVR...-2
11	19		11IR-V-W19	6,35	0,86	0,8	1,0	●	●	●	●	●		NVR...-2
11	19	11IL-V-W19		6,35	0,86	0,8	1,0	●	●	●	●	●		NVR...-2
11	18		11IR-V-W18	6,35	0,90	0,8	1,0	●	●	●	●			NVR...-2
11	18	11IL-V-W18		6,35	0,90	0,8	1,0	●						NVR...-2
11	16		11IR-V-W16	6,35	1,02	0,9	1,1	●	●	●	●			NVR...-2
11	14		11IR-V-W14	6,35	1,16	0,9	1,1	●	●	●	●	●	●	NVR...-2
11	14	11IL-V-W14		6,35	1,16	0,9	1,1	●	●	●	●	●		NVR...-2
11	12		11IR-V-W12	6,35	1,32	0,9	1,2	●		●				NVR...-2
11	12	11IL-V-W12		6,35	1,32	0,9	1,2			●				NVR...-2
11	36		11IR-V-W36-SB	6,35	0,45	1,2	0,5	●						NVR...-2
11	32		11IR-V-W32-SB	6,35	0,51	1,2	0,5	●						NVR...-2
11	28		11IR-V-W28-SB	6,35	0,58	0,7	0,8	●						NVR...-2
11	24		11IR-V-W24-SB	6,35	0,68	0,7	0,8	●						NVR...-2
11	20		11IR-V-W20-SB	6,35	0,81	0,7	0,8	●						NVR...-2
11	19		11IR-V-W19-SB	6,35	0,86	0,6	0,8	●						NVR...-2
11	18		11IR-V-W18-SB	6,35	0,90	0,8	0,8	●						NVR...-2
11	16		11IR-V-W16-SB	6,35	1,02	0,8	0,8	●						NVR...-2
11	14		11IR-V-W14-SB	6,35	1,16	0,7	0,9	●						NVR...-2
16	48		16IR-V-W48	9,525	0,34	0,6	0,6		●	●				AVR...-3
16	48	16IL-V-W48		9,525	0,34	0,6	0,6		●					AVR...-3
16	40		16IR-V-W40	9,525	0,41	0,6	0,6		●	●				AVR...-3
16	40	16IL-V-W40		9,525	0,41	0,6	0,6		●	●				AVR...-3
16	36		16IR-V-W36	9,525	0,45	0,6	0,6		●	●	●			AVR...-3
16	36	16IL-V-W36		9,525	0,45	0,6	0,6		●	●	●			AVR...-3
16	32		16IR-V-W32	9,525	0,51	0,6	0,6	●	●	●	●			AVR...-3
16	32	16IL-V-W32		9,525	0,51	0,6	0,6		●	●	●			AVR...-3
16	28		16IR-V-W28	9,525	0,58	0,6	0,7	●	●	●	●			AVR...-3
16	28	16IL-V-W28		9,525	0,58	0,6	0,7		●	●	●			AVR...-3
16	26		16IR-V-W26	9,525	0,63	0,7	0,8	●	●	●	●			AVR...-3
16	26	16IL-V-W26		9,525	0,63	0,7	0,8	●	●	●	●			AVR...-3
16	24		16IR-V-W24	9,525	0,68	0,7	0,8	●	●	●	●	●		AVR...-3
16	24	16IL-V-W24		9,525	0,68	0,7	0,8	●	●	●	●			AVR...-3
16	22		16IR-V-W22	9,525	0,74	0,8	0,9	●	●	●	●			AVR...-3
16	22	16IL-V-W22		9,525	0,74	0,8	0,9		●	●	●			AVR...-3
16	20		16IR-V-W20	9,525	0,81	0,8	0,9	●	●	●	●	●		AVR...-3
16	20	16IL-V-W20		9,525	0,81	0,8	0,9	●	●	●	●			AVR...-3
16	19		16IR-V-W19	9,525	0,86	0,8	1,0	●	●	●	●	●	●	AVR...-3
16	19	16IL-V-W19		9,525	0,86	0,8	1,0	●	●	●	●	●		AVR...-3
16	18		16IR-V-W18	9,525	0,90	0,8	1,0	●	●	●	●	●		AVR...-3
16	18	16IL-V-W18		9,525	0,90	0,8	1,0	●	●	●	●			AVR...-3
16	16		16IR-V-W16	9,525	1,02	0,9	1,1	●	●	●	●	●		AVR...-3
16	16	16IL-V-W16		9,525	1,02	0,9	1,1		●	●	●			AVR...-3
16	14		16IR-V-W14	9,525	1,16	1,0	1,2	●	●	●	●	●	●	AVR...-3
16	14	16IL-V-W14		9,525	1,16	1,0	1,2	●	●	●	●	●		AVR...-3
16	12		16IR-V-W12	9,525	1,36	1,1	1,4	●	●	●	●	●		AVR...-3
16	12	16IL-V-W12		9,525	1,36	1,1	1,4		●	●	●	●		AVR...-3
16	11		16IR-V-W11	9,525	1,48	1,1	1,5	●	●	●	●	●	●	AVR...-3
16	11	16IL-V-W11		9,525	1,48	1,1	1,5	●	●	●	●			AVR...-3
16	10		16IR-V-W10	9,525	1,63	1,1	1,5	●	●	●	●	●		AVR...-3

Innengewinde / Internal threading / Filettatura interna

Ausführung / Type / Esecuzione:

Standard

								Sorten / Grades / Qualità					
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C	AK20	AK20P	
	[G/Inch]												
16	10	16IL-V-W10		9,525	1,63	1,1	1,5	●	●	●	●		AVR...3
16	9		16IR-V-W9	9,525	1,81	1,2	1,7	●	●	●	●		AVR...3
16	9	16IL-V-W9		9,525	1,81	1,2	1,7		●	●			AVR...3
16	8		16IR-V-W8	9,525	2,03	1,2	1,5	●	●	●	●		AVR...3
16	8	16IL-V-W8		9,525	2,03	1,2	1,5	●	●	●	●		AVR...3
16	28		16IR-V-W28-SB	9,525	0,58	0,7	0,8	●					AVR...3
16	24		16IR-V-W24-SB	9,525	0,68	0,7	0,8	●					AVR...3
16	20		16IR-V-W20-SB	9,525	0,81	0,7	0,8	●					AVR...3
16	19		16IR-V-W19-SB	9,525	0,86	0,6	0,5	●					AVR...3
16	18		16IR-V-W18-SB	9,525	0,90	0,8	0,8	●					AVR...3
16	16		16IR-V-W16-SB	9,525	1,02	0,8	0,8	●					AVR...3
16	14		16IR-V-W14-SB	9,525	1,16	1,3	1,5	●					AVR...3
16	12		16IR-V-W12-SB	9,525	1,36	1,3	1,5	●					AVR...3
16	11		16IR-V-W11-SB	9,525	1,48	1,3	1,5	●					AVR...3
16	10		16IR-V-W10-SB	9,525	1,63	1,3	1,5	●					AVR...3
16	8		16IR-V-W8-SB	9,525	2,03	1,3	1,5	●					AVR...3
22	7		22IR-V-W7	12,7	2,41	1,6	2,3	●	●	●	●		AVR...4
22	7	22IL-V-W7		12,7	2,41	1,6	2,3	●	●	●			AVR...4
22	6		22IR-V-W6	12,7	2,71	1,6	2,3	●	●	●			AVR...4
22	6	22IL-V-W6		12,7	2,71	1,6	2,3		●	●			AVR...4
22	5		22IR-V-W5	12,7	3,25	1,7	2,4	●	●	●	●		AVR...4
22	5	22IL-V-W5		12,7	3,25	1,7	2,4		●	●			AVR...4
27	4,5		27IR-V-W4,5	15,88	3,61	1,8	2,6	●		●			AVR...5
27	4,5	27IL-V-W4,5		15,88	3,61	1,8	2,6	●					AVR...5
27	4		27IR-V-W4	15,88	4,07	2,0	2,9	●		●	●		AVR...5
27	4	27IL-V-W4		15,88	4,07	2,0	2,9			●	●		AVR...5

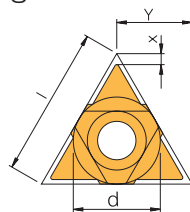
P	●		○	
M	●	●		
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

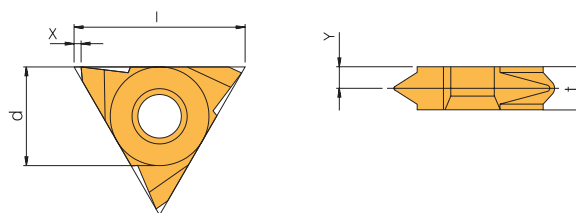
U

	Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AL100	AM15C	
	[G/Inch]								
22	4,5	22UIN-V-W4,5	12,7	3,61	2,3	11,0	●		AVR...4U
22	4	22UIN-V-W4	12,7	4,07	1,8	11,0	●	●	AVR...4U
22	3,5	22UIN-V-W3,5	12,7	4,65	2,1	11,0	●		AVR...4U
27	3,5	27UIN-V-W3,5	15,88	4,65	2,1	13,7	●	●	AVR...5U
27	3,25	27UIN-V-W3,25	15,88	5,00	2,0	13,7	●	●	AVR...5U
27	3	27UIN-V-W3	15,88	5,42	2,3	13,7	●	●	AVR...5U
27	2,75	27UIN-V-W2,75	15,88	5,91	2,4	13,7		●	AVR...5U

P	●	○
M	●	●
K	○	
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

V

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

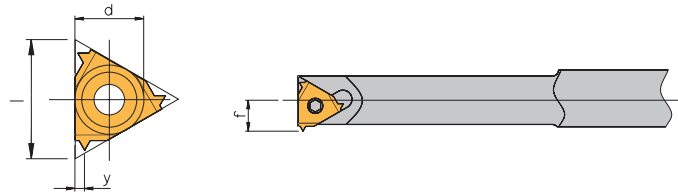
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
									beschichtet coated rivestito	unbe- schichtet uncoated non rivestito	AK20	
	[G/Inch]								AL100	AM15C		
27	4		27VIR-V-W4	15,88	4,07	1,0	3,3	6	●	●		NVR...5V
27	3		27VIR-V-W3	15,88	5,42	1,0	4,3	8	●	●	●	NVR...5V
27	3	27VIL-V-W3		15,88	5,42	1,0	4,3	8	●			NVR...5V
27	2,5		27VIR-V-W2,5	15,88	6,51	1,0	5,2	10	●			NVR...5V

P	●	○
M	●	●
K	○	
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 3

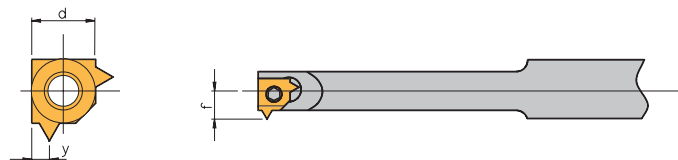
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo [G/Inch]	Rechts Right Destra	d	h _{min}	y	f	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
						AL100	AM15C	HSS-TiN	
6	26	4KIR-V-W26	4	0,63	0,6	●			...NVR.5-4,0K*
6	22	4KIR-V-W22	4	0,74	0,6	●			...NVR.5-4,0K*
6	20	4KIR-V-W20	4	0,81	0,7	●			...NVR.5-4,0K*
6	19	4KIR-V-W19	4	0,86	0,7	●			...NVR.5-4,0K*
6	18	4KIR-V-W18	4	0,90	0,7	●			...NVR.5-4,0K*
10	28	6IR-V-W28	6	0,58	0,7		●	●	...NVR1...-6,0*
10	19	6IR-V-W19	6	0,86	1,0	●	●	●	...NVR1...-6,0*
10	19		6	0,86	1,0		●		...NVR1...-6,0*
10	14	6IR-V-W14	6	1,16	1,1		●	●	...NVR1...-6,0*

*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

P	●	○	●
M	●	●	○
K	○		
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo [G/Inch]	Rechts Right Destra	d	h _{min}	y	f	Sorten / Grades / Qualità				Klemmhalter Tool holder Utensile
						AL100	AM7C	AM15C	HSS-TiN	
28	5LIR-V-W28	5	0,58	0,7	4,05	●	●	●	●	...NVR 10.-5L*
19	5LIR-V-W19	5	0,86	1,0	4,35		●	●	●	...NVR 10.-5L*
14	5LIR-V-W14	5	1,16	1,1	4,68			●	●	...NVR 10.-5L*

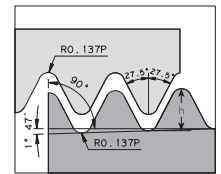
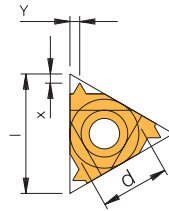
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	●		○	●
M	●	●	●	○
K	○	○		
N				
S	○			○
H				

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria


We have a passion for precision.

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

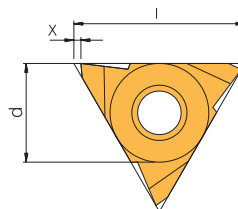
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità				
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C		
	[G/Inch]											
11	14		11ER-V-BSPT14	6,35	1,16	0,9	1,0	●		●		NL...-2
16	28		16ER-V-BSPT28	9,525	0,58	0,6	0,6	●	●	●	●	AL...-3
16	28	16EL-V-BSPT28		9,525	0,58	0,6	0,6				●	AL...-3
16	19		16ER-V-BSPT19	9,525	0,86	0,8	0,9	●	●	●	●	AL...-3
16	14		16ER-V-BSPT14	9,525	1,16	1,0	1,2	●	●	●	●	AL...-3
16	14	16EL-V-BSPT14		9,525	1,16	1,0	1,2	●	●	●	●	AL...-3
16	11		16ER-V-BSPT11	9,525	1,48	1,1	1,5	●	●	●	●	AL...-3
16	11	16EL-V-BSPT11		9,525	1,48	1,1	1,5	●	●	●	●	AL...-3

P	●	○	
M	●	●	●
K	○	○	
N			●
S	○		
H			


● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
Slim Throat / Slim Throat / Stelo scaricato

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità				
	Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	x	y	t	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C		
	[G/Inch]											
16	28	16VER-V-BSPT28	9,525	0,58	1,1	3,0	3,6		●	●		NL...-3V
16	19	16VER-V-BSPT19	9,525	0,86	1,1	2,7	3,6	●			●	NL...-3V
16	11	16VER-V-BSPT11	9,525	1,48	1,1	2,1	3,6			●		NL...-3V

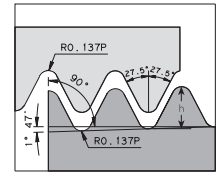
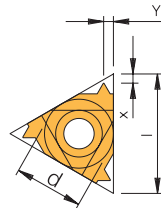
P	●	○	
M	●	●	●
K	○	○	
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

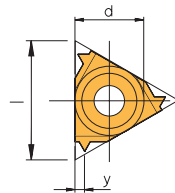
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

		Sorten / Grades / Qualità											
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C	AK20	AK20P	
11	19		11IR-V-BSPT19	6,35	0,86	0,8	0,9	●	●	●		●	NVR...2
11	14		11IR-V-BSPT14	6,35	1,16	0,9	1,0	●	●	●		●	NVR...2
11	14	11IL-V-BSPT14		6,35	1,16	0,9	1,0		●				NVR...2
16	28		16IR-V-BSPT28	9,525	0,58	0,6	0,6	●		●			AVR...3
16	19		16IR-V-BSPT19	9,525	0,86	0,8	0,9	●	●	●			AVR...3
16	14		16IR-V-BSPT14	9,525	1,16	1,0	1,2	●	●	●	●		AVR...3
16	14	16IL-V-BSPT14		9,525	1,16	1,0	1,2	●					AVR...3
16	11		16IR-V-BSPT11	9,525	1,48	1,1	1,5	●	●	●	●		AVR...3
16	11	16IL-V-BSPT11		9,525	1,48	1,1	1,5	●					AVR...3

P	●		○	
M	●	●		
K	○	○		
N				
S	○			
H				


● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità			
	Teilung <i>Pitch</i> Passo	Rechts <i>Right</i> <i>Destra</i>	d	h _{min}	y	f	Min Bohr ø <i>min Drill ø</i> D min foro	AL100	AM15C	HSS-TiN	Klemmhalter <i>Tool holder</i> Utensile
[G/Inch]											
6	28	4KIR-V-BSPT28	4	0,58	0,6	3,6	6,25	●			...NVR.5-4.0K*
10	28	6IR-V-BSPT28	6	0,58	0,6	4,7	9,60		●		...NVR1..6.0*
10	19	6IR-V-BSPT19	6	0,86	0,9	5,0	9,90		●	●	...NVR1..6.0*
10	14	6IR-V-BSPT14	6	1.16	1.2	5.3	10,00			●	...NVR1..6.0*

*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

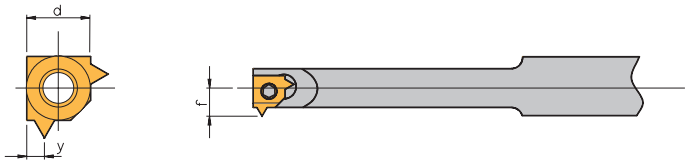
P	●	○	●
M	●	●	○
K	○		
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AM15C	HSS-TiN	
[G/Inch]									
19	5LIR-V-BSPT19	5,0L	0,86	0,9	4,35	7,90	●	●	...NVR10.-5L*
14	5LIR-V-BSPT14	5,0L	1,16	1,2	4,68	8,00	●	●	...NVR10.-5L*

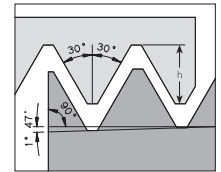
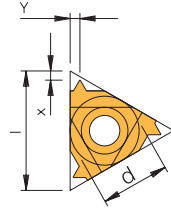
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	○	●
M	●	○
K		
N		
S		○
H		

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria


We have a passion for precision.

Außengewinde / External threading / Filettatura esterna

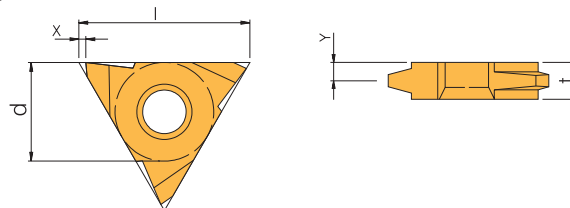


Ausführung / Type / Esecuzione:
Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

										Sorten / Grades / Qualità						Klemmhalter Tool holder Utensile
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	AL100	beschichtet coated rivestito		unbeschichtet uncoated non rivestito					
									AM7C	AM15C	AK20	AK20P				
[G/Inch]																
11	18		11ER-V-NPT18	6,35	1,01	0,8	1,0			●			NL...-2			
11	14		11ER-V-NPT14	6,35	1,33	0,8	1,0	●	●				NL...-2			
11	14	11EL-V-NPT14		6,35	1,33	0,8	1,0			●			NL...-2			
16	27		16ER-V-NPT27	9,525	0,66	0,7	0,8	●	●	●	●		AL...-3			
16	27	16EL-V-NPT27		9,525	0,66	0,7	0,8			●	●		AL...-3			
16	18		16ER-V-NPT18	9,525	1,01	0,8	1,0	●	●	●	●	●	AL...-3			
16	18	16EL-V-NPT18		9,525	1,01	0,8	1,0	●	●	●	●		AL...-3			
16	14		16ER-V-NPT14	9,525	1,33	0,9	1,2	●	●	●	●	●	AL...-3			
16	14	16EL-V-NPT14		9,525	1,33	0,9	1,2	●	●	●		●	AL...-3			
16	11,5		16ER-V-NPT11,5	9,525	1,64	1,1	1,5	●	●	●	●	●	AL...-3			
16	11,5	16EL-V-NPT11,5		9,525	1,64	1,1	1,5	●	●	●	●	●	AL...-3			
16	8		16ER-V-NPT8	9,525	2,42	1,3	1,8	●	●	●	●		AL...-3			
16	8	16EL-V-NPT8		9,525	2,42	1,3	1,8	●		●			AL...-3			
16	27		16ER-V-NPT27-SB	9,525	0,66	0,6	0,8	●					AL...-3			
16	18		16ER-V-NPT18-SB	9,525	1,01	0,6	0,8	●					AL...-3			
16	14		16ER-V-NPT14-SB	9,525	1,33	1,1	1,5	●					AL...-3			
16	11,5		16ER-V-NPT11,5-SB	9,525	1,64	1,1	1,5	●					AL...-3			
16	8		16ER-V-NPT8-SB	9,525	2,42	1,0	1,5	●					AL...-3			
P								●		○			● Hauptanwendung Main application Applicazione principale ○ Nebenanwendung Secondary application Applicazione secondaria			
M								●	●	●						
K								○	○		●	●				
N											●	●				
S								○								
H																


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

Slim Throat / Slim Throat / Stelo scaricato

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

		Sorten / Grades / Qualità											
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile
									AL100	AM7C	AM15C		
	[G/Inch]												
11	18		11VER-V-NPT18	6,35	1,01	0,7	1,8	3,2	●		●		NL...-2V
11	18	11VEL-V-NPT18		6,35	1,01	0,7	1,8	3,2	●				NL...-2V
11	14		11VER-V-NPT14	6,35	1,33	0,7	1,8	3,2			●	●	NL...-2V
11	11,5		11VER-V-NPT11,5	6,35	1,64	0,7	2,1	3,2				●	NL...-2V
11	11,5	11VEL-V-NPT11,5		6,35	1,64	0,7	2,1	3,2			●		NL...-2V
16	27		16VER-V-NPT27	9,525	0,66	1,1	2,9	3,6	●		●		NL...-3V
16	18		16VER-V-NPT18	9,525	1,01	1,1	2,6	3,6	●	●	●		NL...-3V
16	18	16VEL-V-NPT18		9,525	1,01	1,1	2,6	3,6		●			NL...-3V
16	11,5		16VER-V-NPT11,5	9,525	1,64	1,1	2,1	3,6	●		●	●	NL...-3V
16	11,5	16VEL-V-NPT11,5		9,525	1,64	1,1	2,1	3,6	●				NL...-3V

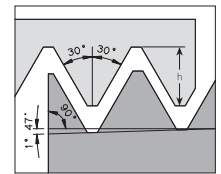
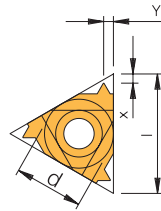
P	●		○	
M	●	●	●	
K	○	○		●
N				●
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


We have a passion for precision.

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

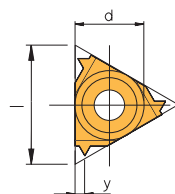
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità							Klemmhalter Tool holder Utensile
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito				
								AL100	AM7C	AM15C	AK20	AK20P			
[G/Inch]															
11	27		11IR-V-NPT27	6,35	0,66	0,7	0,8	●	●	●				NVR...2	
11	18		11IR-V-NPT18	6,35	1,01	0,8	1,0	●	●	●	●			NVR...2	
11	18	11IL-V-NPT18		6,35	1,01	0,8	1,0		●	●				NVR...2	
11	14		11IR-V-NPT14	6,35	1,33	0,8	1,0	●	●	●	●			NVR...2	
11	14	11IL-V-NPT14		6,35	1,33	0,8	1,0	●	●	●				NVR...2	
16	27		16IR-V-NPT27	9,525	0,66	0,7	0,8	●	●	●				AVR...3	
16	27	16IL-V-NPT27		9,525	0,66	0,7	0,8		●	●				AVR...3	
16	18		16IR-V-NPT18	9,525	1,01	0,8	1,0	●	●	●	●			AVR...3	
16	14		16IR-V-NPT14	9,525	1,33	0,9	1,2	●	●	●	●			AVR...3	
16	14	16IL-V-NPT14		9,525	1,33	0,9	1,2	●	●	●				AVR...3	
16	11,5		16IR-V-NPT11,5	9,525	1,64	1,1	1,5	●	●	●	●	●		AVR...3	
16	11,5	16IL-V-NPT11,5		9,525	1,64	1,1	1,5	●	●	●				AVR...3	
16	8		16IR-V-NPT8	9,525	2,42	1,3	1,8	●	●	●	●			AVR...3	
16	8	16IL-V-NPT8		9,525	2,42	1,3	1,8	●		●				AVR...3	
16	14		16IR-V-NPT14-SB	9,525	1,33	1,1	1,5	●						AVR...3	
16	11,5		16IR-V-NPT11,5-SB	9,525	1,64	1,1	1,5	●						AVR...3	
16	8		16IR-V-NPT8-SB	9,525	2,42	1,0	1,5	●						AVR...3	

P	●	○		
M	●	●	●	
K	○	○		
N				
S	○			
H				


● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità					Klemmhalter Tool holder Utensile
	Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	AL100	AM7C	AM15C	HSS-TiN		
[G/Inch]													
6	27	4KIR-V-NPT27	4	0,66	0,6	3,7	6,35	●				...NVR.5-4.0K*	
10	27	6IR-V-NPT27	6	0,66	0,8	5,3	10,00			●	●	...NVR1...-6.0*	
10	18	6IR-V-NPT18	6	1,01	1,0	5,3	10,00	●	●	●	●	...NVR1...-6.0*	
10	14	6IR-V-NPT14	6	1.33	1.1	5.3	10.00			●	●	...NVR1...-6.0*	

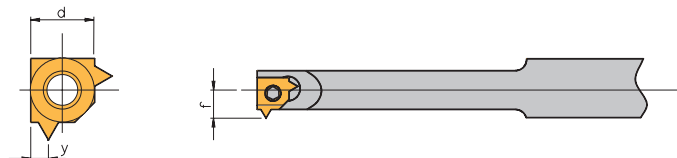
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

P	●	○	●
M	●	●	○
K	○	○	
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AM15C	HSS-TiN	
[G/Inch]									
27	5LIR-V-NPT27	5,0L	0,66	0,8	4,65	8,00	●	●	...NVR10.-5L*
18	5LIR-V-NPT18	5,0L	1,01	1,0	4,65	8,00	●	●	...NVR10.-5L*
14	5LIR-V-NPT14	5,0L	1,33	1,1	4,65	8,00	●	●	...NVR10.-5L*

*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

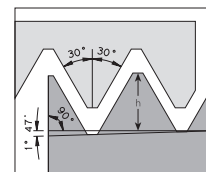
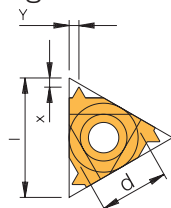
P	○	●
M	●	○
K		
N		
S		○
H		

● **Hauptanwendung**
Main application
Applicazione principale

○ **Nebenanwendung**
Secondary application
Applicazione secondaria


We have a passion for precision.

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità				
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C		
	[G/Inch]											
11	27		11ER-V-NPTF27	6,35	0,64	0,7	0,8	●		●		NL...-2
11	18		11ER-V-NPTF18	6,35	1,00	0,8	1,0	●				NL...-2
16	27		16ER-V-NPTF27	9,525	0,64	0,7	0,8	●	●	●	●	AL...-3
16	18		16ER-V-NPTF18	9,525	1,00	0,8	1,0	●	●	●	●	AL...-3
16	18	16EL-V-NPTF18		9,525	1,00	0,8	1,0	●				AL...-3
16	14		16ER-V-NPTF14	9,525	1,35	0,9	1,2	●	●	●	●	AL...-3
16	11,5		16ER-V-NPTF11,5	9,525	1,63	1,1	1,5	●	●	●	●	AL...-3
16	8		16ER-V-NPTF8	9,525	2,38	1,3	1,8	●		●	●	AL...-3

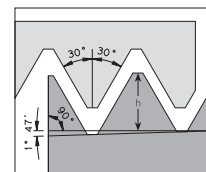
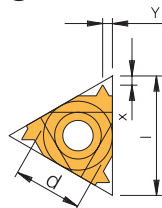
P	●		○	
M	●	●	●	
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


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Innengewinde / Internal threading / Filettatura interna



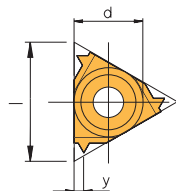
Ausführung / Type / Esecuzione:
Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità					
	Teilung	Links	Rechts	d	h _{min}	x	y	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile	
	Pitch Passo	Left Sinistra	Right Destra					AL100	AM7C	AM15C	AK20		
[G/Inch]													
11	18		11IR-V-NPTF18	6,35	1,00	0,8	1,0	●	●	●		NVR...2	
11	14		11IR-V-NPTF14	6,35	1,35	0,8	1,0	●	●	●	●	NVR...2	
11	14	11IL-V-NPTF14		6,35	1,35	0,8	1,0			●		NVR...2	
16	18		16IR-V-NPTF18	9,525	1,00	0,8	1,0		●	●		AVR...3	
16	14		16IR-V-NPTF14	9,525	1,35	0,9	1,2	●	●	●	●	AVR...3	
16	11,5		16IR-V-NPTF11,5	9,525	1,63	1,1	1,5	●	●	●	●	AVR...3	
16	8		16IR-V-NPTF8	9,525	2,38	1,3	1,8	●	●	●	●	AVR...3	


P	●	○	
M	●	●	●
K	○	○	●
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità			
	Teilung <i>Pitch</i> Passo	Rechts <i>Right</i> Destra	d	h _{min}	y	f	Min Bohr ø <i>min Drill ø</i> D min foro	AL100	AM15C	HSS-TiN	Klemmhalter <i>Tool holder</i> Utensile
[G/Inch]											
6	27	4KIR-V-NPTF27	4	0,64	0,6	3,6	6,25	●			...NVR.5-4.0K*
10	18	6IR-V-NPTF18	6	1,00	1,0	5,3	10,00		●	●	...NVR1...-6.0*
10	14	6IR-V-NPTF14	6	1,35	1,1	5,3	10,00		●		...NVR1...-6.0*

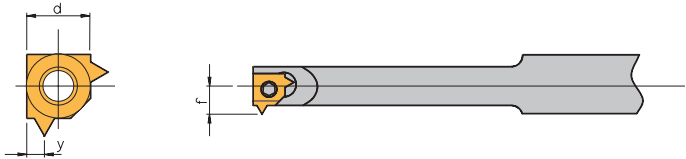
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

P	●	○	●
M	●	●	○
K	○		
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria

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Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AM15C	HSS-TiN	
[G/Inch]									
27	5LIR-V-NPTF27	5,0L	0,64	0,8	4,65	8,00	●	●	...NVR10.-5L*
18	5LIR-V-NPTF18	5,0L	1,00	1,0	4,65	8,00	●	●	...NVR10.-5L*
14	5LIR-V-NPTF14	5,0L	1,35	1,1	4,65	8,00	●	●	...NVR10.-5L*

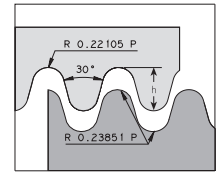
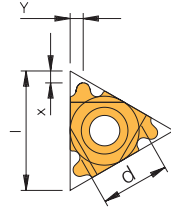
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	○	●
M	●	○
K		
N		
S		○
H		

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria


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Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Sorten / Grades / Qualità													
beschichtet coated rivestito													
unbeschichtet uncoated non rivestito													
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	AL100	AM7C	AM15C	AK20	AK20P	Klemmhalter Tool holder Utensile
[G/Inch]													
16	10		16ER-V-RD405/10	9,525	1,27	1,1	1,2	●	●	●	●		AL...-3
16	10	16EL-V-RD405/10		9,525	1,27	1,1	1,2	●		●		●	AL...-3
16	8		16ER-V-RD405/8	9,525	1,59	1,4	1,3	●	●	●	●	●	AL...-3
16	8	16EL-V-RD405/8		9,525	1,59	1,4	1,3	●		●			AL...-3
16	6		16ER-V-RD405/6	9,525	2,12	1,5	1,7	●	●	●	●	●	AL...-3
16	6	16EL-V-RD405/6		9,525	2,12	1,5	1,7	●		●			AL...-3
22	6		22ER-V-RD405/6	12,7	2,12	1,5	1,7	●	●	●	●		AL...-4
22	6	22EL-V-RD405/6		12,7	2,12	1,5	1,7		●				AL...-4
22	4		22ER-V-RD405/4	12,7	3,18	2,2	2,3	●	●	●	●		AL...-4
22	4	22EL-V-RD405/4		12,7	3,18	2,2	2,3	●	●				AL...-4
27	4		27ER-V-RD405/4	15,88	3,18	2,2	2,3	●		●			AL...-5
27	4	27EL-V-RD405/4		15,88	3,18	2,2	2,3	●					AL...-5

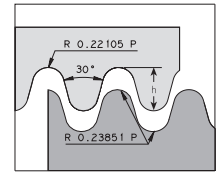
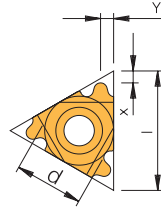
P	●	○	
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


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Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

		Sorten / Grades / Qualità											
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	AK20	Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C			
	[G/Inch]												
16	10		16IR-V-RD405/10	9,525	1,27	1,1	1,2	●	●	●	●	●	AVR...3
16	10	16IL-V-RD405/10		9,525	1,27	1,1	1,2	●		●		●	AVR...3
16	8		16IR-V-RD405/8	9,525	1,59	1,4	1,4	●	●	●	●	●	AVR...3
16	8	16IL-V-RD405/8		9,525	1,59	1,4	1,4	●		●		●	AVR...3
16	6		16IR-V-RD405/6	9,525	2,12	1,4	1,5	●	●	●	●	●	AVR...3
16	6	16IL-V-RD405/6		9,525	2,12	1,4	1,5	●		●		●	AVR...3
22	6		22IR-V-RD405/6	12,7	2,12	1,5	1,7	●	●	●	●	●	AVR...4
22	6	22IL-V-RD405/6		12,7	2,12	1,5	1,7		●			●	AVR...4
22	4		22IR-V-RD405/4	12,7	3,18	2,2	2,3	●	●	●	●	●	AVR...4
22	4	22IL-V-RD405/4		12,7	3,18	2,2	2,3	●	●	●		●	AVR...4
27	4		27IR-V-RD405/4	15,88	3,18	2,2	2,3	●	●	●			AVR...5

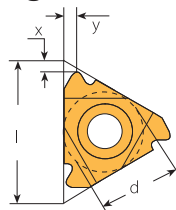
P	●		○	
M	●	●	●	
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

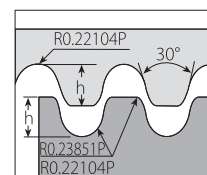
○ Nebenanwendung
Secondary application
Applicazione secondaria

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Außengewinde / External threading / Filettatura esterna



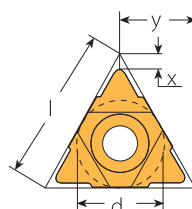
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura



Ausführung / Type / Esecuzione:
Standard

	Teilung <i>Pitch</i> Passo	Links <i>Left</i> Sinistra	Rechts <i>Right</i> Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter <i>Tool holder</i> Utensile
								beschichtet <i>coated</i> rivestito	unbe- schichtet <i>uncoated</i> non rivestito		
	[mm]							AL100	AM15C	AK20	
22	3,0		22ER-V-RD20400/3	12,7	1,65	1,3	1,7	●	●		AL...-4
22	4,0		22ER-V-RD20400/4	12,7	2,20	1,6	2,2	●	●		AL...-4
22	5,0		22ER-V-RD20400/5	12,7	2,75	1,4	1,7	●	●	●	AL...-4
22	5,0	22EL-V-RD20400/5		12,7	2,75	1,4	1,7	●	●		AL...-4
22	6,0		22ER-V-RD20400/6	12,7	3,30	1,7	2,1	●	●		AL...-4
22	6,0	22EL-V-RD20400/6		12,7	3,30	1,7	2,1	●	●		AL...-4

P	●	○		● Hauptanwendung Main application Applicazione principale
M	●	●		
K	○		●	○ Nebenanwendung Secondary application Applicazione secondaria
N			●	
S	○			
H				



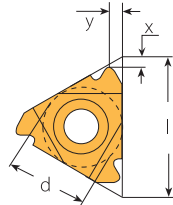
Ausführung / Type / Esecuzione:
U

	Teilung Pitch Passo [mm]	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AL100		
27	8,0	27UIN-V-RD20400/8	15,88	4,40	2,9	13,5	●		AL...-5U

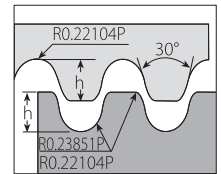
P	●	● Hauptanwendung Main application Applicazione principale
M	●	
K	○	○ Nebenanwendung Secondary application Applicazione secondaria
N		
S	○	
H		

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Innengewinde / Internal threading / Filettatura interna



Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura



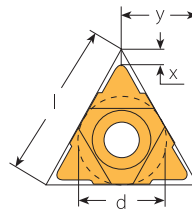
Ausführung / Type / Esecuzione:
Standard

	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
								AL100	AM15C	
22	3,0		22IR-V-RD20400/3	12,7	1,65	1,3	1,7	●	●	AVR...4
22	4,0		22IR-V-RD20400/4	12,7	2,20	1,6	2,2	●	●	AVR...4
22	4,0	22IL-V-RD20400/4		12,7	2,20	1,6	2,2		●	AVR...4
22	5,0		22IR-V-RD20400/5	12,7	2,75	1,4	1,7	●	●	AVR...4
22	5,0	22IL-V-RD20400/5		12,7	2,75	1,4	1,7		●	AVR...4
22	6,0		22IR-V-RD20400/6	12,7	3,30	1,7	2,1	●	●	AVR...4
22	6,0	22IL-V-RD20400/6		12,7	3,30	1,7	2,1	●	●	AVR...4

P	●	○
M	●	●
K	○	
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
U

	Teilung Pitch Passo [mm]	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AL100		
27	8,0	27UIN-V-RD20400/8	15,88	4,40	2,9	13,5	●		AL...5U

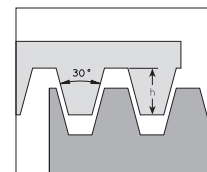
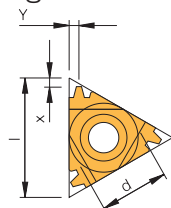
P	●	
M	●	
K	○	
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


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Ausführung / Type / Esecuzione:
Standard

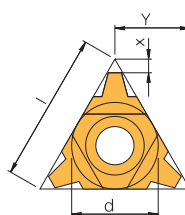
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Sorten / Grades / Qualità														
	Teilung	Links	Rechts	d	h _{min}	x	y	AL100	beschichtet	AM15C	unbeschichtet		Klemmhalter	
	Pitch	Left	Right						coated		AK20	AK20P		Tool holder
	Passo	Sinistra	Destra						rivestito		non rivestito	Utensile		
[mm]														
11	1,5		11ER-V-TR103/1,5	6,35	0,90	0,8	0,9	●	●				NL...-2	
11	1,5	11EL-V-TR103/1,5		6,35	0,90	0,8	0,9			●			NL...-2	
16	1,5		16ER-V-TR103/1,5	9,525	0,90	1,0	1,1	●	●	●	●		AL...-3	
16	1,5	16EL-V-TR103/1,5		9,525	0,90	1,0	1,1	●		●	●		AL...-3	
16	2,0		16ER-V-TR103/2,0	9,525	1,25	1,1	1,3	●	●	●	●		AL...-3	
16	2,0	16EL-V-TR103/2,0		9,525	1,25	1,1	1,3	●	●	●	●		AL...-3	
16	2,5		16ER-V-TR103/2,5	9,525	1,55	1,2	1,4	●					AL...-3	
16	2,5	16EL-V-TR103/2,5		9,525	1,55	1,2	1,4			●			AL...-3	
16	3,0		16ER-V-TR103/3,0	9,525	1,75	1,3	1,5	●	●	●	●	●	AL...-3	
16	3,0	16EL-V-TR103/3,0		9,525	1,75	1,3	1,5	●	●	●	●		AL...-3	
22	4,0		22ER-V-TR103/4,0	12,7	2,25	1,7	1,9	●	●	●	●		AL...-4	
22	4,0	22EL-V-TR103/4,0		12,7	2,25	1,7	1,9	●	●	●	●		AL...-4	
22	5,0		22ER-V-TR103/5,0	12,7	2,75	2,1	2,5	●	●	●	●	●	AL...-4	
22	5,0	22EL-V-TR103/5,0		12,7	2,75	2,1	2,5	●	●	●	●		AL...-4	
22	6,0		22ER-V-TR103/6,0	12,7	3,50	2,3	2,7	●	●	●			AL...-4	
22	6,0	22EL-V-TR103/6,0		12,7	3,50	2,3	2,7	●		●	●		AL...-4	
27	6,0		27ER-V-TR103/6,0	15,88	3,50	2,3	2,7	●	●	●	●		AL...-5	
27	6,0	27EL-V-TR103/6,0		15,88	3,50	2,3	2,7	●		●	●		AL...-5	


P	●		○	
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K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
U

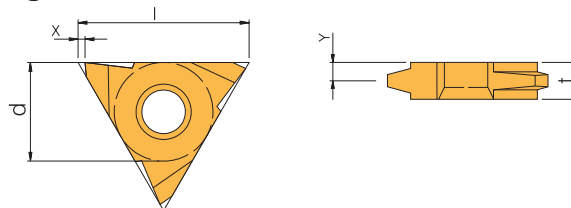
							Sorten / Grades / Qualità					
	Teilung	Links / Rechts	d	h _{min}	x	y	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile	
	Pitch	Left / Right					AL100	AM7C	AM15C	AK20		
	Passo	Sinistra / Destra										
	[mm]											
22	6,0	22UEN-V-TR103/6,0	12,7	3,50	2,0	11,0	●	●	●	●	AL...-4U	
22	7,0	22UEN-V-TR103/7,0	12,7	4,00	2,3	11,0	●		●	●	AL...-4U	
22	8,0	22UEN-V-TR103/8,0	12,7	4,50	2,6	11,0	●		●	●	AL...-4U	
27	8,0	27UEN-V-TR103/8,0	15,88	4,50	2,6	13,7	●		●	●	AL...-5U	
27	9,0	27UEN-V-TR103/9,0	15,88	5,00	3,0	13,7	●	●	●	●	AL...-5U	

P	●		○	
M	●	●	●	
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

V

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

										Sorten / Grades / Qualità				
	Teilung	Links	Rechts	d	h _{min}	x	y	t		beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	
	Pitch Passo	Left Sinistra	Right Destra							AL100	AM7C	AM15C	AK20	Klemmhalter Tool holder Utensile
	[mm]													
27	6,0		27VER-V-TR103/6,0	15,88	3,50	1,0	3,3	6		●	●	●		NL...-5V-6
27	6,0	27VEL-V-TR103/6,0		15,88	3,50	1,0	3,3	6		●	●			NL...-5V-6
27	7,0		27VER-V-TR103/7,0	15,88	4,00	1,0	3,3	6		●	●	●	●	NL...-5V-6
27	7,0	27VEL-V-TR103/7,0		15,88	4,00	1,0	3,3	6		●	●			NL...-5V-6
27	8,0		27VER-V-TR103/8,0	15,88	4,50	1,0	3,3	6		●	●	●	●	NL...-5V-6
27	8,0	27VEL-V-TR103/8,0		15,88	4,50	1,0	3,3	6		●	●			NL...-5V-6
27	9,0		27VER-V-TR103/9,0	15,88	5,00	1,0	4,3	8		●		●	●	NL...-5V-8
27	9,0	27VEL-V-TR103/9,0		15,88	5,00	1,0	4,3	8		●				NL...-5V-8
27	10,0		27VER-V-TR103/10,0	15,88	5,50	1,0	4,3	8		●		●	●	NL...-5V-8
27	10,0	27VEL-V-TR103/10,0		15,88	5,50	1,0	4,3	8		●	●			NL...-5V-8
27	12,0		27VER-V-TR103/12,0	15,88	6,50	1,0	5,2	10		●	●	●	●	NL...-5V-10
27	12,0	27VEL-V-TR103/12,0		15,88	6,50	1,0	5,2	10		●		●		NL...-5V-10

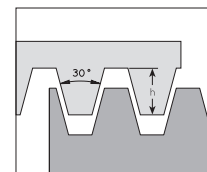
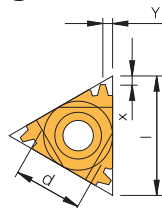
P	●		○
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

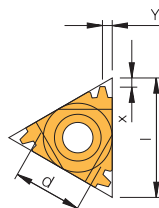
		Sorten / Grades / Qualità											
	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C	AK20	AK20P	
11	1,5		11IR-V-TR103/1,5	6,35	0,90	0,8	0,9	●		●	●		NVR 8-2
11	1,5	11IL-V-TR103/1,5		6,35	0,90	0,8	0,9	●		●	●		NVR 8-2
16	1,5		16IR-V-TR103/1,5	9,525	0,90	1,0	1,1	●	●	●	●		AVR...3
16	1,5	16IL-V-TR103/1,5		9,525	0,90	1,0	1,1	●		●	●		AVR...3
16	2,0		16IR-V-TR103/2,0	9,525	1,25	1,1	1,3	●	●	●	●		AVR...3
16	2,0	16IL-V-TR103/2,0		9,525	1,25	1,1	1,3	●		●	●		AVR...3
16	2,5		16IR-V-TR103/2,5	9,525	1,53	1,2	1,4	●	●				AVR...3
16	2,5	16IL-V-TR103/2,5		9,525	1,53	1,2	1,4			●			AVR...3
16	3,0		16IR-V-TR103/3,0	9,525	1,75	1,3	1,5	●	●	●	●	●	AVR...3
16	3,0	16IL-V-TR103/3,0		9,525	1,75	1,3	1,5	●	●	●	●		AVR...3
22	4,0		22IR-V-TR103/4,0	12,7	2,25	1,7	1,9	●	●	●	●		AVR...4
22	4,0	22IL-V-TR103/4,0		12,7	2,25	1,7	1,9	●	●	●			AVR...4
22	5,0		22IR-V-TR103/5,0	12,7	2,75	2,1	2,5	●	●	●	●	●	AVR...4
22	5,0	22IL-V-TR103/5,0		12,7	2,75	2,1	2,5	●		●	●		AVR...4
22	6,0		22IR-V-TR103/6,0	12,7	3,50	2,3	2,7	●		●	●		AVR...4
22	6,0	22IL-V-TR103/6,0		12,7	3,50	2,3	2,7	●		●		●	AVR...4
27	6,0		27IR-V-TR103/6,0	15,88	3,50	2,3	2,7	●	●	●	●		AVR...5
27	6,0	27IL-V-TR103/6,0		15,88	3,50	2,3	2,7	●		●			AVR...5

P	●		○	
M	●	●	●	
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N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

Regelgewinde / Coarse Pitch threads / Dimensioni standard

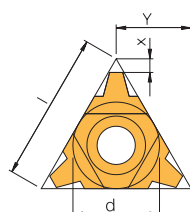
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

			Sorten / Grades / Qualità											
	Gewinde Thread Filettatura	Rechts Right Destra	d	h _{min}	x	y	Min Bohr ø min Drill ø D min foro	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
								AL100	AM7C	AM15C	AK20	AK20P		
16	TR18x4	16UIR-V-TR103/4,0...158/013	9,525	2,25	2,10	8,0	14,0	●						NVRC11-3U
16	TR20x4	16IR-V-TR103/4,0...158/012	9,525	2,25	1,53	1,9	16,0	●		●	●			NVRC13-3
16	TR22x5	16UIR-V-TR103/5,0...158/011	9,525	2,75	1,56	8,0	17,0	●		●		●		NVRC14-3U
16	TR24x5	16UIR-V-TR103/5,0...158/011	9,525	2,75	1,56	8,0	19,0	●		●		●		NVRC15-3U
16	TR26x5	16UIR-V-TR103/5,0...158/011	9,525	2,75	1,56	8,0	21,0	●		●		●		NVRC15-3U
22	TR28x5	22IR-V-TR103/5,0	12,7	2,75	2,30	2,7	23,0	●	●	●	●	●		NVRC20-4
22	TR30x6	22UIR-V-TR103/6,0...158/007	12,7	3,50	1,94	11,0	24,0	●		●				NVRC20-4U
27	TR36x6	27IR-V-TR103/6,0	15,88	3,50	2,30	2,7	30,0	●	●	●	●			NVRC25-5
22	TR38x7	22UIR-V-TR103/7,0...158/008	12,7	4,00	2,27	11,0	31,0	●		●				NVRC25-4U
22	TR40x7	22UIR-V-TR103/7,0...158/008	12,7	4,00	2,27	11,0	33,0	●		●				NVRC25-4U
22	TR42x7	22UIR-V-TR103/7,0...158/008	12,7	4,00	2,27	11,0	35,0	●		●				NVRC32-4U
22	TR44x7	22UIR-V-TR103/7,0...158/008	12,7	4,00	2,27	11,0	37,0	●		●				NVRC32-4U
27	TR46x8	27UI-V-TR103/8,0...158/10	15,88	4,50	2,59	13,5	38,0	●	●	●	●			NVRC32-5U
27	TR48x8	27UI-V-TR103/8,0...158/10	15,88	4,50	2,59	13,5	40,0	●	●	●	●			NVRC32-5U
27	TR50x8	27UI-V-TR103/8,0...158/10	15,88	4,50	2,59	13,5	42,0	●	●	●	●			NVRC32-5U
27	TR52x8	27UI-V-TR103/8,0...158/10	15,88	4,50	2,59	13,5	44,0	●	●	●	●			NVRC32-5U

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H			


● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

U

							Sorten / Grades / Qualità				
	Teilung	Links / Rechts	d	h _{min}	x	y	beschichtet coated rivestito		unbe- schichtet uncoated non rivestito		Klemmhalter Tool holder Utensile
	Pitch	Left / Right					AL100	AM15C	AK20		
	Passo	Sinistra / Destra									
	[mm]										
22	6,0	22UIN-V-TR103/6,0	12,7	3,50	2,0	11,0	●	●	●		AVR...-4U
22	7,0	22UIN-V-TR103/7,0	12,7	4,00	2,3	11,0	●	●	●		AVR...-4U
22	8,0	22UIN-V-TR103/8,0	12,7	4,50	2,6	11,0	●	●	●		AVR...-4U
27	8,0	27UIN-V-TR103/8,0	15,88	4,50	2,6	13,7	●	●	●		AVR...-5U
27	9,0	27UIN-V-TR103/9,0	15,88	5,00	3,0	13,7	●	●	●		AVR...-5U

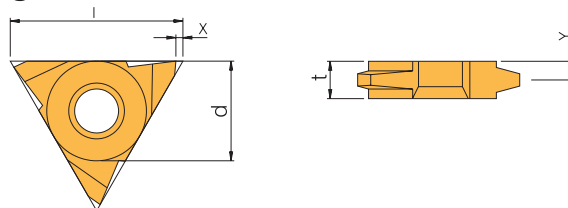
P	●	○	
M	●	●	●
K	○		
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.


Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

V

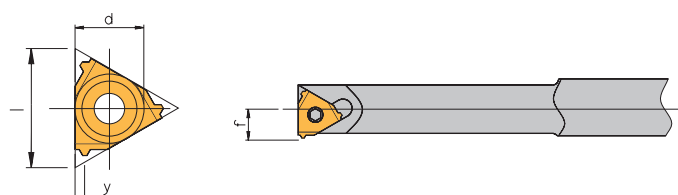
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

		Sorten / Grades / Qualità											
	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile
									AL100	AM7C	AM15C	AK20	
	27	6,0		27VIR-V-TR103/6,0	15,88	3,50	1,0	3,3	6	●		●	NVR...5V
	27	6,0	27VIL-V-TR103/6,0		15,88	3,50	1,0	3,3	6	●		●	NVR...5V
	27	7,0		27VIR-V-TR103/7,0	15,88	4,00	1,0	3,3	6	●		●	NVR...5V
	27	7,0	27VIL-V-TR103/7,0		15,88	4,00	1,0	3,3	6		●	●	NVR...5V
	27	8,0		27VIR-V-TR103/8,0	15,88	4,50	1,0	3,3	6	●		●	NVR...5V
	27	8,0	27VIL-V-TR103/8,0		15,88	4,50	1,0	3,3	6	●	●	●	NVR...5V
	27	9,0		27VIR-V-TR103/9,0	15,88	5,00	1,0	4,3	8	●	●	●	NVR...5V
	27	9,0	27VIL-V-TR103/9,0		15,88	5,00	1,0	4,3	8	●		●	NVR...5V
	27	10,0		27VIR-V-TR103/10,0	15,88	5,50	1,0	4,3	8	●	●	●	NVR...5V
	27	10,0	27VIL-V-TR103/10,0		15,88	5,50	1,0	4,3	8	●		●	NVR...5V
	27	12,0		27VIR-V-TR103/12,0	15,88	6,50	1,0	5,2	10	●	●	●	NVR...5V
	27	12,0	27VIL-V-TR103/12,0		15,88	6,50	1,0	5,2	10	●		●	NVR...5V

P	●	○	
M	●	●	●
K	○	○	●
N			●
S	○		
H			

● **Hauptanwendung**
Main application
Applicazione principale


○ **Nebenanwendung**
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

										Sorten / Grades / Qualità		
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	AM15C	HSS-TiN	Klemmhalter Tool holder Utensile	
	[mm]											
10	1,5		6IR-V-TR103/1,5	6,0	0,85	0,85	5,3	10,0	●	●	...NVR1...-6.0*	
10	1,5	6IL-V-TR103/1,5		6,0	0,85	0,85	5,3	10,0	●		...NVR1...-6.0*	
10	2,0		6IR-V-TR103/2,0	6,0	1,25	1,3	5,3	10,0	●	●	...NVR1...-6.0*	
10	2,0	6IL-V-TR103/2,0		6,0	1,25	1,3	5,3	10,0	●	●	...NVR1...-6.0*	

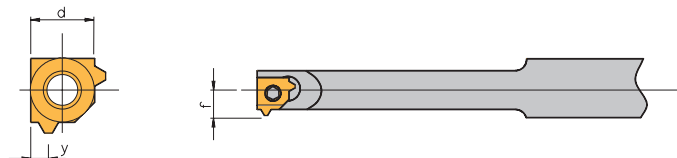
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

P	○	●
M	●	○
K		
N		
S	○	
H		

● **Hauptanwendung**
Main application
Applicazione principale

○ **Nebenanwendung**
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità			
Teilung <i>Pitch</i> Passo	Links <i>Left</i> Sinistra	Rechts <i>Right</i> Destra	d	h _{min}	y	f	Min Bohr ø <i>min Drill ø</i> D min foro	AL100	AM15C	HSS-TiN	Klemmhalter <i>Tool holder</i> Utensile
[mm]											
1,5		5LIR-V-TR103/1,5	5,0L	0,85	0,85	4,65	8,0		●	●	...NVR 10.-5L*
1,5	5LIL-V-TR103/1,5		5,0L	0,85	0,85	4,65	8,0			●	...NVR 10.-5L*
2,0		5LIR-V-TR103/2,0	5,0L	1,25	1,3	4,65	8,0		●	●	...NVR 10.-5L*
2,0	5LIL-V-TR103/2,0		5,0L	1,25	1,3	4,65	8,0	●	●	●	...NVR 10.-5L*

*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

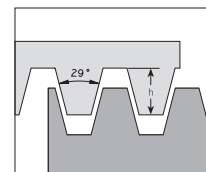
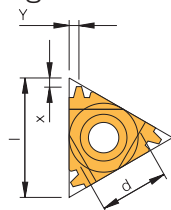
P	●	○	●
M	●	●	○
K	○		
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

Standard

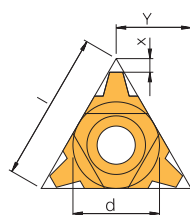
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Sorten / Grades / Qualità										unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile		
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	AL100	beschichtet coated rivestito	AM7C	AM15C		AK20	AK20P
	[G/Inch]													
11	16		11ER-V-ACME16	6,35	0,92	1,0	1,1						●	NL...-2
16	16		16ER-V-ACME16	9,525	0,92	1,0	1,1	●			●	●	●	AL...-3
16	14		16ER-V-ACME14	9,525	1,03	1,0	1,2	●			●	●		AL...-3
16	12		16ER-V-ACME12	9,525	1,19	1,1	1,2	●	●		●	●		AL...-3
16	12	16EL-V-ACME12		9,525	1,19	1,1	1,2	●			●			AL...-3
16	10		16ER-V-ACME10	9,525	1,52	1,3	1,4	●	●		●	●		AL...-3
16	10	16EL-V-ACME10		9,525	1,52	1,3	1,4	●			●	●		AL...-3
16	8		16ER-V-ACME8	9,525	1,84	1,4	1,5	●	●		●	●		AL...-3
16	8	16EL-V-ACME8		9,525	1,84	1,4	1,5	●			●			AL...-3
16	7		16ER-V-ACME7	9,525	2,08	1,9	2,2	●						AL...-3
16	6		16ER-V-ACME6	9,525	2,37	1,7	1,9	●						AL...-3
16	6	16EL-V-ACME6		9,525	2,37	1,7	1,9	●						AL...-3
22	6		22ER-V-ACME6	12,7	2,08	1,9	2,2	●	●		●	●		AL...-4
22	6	22EL-V-ACME6		12,7	2,37	1,8	2,1	●			●			AL...-4
22	5		22ER-V-ACME5	12,7	2,79	2,0	2,3	●	●		●	●		AL...-4
22	5	22EL-V-ACME5		12,7	2,79	2,0	2,3	●	●		●			AL...-4
27	4		27ER-V-ACME4	15,88	3,43	2,4	2,7	●			●	●		AL...-5
27	4	27EL-V-ACME4		15,88	3,43	2,4	2,7	●	●		●			AL...-5

P	●		○	
M	●	●	●	
K	○	○		
N				
S	○			
H				


● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

U

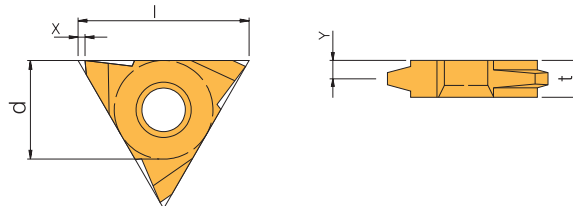
							Sorten / Grades / Qualità				
	Teilung	Links / Rechts	d	h _{min}	x	y	beschichtet		AK20	Klemmhalter	
	Pitch	Left / Right					coated				unbe-
	Passo	Sinistra / Destra					rivestito				
[G/Inch]							AL100	AM15C		Tool holder	
										Utensile	
22	3	22UEN-V-ACME3	12,7	4,49	3,0	11,0	●			AL...-4U	
22	4	22UEN-V-ACME4	12,7	3,43	2,3	11,0	●	●		AL...-4U	
27	3	27UEN-V-ACME3	15,88	4,49	3,0	13,7	●	●	●	AL...-5U	

P	●		○	
M	●		●	
K	○			
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

V

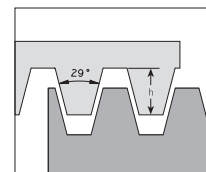
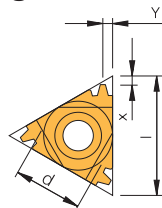
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

									Sorten / Grades / Qualità			
	Teilung <i>Pitch</i> Passo	Links <i>Left</i> Sinistra	Rechts <i>Right</i> Destra	d	h _{min}	x	y	t	AL100	AM7C	AM15C	Klemmhalter <i>Tool holder</i> Utensile
	[G/Inch]											
27	4		27VER-V-ACME4	15,88	3,43	1,0	3,3	6	●	●	●	NL...-5V-6
27	4	27VEL-V-ACME4		15,88	3,43	1,0	3,3	6	●	●		NL...-5V-6
27	3		27VER-V-ACME3	15,88	4,49	1,0	3,3	6	●		●	NL...-5V-6
27	3	27VEL-V-ACME3		15,88	4,49	1,0	3,3	6	●	●	●	NL...-5V-6
27	2		27VER-V-ACME2	15,88	6.60	1.0	5.2	10	●		●	NL...-5V-10

P	●	○	● Hauptanwendung Main application Applicazione principale
M	●	●	
K	○	○	○ Nebenanwendung Secondary application Applicazione secondaria
N			
S	○		
H			

We have a passion for precision.


Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

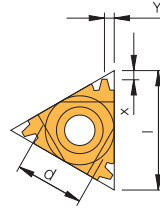
								Sorten / Grades / Qualità				
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C	AK20	
[G/Inch]												
11	16		11IR-V-ACME16	6,35	0,92	0,9	0,9			●	●	NVR...2
16	16		16IR-V-ACME16	9,525	0,92	1,0	1,1	●	●	●	●	AVR...3
16	14		16IR-V-ACME14	9,525	1,03	1,1	1,2	●		●	●	AVR...3
16	14	16IL-V-ACME14		9,525	1,03	1,1	1,2			●		AVR...3
16	12		16IR-V-ACME12	9,525	1,19	1,2	1,3	●		●	●	AVR...3
16	12	16IL-V-ACME12		9,525	1,19	1,2	1,3	●			●	AVR...3
16	10		16IR-V-ACME10	9,525	1,52	1,2	1,3	●	●	●	●	AVR...3
16	10	16IL-V-ACME10		9,525	1,52	1,2	1,3			●	●	AVR...3
16	8		16IR-V-ACME8	9,525	1,84	1,4	1,5	●	●	●	●	AVR...3
16	8	16IL-V-ACME8		9,525	1,84	1,4	1,5	●		●		AVR...3
16	6		16IR-V-ACME6	9,525	2,37	1,7	1,9	●		●		AVR...3
22	6		22IR-V-ACME6	12,7	2,37	1,8	2,1	●		●	●	AVR...4
22	6	22IL-V-ACME6		12,7	2,37	1,8	2,1	●		●		AVR...4
22	5		22IR-V-ACME5	12,7	2,79	2,0	2,3	●	●	●	●	AVR...4
22	5	22IL-V-ACME5		12,7	2,79	2,0	2,3	●	●	●	●	AVR...4
27	4		27IR-V-ACME4	15,88	3,43	2,3	2,6	●	●	●	●	AVR...5
27	4	27IL-V-ACME4		15,88	3,43	2,3	2,6	●	●	●	●	AVR...5

P	●	○	
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale


○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

Regelgewinde / Coarse Pitch threads / Dimensioni standard Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

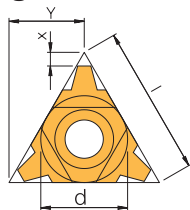
									Sorten / Grades / Qualità				
									beschichtet coated rivestito		unbe- schichtet uncoated non rivestito		
	Gewinde Thread Filettatura	Rechts Right Destra	d	h _{min}	x	y	Min Bohr ø min Drill ø D min foro	AL100	AM7C	AM15C	AK20	Klemmhalter Tool holder Utensile	
10	1/2"x10	6UIR-V-ACME10...158/005	6,0U	1,52	1,0	5,2	10,16			●		NVRC8-6,0U	
11	5/8"x8	11UIR-V-ACME8...158/006	6,35	1,84	1,0	5,5	12,70			●		NVRC10-2U	
16	3/4"x6	16IR-V-ACME6	9,525	2,37	1,7	1,8	14,82	●		●		NVRC11-3	
16	7/8"x6	16IR-V-ACME6	9,525	2,37	1,7	1,8	18,42	●		●		NVRC13-3	
22	1"x5	22IR-V-ACME5	12,7	2,79	2,0	2,3	20,32	●	●	●	●	NVRC17-4	
22	1 1/8"x5	22IR-V-ACME5	12,7	2,79	2,0	2,3	24,00	●	●	●	●	NVRC20-4	
22	1 1/4"x5	22IR-V-ACME5	12,7	2,79	2,0	2,3	27,18	●	●	●	●	NVRC20-4	
27	1 1/2"x4	27IR-V-ACME4	15,88	3,43	2,3	2,6	32,38	●	●	●	●	NVRC28-5	
27	1 3/4"x4	27IR-V-ACME4	15,88	3,43	2,3	2,6	38,74	●	●	●	●	AVRC32-5	

P	●	○	
M	●	●	●
K	○	○	
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale


○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna

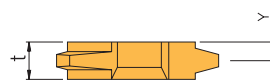
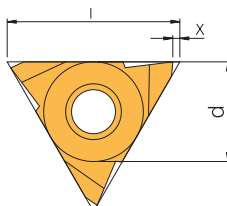


Ausführung / Type / Esecuzione:

U

							Sorten / Grades / Qualità			
	Teilung	Links / Rechts	d	h _{min}	x	y	beschichtet coated rivestito		unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile
	Pitch	Left / Right					AL100	AM15C	AK20	
	Passo	Sinistra / Destra								
	[G/Inch]									
22	4	22UIN-V-ACME4	12,7	3,43	2,3	11,0	●	●	●	AVR...4U
22	3	22UIN-V-ACME3	12,7	4,49	2,9	11,0	●	●	●	AVR...4U
27	3	27UIN-V-ACME3	15,88	4,49	2,9	13,7	●	●	●	AVR...5U


P	●	○	●	Hauptanwendung Main application Applicazione principale
M	●	●	●	
K	○		●	○ Nebenanwendung Secondary application Applicazione secondaria
N			●	
S	○			
H				



Ausführung / Type / Esecuzione:

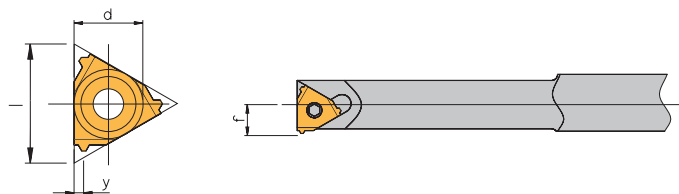
V

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

									Sorten / Grades / Qualità			
	Teilung	Links	Rechts	d	h _{min}	x	y	t	beschichtet coated rivestito		unbe- schichtet uncoated non rivestito	Klemmhalter Tool holder Utensile
	Pitch Passo	Left Sinistra	Right Destra						AL100	AM15C	AK20	
[G/Inch]												
27	4		27VIR-V-ACME4	15,88	3,43	1,0	3,3	6		●		NVR...5V
27	4	27VIL-V-ACME4		15,88	3,43	1,0	3,3	6		●		NVR...5V
27	3		27VIR-V-ACME3	15,88	4,49	1,0	3,3	6	●	●		NVR...5V
27	3	27VIL-V-ACME3		15,88	4,49	1,0	3,3	6	●	●		NVR...5V
27	2		27VIR-V-ACME2	15,88	6,60	1,0	5,2	10	●	●	●	NVR...5V
27	2	27VIL-V-ACME2		15,88	6,60	1,0	5,2	10		●		NVR...5V

P	●	○	●	Hauptanwendung Main application Applicazione principale
M	●	●	●	
K	○		●	○ Nebenanwendung Secondary application Applicazione secondaria
N			●	
S	○			
H				


Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

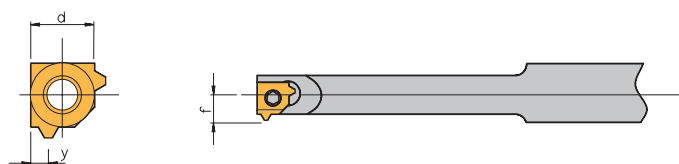
	Teilung	Rechts	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità	Klemmhalter Tool holder Utensile
	Pitch Passo	Right Destra						AM15C	
	[G/Inch]								
10	12	6IR-V-ACME12	6,0	1,19	1,1	5,1	10,0	●	...NVR1...6,0*

*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

P	○
M	●
K	
N	
S	
H	

● **Hauptanwendung**
Main application
Applicazione principale


○ **Nebenanwendung**
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung	Rechts	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità	Klemmhalter Tool holder Utensile
	Pitch Passo	Right Destra						AM15C	
	[G/Inch]								
12		5LIR-V-ACME12	5,0L	1,19	1,1	4,42	8,0	●	...NVR 10.-5L*

*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

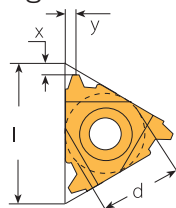
P	○
M	●
K	
N	
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H	

● **Hauptanwendung**
Main application
Applicazione principale

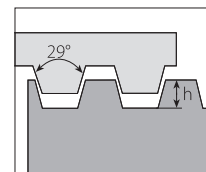
○ **Nebenanwendung**
Secondary application
Applicazione secondaria

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Außengewinde / External threading / Filettatura esterna



Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura



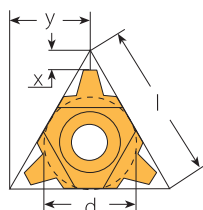
Ausführung / Type / Esecuzione:
Standard

								Sorten / Grades / Qualità						
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	AL100	beschichtet coated rivestito	AM7C	AM15C	unbe- schichtet uncoated non rivestito	AK20	Klemmhalter Tool holder Utensile
[G/Inch]														
16	16		16ER-V-STACME16	9,525	0,60	1,0	1,0	●			●	●		AL...-3
16	16	16EL-V-STACME16		9,525	0,60	1,0	1,0				●			AL...-3
16	14		16ER-V-STACME14	9,525	0,67	1,1	1,1	●			●			AL...-3
16	12		16ER-V-STACME12	9,525	0,76	1,2	1,2	●	●		●	●		AL...-3
16	12	16EL-V-STACME12		9,525	0,76	1,2	1,2		●	●	●			AL...-3
16	10		16ER-V-STACME10	9,525	1,02	1,2	1,3	●	●		●	●		AL...-3
16	10	16EL-V-STACME10		9,525	1,02	1,2	1,3		●	●	●			AL...-3
16	8		16ER-V-STACME8	9,525	1,21	1,4	1,5	●	●		●	●		AL...-3
16	8	16EL-V-STACME8		9,525	1,21	1,4	1,5	●	●		●	●		AL...-3
16	6		16ER-V-STACME6	9,525	1,52	1,7	1,8	●	●		●	●		AL...-3
16	6	16EL-V-STACME6		9,525	1,52	1,7	1,8		●	●	●	●		AL...-3
22	5		22ER-V-STACME5	12,7	1,78	2,1	2,3	●	●		●	●		AL...-4
22	4		22ER-V-STACME4	12,7	2,16	2,3	2,3	●			●			AL...-4
22	4	22EL-V-STACME4		12,7	2,16	2,3	2,3	●						AL...-4
27	4		27ER-V-STACME4	15,88	2,16	2,3	2,4	●			●	●		AL...-5
27	3		27ER-V-STACME3	15,88	2,79	2,9	2,9	●			●	●		AL...-5
27	3	27EL-V-STACME3		15,88	2,79	2,9	2,9				●			AL...-5


P	●		○
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
U

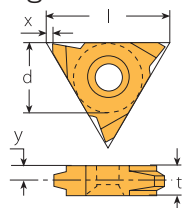
							Sorten / Grades / Qualità	
	Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	AL100	Klemmhalter Tool holder Utensile
	[G/Inch]							
22	4	22UEN-V-STACME4	12,7	2,16	2,6	11,0	●	AL...-4U
22	3	22UEN-V-STACME3	12,7	2,79	3,4	11,0	●	AL...-4U

P	●
M	●
K	○
N	
S	○
H	

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

V

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
									AL100	AM15C	
27	4		27VER-V-STACME4	15,88	2,16	1,0	3,3	6		●	NL...5V-6
27	3		27VER-V-STACME3	15,88	2,79	1,0	3,3	6	●	●	NL...5V-6
27	2		27VER-V-STACME2	15,88	4,06	1,0	4,3	8	●	●	NL...5V-8
27	2	27VEL-V-STACME2		15,88	4,06	1,0	4,3	8	●		NL...5V-8

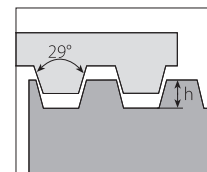
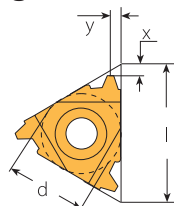
P	●	○
M	●	●
K	○	
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

Standard

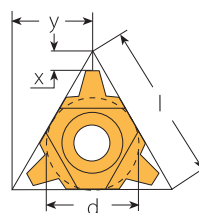
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità				Klemmhalter Tool holder Utensile
								beschichtet coated rivestito	AM7C	AM15C	unbe- schichtet uncoated non rivestito	
								AL100			AK20	
11	16		11IR-V-STACME16	6,35	0,60	1,0	1,0			●		NVR...2
16	16		16IR-V-STACME16	9,525	0,60	1,0	1,0	●	●	●	●	AVR...3
16	14		16IR-V-STACME14	9,525	0,67	1,1	1,1	●		●	●	AVR...3
16	12		16IR-V-STACME12	9,525	0,76	1,1	1,2	●	●	●	●	AVR...3
16	12	16IL-V-STACME12		9,525	0,76	1,1	1,2	●		●	●	AVR...3
16	10		16IR-V-STACME10	9,525	1,02	1,2	1,3	●	●	●	●	AVR...3
16	10	16IL-V-STACME10		9,525	1,02	1,2	1,3			●	●	AVR...3
16	8		16IR-V-STACME8	9,525	1,21	1,4	1,5	●	●	●	●	AVR...3
16	8	16IL-V-STACME8		9,525	1,21	1,4	1,5	●			●	AVR...3
16	6		16IR-V-STACME6	9,525	1,52	1,7	1,8	●	●	●	●	AVR...3
16	6	16IL-V-STACME6		9,525	1,52	1,7	1,8			●		AVR...3
22	6	22IL-V-STACME6		12,7	1,52	1,7	1,8	●				AVR...4
22	5		22IR-V-STACME5	12,7	1,78	2,1	2,3	●	●	●		AVR...4
22	4		22IR-V-STACME4	12,7	2,16	2,3	2,3	●		●		AVR...4
22	4	22IL-V-STACME4		12,7	2,16	2,3	2,3	●				AVR...4
27	4		27IR-V-STACME4	15,88	2,16	2,3	2,4	●	●	●	●	AVR...5
27	3		27IR-V-STACME3	15,88	2,79	2,9	2,9	●		●		AVR...5
27	3	27IL-V-STACME3		15,88	2,79	2,9	2,9	●		●		AVR...5

P	●	○	
M	●	●	●
K	○	○	●
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

U

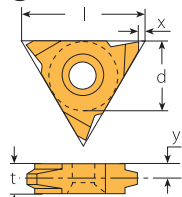
	Teilung Pitch Passo [G/Inch]	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							beschichtet coated rivestito	unbe- schichtet uncoated non rivestito	
							AL100	AK20	
22	4	22UIN-V-STACME4	12,7	2,16	2,5	11,0	●		AVR...4U
22	3	22UIN-V-STACME3	12,7	2,79	3,3	11,0		●	AVR...4U

P	●	
M	●	
K	○	●
N		●
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

V

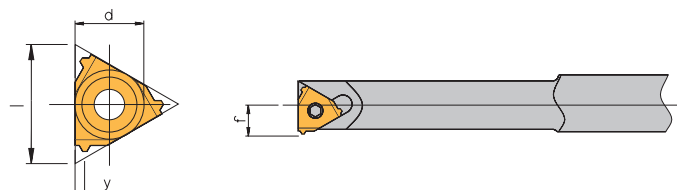
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
									AL100	AM15C	
	[G/Inch]										
27	4		27VIR-V-STACME4	15,88	2,16	1,0	3,3	6		●	NVR...5V
27	4	27VIL-V-STACME4		15,88	2,16	1,0	3,3	6		●	NVR...5V
27	3		27VIR-V-STACME3	15,88	2,79	1,0	3,3	6		●	NVR...5V
27	2		27VIR-V-STACME2	15,88	4,06	1,0	4,3	8	●	●	NVR...5V
27	2	27VIL-V-STACME2		15,88	4,06	1,0	4,3	8	●	●	NVR...5V

P	●	○
M	●	●
K	○	
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
								AM15C	HSS-TiN	
	[G/Inch]									
10	12	6IR-V-STACME12	6,0	0,76	1,2	5,1	10,0	●	●	...NVR1...6,0*

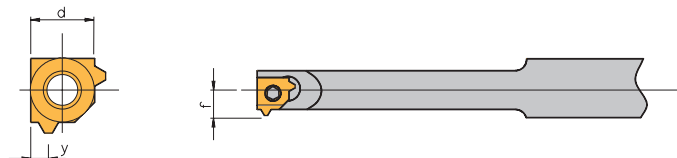
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

P	○	●
M	●	○
K		
N		
S		○
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AM15C	HSS-TiN	
[G/Inch]									
12	5LIR-V-STACME12	5,0L	0,76	1,2	4,42	8,0	●	●	...NVR 10.-5L*

*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

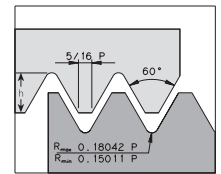
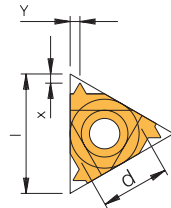
P	○	●
M	●	○
K		
N		
S		○
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


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Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

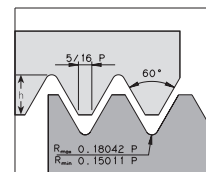
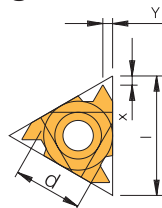
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità				
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	AL100	beschichtet coated rivestito AM7C	AM15C	unbe- schichtet uncoated non rivestito AK20	Klemmhalter Tool holder Utensile
[G/Inch]												
11	48		11ER-V-UNJ48	6,35	0,31	0,6	0,5			●		NL...-2
11	44		11ER-V-UNJ44	6,35	0,33	0,6	0,6					NL...-2
11	40		11ER-V-UNJ40	6,35	0,37	0,6	0,6			●		NL...-2
11	36		11ER-V-UNJ36	6,35	0,41	0,6	0,6					NL...-2
11	32		11ER-V-UNJ32	6,35	0,46	0,6	0,7	●		●		NL...-2
11	28		11ER-V-UNJ28	6,35	0,52	0,7	0,7	●		●		NL...-2
11	28	11EL-V-UNJ28		6,35	0,52	0,7	0,7	●				NL...-2
11	24		11ER-V-UNJ24	6,35	0,61	0,7	0,8	●		●		NL...-2
11	24	11EL-V-UNJ24		6,35	0,61	0,7	0,8	●				NL...-2
11	20		11ER-V-UNJ20	6,35	0,73	0,8	0,9			●		NL...-2
11	18		11ER-V-UNJ18	6,35	0,81	0,8	1,0			●		NL...-2
11	18	11EL-V-UNJ18		6,35	0,81	0,8	1,0	●				NL...-2
11	16		11ER-V-UNJ16	6,35	0,92	0,9	1,1			●		NL...-2
11	16	11EL-V-UNJ16		6,35	0,92	0,9	1,1	●				NL...-2
11	14		11ER-V-UNJ14	6,35	1,05	1,0	1,2	●				NL...-2
16	48		16ER-V-UNJ48	9,525	0,31	0,6	0,5					AL...-3
16	44		16ER-V-UNJ44	9,525	0,33	0,6	0,6			●		AL...-3
16	40		16ER-V-UNJ40	9,525	0,37	0,6	0,6	●		●	●	AL...-3
16	40	16EL-V-UNJ40		9,525	0,37	0,6	0,6	●				AL...-3
16	36		16ER-V-UNJ36	9,525	0,41	0,6	0,6		●	●		AL...-3
16	32		16ER-V-UNJ32	9,525	0,46	0,6	0,7	●	●	●	●	AL...-3
16	32	16EL-V-UNJ32		9,525	0,46	0,6	0,7			●		AL...-3
16	28		16ER-V-UNJ28	9,525	0,52	0,7	0,7	●	●	●	●	AL...-3
16	28	16EL-V-UNJ28		9,525	0,52	0,7	0,7		●			AL...-3
16	24		16ER-V-UNJ24	9,525	0,61	0,7	0,8	●	●	●	●	AL...-3
16	24	16EL-V-UNJ24		9,525	0,61	0,7	0,8	●		●	●	AL...-3
16	20		16ER-V-UNJ20	9,525	0,73	0,8	0,9	●	●	●	●	AL...-3
16	20	16EL-V-UNJ20		9,525	0,73	0,8	0,9	●		●	●	AL...-3
16	18		16ER-V-UNJ18	9,525	0,81	0,8	1,0	●	●	●	●	AL...-3
16	18	16EL-V-UNJ18		9,525	0,81	0,8	1,0	●	●		●	AL...-3
16	16		16ER-V-UNJ16	9,525	0,92	0,9	1,1	●	●	●	●	AL...-3
16	16	16EL-V-UNJ16		9,525	0,92	0,9	1,1		●	●	●	AL...-3
16	14		16ER-V-UNJ14	9,525	1,05	1,0	1,2	●	●	●	●	AL...-3
16	13		16ER-V-UNJ13	9,525	1,13	1,0	1,3		●	●	●	AL...-3
16	12		16ER-V-UNJ12	9,525	1,22	1,1	1,3	●	●	●	●	AL...-3
16	12	16EL-V-UNJ12		9,525	1,22	1,1	1,3		●	●	●	AL...-3
16	11		16ER-V-UNJ11	9,525	1,33	1,2	1,5			●	●	AL...-3
16	11	16EL-V-UNJ11		9,525	1,33	1,2	1,5	●		●		AL...-3
16	10		16ER-V-UNJ10	9,525	1,47	1,2	1,5	●		●		AL...-3
16	10	16EL-V-UNJ10		9,525	1,47	1,2	1,5		●			AL...-3
16	9		16ER-V-UNJ9	9,525	1,63	1,3	1,7			●		AL...-3
16	8		16ER-V-UNJ8	9,525	1,83	1,2	1,6	●	●	●	●	AL...-3
22	7		22ER-V-UNJ7	12,7	2,09	1,7	2,3	●				AL...-4
22	5	22EL-V-UNJ5		12,7	2,93	1,8	2,5			●		AL...-4
27	4		27ER-V-UNJ4	15,88	3,67	2,2	3,1	●				AL...-5

P	●	○		● Hauptanwendung Main application Applicazione principale
M	●	●	●	
K	○	○		○ Nebenanwendung Secondary application Applicazione secondaria
N				●
S	○			
H				


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Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

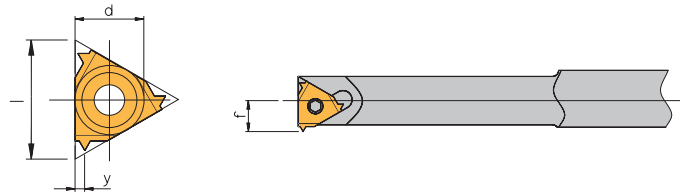
Sorten / Grades / Qualità										unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
beschichtet coated rivestito										AK20	AK20P		
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	AL100	AM7C	AM15C			
[G/Inch]													
11	48		11IR-V-UNJ48	6,35	0,28	0,6	0,5					●	NVR...2
11	28		11IR-V-UNJ28	6,35	0,47	0,7	0,7	●		●			NVR...2
11	24		11IR-V-UNJ24	6,35	0,55	0,7	0,8	●	●	●	●		NVR...2
11	24	11IL-V-UNJ24		6,35	0,55	0,7	0,8	●					NVR...2
11	20		11IR-V-UNJ20	6,35	0,66	0,8	0,9	●	●	●			NVR...2
11	18		11IR-V-UNJ18	6,35	0,74	0,8	1,0	●	●	●	●		NVR...2
11	18	11IL-V-UNJ18		6,35	0,74	0,8	1,0	●		●			NVR...2
11	16		11IR-V-UNJ16	6,35	0,83	0,9	1,1	●	●	●	●		NVR...2
11	16	11IL-V-UNJ16		6,35	0,83	0,9	1,1			●			NVR...2
11	14		11IR-V-UNJ14	6,35	0,95	1,0	1,2	●	●	●			NVR...2
11	14	11IL-V-UNJ14		6,35	0,95	1,0	1,2			●			NVR...2
16	48		16IR-V-UNJ48	9,525	0,28	0,6	0,5	●					AVR...3
16	36		16IR-V-UNJ36	9,525	0,37	0,6	0,6			●			AVR...3
16	32		16IR-V-UNJ32	9,525	0,42	0,6	0,7	●		●			AVR...3
16	28		16IR-V-UNJ28	9,525	0,47	0,7	0,7	●		●			AVR...3
16	24		16IR-V-UNJ24	9,525	0,55	0,7	0,8	●		●			AVR...3
16	20		16IR-V-UNJ20	9,525	0,66	0,8	0,9	●		●			AVR...3
16	18		16IR-V-UNJ18	9,525	0,74	0,8	1,0	●	●	●		●	AVR...3
16	18	16IL-V-UNJ18		9,525	0,74	0,8	1,0	●		●			AVR...3
16	16		16IR-V-UNJ16	9,525	0,83	0,9	1,1	●	●	●	●		AVR...3
16	16	16IL-V-UNJ16		9,525	0,83	0,9	1,1	●		●			AVR...3
16	14		16IR-V-UNJ14	9,525	0,95	1,0	1,2	●	●	●	●		AVR...3
16	13		16IR-V-UNJ13	9,525	1,02	1,0	1,3			●			AVR...3
16	12		16IR-V-UNJ12	9,525	1,11	1,1	1,3	●	●	●	●		AVR...3
16	12	16IL-V-UNJ12		9,525	1,11	1,1	1,3	●					AVR...3
16	11		16IR-V-UNJ11	9,525	1,21	1,2	1,5			●			AVR...3
16	10		16IR-V-UNJ10	9,525	1,33	1,2	1,5			●			AVR...3
16	9		16IR-V-UNJ9	9,525	1,48	1,3	1,7			●			AVR...3
16	8		16IR-V-UNJ8	9,525	1,66	1,2	1,6			●			AVR...3
16	8	16IL-V-UNJ8		9,525	1,66	1,2	1,6	●					AVR...3
22	7	22IL-V-UNJ7		12,7	1,90	1,7	2,3	●					AVR...4
22	6		22IR-V-UNJ6	12,7	2,21	1,7	2,3			●			AVR...4

P	●	○	
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

MINI 3

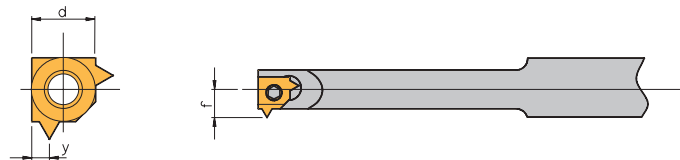
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo [G/Inch]	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AM15C	HSS-TiN	
10 20	6IR-V-UNJ20	6,0	0,66	0,9	4,9	9,8	●	●	...NVR1...-6,0*

*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

P	○	●
M	●	○
K		
N		
S		○
H		

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità				Klemmhalter Tool holder Utensile
								AL100	AM7C	AM15C	HSS-TiN	
32		5LIR-V-UNJ32	5,0L	0,42	0,6	3,92	7,5			●		...NVR 10.-5L*
28		5LIR-V-UNJ28	5,0L	0,47	0,6	3,99	7,6			●		...NVR 10.-5L*
28	5LIL-V-UNJ28		5,0L	0,47	0,6	3,99	7,6			●		...NVR 10.-5L*
20		5LIR-V-UNJ20	5,0L	0,66	0,9	4,21	7,8	●	●	●	●	...NVR 10.-5L*
18		5LIR-V-UNJ18	5,0L	0,74	1,0	4,30	7,9			●		...NVR 10.-5L*
18	5LIL-V-UNJ18		5,0L	0,74	1,0	4,30	7,9			●		...NVR 10.-5L*
14		5LIR-V-UNJ14	5,0L	0,95	1,0	4,54	8,0			●		...NVR 10.-5L*

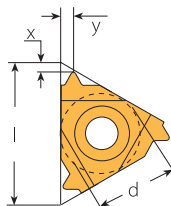
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	●		○	●
M	●	●	●	○
K	○	○		
N				
S	○			○
H				

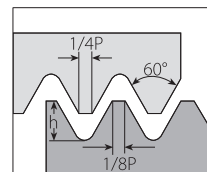
● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria

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Außengewinde / External threading / Filettatura esterna




Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura



Ausführung / Type / Esecuzione:

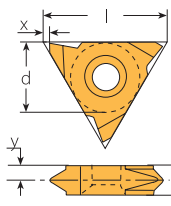
Standard

								Sorten / Grades / Qualità				
	Teilung	Links	Rechts	d	h _{min}	x	y	beschichtet			unbe-	Klemmhalter
	Pitch	Left	Right					coated	coated	schichtet	Tool holder	
	Passo	Sinistra	Destra					AL100	AM7C	AM15C	AK20	Utensile
	[mm]											
16	0,7		16ER-V-MJ0,70	9,525	0,40	0,6	0,6			●		AL...-3
16	1,0		16ER-V-MJ1,00	9,525	0,58	0,7	0,7	●		●	●	AL...-3
16	1,0	16EL-V-MJ1,00		9,525	0,58	0,7	0,7	●		●		AL...-3
16	1,25		16ER-V-MJ1,25	9,525	0,72	0,8	0,9	●	●	●	●	AL...-3
16	1,25	16EL-V-MJ1,25		9,525	0,72	0,8	0,9	●		●		AL...-3
16	1,5		16ER-V-MJ1,50	9,525	0,87	0,8	1,0	●	●	●	●	AL...-3
16	1,5	16EL-V-MJ1,50		9,525	0,87	0,8	1,0	●		●		AL...-3
16	2,0		16ER-V-MJ2,00	9,525	1,15	1,0	1,3	●		●		AL...-3
16	2,0	16EL-V-MJ2,00		9,525	1,15	1,0	1,3	●		●		AL...-3
16	2,5		16ER-V-MJ2,50	9,525	1,49	1,1	1,5	●		●		AL...-3
16	2,5	16EL-V-MJ2,50		9,525	1,49	1,1	1,5	●		●		AL...-3
16	3,0		16ER-V-MJ3,00	9,525	1,73	1,2	1,6			●		AL...-3
16	3,0	16EL-V-MJ3,00		9,525	1,73	1,2	1,6			●		AL...-3

P	●		○
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Ausführung / Type / Esecuzione:

Slim Throat / Slim Throat / Stelo scaricato

	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
									AL100	AM15C	
11	0,7		11VER-V-MJ0,70	6,35	0,40	0,7	2,5	3,2	●		NL...-2V
11	0,7	11VEL-V-MJ0,70		6,35	0,40	0,7	2,5	3,2	●		NL...-2V
11	0,8		11VER-V-MJ0,80	6,35	0,44	0,7	2,5	3,2	●	●	NL...-2V
11	0,8	11VEL-V-MJ0,80		6,35	0,44	0,7	2,5	3,2	●		NL...-2V
11	0,9		11VER-V-MJ0,90	6,35	0,53	0,7	2,6	3,2	●		NL...-2V
11	0,9	11VEL-V-MJ0,90		6,35	0,53	0,7	2,6	3,2	●		NL...-2V
11	1,0		11VER-V-MJ1,00	6,35	0,58	0,7	2,5	3,2	●		NL...-2V
11	1,0	11VEL-V-MJ1,00		6,35	0,58	0,7	2,5	3,2	●		NL...-2V

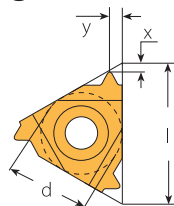
P	●		○
M	●	●	●
K	○		
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

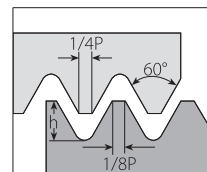
○ Nebenanwendung
Secondary application
Applicazione secondaria

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Innengewinde / Internal threading / Filettatura interna



Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura



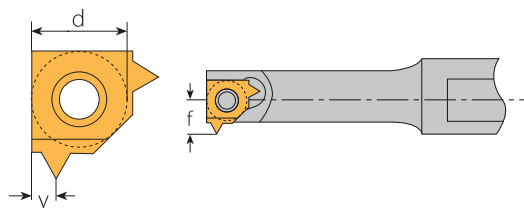
Ausführung / Type / Esecuzione:
Standard

Sorten / Grades / Qualità											
	Teilung	Links	Rechts	d	h _{min}	x	y	beschichtet		unbe-	Klemmhalter
	Pitch	Left	Right					coated	schichtet		
	Passo	Sinistra	Destra					AM7C	AM15C	AK20	Tool holder
	[mm]										Utensile
16	1,0		16IR-V-MJ1,00	9,525	0,49	0,6	0,7	●	●		AVR...-3
16	1,0	16IL-V-MJ1,00		9,525	0,49	0,6	0,7	●	●		AVR...-3
16	1,25		16IR-V-MJ1,25	9,525	0,61	0,8	0,9		●		AVR...-3
16	1,25	16IL-V-MJ1,25		9,525	0,61	0,8	0,9		●		AVR...-3
16	1,5		16IR-V-MJ1,50	9,525	0,73	0,8	1,0	●	●	●	AVR...-3
16	1,5	16IL-V-MJ1,50		9,525	0,73	0,8	1,0	●	●		AVR...-3
16	2,0		16IR-V-MJ2,00	9,525	0,97	0,8	1,3	●	●		AVR...-3
16	2,0	16IL-V-MJ2,00		9,525	0,97	0,8	1,3	●			AVR...-3
16	3,0		16IR-V-MJ3,00	9,525	1,46	1,2	1,6		●		AVR...-3

P	●		○
M	●	●	
K	○	○	
N			●
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Ausführung / Type / Esecuzione:
MINI 2

							Sorten / Grades / Qualità	
Teilung <i>Pitch</i> Passo	Rechts <i>Right</i> Destra	d	h _{min}	y	f	Min Bohr ø <i>min Drill ø</i> D min foro	AM15C	Klemmhalter <i>Tool holder</i> Utensile
[mm]								
1.25	5LIR-V-MJ1.25	5.0L	0.61	0.9	4.21	7.80	●	...NVR10-5L*

*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

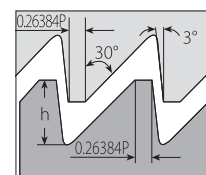
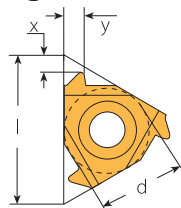
P	○
M	●
K	
N	
S	
H	

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


We have a passion for precision.

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

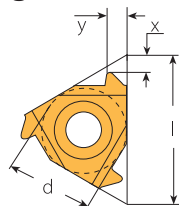
								Sorten / Grades / Qualità				
	Teilung	Links	Rechts	d	h _{min}	x	y	beschichtet		AM15C	unbe-	Klemmhalter
	Pitch	Left	Right					coated	schichtet			
	Passo	Sinistra	Destra					AL100	AM7C		AK20	Tool holder
	[mm]											Utensile
16	2,0		16ER-V-SAGE2,0	9,525	1,74	1,5	2,1	●	●	●	●	AL...-3
16	2,0	16EL-V-SAGE2,0		9,525	1,74	1,5	2,1	●		●	●	AL...-3
22	2,0		22ER-V-SAGE2,0	12,7	1,74	1,5	2,1	●		●		AL...-4
22	3,0		22ER-V-SAGE3,0	12,7	2,60	1,8	2,6	●	●	●	●	AL...-4
22	3,0	22EL-V-SAGE3,0		12,7	2,60	1,8	2,6	●		●		AL...-4
22	4,0		22ER-V-SAGE4,0	12,7	3,55	1,75	3,1	●		●		AL...-4
22	4,0	22EL-V-SAGE4,0		12,7	3,55	1,75	3,1			●		AL...-4
27	4,0		27ER-V-SAGE4,0	15,88	3,55	1,9	3,2	●	●	●		AL...-5
27	4,0	27EL-V-SAGE4,0		15,88	3,55	1,9	3,2	●	●		●	AL...-5

P	●		○
M	●	●	●
K	○	○	
N			
S	○		
H			

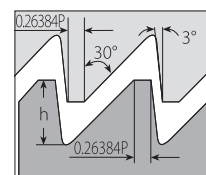
● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


Innengewinde / Internal threading / Filettatura interna



Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura



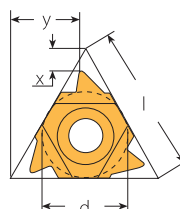
Ausführung / Type / Esecuzione:
Standard

				Sorten / Grades / Qualità											
	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile		
								AL100	AM7C	AM15C	AK20	AK20P			
16	2,0		16IR-V-SAGE2,0	9,525	1,50	1,5	2,2	●	●	●	●		AVR...3		
16	2,0	16IL-V-SAGE2,0		9,525	1,50	1,5	2,2	●					AVR...3		
22	3,0		22IR-V-SAGE3,0	12,7	2,25	1,7	2,9	●		●	●		AVR...4		
22	3,0	22IL-V-SAGE3,0		12,7	2,25	1,7	2,9	●		●	●		AVR...4		
22	4,0		22IR-V-SAGE4,0	12,7	3,09	2,03	3,25	●		●			AVR...4		
22	4,0	22IL-V-SAGE4,0		12,7	3,09	2,03	3,25	●		●			AVR...4		
27	4,0		27IR-V-SAGE4,0	15,88	3,09	2,1	3,2	●	●	●	●	●	AVR...5		
27	4,0	27IL-V-SAGE4,0		15,88	3,09	2,1	3,2	●	●	●	●	●	AVR...5		


P	●	○
M	●	●
K	○	○
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
U

				Sorten / Grades / Qualità											
	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile		
								AL100	AM15C		AK20	AK20P			
22	5,0		22UIR-V-SAGE5,0	12,7	3,76	1,8	10,3	●	●		●		AVR...4U		
22	5,0	22UIL-V-SAGE5,0		12,7	3,76	1,8	10,3	●	●				AVR...4U		
22	6,0		22UIR-V-SAGE6,0	12,7	4,54	1,9	10,15	●	●			●	AVR...4U		

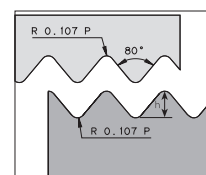
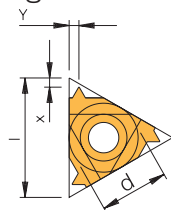
P	●	○
M	●	●
K	○	
N		
S	○	
H		

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria


We have a passion for precision.

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

								Sorten / Grades / Qualità					
	Teilung	Links	Rechts	d	h _{min}	x	y	beschichtet			unbeschichtet		Klemmhalter
	Pitch	Left	Right					coated	AM7C	AM15C	uncoated	AK20	
	Passo	Sinistra	Destra					AL100					Utensile
	[G/Inch]												
16	20		16ER-V-PG20	9,525	0,61	0,8	0,9	●	●	●	●		AL...-3
16	18		16ER-V-PG18	9,525	0,67	0,8	1,0	●	●	●	●		AL...-3
16	18	16EL-V-PG18		9,525	0,67	0,8	1,0			●			AL...-3
16	16		16ER-V-PG16	9,525	0,76	0,9	1,1	●	●	●	●	●	AL...-3
16	16	16EL-V-PG16		9,525	0,76	0,9	1,1	●		●			AL...-3

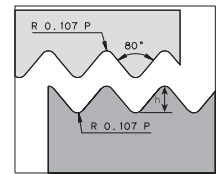
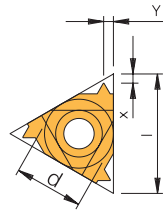
P	●		○	
M	●	●	●	
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

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Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

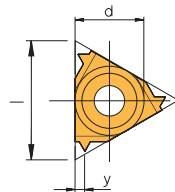
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità					Klemmhalter Tool holder Utensile
								AL100	beschichtet coated rivestito	AM7C	AM15C	unbe- schichtet uncoated non rivestito	
	[G/Inch]												
16	20		16IR-V-PG20	9,525	0,64	0,8	0,9	●	●	●			AVR...3
16	20	16IL-V-PG20		9,525	0,64	0,8	0,9		●				AVR...3
16	18		16IR-V-PG18	9,525	0,67	0,8	1,0	●	●	●		●	AVR...3
16	18	16IL-V-PG18		9,525	0,67	0,8	1,0	●	●				AVR...3
16	16		16IR-V-PG16	9,525	0,76	0,8	1,1	●	●	●		●	AVR...3
16	16	16IL-V-PG16		9,525	0,76	0,8	1,1	●	●				AVR...3

P	●		○	
M	●	●		
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
MINI 3

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

	Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
								AL100	AM15C	HSS-TiN	
	[G/Inch]										
10	20	6IR-V-PG20	6	0,61	0,8	5,3	10,0	●	●	●	...NVR1...-6.0*
10	18	6IR-V-PG18	6	0,67	0,9	5,3	10,0		●	●	...NVR1...-6.0*

*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

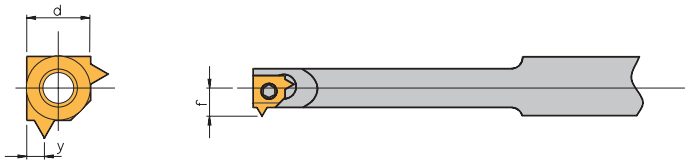
P	●	○	●
M	●	●	○
K	○		
N			
S	○		○
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

We have a passion for precision.

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
MINI 2

Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AM15C	HSS-TiN	
[G/Inch]									
20	5LIR-V-PG20	5,0L	0,61	0,8	4,65	8,0	●	●	...NVR10..-5L*
18	5LIR-V-PG18	5,0L	0,67	0,9	4,65	8,0	●	●	...NVR10..-5L*

*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	○	●
M	●	○
K		
N		
S		○
H		

● Hauptanwendung
Main application
Applicazione principale
○ Nebenanwendung
Secondary application
Applicazione secondaria

Unterlegplatten für Klemmhalter

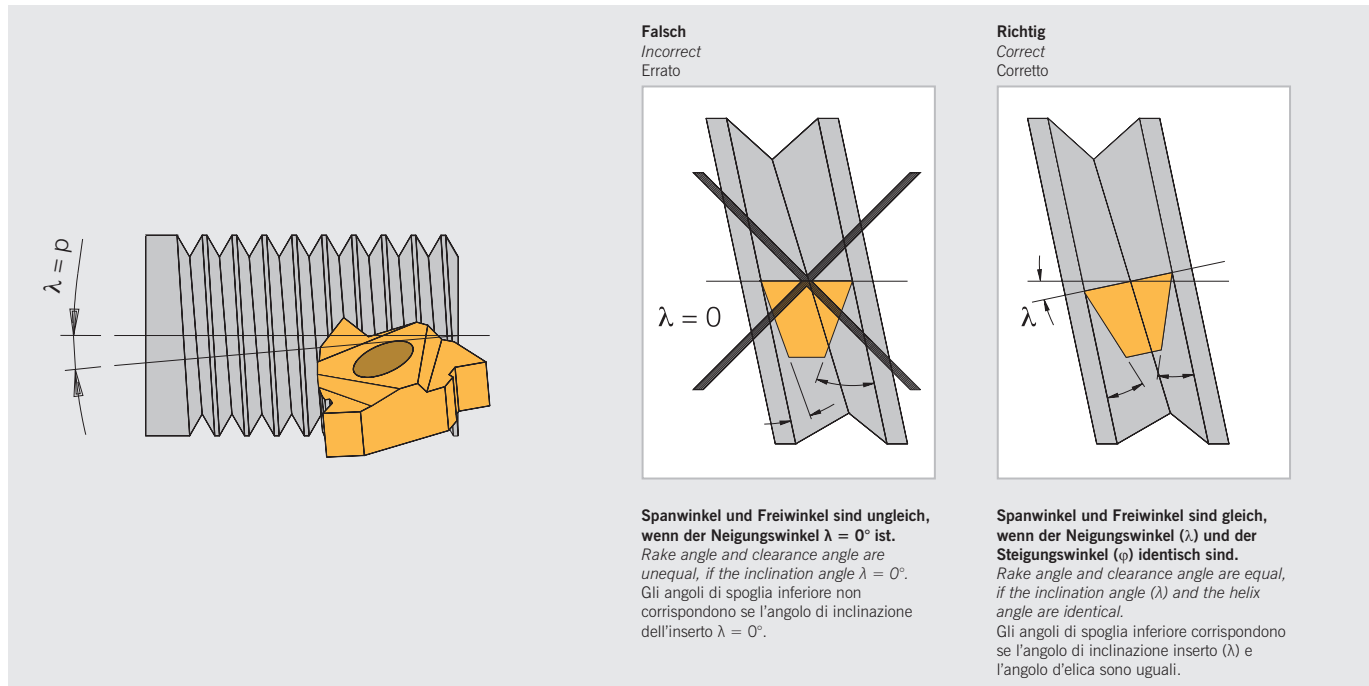
Support Pads for Tool holders
Supporti per portainseriti

Die Flankenfreiwinkel des Gewindeprofils der Wendeschneidplatte sind vom Steigwinkel des Gewindes abhängig. Der Steigwinkel des Gewindes muss mit dem Neigungswinkel der Wendeschneidplatte so weit wie möglich übereinstimmen. So wird größte Profilgenauigkeit erzielt, ungleichmäßige Freiflächenverschleiß an der Wendeschneidplatte vermieden und somit eine längere Standzeit gewährleistet.

The flank clearance angle of the thread profile depends on the helix angle. To ensure that the flanks of the insert cutting edge will not rub on the work piece it is very important to use the correct angle of the support pad. This is the only way to produce an accurate thread form and to avoid excessive flank wear on one side. Correct application ensures optimum tool life. The calculation is shown below. The chart on the next page shows how to pick the correct support pad for each thread.

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L'angolo di spoglia inferiore del lato inserto dipende dall'angolo d'elica del filetto. L'angolo d'elica del filetto e l'angolo di inclinazione dell'inserto devono per quanto possibile corrispondere in modo da produrre un profilo accurato ed evitare usure eccessive differenziate sui lati. La correzione di tali dettagli assicura una ottimizzata vita inserto.



Der Steigungswinkel des Gewindes bzw. der erforderliche Neigungswinkel ergibt sich aus folgender Formel:

The helix angle of the thread and the required inclination angle can be calculated by the following formula:

L'angolo d'elica del filetto e la richiesta inclinazione della sede inserto possono essere calcolati con la seguente formula:

$$\tan \lambda = \frac{p}{d_2 \times \pi}$$

λ_2 = Neigungswinkel / Inclination angle / Angolo di inclinazione
 d_2 = Flankendurchmesser / Pitch diameter / Diametro nominale filetto
 p = Steigung / Pitch / Passo

Die Klemmhalter sind mit einem Neigungswinkel von $\lambda = 1,5^\circ$ ausgelegt. Unterlegplatten, die bereits im Klemmhalter montiert sind und mitgeliefert werden, sind planparallel mit 0° geschliffen. Bei Abweichungen des Steigwinkels von mehr als 1° sollte eine andere Unterlegplatte gewählt werden. Die Spitzenhöhe der Wendeschneidplatte bleibt immer gleich (unabhängig von der Wahl der Unterlegplatte).

The toolholders are supplied with a 1.5° inclination angle. The support pads mounted in our toolholders are ground parallel to 0° . It is most important that the support pad is corrected, if the helix angle changes more than 1° . The center height will always be constant (independent from the selection of support pad).

Gli utensili vengono costruiti con $\lambda = 1,5^\circ$ di inclinazione sede inserto. I supporti montati sugli utensili standard forniti sono piani, senza inclinazione. E' molto importante che il supporto sia corretto se l'angolo di elica risulta superiore a 1° . L'altezza del tagliente rimarrà costante (anche sostituendo supporti di diversa inclinazione).

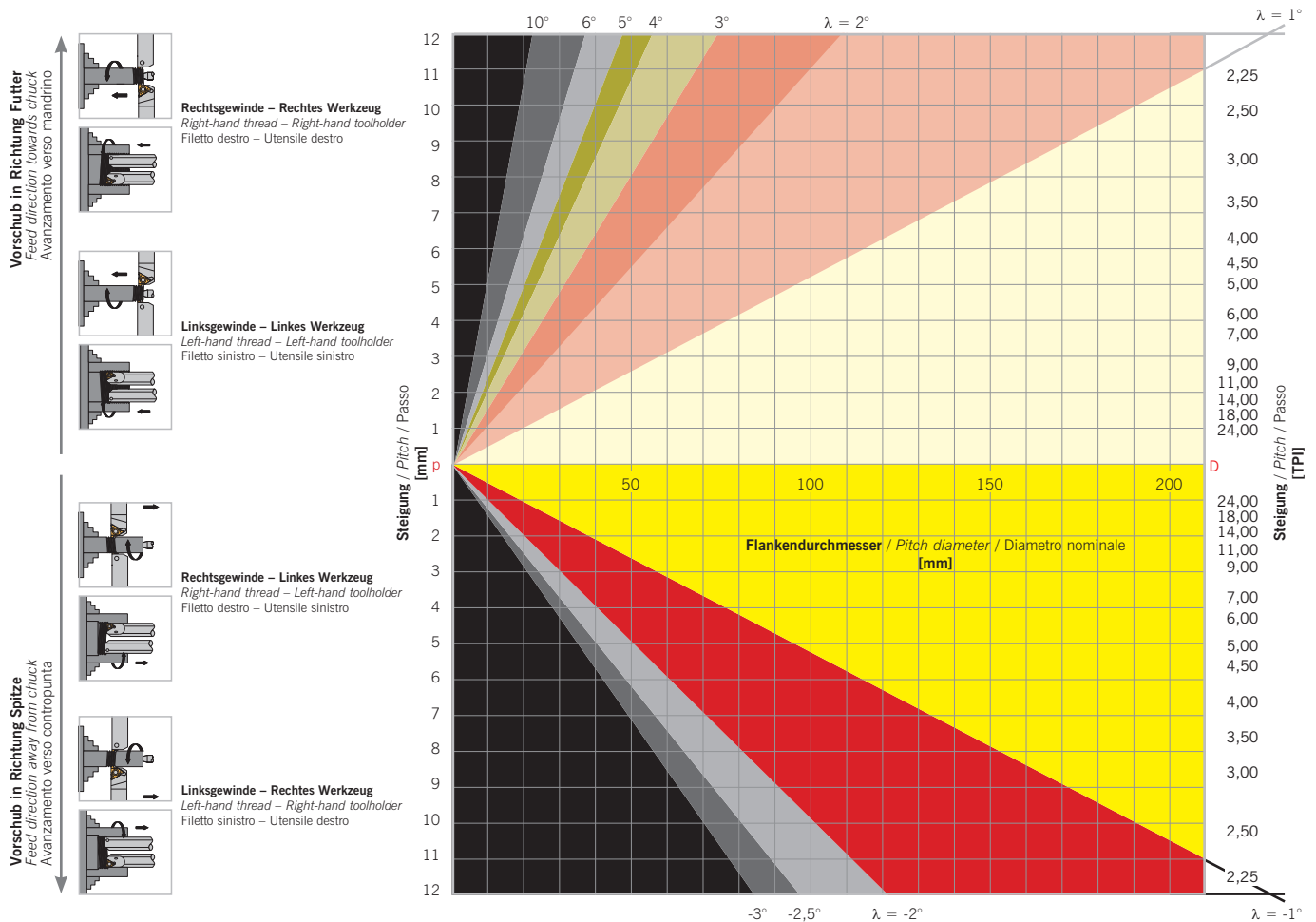
Unterlegplatten für Klemmhalter

Support Pads for Tool holders

Supporti per portainseri

We have a passion for precision.

Steigungswinkel-Diagramm / Helix angle diagram / Diagramma angolo d'elica



Unterlegplatten / Support pads / Supporti

Außengewinde External thread Filettatura esterna	Klemmhalter Holder Utensile	Steigungswinkel / Helix angle / Angolo d'elica							
		4,5°	3,5°	2,5°	1,5°	0,5°	0°	-0,5°	-1,5°
16	R	YE 3-3P	YE 3-2P	YE 3-1P	YE 3	YE 3-1 N	YE 3-1,5N	YE 3-2N	YE 3-3N
	L	YI 3-3P	YI 3-2P	YI 3-1P	YI 3	YI 3-1 N	YI 3-1,5N	YI 3-2N	YI 3-3N
22	R	YE 4-3P	YE 4-2P	YE 4-1P	YE 4	YE 4-1 N	YE 4-1,5N	YE 4-2N	YE 4-3N
	L	YI 4-3P	YI 4-2P	YI 4-1P	YI 4	YI 4-1 N	YI 4-1,5N	YI 4-2N	YI 4-3N
22 U	R	YE 4U-3P	YE 4U-2P	YE 4U-1P	YE 4U	YE 4U-1 N	YE 4U-1,5N	YE 4U-2N	YE 4U-3N
	L	YI 4U-3P	YI 4U-2P	YI 4U-1P	YI 4U	YI 4U-1 N	YI 4U-1,5N	YI 4U-2N	YI 4U-3N
27	R	YE 5-3P	YE 5-2P	YE 5-1P	YE 5	YE 5-1 N	YE 5-1,5N	YE 5-2N	YE 5-3N
	L	YI 5-3P	YI 5-2P	YI 5-1P	YI 5	YI 5-1 N	YI 5-1,5N	YI 5-2N	YI 5-3N
27U	R	YE 5U-3P	YE 5U-2P	YE 5U-1P	YE 5U	YE 5U-1 N	YE 5U-1,5N	YE 5U-2N	YE 5U-3N
	L	YI 5U-3P	YI 5U-2P	YI 5U-1P	YI 5U	YI 5U-1 N	YI 5U-1,5N	YI 5U-2N	YI 5U-3N
Innengewinde Internal thread Filettatura interna									
16	R	YI 3-3P	YI 3-2P	YI 3-1P	YI 3	YI 3-1 N	YI 3-1,5N	YI 3-2N	YI 3-3N
	L	YE 3-3P	YE 3-2P	YE 3-1P	YE 3	YE 3-1 N	YE 3-1,5N	YE 3-2N	YE 3-3N
22	R	YI 4-3P	YI 4-2P	YI 4-1P	YI 4	YI 4-1 N	YI 4-1,5N	YI 4-2N	YI 4-3N
	L	YE 4-3P	YE 4-2P	YE 4-1P	YE 4	YE 4-1 N	YE 4-1,5N	YE 4-2N	YE 4-3N
22 U	R	YI 4U-3P	YI 4U-2P	YI 4U-1P	YI 4U	YI 4U-1 N	YI 4U-1,5N	YI 4U-2N	YI 4U-3N
	L	YE 4U-3P	YE 4U-2P	YE 4U-1P	YE 4U	YE 4U-1 N	YE 4U-1,5N	YE 4U-2N	YE 4U-3N
27	R	YI 5-3P	YI 5-2P	YI 5-1P	YI 5	YI 5-1 N	YI 5-1,5N	YI 5-2N	YI 5-3N
	L	YE 5-3P	YE 5-2P	YE 5-1P	YE 5	YE 5-1 N	YE 5-1,5N	YE 5-2N	YE 5-3N
27 U	R	YI 5U-3P	YI 5U-2P	YI 5U-1P	YI 5U	YI 5U-1 N	YI 5U-1,5N	YI 5U-2N	YI 5U-3N
	L	YE 5U-3P	YE 5U-2P	YE 5U-1P	YE 5U	YE 5U-1 N	YE 5U-1,5N	YE 5U-2N	YE 5U-3N

Übersicht Ersatzteile

Overview Spare Parts

Gamma utensili ricambi

We have a passion for precision.

Artikel / Item / Articolo
Schlüssel / Key / Chiave
KS 1751
KS 1886
KS 2510
KS 2520
KS 2525
Schlüssel für Halter / Key for holder / Chiave per lo stel
KS 2505
Schlüssel für Hülse / Key for sleeve / Chiave per la bussola
KP 3421
Klemmschraube / Clamping screw / Vite di bloccaggio
SA3T
SA4T
SA5T
SM2T8
SN2T
SN2TM
SN3T
SN4MT
SN4T
SN5LT
SN5T
SN6MT
SN6T
Klemmschraube für Hülse
Clamping screw for sleeve / Vite di bloccaggio per la bussola
S4.0
Schraube + Scheibe für Unterlegplatte
Screw + washer for support pad / Vite + bussola per supporto
SY3T
SY4T
SY5T

Artikel / Item / Articolo
Unterlegplatte / Support pad / Chiave Supporto
YE3
YE3-1.5N
YE3-1N
YE3-1P
YE3-2N
YE3-2P
YE3-3N
YE3-3P
YE4
YE4-1.5N
YE4-1N
YE4-1P
YE4-2N
YE4-2P
YE4-3N
YE4-3P
YE4U
YE5
YE5U
YI3
YI3-1.5N
YI3-1N
YI3-1P
YI3-2N
YI3-2P
YI3-3N
YI3-3P
YI4
YI4-1.5N
YI4-1N
YI4-1P
YI4-2N
YI4-2P
YI4-3N
YI4-3P
YI4U
YI4U-1.5N
YI4U-1N
YI4U-1P
YI4U-2N
YI4U-2P
YI4U-3N
YI4U-3P
YI5
YI5-1.5N
YI5-1N
YI5-1P
YI5-2N
YI5-2P
YI5-3N
YI5-3P
YI5U
YI5U1.5N
YI5U-1N
YI5U-1P
YI5U-2N
YI5U-2P
YI5U-3N
YI5U-3P

5

ARNO® Mini-System – maximale Stabilität für prozesssichere Bohrungsbearbeitung.

ARNO® Mini-System – maximum stability for internal applications.

ARNO® Mini-System – massima stabilità per barenature interne di piccoli diametri.



AMS – ARNO® MINI-SYSTEM

AMS das modulare System zur flexiblen Bohrungsbearbeitung ab Durchmesser 2,5 mm.

- Bohrungen ausdrehen ab Ø 2,5 mm
- Einstechen ab Breite 0,8 mm
- Radieneinstich ab R 0,5 mm
- Rückwärtsdrehen und Fasen
- Vorstechen und Fasen
- Kopierdrehen
- Gewindedrehen ab M4
- Axialstechen ab Ø 5 mm

AMS the modular internal system for internal applications from 2.5 mm minimum bore diameter

- Boring from 2.5 mm diameter
- Grooving from 0.8 mm widths
- Radial grooving from R 0.5 mm
- Inserts for back turning and chamfering
- Inserts for groove/chamfering
- Copy turning inserts
- Threading options
- Inserts for face grooving

AMS, il Sistema Modulare per barenature interne da diametro 2,5 mm

- Barenatura a partire da 2,5 mm
- Scanalatura con spessore da 0,8 mm
- Scanalatura a raggio pieno da R 0,5 mm
- Barentura in tiro e smussi
- Pre troncatura e smusso
- Copiatura
- Filettatura da M4
- Scanalatura assiale da 5 mm

Weitere ARNO Highlights finden Sie unter:

For further ARNO highlights please see:

Tutti gli aggiornamenti ARNO sul sito:

www.arno.de