

GEWINDEDREHEN THREAD TURNING FILETTATURA



Gewindedrehen

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Filettatura

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Gewindedrehen – Übersicht

Thread Turning – Overview

Tornitura di filettatura – Prospetto

Teilprofil

Partial profile
Profilo parziale

60°

Teilprofil

Partial profile
Profilo parziale

55°

Metrisch

Metric
Metrico

ISO

Amerikanisches ISO-Zollgewinde

American thread
Filettatura norme americane

UN

Whitworth Rohrgewinde

Whitworth pipe thread
Filettatura Whitworth

BSW, BSP

Konisches Rohrgewinde

Tapered pipe thread
Filettatura tubi conica

BSPT

Kegeliges Rohrgewinde

Tapered pipe thread
Filettatura tubi conica

NPT

Kegeliges Feinrohrgevinde

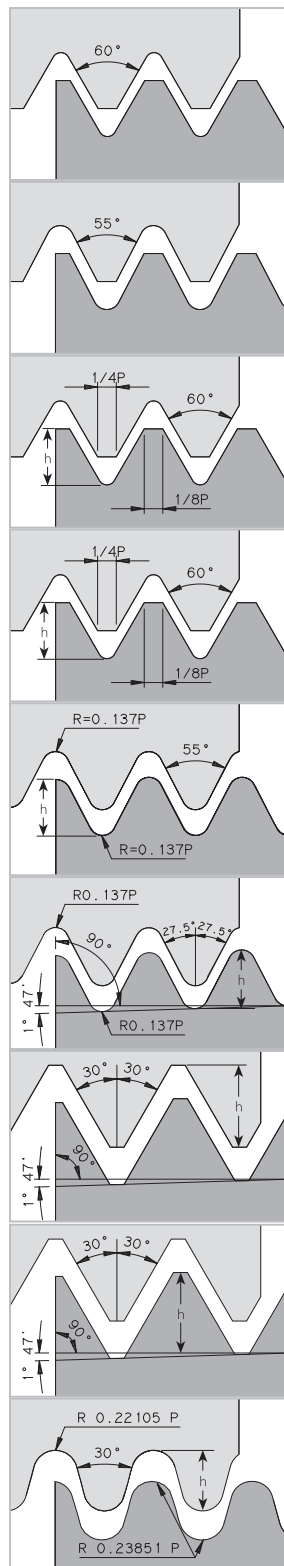
Tapered fine pitch pipe thread
Filettatura tubi conica passo fine

NPTF

Rundgewinde

Round thread
Filettatura tonda

DIN 405



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

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338 – 346

383 – 384

385 – 386

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338 – 346

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332 – 337

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332 – 337

338 – 343

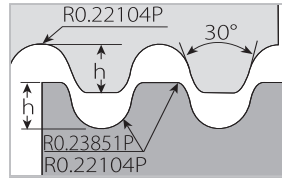
Gewindedrehen – Übersicht

Thread Turning – Overview

Tornitura di filettatura – Prospetto

Rundgewinde

Round thread
Filettatura tonda
DIN 20400



Wendeschneidplatte Indexable insert

Inserto a fissaggio meccanico

Halter Holder

Utensile

Außengewinde
External Thread
Filettatura esterna
Seite / Page / Pagina

Innengewinde
Internal Thread
Filettatura interna
Seite / Page / Pagina

Außengewinde
External Thread
Filettatura esterna
Seite / Page / Pagina

Innengewinde
Internal Thread
Filettatura interna
Seite / Page / Pagina

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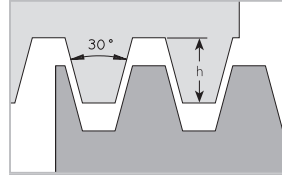
393

332 – 337

338 – 343

Trapezgewinde

Trapezoidal thread
Filettatura trapezoidale
DIN 103



394 – 395

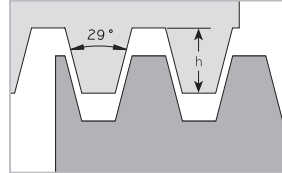
396 – 399

332 – 337

338 – 346

Amerikanisches Trapezgewinde

American trapezoidal thread
Filettatura trapezoidale americana
ACME



400 – 401

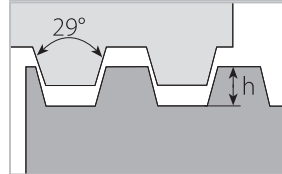
402 – 405

332 – 337

338 – 346

Amerikanisches abgeflachtes Trapezgewinde

American flat trapezoidal thread
Filettatura a norma americana trapezoidale piano
Stub ACME



406 – 407

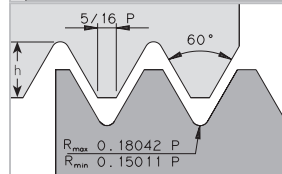
408 – 410

332 – 337

338 – 346

Luftfahrtgewinde

Aerospace thread
Filettatura aeronautica
UNJ



411

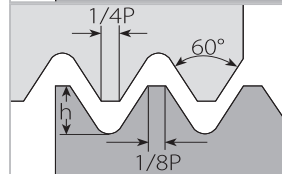
412 – 413

332 – 337

338 – 346

Spitzgewinde DIN 5855

V-thread DIN 5855
Filettatura DIN 5855
MJ



414

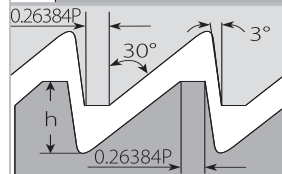
415

332 – 337

338 – 346

Metrisches Sägewinde

DIN 513
Metric buttress thread DIN 513
Filetto a dente di sega
SAGE



416

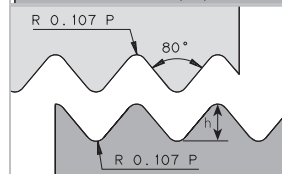
417

332 – 337

338 – 343

Stahlpanzerrohrgewinde

PG-thread
Filettatura PG
DIN 40430



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419 – 420

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338 – 346

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 Abstechen“ 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	Fußerschraubung, 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	Elektrogewinde	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		
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 Feinrohrgewinde		<ul style="list-style-type: none"> Kegeliges Feinrohrgewinde NPTF (Vollprofil)
ACME	¾ - 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.

Thread turning

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 identificativo	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 ⅛		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 ⅛ - 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

Standardausführung

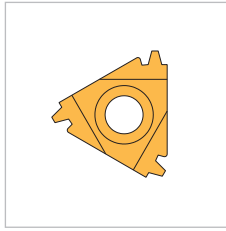
Wendeschneidplatte für alle Gewindeprofile. Gewindedrehen bis fast an die Schulter, da die Spitze des Profils der Wendeschneidplatte so nah wie möglich an der theoretischen Spitze des Rohlingdreiecks liegt.

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

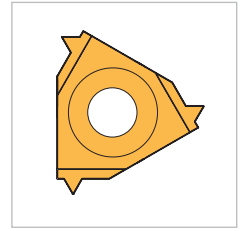
Für die Innenbearbeitung von kleinen Durchmessern ab 9,3 mm. 3 Schneidkanten

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

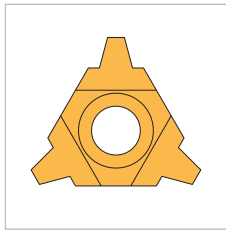
Stabile Wendeschneidplatte. Speziell für Gewinde mit großen Steigungen.

U-geometry

Strong threading insert for large pitch threads.

Esecuzione -U

Inserto molto robusto. Ideale per filetti a passoso largo.



MINI 2 - Ausführung

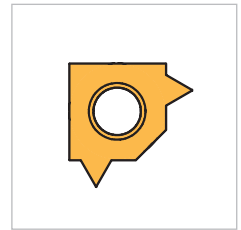
Für die Innenbearbeitung von kleinen Durchmessern ab 7,3 mm. 2 Schneidkanten

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

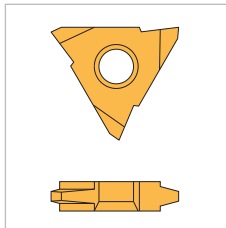
Vertikal stehende Wendeschneidplatte für die Bearbeitung großer Profile, bei Steigungen von 6–10 mm und die Außenbearbeitung hinter dem Bund.

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

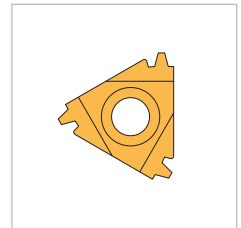
Gesinterte Spanleitsufe für langspanende Werkstoffe. TiAIN-beschichtet (AI 100)

SB-execution

Sintered chipbreaker for long chipping materials, TiAIN-coated (AI 100).

Esecuzione -SB

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



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 Hartzerspannung 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 hochwärmefeste 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.

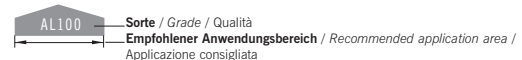
Qualità HSS rivestita TiN per lavorazioni a basse velocità di taglio, parti di piccole dimensioni e dove sono richieste precisioni di esecuzione dei profili di filettatura. Specialmente idoneo alla lavorazione di acciaio, acciaio inossidabile e materiali non ferrosi anche con taglio interrotto.

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 AM15C			
	30			Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento
	40			Verschleißbeständigkeit / Wear resistance / Resistenza all'usura	Schnittgeschwindigkeit Cutting speed / Velocità di taglio
	50				
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				
	20	AL100 AM7C AM15C			
	30			Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento
	40			Verschleißbeständigkeit / Wear resistance / Resistenza all'usura	Schnittgeschwindigkeit Cutting speed / Velocità di taglio
	50				
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				
	20	AL100 AM15C AM7C			
	30		AK20	Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento
	40			Verschleißbeständigkeit / Wear resistance / Resistenza all'usura	Schnittgeschwindigkeit Cutting speed / Velocità di taglio
	50				
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 AM15C			
	30		AK20 AK20P	Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento
	40			Verschleißbeständigkeit / Wear resistance / Resistenza all'usura	Schnittgeschwindigkeit Cutting speed / Velocità di taglio
	50				
S Warmfeste Legierungen, Titanlegierungen <i>High temperature resistant alloys, titanium alloys</i> Leghe refrattarie, leghe esotiche, leghe di titanio	10	AL100			
	20		AK20	Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento
	30			Verschleißbeständigkeit / Wear resistance / Resistenza all'usura	Schnittgeschwindigkeit Cutting speed / Velocità di taglio
	40				
	50				
H Gehärteter Stahl, Hartguss <i>Hardened steel, hard cast iron</i> Acciaio temprato, ghisa temprata	10	AL100 AM15C			
	20			Zähigkeit Toughness / Tenacità	Vorschub Feed rate / Avanzamento
	30			Verschleißbeständigkeit / Wear resistance / Resistenza all'usura	Schnittgeschwindigkeit Cutting speed / Velocità di taglio
	40				
	50				

Hauptanwendungsbereich / Main application area / Applicazione principale



Nebenanwendungsbereich / Secondary application area / Applicazione dsecondaria



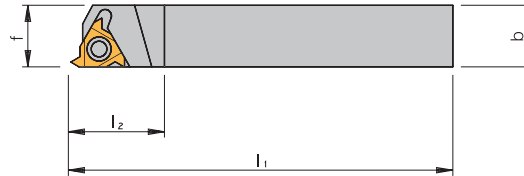
Klemmhalter

Tool holders
Utensili

Außengewinde
External Thread
Filettatura esterna




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	Y13
22	SA4T	SY4T	KS 2520	YE4	Y14
27	SA5T	SY5T	KS 2525	YE5	Y15

5

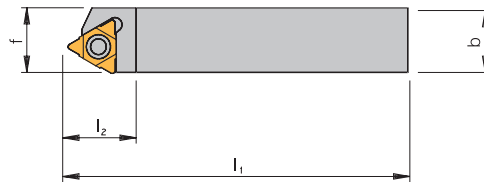
Klemmhalter

Tool holders
Utensili

Außengewinde
External Thread
Filettatura esterna



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

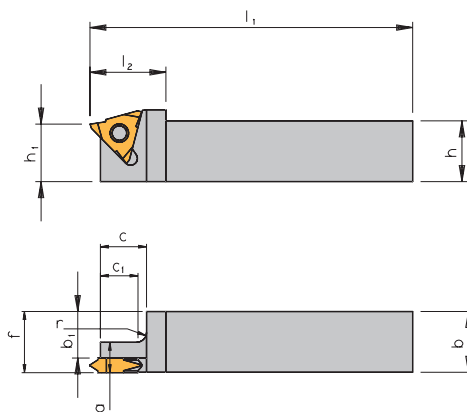
	Klemmschraube Clamping screw Vite di bloccaggio	Schraube + Scheibe für Unterlegplatte Screw + washer for support pad Vite + bussola per supporto	Schlüssel Key Chiave	Unterlegplatte Support pad Supporto R	Unterlegplatte Support pad Supporto L
22U	SA4T	SY4T	KS 2520	YE4U	YI4U
27U	SA5T	SY5T	KS 2525	YE5U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

5

Klemmhalter

Tool holders
Utensili


Außengewinde
External Thread
Filettatura esterna



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

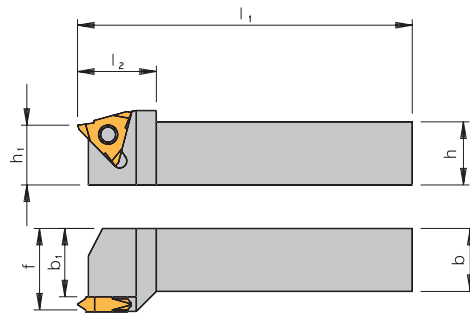
	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
11V	SN2T	KS 1751
16V	SN3T	KS 2510
22V	SN4T	KS 2520

5

Klemmhalter

Tool holders
Utensili

Außengewinde
External Thread
Filettatura esterna



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

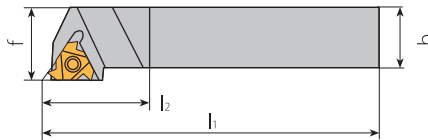
	Klemmschraube Clamping screw Vite di bloccaggio	Schlüssel Key Chiave
27V	SN6T	KS 2525

5

Klemmhalter

Tool holders
Utensili

Außengewinde
External Thread
Filettatura esterna




Ausführung / Type / Esecuzione

Versetzter Kopf


Off set head
Stelo inverso

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

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

Ersatzteile / Spare parts / Ricambi

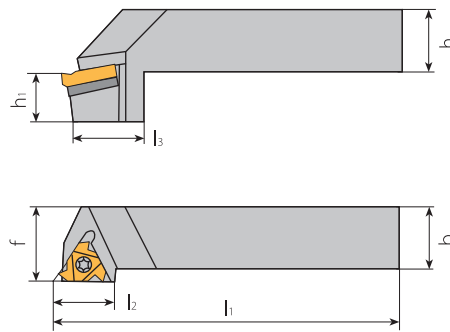
	Klemmschraube Clamping screw Vite di bloccaggio	Schraube + Scheibe für Unterlegplatte Screw + washer for support pad Vite + bussola per supporto	Schlüssel Key Chiave	Unterlegplatte Support pad Supporto R	Unterlegplatte Support pad Supporto L
16	SA3T	SY3T	KS 2510	YE3	Y13
22	SA4T	SY4T	KS 2520	YE4	Y14
27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

5

Klemmhalter

Tool holders
Utensili


Außengewinde
External Thread
Filettatura esterna




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	Y13
22	SA4T	SY4T	KS 2520	YE4	Y14
27	SA5T	SY5T	KS 2525	YE5	Y15

5

Klemmhalter

Tool holders

Utensili

Innengewinde

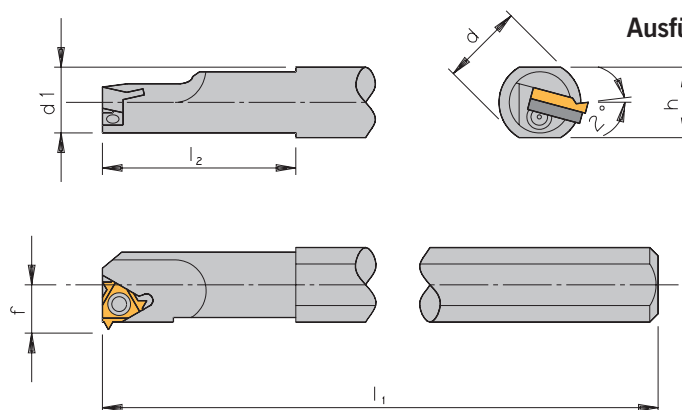
ohne innere Kühlmittelzufuhr

Internal Thread

without through tool coolant

Filettatura interna

senza adduzione interna



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

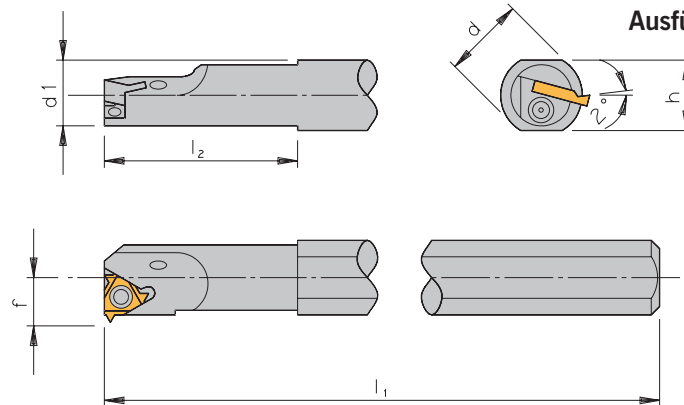
mit innerer Kühlmittelzufuhr

Internal Thread

with through tool coolant

Filettatura interna

con adduzione interna



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

Innengewinde

mit innerer Kühlmittelzufuhr

Internal Thread

with through tool coolant

Filettatura interna

con adduzione interna

Ausführung / Type / Esecuzione

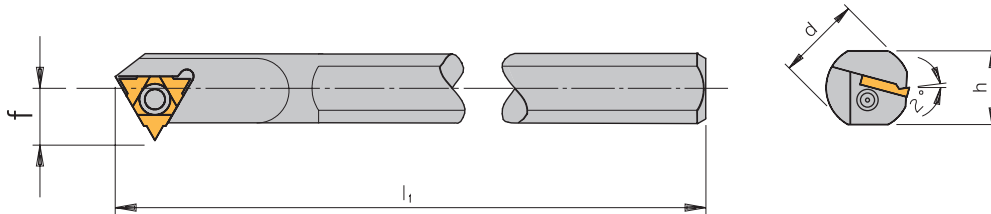
U für Regelgewinde

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

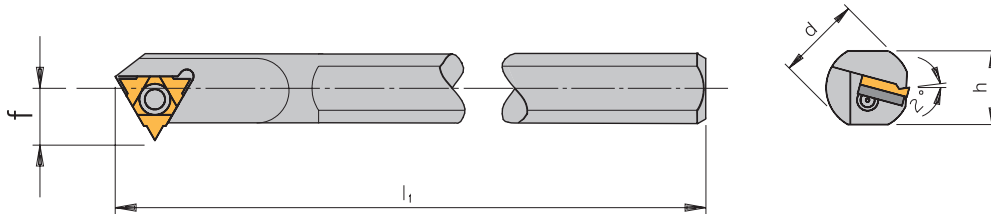
5

Klemmhalter

Tool holders
Utensili


Innengewinde Internal Thread Filettatura interna

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	Y14U	YE4U
27U	SA5T	SY5T	KS 2525	Y15U	YE5U

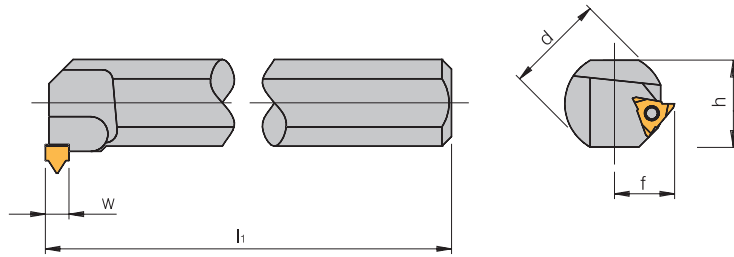
5

Klemmhalter

Tool holders
Utensili


Innengewinde Internal Thread Filettatura interna

Ausführung / Type / Esecuzione **V**



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

5

Klemmhalter

Tool holders
Utensili

Innengewinde

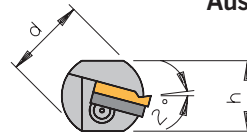
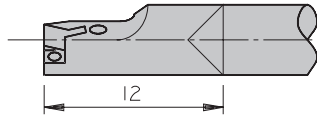
mit innerer Kühlmittelzufuhr

Internal Thread

with through tool coolant

Filettatura interna

con adduzione interna

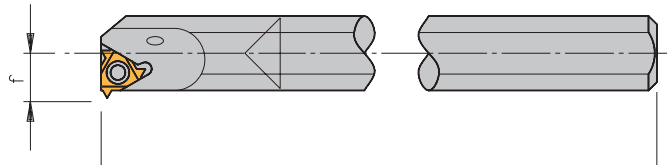


Ausführung / Type / Esecuzione

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:

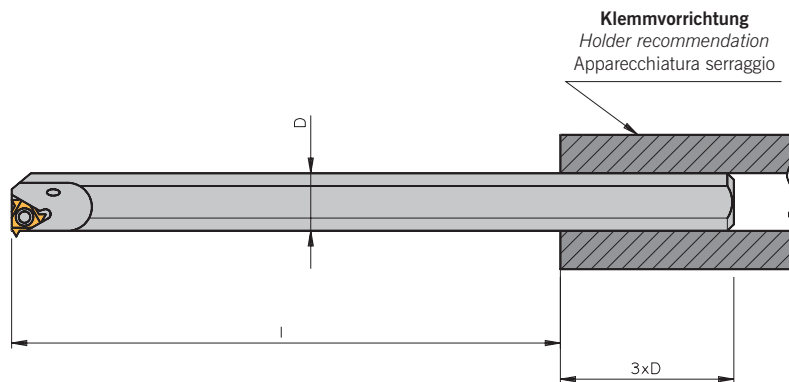
All toolholders are supplied with a helix angle of 1.5°. For different a helix angle please refer to page 421 – 423. They have to be ordered separately. Tool holders designated with "N." are used without support pad.

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:

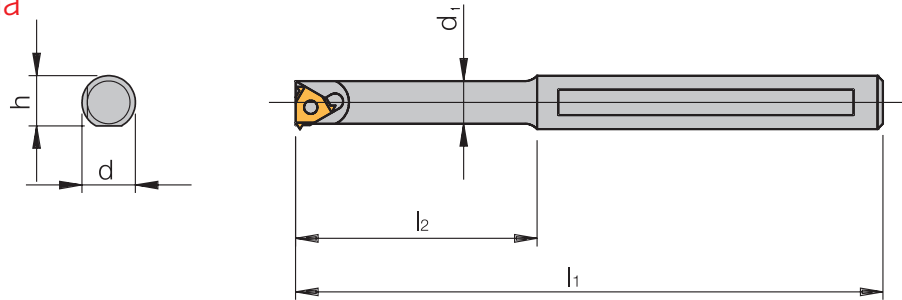
Tool holders with carbide shank should be used when extra accuracy is required or when the bar length to bar diameter ratio exceeds 3:1. The overhang to bar diameter ratio should be as small as possible to eliminate possible vibrations. The minimum length in the clamping device should be 3 times the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

Ausführung / Type / Esecuzione
MINI 3



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

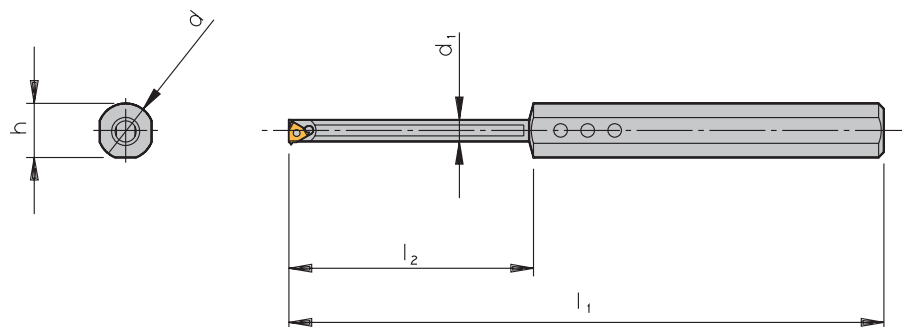
HINWEIS:
Klemmhalter mit der Bezeichnung „B.“ und „C.“ sind mit einem Hartmetallkern zur Minimierung von Vibrationen ausgeführt.

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

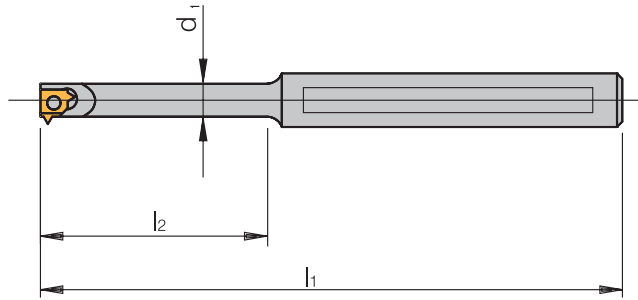
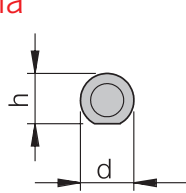
	Bezeichnung Hülse Designation sleeve Articolo Bussola	Bezeichnung Halter Designation holder Articolo Utensile	h	l ₁	l ₂	d	d ₁
10	SV16-8.0	BNVR8.0T-6.0 R	15,6	100	8-56	16	8

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

Ausführung / Type / Esecuzione
MINI 2



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

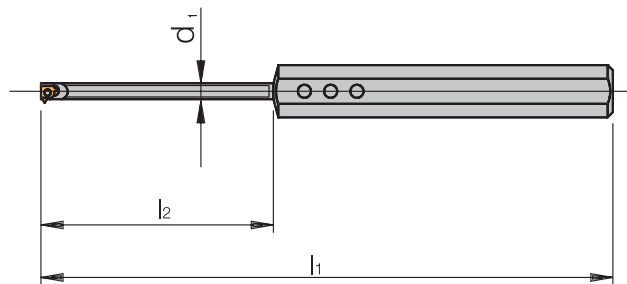
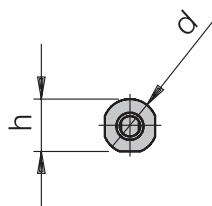
HINWEIS:
Klemmhalter mit der Bezeichnung „B...“ sind mit einem Hartmetallkern zur Minimierung von Vibrationen ausgeführt.

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

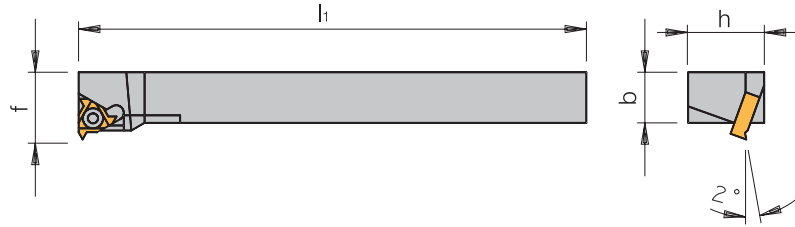
	Bezeichnung Hülse Designation sleeve Articolo Bussola	Bezeichnung Halter Designation holder Articolo Utensile	h	l ₁	l ₂	d	d ₁
5.0L	SV16-6.2	BNVR6.2T-5L R	15,6	100	8-44	16	6,2

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 portainserti

	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:

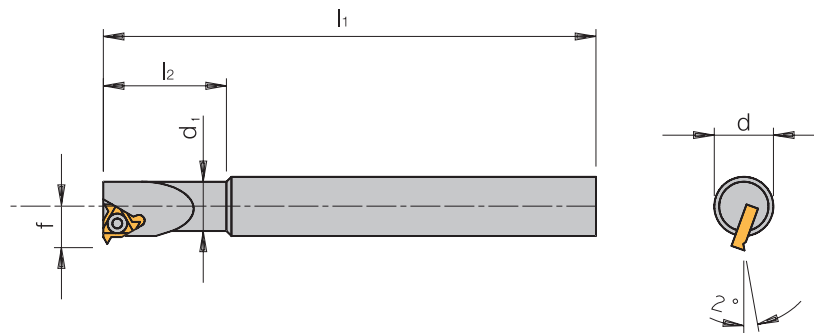
Mini holders on round or square execution are designated for use on automatic lathes for the optical and other precision industries. They can be used for external and internal threading.

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 portainserti

	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

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- Reduzierte Lagerhaltung von Werkzeugen und Wendeschneidplatten
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- Riduce la programmazione macchina
- Riduce i tempi di setup utensili
- Riduce i costi di magazzino di utensili ed inserti
- Riduce i costi di utensileria

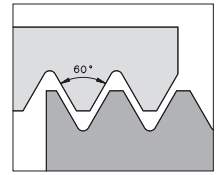
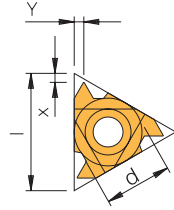
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Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

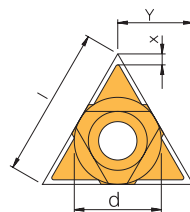
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

[mm]	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	Sorten / Grades / Qualità						
								beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
	[G/Inch]							AL100	AM7C	AM15C	AK20	AK20P		
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	11ER-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	16ER-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	16ER-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	16ER-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

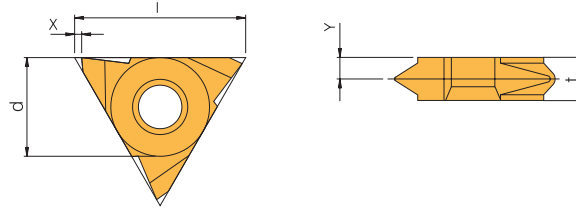
[mm]	Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	r	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
							beschichtet coated rivestito		unbeschichtet uncoated		
	[G/Inch]						AL100	AM15C	AK20		
22	5,5-8,0	4,5-3,25	22UEI-T-U60	12,7	0,30	0,6	11,0	●	●	●	AL...-4U
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

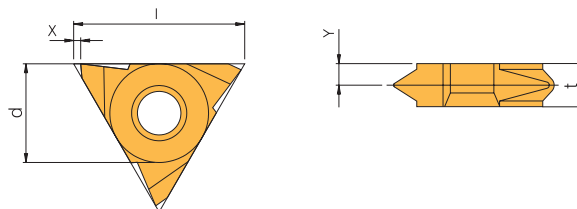
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

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			
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

	AL100	AM7C	AM15C	AK20
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

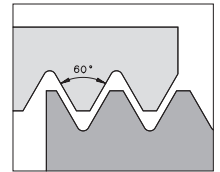
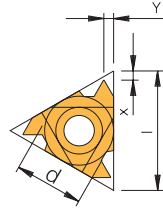
Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
								beschichtet coated rivestito	unbe- schichtet uncoated non rivestito			
27	6,0-10,0	4-2,5	27VER-T-V60	15,88	0,75	0,6	5,2	10	●	●	●	NL...-5V-10
27	6,0-10,0	4-2,5	27VEL-T-V60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

	AL100	AM15C	AK20
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

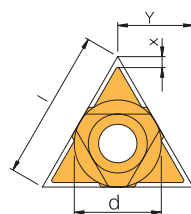
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	Sorten / Grades / Qualità				Klemmhalter Tool holder Utensile	
							beschichtet coated rivestito		unbe- schichtet uncoated non rivestito			
[mm]	[G/Inch]						AL100	AM7C	AM15C	AK20		
11	0,5-1,5	48-16					●	●	●	●	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										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										AVR...3
16	1,75-3,0	14-8	16IL-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										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										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										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										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										AVR...4
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										AVR...5
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

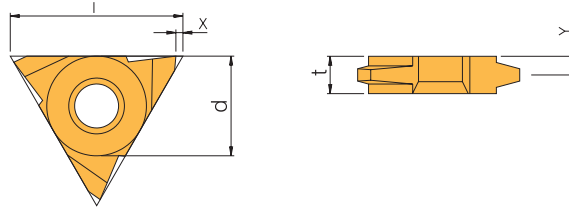
Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	r	x	y	Sorten / Grades / Qualità				Klemmhalter Tool holder Utensile	
						beschichtet coated rivestito		unbe- schichtet uncoated non rivestito			
[mm]	[G/Inch]					AL100	AM15C	AK20			
22	5,5-8,0	4,5-3,25	22UEI-T-U60	12,7	0,30	0,6	11,0	●	●	●	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

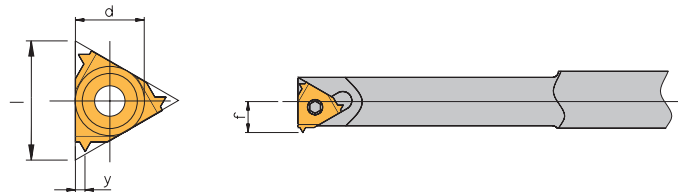
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

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*

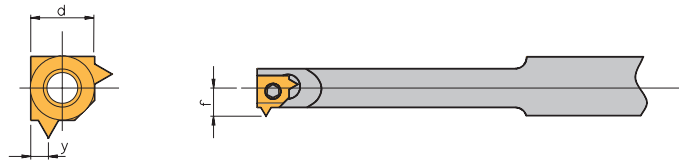
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

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

Teilung Pitch Passo		Links Left Sinistra	Rechts Right Destra	d	r	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
[mm]	[G/Inch]								AL100	AM15C	HSS-TiN	
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*

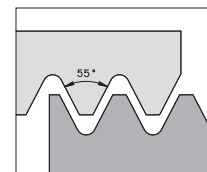
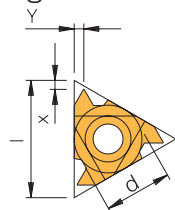
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

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

● **Hauptanwendung**
Main application
Applicazione principale

○ **Nebenanwendung**
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



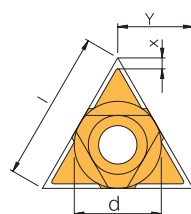
Ausführung / Type / Esecuzione:
Standard

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

Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
							AL100	beschichtet coated rivestito AM7C	unbe- schichtet uncoated non rivestito AM15C		AK20	
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	●	○		● Hauptanwendung Main application Applicazione principale
M	●	●	●	
K	○	○		○ Nebenanwendung Secondary application Applicazione secondaria
N			●	
S	○			
H				

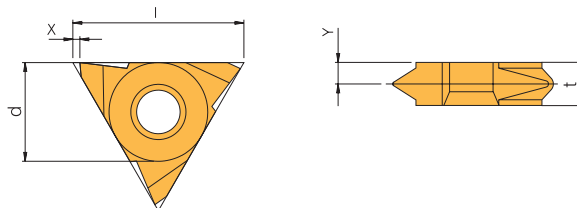
Ausführung / Type / Esecuzione:
U



Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	r	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
						AL100	AM7C	AM15C			
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	●	○		● Hauptanwendung Main application Applicazione principale
M	●	●	●	
K	○	○		○ Nebenanwendung Secondary application Applicazione secondaria
N				
S	○			
H				

Außengewinde / External threading / Filettatura esterna

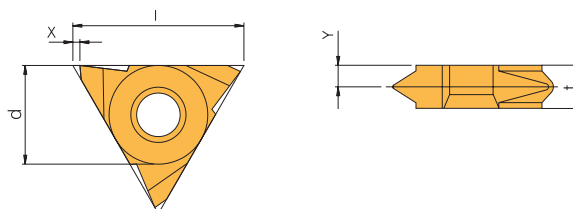


Ausführung / Type / Esecuzione:
Slim Throat / Slim Throat / Stelo scaricato

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

Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
								AL100	beschichtet coated rivestito AM7C	unbe- schichtet uncoated non rivestito AM15C		AK20
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	○	○	○	●		



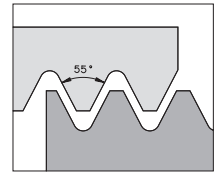
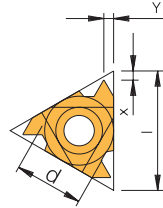
Ausführung / Type / Esecuzione:
V

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

Teilung Pitch Passo	Rechts Right Destra	d	r	x	y	t	Sorten / Grades / Qualità	Klemmhalter Tool holder Utensile
27	27VER-T-V55	15,88	0,70	1,0	4,3	8	AL100	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

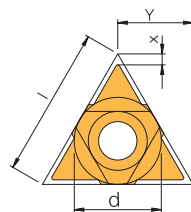
Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	r	x	y	Sorten / Grades / Qualità						
							AL100	beschichtet coated rivestito		unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
[mm]	[G/Inch]							AM7C	AM15C	AK20	AK20P		
11	0,5-1,5	48-16						●	●	●		●	NVR...2
11	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						●	●	●		●	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						●	●	●		●	AVR...3
16	1,75-3,0	14-8	16IL-T-G55	9,525	0,21	1,2	1,7	●	●			●	AVR...3
16	1,75-3,0	14-8						●	●	●		●	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						●	●	●		●	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						●	●	●		●	AVR...3
16	0,5-3,0	48-8	16IR-T-AG55	9,525	0,07	1,2	1,7	●	●			●	AVR...3
16	0,5-1,5	48-16						●				●	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						●				●	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						●				●	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						●	●	●		●	AVR...4
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						●	●	●		●	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						●	●	●		●	AVR...5
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



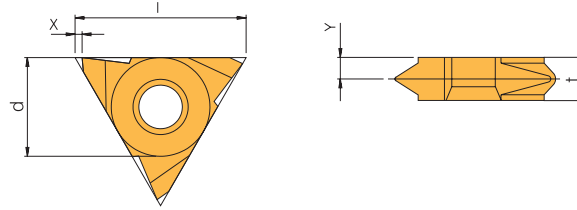
Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	r	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
						AL100	AM7C	AM15C			
[mm]	[G/Inch]										
22	5,5-8,0	4,5-3,25	22UEI-T-U55	12,7	0,60	0,9	11,0	●	●	●	AVR...-4U
27	6,5-9,0	4-2,75	27UEI-T-U55	15,88	0,80	1,2	13,7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

P	●	○	
M	●	●	●
K	○	○	
N			
S	○		
H			

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



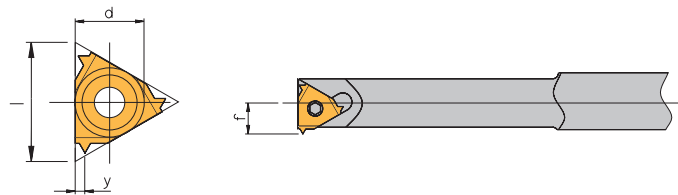
Ausführung / Type / Esecuzione:

V

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

Teilung Pitch Passo	Rechts Right Destra	d	r	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
							beschichtet coated rivestito	unbe- schichtet uncoated non rivestito	AK20	
27		15,88	0,70	1,0	4,3	8	AL100	AM15C	AK20	NVR..-5V

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



Ausführung / Type / Esecuzione:

MINI 3

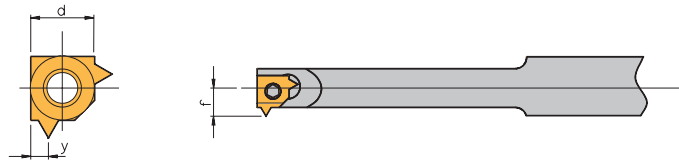
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

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	AM15C	HSS-TiN	
6		4	0,05	0,6	3,8	6,45	●	●	●	...NVR 5-4,0K*
10		6	0,05	0,9	5,3	10,00	●	●	●	...NVR 1..-6,0*

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

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

Innengewinde / Internal threading / Filettatura interna

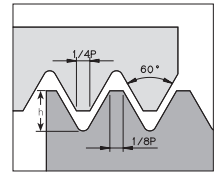
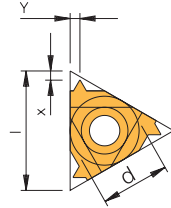


Ausführung / Type / Esecuzione:
MINI 2

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

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		
0,5-1,5 [mm] [G/Inch]	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	●	○	●	● Hauptanwendung Main application Applicazione principale ○ Nebenanwendung Secondary application Applicazione secondaria	
							M	●	●	○		
							K	○	○			
							N					
							S	○		○		
							H					

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard


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	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile			
							AL100	beschichtet coated rivestito AM7C	unbeschichtet uncoated non rivestito AM15C	AK20	AK20P		
11	0,25		11ER-V-ISO0,25	6,35	0,14	0,4	0,2	●					NL..-2
11	0,3		11ER-V-ISO0,30	6,35	0,19	0,7	0,3	●					NL..-2
11	0,35		11ER-V-ISO0,35	6,35	0,21	0,8	0,4	●	●	●	●		NL..-2
11	0,35	11EL-V-ISO0,35		6,35	0,21	0,8	0,4	●			●		NL..-2
11	0,4		11ER-V-ISO0,40	6,35	0,25	0,7	0,4	●	●	●	●		NL..-2
11	0,45		11ER-V-ISO0,45	6,35	0,28	0,7	0,4	●	●	●	●		NL..-2
11	0,45	11EL-V-ISO0,45		6,35	0,28	0,7	0,4	●			●		NL..-2
11	0,5		11ER-V-ISO0,50	6,35	0,31	0,6	0,4	●	●	●	●	●	NL..-2
11	0,5	11EL-V-ISO0,50		6,35	0,31	0,6	0,4	●			●		NL..-2
11	0,6		11ER-V-ISO0,60	6,35	0,37	0,6	0,6	●	●	●	●		NL..-2
11	0,7		11ER-V-ISO0,70	6,35	0,43	0,6	0,6	●	●	●	●		NL..-2
11	0,75		11ER-V-ISO0,75	6,35	0,46	0,6	0,6	●	●	●	●		NL..-2
11	0,75	11EL-V-ISO0,75		6,35	0,46	0,6	0,6	●			●		NL..-2
11	0,8		11ER-V-ISO0,80	6,35	0,49	0,6	0,6	●	●	●	●		NL..-2
11	0,8	11EL-V-ISO0,80		6,35	0,49	0,6	0,6	●			●		NL..-2
11	1,0		11ER-V-ISO1,00	6,35	0,61	0,7	0,7	●	●	●	●	●	NL..-2
11	1,0	11EL-V-ISO1,00		6,35	0,61	0,7	0,7	●			●		NL..-2
11	1,25		11ER-V-ISO1,25	6,35	0,77	0,8	0,9	●	●	●	●		NL..-2
11	1,25	11EL-V-ISO1,25		6,35	0,77	0,8	0,9	●			●		NL..-2
11	1,5		11ER-V-ISO1,50	6,35	0,92	0,8	1,0	●	●	●	●		NL..-2
11	1,5	11EL-V-ISO1,50		6,35	0,92	0,8	1,0	●			●		NL..-2
11	1,75		11ER-V-ISO1,75	6,35	1,07	0,8	1,1	●	●	●	●		NL..-2
11	1,75	11EL-V-ISO1,75		6,35	1,07	0,8	1,1	●			●		NL..-2
16	0,25		16ER-V-ISO0,25	9,525	0,14	0,4	0,2	●	●	●	●	●	AL..-3
16	0,25	16EL-V-ISO0,25		9,525	0,14	0,4	0,2	●			●		AL..-3
16	0,35		16ER-V-ISO0,35	9,525	0,21	0,8	0,4	●	●	●	●	●	AL..-3
16	0,35	16EL-V-ISO0,35		9,525	0,21	0,8	0,4	●			●		AL..-3
16	0,4		16ER-V-ISO0,40	9,525	0,25	0,7	0,4	●	●	●	●	●	AL..-3
16	0,4	16EL-V-ISO0,40		9,525	0,25	0,7	0,4	●			●		AL..-3
16	0,45		16ER-V-ISO0,45	9,525	0,28	0,7	0,4	●	●	●	●		AL..-3
16	0,45	16EL-V-ISO0,45		9,525	0,28	0,7	0,4	●			●		AL..-3
16	0,5		16ER-V-ISO0,50	9,525	0,31	0,6	0,4	●	●	●	●	●	AL..-3
16	0,5	16EL-V-ISO0,50		9,525	0,31	0,6	0,4	●			●		AL..-3
16	0,6		16ER-V-ISO0,60	9,525	0,37	0,6	0,6	●	●	●	●		AL..-3
16	0,6	16EL-V-ISO0,60		9,525	0,37	0,6	0,6	●			●		AL..-3
16	0,7		16ER-V-ISO0,70	9,525	0,43	0,6	0,6	●	●	●	●	●	AL..-3
16	0,7	16EL-V-ISO0,70		9,525	0,43	0,6	0,6	●			●		AL..-3
16	0,75		16ER-V-ISO0,75	9,525	0,46	0,6	0,6	●	●	●	●	●	AL..-3
16	0,75	16EL-V-ISO0,75		9,525	0,46	0,6	0,6	●			●		AL..-3
16	0,8		16ER-V-ISO0,80	9,525	0,49	0,6	0,6	●	●	●	●	●	AL..-3
16	0,8	16EL-V-ISO0,80		9,525	0,49	0,6	0,6	●			●		AL..-3
16	1,0		16ER-V-ISO1,00	9,525	0,61	0,7	0,7	●	●	●	●	●	AL..-3
16	1,0	16EL-V-ISO1,00		9,525	0,61	0,7	0,7	●			●		AL..-3
16	1,25		16ER-V-ISO1,25	9,525	0,77	0,8	0,9	●	●	●	●	●	AL..-3
16	1,25	16EL-V-ISO1,25		9,525	0,77	0,8	0,9	●			●		AL..-3
16	1,5		16ER-V-ISO1,50	9,525	0,92	0,8	1,0	●	●	●	●	●	AL..-3
16	1,5	16EL-V-ISO1,50		9,525	0,92	0,8	1,0	●			●		AL..-3
16	1,75		16ER-V-ISO1,75	9,525	1,07	0,9	1,2	●	●	●	●	●	AL..-3
16	1,75	16EL-V-ISO1,75		9,525	1,07	0,9	1,2	●			●		AL..-3
16	2,0		16ER-V-ISO2,00	9,525	1,23	1,0	1,3	●	●	●	●	●	AL..-3
16	2,0	16EL-V-ISO2,00		9,525	1,23	1,0	1,3	●			●		AL..-3
16	2,5		16ER-V-ISO2,50	9,525	1,53	1,1	1,5	●	●	●	●	●	AL..-3
16	2,5	16EL-V-ISO2,50		9,525	1,53	1,1	1,5	●			●		AL..-3
16	3,0		16ER-V-ISO3,00	9,525	1,84	1,2	1,6	●	●	●	●	●	AL..-3
16	3,0	16EL-V-ISO3,00		9,525	1,84	1,2	1,6	●			●		AL..-3
16	3,5		16ER-V-ISO3,50	9,525	2,15	1,6	1,9	●	●	●	●	●	AL..-3
16	3,5	16EL-V-ISO3,50		9,525	2,15	1,6	1,9	●			●		AL..-3
16	0,5		16ER-V-ISO0,50-SB	9,525	0,31	1,2	0,5	●					AL..-3
16	0,75		16ER-V-ISO0,75-SB	9,525	0,46	1,2	0,5	●					AL..-3
16	0,8		16ER-V-ISO0,80-SB	9,525	0,49	1,2	0,5	●					AL..-3
16	1,0		16ER-V-ISO1,00-SB	9,525	0,61	0,7	0,8	●					AL..-3
16	1,25		16ER-V-ISO1,25-SB	9,525	0,77	0,7	0,8	●					AL..-3

5

Außengewinde / External threading / Filettatura esterna

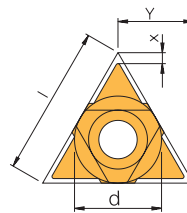
Ausführung / Type / Esecuzione:
Standard

	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità						
								beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
								AL100	AM7C	AM15C	AK20	AK20P		
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

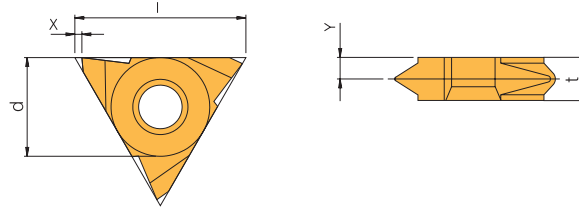
	Teilung Pitch Passo [mm]	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità					
							beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile
							AL100	AM7C	AM15C	AK20		
22	5,0	22UEN-V-ISO5,00	12,7	3,07	2,2	11,0	●					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

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

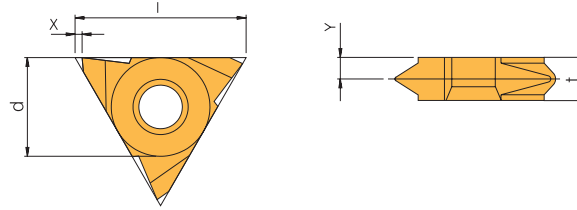
Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile			
								beschichtet coated rivestito	unbeschichtet uncoated non rivestito	AL100	AM7C	AM15C	AK20	AK20P
11	0,75		11VER-V-ISO0,75	6,35	0,46	0,7	2,6	3,2	●	●	●			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

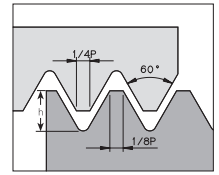
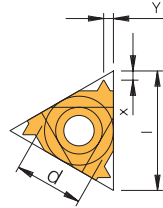
Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità				
								beschichtet coated rivestito	unbeschichtet uncoated non rivestito	Klemmhalter Tool holder Utensile		
								AL100	AM15C	AK20		
27	6		27VER-V-ISO6,00	15,88	3,68	1,0	3,3	6	●	●		NL...5V-6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

	AL100	AM15C	AK20
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	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
							beschichtet coated rivestito	unbeschichtet uncoated non rivestito	AL100	AM7C	AM15C
[mm]											
11 0,35		111R-V-ISO0,35	6,35	0,20	0,8	0,3	●	●	●	●	NVR...2
11 0,35	111L-V-ISO0,35		6,35	0,20	0,8	0,3	●	●	●	●	NVR...2
11 0,4		111R-V-ISO0,40	6,35	0,23	0,8	0,4	●	●	●	●	NVR...2
11 0,45		111R-V-ISO0,45	6,35	0,26	0,8	0,4	●	●	●	●	NVR...2
11 0,5		111R-V-ISO0,50	6,35	0,29	0,6	0,4	●	●	●	●	NVR...2
11 0,5	111L-V-ISO0,50		6,35	0,29	0,6	0,4	●	●	●	●	NVR...2
11 0,6		111R-V-ISO0,60	6,35	0,35	0,6	0,6	●	●	●	●	NVR...2
11 0,7		111R-V-ISO0,70	6,35	0,40	0,6	0,6	●	●	●	●	NVR...2
11 0,7	111L-V-ISO0,70		6,35	0,40	0,6	0,6	●	●	●	●	NVR...2
11 0,75		111R-V-ISO0,75	6,35	0,43	0,6	0,6	●	●	●	●	NVR...2
11 0,75	111L-V-ISO0,75		6,35	0,43	0,6	0,6	●	●	●	●	NVR...2
11 0,8		111R-V-ISO0,80	6,35	0,46	0,6	0,6	●	●	●	●	NVR...2
11 0,8	111L-V-ISO0,80		6,35	0,46	0,6	0,6	●	●	●	●	NVR...2
11 1		111R-V-ISO1,00	6,35	0,58	0,6	0,7	●	●	●	●	NVR...2
11 1	111L-V-ISO1,00		6,35	0,58	0,6	0,7	●	●	●	●	NVR...2
11 1,25		111R-V-ISO1,25	6,35	0,72	0,8	0,9	●	●	●	●	NVR...2
11 1,25	111L-V-ISO1,25		6,35	0,72	0,8	0,9	●	●	●	●	NVR...2
11 1,5		111R-V-ISO1,50	6,35	0,87	0,8	1,0	●	●	●	●	NVR...2
11 1,5	111L-V-ISO1,50		6,35	0,87	0,8	1,0	●	●	●	●	NVR...2
11 1,75		111R-V-ISO1,75	6,35	1,01	0,9	1,1	●	●	●	●	NVR...2
11 1,75	111L-V-ISO1,75		6,35	1,01	0,9	1,1	●	●	●	●	NVR...2
11 2		111R-V-ISO2,00	6,35	1,15	0,9	1,1	●	●	●	●	NVR...2
11 2	111L-V-ISO2,00		6,35	1,15	0,9	1,1	●	●	●	●	NVR...2
11 2,5		111R-V-ISO2,50	6,35	1,44	0,8	1,1	●	●	●	●	NVR...2
11 2,5	111L-V-ISO2,50		6,35	1,44	0,8	1,1	●	●	●	●	NVR...2
11 0,5		111R-V-ISO0,50-SB	6,35	0,29	1,2	0,5	●	●	●	●	NVR...2
11 0,75		111R-V-ISO0,75-SB	6,35	0,43	1,2	0,5	●	●	●	●	NVR...2
11 0,8		111R-V-ISO0,80-SB	6,35	0,46	1,2	0,5	●	●	●	●	NVR...2
11 1		111R-V-ISO1,00-SB	6,35	0,58	0,7	0,8	●	●	●	●	NVR...2
11 1,25		111R-V-ISO1,25-SB	6,35	0,72	0,7	0,8	●	●	●	●	NVR...2
11 1,5		111R-V-ISO1,50-SB	6,35	0,87	0,7	0,8	●	●	●	●	NVR...2
16 0,35		161R-V-ISO0,35	9,525	0,20	0,8	0,3	●	●	●	●	AVR...3
16 0,35	161L-V-ISO0,35		9,525	0,20	0,8	0,3	●	●	●	●	AVR...3
16 0,4		161R-V-ISO0,40	9,525	0,23	0,8	0,4	●	●	●	●	AVR...3
16 0,4	161L-V-ISO0,40		9,525	0,23	0,8	0,4	●	●	●	●	AVR...3
16 0,45		161R-V-ISO0,45	9,525	0,26	0,8	0,4	●	●	●	●	AVR...3
16 0,45	161L-V-ISO0,45		9,525	0,26	0,8	0,4	●	●	●	●	AVR...3
16 0,5		161R-V-ISO0,50	9,525	0,29	0,6	0,4	●	●	●	●	AVR...3
16 0,5	161L-V-ISO0,50		9,525	0,29	0,6	0,4	●	●	●	●	AVR...3
16 0,6		161R-V-ISO0,60	9,525	0,35	0,6	0,6	●	●	●	●	AVR...3
16 0,6	161L-V-ISO0,60		9,525	0,35	0,6	0,6	●	●	●	●	AVR...3
16 0,7		161R-V-ISO0,70	9,525	0,40	0,6	0,6	●	●	●	●	AVR...3
16 0,7	161L-V-ISO0,70		9,525	0,40	0,6	0,6	●	●	●	●	AVR...3
16 0,75		161R-V-ISO0,75	9,525	0,43	0,6	0,6	●	●	●	●	AVR...3
16 0,75	161L-V-ISO0,75		9,525	0,43	0,6	0,6	●	●	●	●	AVR...3
16 0,8		161R-V-ISO0,80	9,525	0,46	0,6	0,6	●	●	●	●	AVR...3
16 0,8	161L-V-ISO0,80		9,525	0,46	0,6	0,6	●	●	●	●	AVR...3
16 1,0		161R-V-ISO1,00	9,525	0,58	0,6	0,7	●	●	●	●	AVR...3
16 1,0	161L-V-ISO1,00		9,525	0,58	0,6	0,7	●	●	●	●	AVR...3
16 1,25		161R-V-ISO1,25	9,525	0,72	0,8	0,9	●	●	●	●	AVR...3
16 1,25	161L-V-ISO1,25		9,525	0,72	0,8	0,9	●	●	●	●	AVR...3
16 1,5		161R-V-ISO1,50	9,525	0,87	0,8	1,0	●	●	●	●	AVR...3
16 1,5	161L-V-ISO1,50		9,525	0,87	0,8	1,0	●	●	●	●	AVR...3
16 1,75		161R-V-ISO1,75	9,525	1,01	0,9	1,2	●	●	●	●	AVR...3
16 1,75	161L-V-ISO1,75		9,525	1,01	0,9	1,2	●	●	●	●	AVR...3
16 2,0		161R-V-ISO2,00	9,525	1,15	1,0	1,3	●	●	●	●	AVR...3
16 2,0	161L-V-ISO2,00		9,525	1,15	1,0	1,3	●	●	●	●	AVR...3
16 2,5		161R-V-ISO2,50	9,525	1,44	1,1	1,5	●	●	●	●	AVR...3
16 2,5	161L-V-ISO2,50		9,525	1,44	1,1	1,5	●	●	●	●	AVR...3
16 3,0		161R-V-ISO3,00	9,525	1,73	1,1	1,5	●	●	●	●	AVR...3
16 3,0	161L-V-ISO3,00		9,525	1,73	1,1	1,5	●	●	●	●	AVR...3
16 3,5		161R-V-ISO3,50	9,525	2,02	1,2	1,5	●	●	●	●	AVR...3

5

Innengewinde / Internal threading / Filettatura interna

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		
							AL100	AM7C	AM15C	AK20	AK20P	
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

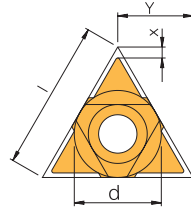
P	●		○	
M	●	●	●	
K	○	○		
N				
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



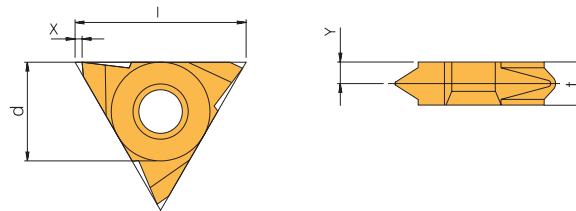
Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
U

Teilung Pitch Passo [mm]	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile	
						beschichtet coated rivestito	AL100 AM15C		
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	●	○	● Hauptanwendung Main application Applicazione principale	
M	●	●		
K	○			○ Nebenanwendung Secondary application Applicazione secondaria
N				
S	○			
H				



Ausführung / Type / Esecuzione:
V

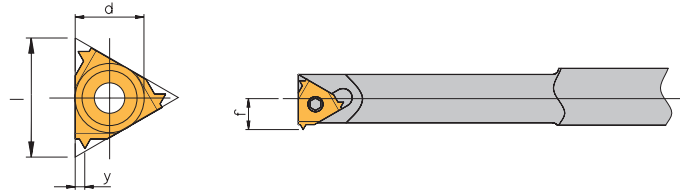
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

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


5

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
MINI 3

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

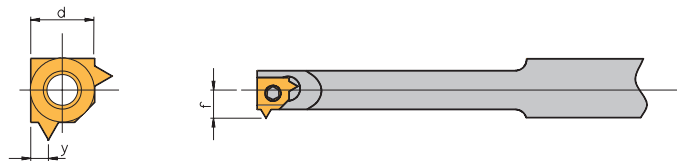
	Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
									AL100	AM15C	HSS-TiN	
6	0,25		4KIR-V-ISO0,25	4	0,15	0,25	3,3	5,95	●			...NVR.5-4.0K*
6	0,5		4KIR-V-ISO0,50	4	0,29	0,5	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

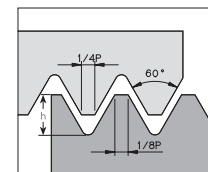
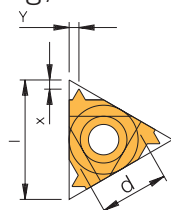
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

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				

Außengewinde / External threading / Filettatura esterna



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	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

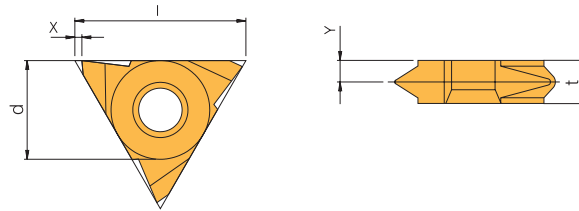
Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
							beschichtet coated rivestito			unbeschichtet uncoated non rivestito		
							AL100	AM7C	AM15C	AK20	AK20P	
16	36	16ER-V-UN36-SB	9,525	0,43	1,2	0,5	●					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



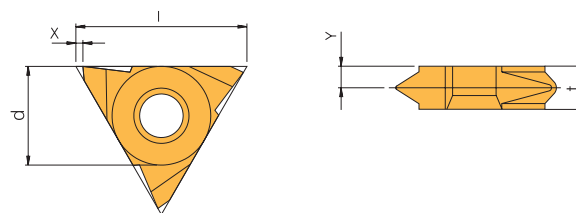
Ausführung / Type / Esecuzione:

Slim Throat / Slim Throat / Stelo scaricato

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

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	beschichtet coated rivestito AM7C	unbeschichtet uncoated non rivestito AM15C	
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	●	○		● Hauptanwendung Main application Applicazione principale
M	●	●	●	
K	○	○		○ Nebenanwendung Secondary application Applicazione secondaria
N			●	
S	○			
H				



Ausführung / Type / Esecuzione:

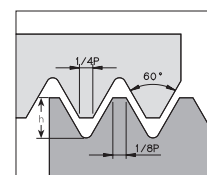
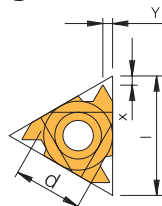
V

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

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

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	unbeschichtet uncoated non rivestito	AL100	AM7C	AM15C	AK20	AK20P		
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

5

Innengewinde / Internal threading / Filettatura interna

Ausführung / Type / Esecuzione:

Standard

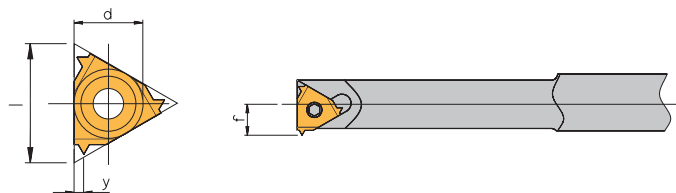
 Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile			
							AL100	beschichtet coated rivestito AM7C	AM15C	unbeschichtet uncoated non rivestito AK20	AK20P		
16	11,5		16IR-V-UN11,5	9,525	1,28	1,1	1,5	●			●		AVR...3
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

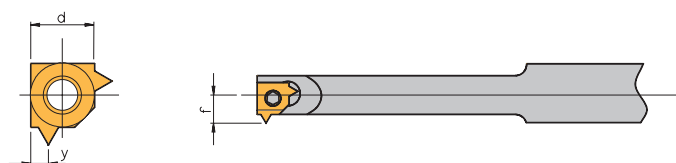
Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
								AL100	AM15C	HSS-TiN	
6	32	4KIR-V-UN32	4	0,46	0,5	3,50	6,15	●			...NVR.5-4.0K*
6	28	4KIR-V-UN28	4	0,52	0,6	3,50	6,15	●			...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*

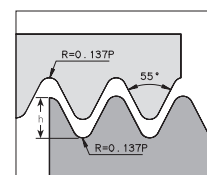
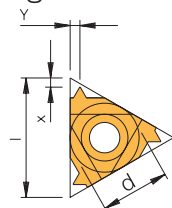
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

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

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



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		
							AL100	beschichtet coated rivestito AM7C	unbeschichtet uncoated non rivestito AM15C	AK20	AK20P	
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

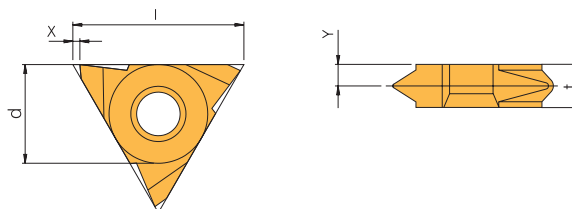
Ausführung / Type / Esecuzione:
Standard

Teilung Pitch Passo	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			
[G/Inch]							AL100	AM7C	AM15C	AK20	AK20P		
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

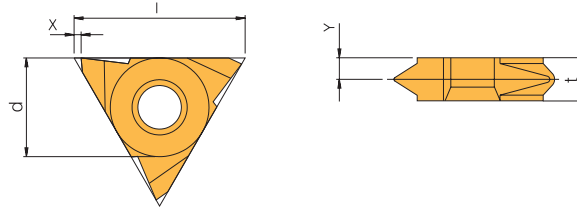
Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità					Klemmhalter Tool holder Utensile
								beschichtet coated rivestito			unbeschichtet uncoated non rivestito		
[G/Inch]								AL100	AM7C	AM15C	AK20		
11	19		11VER-V-W19	6,35	0,86	0,69	2,30	3,20		●	●		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

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:

V

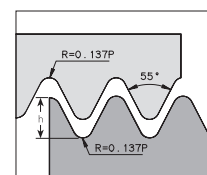
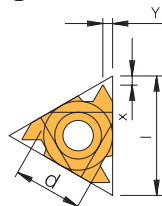
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
								AL100	beschichtet coated rivestito AM7C	AM15C		unbe- schichtet uncoated non rivestito AK20
[G/Inch]												
27	4	27VEL-V-W4	15,88	4,07	1,0	3,3	6				●	NL...-5V-6
27	3		15,88	5,42	1,0	4,3	8	●			●	NL...-5V-8
27	2,5	27VER-V-W2,5	15,88	6,51	1,0	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

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	unbeschichtet uncoated non rivestito	AL100	AM7C	AM15C	AK20	AK20P	
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

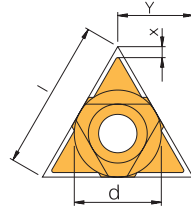
Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile			
							AL100	beschichtet coated rivestito AM7C	AM15C	unbeschichtet uncoated non rivestito AK20	AK20P		
16	10	16IL-V-W10		9,525	1,63	1,1	1,5	●	●	●	●	●	AVR...-3
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

Innengewinde / Internal threading / Filettatura interna

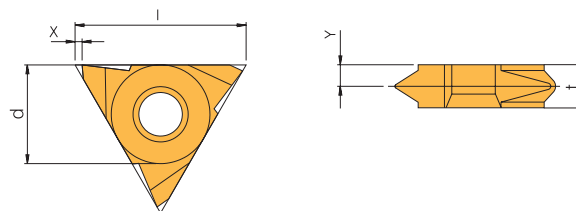


Ausführung / Type / Esecuzione:

U

Teilung Pitch Passo [G/Inch]	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
						AL100	AM15C	
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	●	○	● Hauptanwendung Main application Applicazione principale
M	●	●	
K	○		○ Nebenanwendung Secondary application Applicazione secondaria
N			
S	○		
H			



Ausführung / Type / Esecuzione:

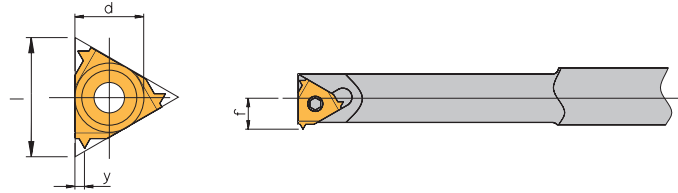
V

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

Teilung Pitch Passo [G/Inch]	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 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	●	○	● 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

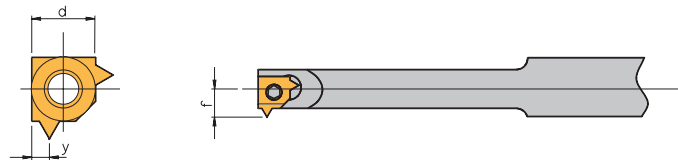
Teilung Pitch Passo [G/Inch]	Rechts Right Destra	d	h _{min}	y	f	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
						AL100	AM15C	HSS-TiN	
6	26	4	0,63	0,6	3,6	●			...NVR.5-4,0K*
6	22	4	0,74	0,6	3,7	●			...NVR.5-4,0K*
6	20	4	0,81	0,7	3,7	●			...NVR.5-4,0K*
6	19	4	0,86	0,7	3,7	●			...NVR.5-4,0K*
6	18	4	0,90	0,7	3,7	●			...NVR.5-4,0K*
10	28	6	0,58	0,7	4,7		●	●	...NVR1...-6,0*
10	19	6	0,86	1,0	5,0	●	●	●	...NVR1...-6,0*
10	19	6	0,86	1,0	5,0		●		...NVR1...-6,0*
10	14	6	1,16	1,1	5,3		●	●	...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*

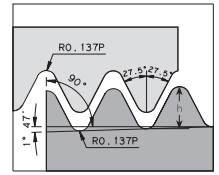
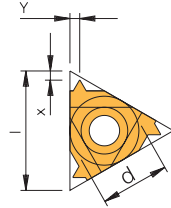
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

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

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna

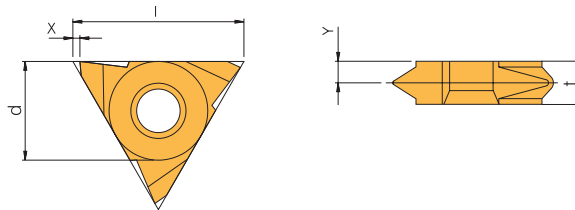


Ausführung / Type / Esecuzione:
Standard

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

Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
							AL100	beschichtet coated rivestito AM7C	AM15C	
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	●	○		● Hauptanwendung Main application Applicazione principale
M	●	●	●	
K	○	○		○ Nebenanwendung Secondary application Applicazione secondaria
N			●	
S	○			
H				



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

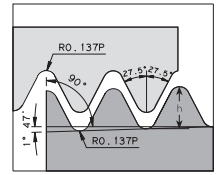
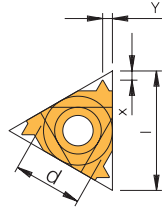
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
							AL100	beschichtet coated rivestito AM7C	AM15C		unbeschichtet uncoated non rivestito AK20
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	●	○		● Hauptanwendung Main application Applicazione principale
M	●	●	●	
K	○	○		○ Nebenanwendung Secondary application Applicazione secondaria
N			●	
S	○			
H				

5

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

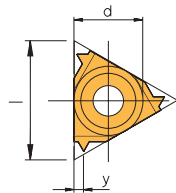
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

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	unbeschichtet uncoated non rivestito 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

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		
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*

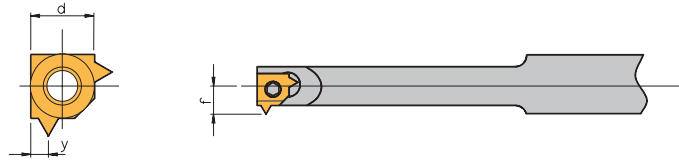
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

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

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

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	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*

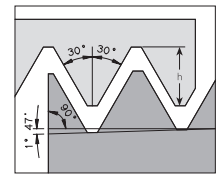
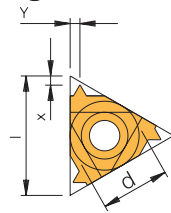
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	○	●
M	●	○
K		
N		
S		○
H		

● **Hauptanwendung**
Main application
Applicazione principale

○ **Nebenanwendung**
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



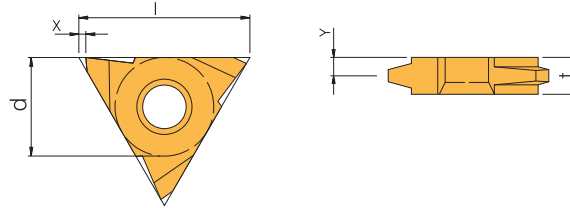
Ausführung / Type / Esecuzione:
Standard

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	
							AL100	beschichtet coated rivestito AM7C	AM15C	unbeschichtet uncoated non rivestito AK20	AK20P
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
M	●	●	●								
K	○		○						●	●	○ Nebenanwendung Secondary application Applicazione secondaria
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

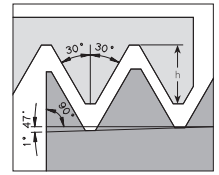
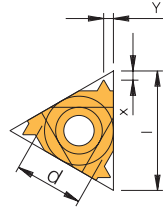
Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
								AL100	beschichtet coated rivestito AM7C	AM15C	
11	18	11VER-V-NPT18	6,35	1,01	0,7	1,8	3,2	●		●	NL...-2V
11	18	11VEL-V-NPT18	6,35	1,01	0,7	1,8	3,2	●			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

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

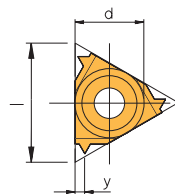
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

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	AL100	AM7C	AM15C	unbeschichtet uncoated non rivestito	AK20	AK20P
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

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		
							AL100	AM7C	AM15C	HSS-T1N			
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*

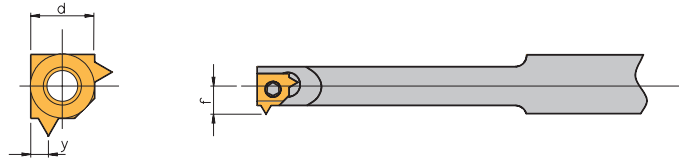
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

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	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile	
						Min Bohr ø min Drill ø D min foro			
[G/Inch]						AM15C	HSS-TiN		
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.

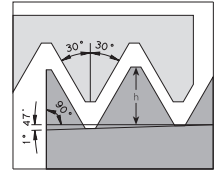
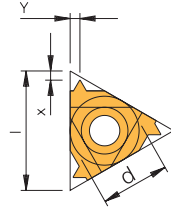
	AM15C	HSS-TiN	
P	○	●	● Hauptanwendung Main application Applicazione principale
M	●	○	
K			○ Nebenanwendung Secondary application Applicazione secondaria
N			
S		○	
H			

Kegeliges Feinrohrgewinde

Tapered fine Pitch pipe thread
Filettatura tubi conica Passo fine

NPTF

Außengewinde / External threading / Filettatura esterna



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		unbe- schichtet uncoated non rivestito		
							AL100	AM7C	AM15C	AK20	
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

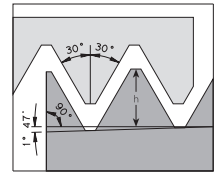
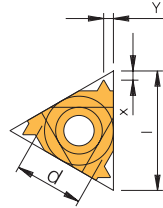
○ Nebenanwendung
Secondary application
Applicazione secondaria

Kegeliges Feinrohrgewinde

Tapered fine Pitch pipe thread
Filettatura tubi conica Passo fine

NPTF

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

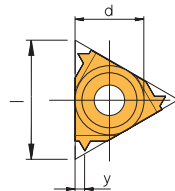
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
							AL100	beschichtet coated rivestito AM7C	AM15C	
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

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
							AL100	AM15C	HSS-TiN	
6	27	4KIR-V-NPTF27	4	0,64	0,6	6,25	●	○	●	...NVR.5-4.OK*
10	18	6IR-V-NPTF18	6	1,00	1,0	10,00		●	●	...NVR1...-6.0*
10	14	6IR-V-NPTF14	6	1,35	1,1	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

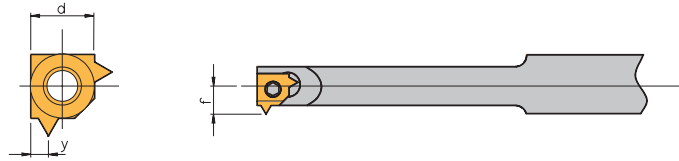
○ **Nebenanwendung**
Secondary application
Applicazione secondaria

Kegeliges Feinrohrgewinde

Tapered fine Pitch pipe thread
Filettatura tubi conica Passo fine

NPTF

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	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile	
						Min Bohr ø min Drill ø D min foro			
[G/Inch]						AM15C	HSS-TiN		
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.

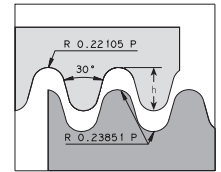
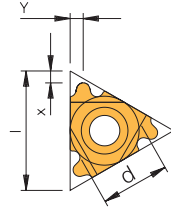
P	○	●
M	●	○
K		
N		
S		○
H		

● **Hauptanwendung**
Main application
Applicazione principale

○ **Nebenanwendung**
Secondary application
Applicazione secondaria

5

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

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

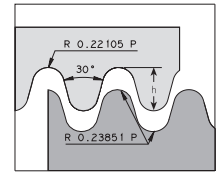
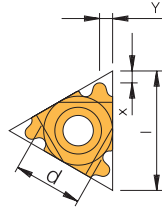
Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità						
							beschichtet coated rivestito			unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile	
[G/Inch]							AL100	AM7C	AM15C	AK20	AK20P		
16	10		16ER-V-RD405/10	9,525	1,27	1,1	1,2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

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

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

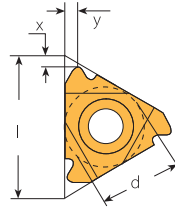
Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
							AL100	beschichtet coated rivestito AM7C	unbe- schichtet uncoated non rivestito AM15C		AK20	
16	10		16IR-V-RD405/10	9,525	1,27	1,1	1,2	●	●	●	●	AVR...-3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

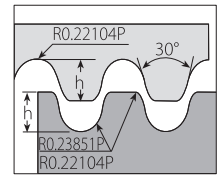
● **Hauptanwendung**
Main application
Applicazione principale

○ **Nebenanwendung**
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



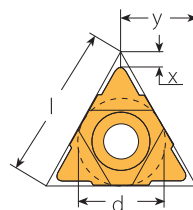
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura



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
							beschichtet coated rivestito	unbe- schichtet uncoated non rivestito	
22							AL100	AM15C	AK20
22							●	●	AL...-4
22							●	●	AL...-4
22							●	●	AL...-4
22							●	●	AL...-4
22							●	●	AL...-4
22							●	●	AL...-4

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

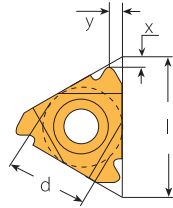


Ausführung / Type / Esecuzione:
U

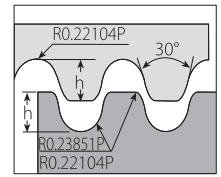
Teilung Pitch Passo [mm]	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
						AL100		
27						●		AL...-5U

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

Innengewinde / Internal threading / Filettatura interna



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



Ausführung / Type / Esecuzione:
Standard

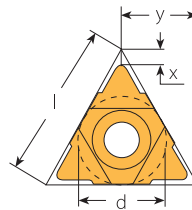
Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile	
							AL100	AM15C		
22	3,0		22IR-V-RD20400/3	12,7	1,65	1,3	1,7	●	●	AVR...4
22	4,0		22IR-V-RD20400/4	12,7	2,20	1,6	2,2	●	●	AVR...4
22	4,0	22IL-V-RD20400/4		12,7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

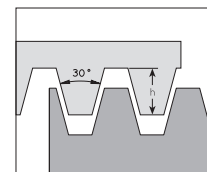
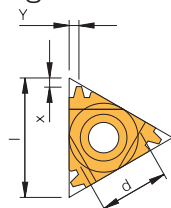


Teilung Pitch Passo [mm]	Links / Rechts Left / Right Sinistra / Destra		d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AL100		
27	8,0	27UIV-V-RD20400/8	15,88	4,40	2,9	13,5	●		AL...5U

P	●	
M	●	
K	○	
N		
S	○	
H		

- Hauptanwendung
Main application
Applicazione principale
- Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

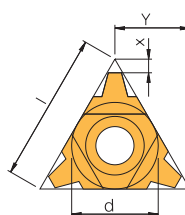
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
							AL100	beschichtet coated rivestito AM7C	AM15C	unbeschichtet uncoated non rivestito AK20	AK20P	
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	●	○			
M	●	●	●		
K	○	○		●	●
N				●	●
S	○				
H					

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:
U

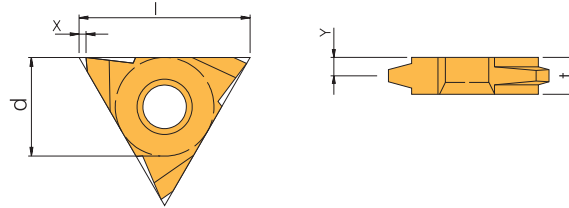
Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
						AL100	beschichtet coated rivestito AM7C	AM15C		unbeschichtet uncoated non rivestito AK20	
22	6,0	22UEN-V-TR103/6,0	12,7	3,50	2,0	11,0	●	●	●	●	AL...-4U
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

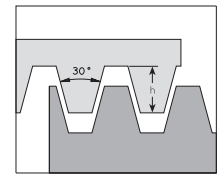
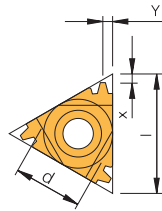
Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
								AL100	beschichtet coated rivestito AM7C	unbe- schichtet uncoated non rivestito AM15C		AK20
27	6,0		27VER-V-TR103/6,0	15,88	3,50	1,0	3,3	6	●	●	●	NL...5V-6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

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

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

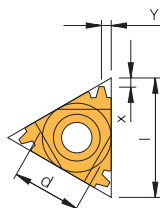
	Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità					Klemmhalter Tool holder Utensile
								beschichtet coated rivestito			unbeschichtet uncoated non rivestito		
								AL100	AM7C	AM15C	AK20	AK20P	
11	1,5		11IR-V-TR103/1,5	6,35	0,90	0,8	0,9	●		●	●		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	●	●	●		
K	○		○		
N				●	●
S	○				
H					

● **Hauptanwendung**
Main application
Applicazione principale

○ **Nebenanwendung**
Secondary application
Applicazione secondaria

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

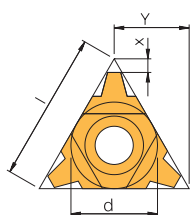
Regelgewinde / Coarse Pitch threads / Dimensioni standard Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Gewinde Thread Filettatura	Rechts Right Destra	d	h _{min}	x	y	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità					
							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

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

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria



Ausführung / Type / Esecuzione:

U

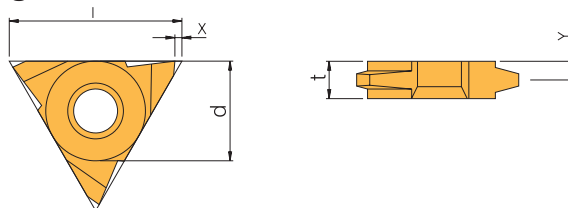
Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità				
						beschichtet coated rivestito		unbeschichtet uncoated non rivestito		Klemmhalter Tool holder Utensile
[mm]						AL100	AM15C	AK20		
22 6,0	22UIN-V-TR103/6,0	12,7	3,50	2,0	11,0	●	●	●		AVR...-4U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

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:

V

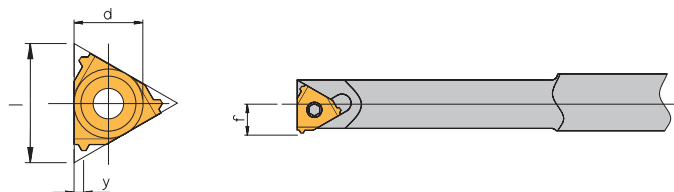
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
								AL100	beschichtet coated rivestito AM7C	AM15C		unbeschichtet uncoated non rivestito 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

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	
								AM15C	HSS-TiN		
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*

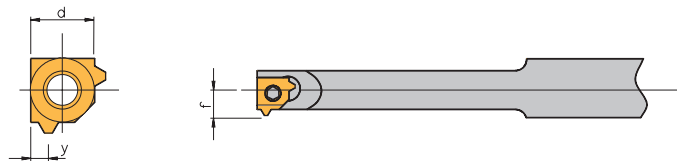
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

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

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		
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*

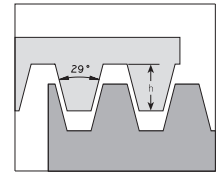
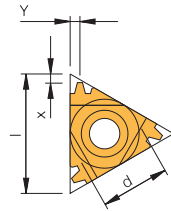
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

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

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

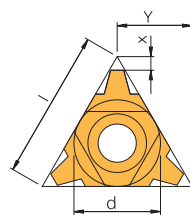
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
							beschichtet coated rivestito			unbeschichtet uncoated non rivestito		
[G/Inch]							AL100	AM7C	AM15C	AK20	AK20P	
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

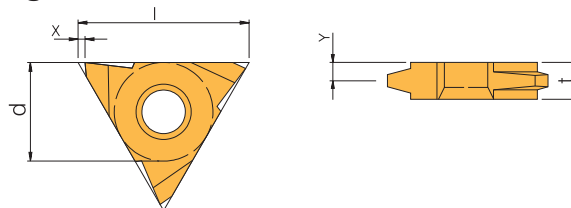
Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
						beschichtet coated rivestito		unbeschichtet uncoated non rivestito		
[G/Inch]						AL100	AM15C	AK20		
22	3	22UEN-V-ACME3	12,7	4,49	3,0	11,0	●			AL...-4U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

 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	AM7C	AM15C	
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

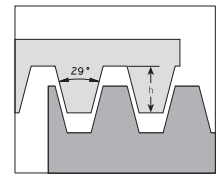
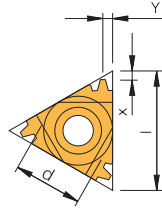
P	●	○	● Hauptanwendung Main application Applicazione principale ○ Nebenanwendung Secondary application Applicazione secondaria
M	●	●	
K	○	○	
N			
S	○		
H			

Amerikanisches Trapezgewinde

American trapezoidal thread
Filettatura trapezoidale

ACME

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
							AL100	beschichtet coated rivestito AM7C	AM15C	unbe- schichtet uncoated non rivestito AK20	
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

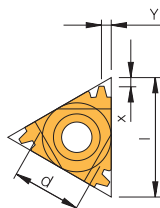
P	●		○	
M	●	●	●	
K	○	○		●
N				●
S	○			
H				

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

5

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

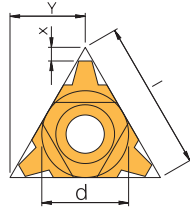
Gewinde Thread Filettatura	Rechts Right Destra	d	h _{min}	x	y	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
							beschichtet coated rivestito	unbeschichtet uncoated non rivestito				
							AL100	AM7C	AM15C	AK20		
10	1/2"x10	6UIR-V-ACME10...158/005	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

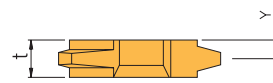
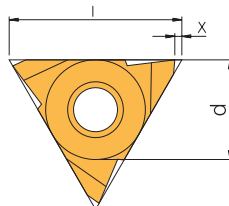


Ausführung / Type / Esecuzione:

U

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	unbeschichtet uncoated non rivestito			
						AL100	AM15C	AK20		
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

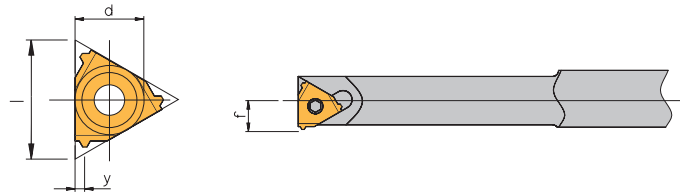
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
								beschichtet coated rivestito	unbeschichtet uncoated non rivestito		
								AL100	AM15C	AK20	
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			

5

Innengewinde / Internal threading / Filettatura interna



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

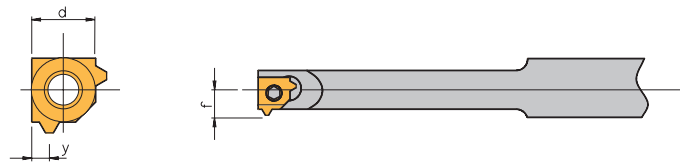
Ausführung / Type / Esecuzione:

MINI 3

Teilung Pitch Passo		Rechts Right Destra	d	h_{min}	y	f	Min Bohr ϕ min Drill ϕ D min foro	Sorten / Grades / Qualità AM15C	Klemmhalter Tool holder Utensile
[G/Inch]	10 12		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	<input type="radio"/>	● Hauptanwendung Main application Applicazione principale
M	<input checked="" type="radio"/>	
K	<input type="radio"/>	○ Nebenanwendung Secondary application Applicazione secondaria
N	<input type="radio"/>	
S	<input type="radio"/>	
H	<input type="radio"/>	



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

Ausführung / Type / Esecuzione:

MINI 2

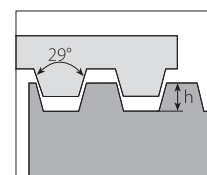
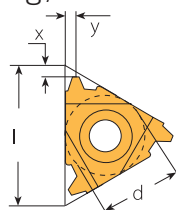
Teilung Pitch Passo		Rechts Right Destra	d	h_{min}	y	f	Min Bohr ϕ min Drill ϕ D min foro	Sorten / Grades / Qualità AM15C	Klemmhalter Tool holder Utensile
[G/Inch]	12		5,0L	1,19	1,1	4,42	8,0	●	...NVR 10.-5L*

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

P	<input type="radio"/>	● Hauptanwendung Main application Applicazione principale
M	<input checked="" type="radio"/>	
K	<input type="radio"/>	○ Nebenanwendung Secondary application Applicazione secondaria
N	<input type="radio"/>	
S	<input type="radio"/>	
H	<input type="radio"/>	



Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

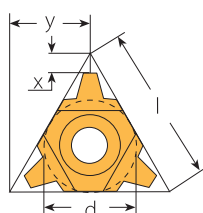
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
							AL100	beschichtet coated rivestito AM7C	AM15C	
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

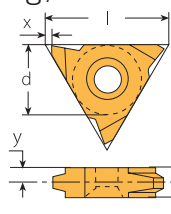
Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità	Klemmhalter Tool holder Utensile
22	4	22UEN-V-STACME4	12,7	2,16	2,6	AL100	AL...-4U
22	3	22UEN-V-STACME3	12,7	2,79	3,4	AL100	AL...-4U

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

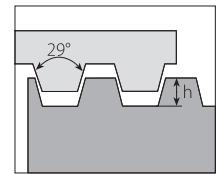
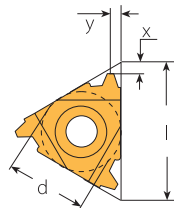
Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	t	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
								AL100	AM15C	
27	4	27VER-V-STACME4	15,88	2,16	1,0	3,3	6		●	NL...-5V-6
27	3	27VER-V-STACME3	15,88	2,79	1,0	3,3	6	●	●	NL...-5V-6
27	2	27VER-V-STACME2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

Innengewinde / Internal threading / Filettatura interna

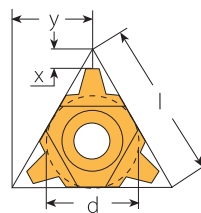


Ausführung / Type / Esecuzione:
Standard

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	
							beschichtet coated rivestito	unbeschichtet uncoated non rivestito			
[G/Inch]							AL100	AM7C	AM15C	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	●	○		● Hauptanwendung Main application Applicazione principale
M	●	●	●	
K	○	○	●	○ Nebenanwendung Secondary application Applicazione secondaria
N			●	
S	○			
H				

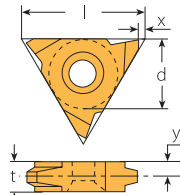


Ausführung / Type / Esecuzione:
U

Teilung Pitch Passo	Links / Rechts Left / Right Sinistra / Destra	d	h _{min}	x	y	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile	
						beschichtet coated rivestito	unbeschichtet uncoated non rivestito		
[G/Inch]						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	●		● Hauptanwendung Main application Applicazione principale
M	●		
K	○	●	○ Nebenanwendung Secondary application Applicazione secondaria
N		●	
S	○		
H			

Innengewinde / Internal threading / Filettatura interna



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

Ausführung / Type / Esecuzione:

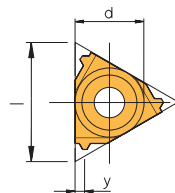
V

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		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



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

Ausführung / Type / Esecuzione:

MINI 3

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	12	6,0	0,76	1,2	5,1	10,0	●	●	...NVR1...6,0*

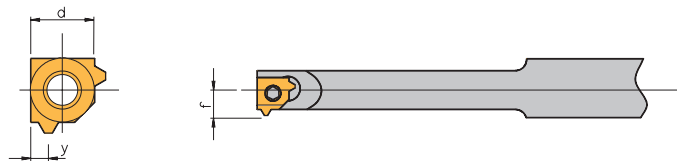
*Grundhalter finden Sie auf Seite 344.
Please see page 344 for holder.
Utensile vedi pagina 344.

	○	●
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*

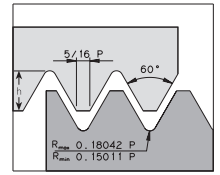
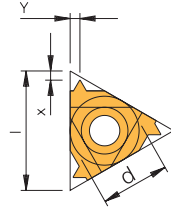
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	<input type="radio"/>	<input checked="" type="radio"/>
M	<input checked="" type="radio"/>	<input type="radio"/>
K	<input type="radio"/>	<input type="radio"/>
N	<input type="radio"/>	<input type="radio"/>
S	<input type="radio"/>	<input type="radio"/>
H	<input type="radio"/>	<input type="radio"/>

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

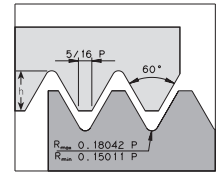
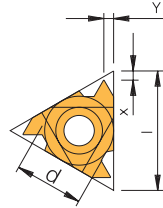
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
							AL100	beschichtet coated rivestito AM7C	AM15C		unbeschichtet uncoated non rivestito AK20
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 ○ Nebenanwendung Secondary application Applicazione secondaria
M	●	●	●	
K	○	○		
N			●	
S	○			
H				



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	unbeschichtet uncoated non rivestito AK20	AK20P	
[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

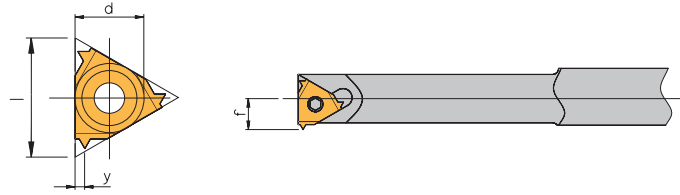
P	●	○		
M	●	●	●	
K	○	○		● ●
N				● ●
S	○			
H				

● **Hauptanwendung**
Main application
Applicazione principale

○ **Nebenanwendung**
Secondary application
Applicazione secondaria

5

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
MINI 3

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

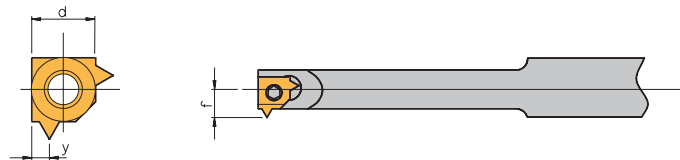
Teilung Pitch Passo [G/Inch]	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità		Klemmhalter Tool holder Utensile
							AM15C	HSS-TiN	
10 20	6IR-V-UNJ20	6,0	0,66	0,9	4,9	9,8	●	●	...NVR1...-6,0*

*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*

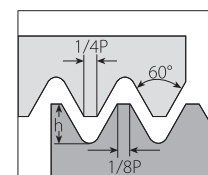
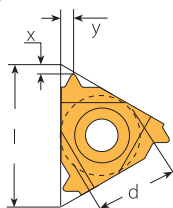
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

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

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna

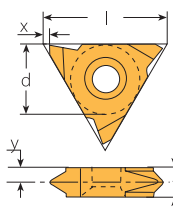


Ausführung / Type / Esecuzione:
Standard

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	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile
							AL100	beschichtet coated rivestito AM7C	AM15C	
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	○	○	○	○	○	○



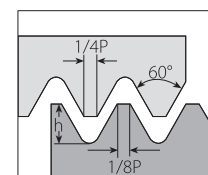
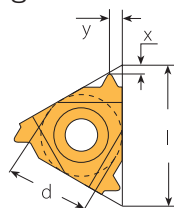
Ausführung / Type / Esecuzione:
Slim Throat / Slim Throat / Stelo scaricato

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		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	○	○	○	○	○	○

Innengewinde / Internal threading / Filettatura interna



Ausführung / Type / Esecuzione:
Standard

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

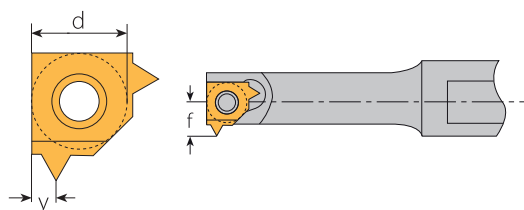
Teilung Pitch Passo [mm]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
							AL100	beschichtet coated rivestito AM7C	AM15C		unbe- schichtet uncoated non rivestito AK20
16	1,0		16IR-V-MJ1,00	9,525	0,49	0,6	0,7	●	●	●	AVR...-3
16	1,0	16IL-V-MJ1,00	16IR-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	16IR-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	16IR-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	16IR-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

Ausführung / Type / Esecuzione:
MINI 2



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

Teilung Pitch Passo [mm]	Rechts Right Destra	d	h _{min}	y	f	Min Bohr ø min Drill ø D min foro	Sorten / Grades / Qualità AM15C	Klemmhalter Tool holder Utensile
1,25	5LIR-V-MJ1,25	5,0L	0,61	0,9	4,21	7,80	●	...NVR10...-5L*

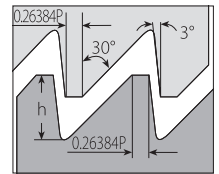
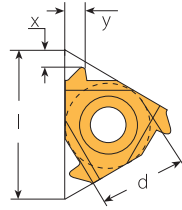
*Grundhalter finden Sie auf Seite 345.
Please see page 345 for holder.
Utensile vedi pagina 345.

P	○
M	●
K	
N	
S	
H	

● Hauptanwendung
Main application
Applicazione principale

○ Nebenanwendung
Secondary application
Applicazione secondaria

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

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

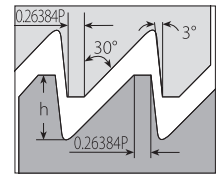
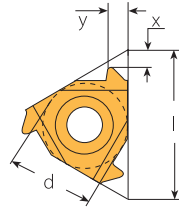
Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità					
							beschichtet coated rivestito			unbe- schichtet uncoated non rivestito		
[mm]							AL100	AM7C	AM15C	AK20	Klemmhalter Tool holder Utensile	
16	2,0		16ER-V-SAGE2,0	9,525	1,74	1,5	2,1	●	●	●	●	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



Ausführung / Type / Esecuzione:
Standard

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

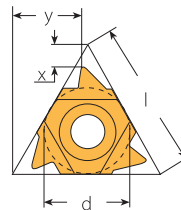
Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile			
							beschichtet coated rivestito		unbeschichtet uncoated non rivestito		AK20	AK20P	
[mm]							AL100	AM7C	AM15C				
16	2,0		16IR-V-SAGE2,0	9,525	1,50	1,5	2,2	●	●	●	●	●	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



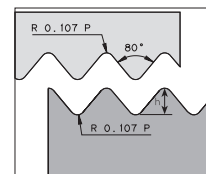
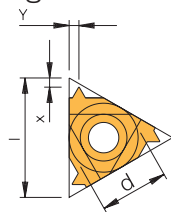
Teilung Pitch Passo	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile		
							beschichtet coated rivestito		unbeschichtet uncoated non rivestito		AK20	AK20P
[mm]							AL100	AM15C				
22	5,0		22UIR-V-SAGE5,0	12,7	3,76	1,8	10,3	●	●	●	●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

Außengewinde / External threading / Filettatura esterna



Ausführung / Type / Esecuzione:
Standard

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

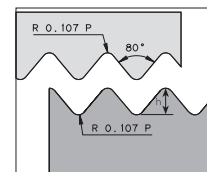
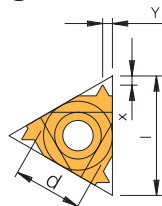
Teilung Pitch Passo [G/Inch]	Links Left Sinistra	Rechts Right Destra	d	h _{min}	x	y	Sorten / Grades / Qualità			Klemmhalter Tool holder Utensile	
							beschichtet coated rivestito			unbeschichtet uncoated non rivestito	
							AL100	AM7C	AM15C		
16	20	16ER-V-PG20	9,525	0,61	0,8	0,9	●	●	●	●	AL...-3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

Innengewinde / Internal threading / Filettatura interna

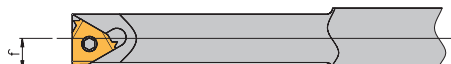
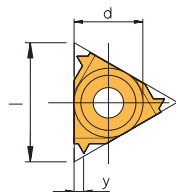


Ausführung / Type / Esecuzione:
Standard

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		unbeschichtet uncoated non rivestito AK20
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

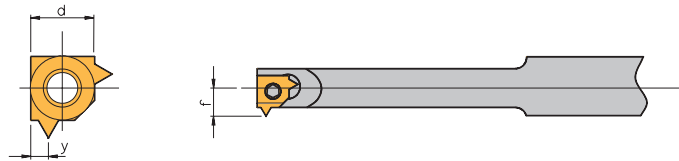
Rechte Ausführung abgebildet / Right-hand execution shown / Versione destra in figura

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	
10	20	6	0,61	0,8	5,3	10,0	●	●	●	...NVR1...-6.0*
10	18	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	○	○	○	●	○	

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

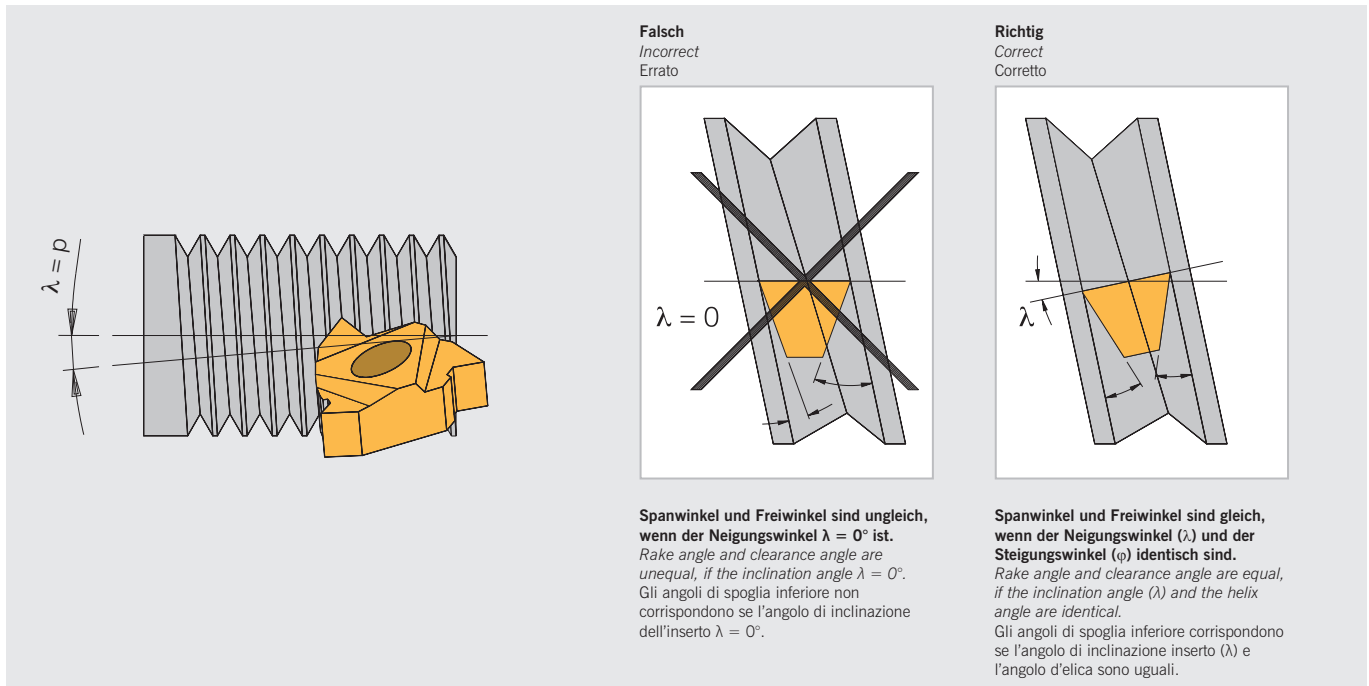
Unterlegplatten für Klemmhalter

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.

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).

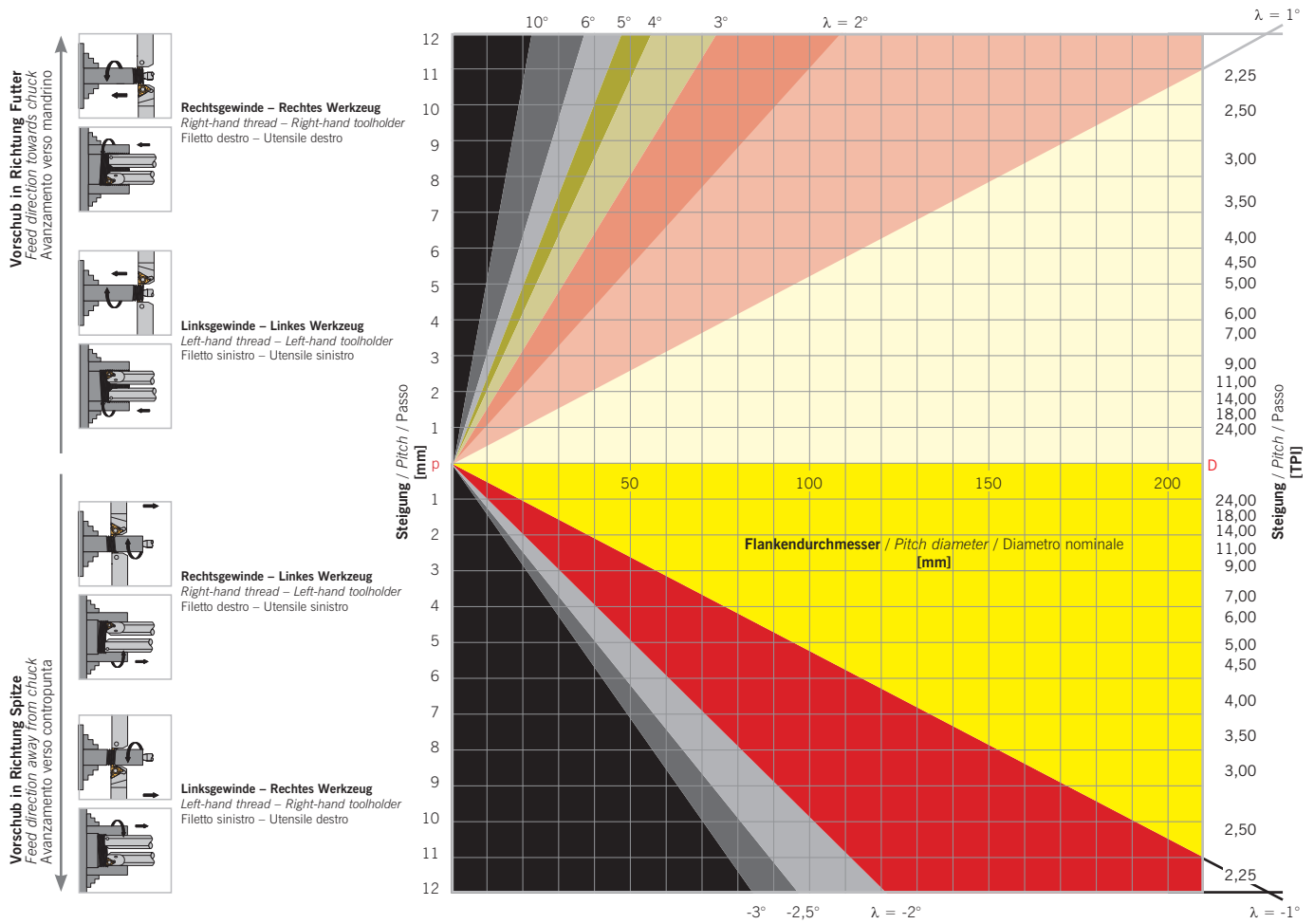
The toolholders are supplied with a 1.5° inclination angle. The support pads mounted in our toolholders are ground parallel to 0° . It is most important that the support pad is corrected, if the helix angle changes more than 1° . The center height will always be constant (independent from the selection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

Steigungswinkel-Diagramm / Helix angle diagramm / 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

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

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 \varnothing 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 \varnothing 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