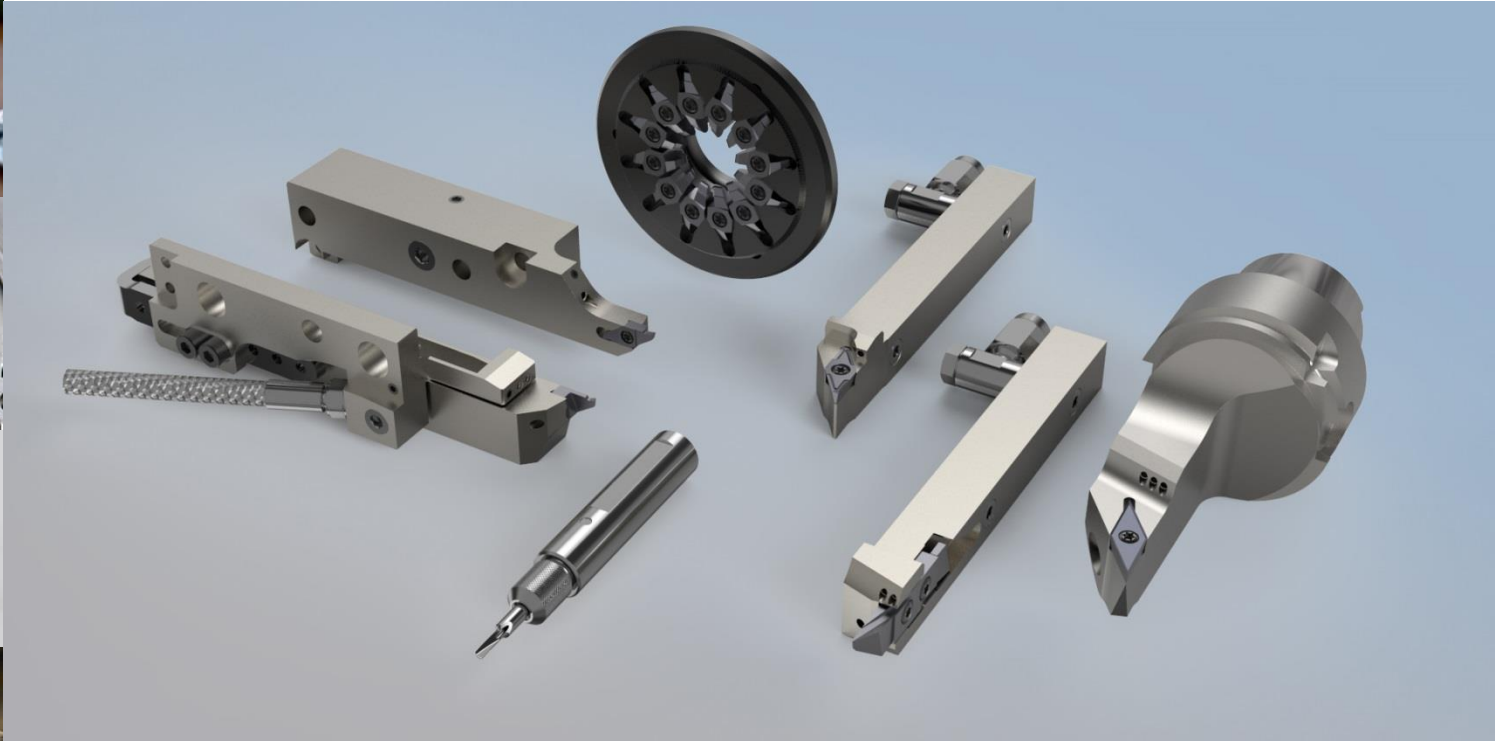




**UTILIS**<sup>®</sup>  
Tooling for High Technology

UTILIS  
**multidec**<sup>®</sup>  
swiss type tools



***Presentation new catalog 2018***

....

....

# Presentation new catalog 2018

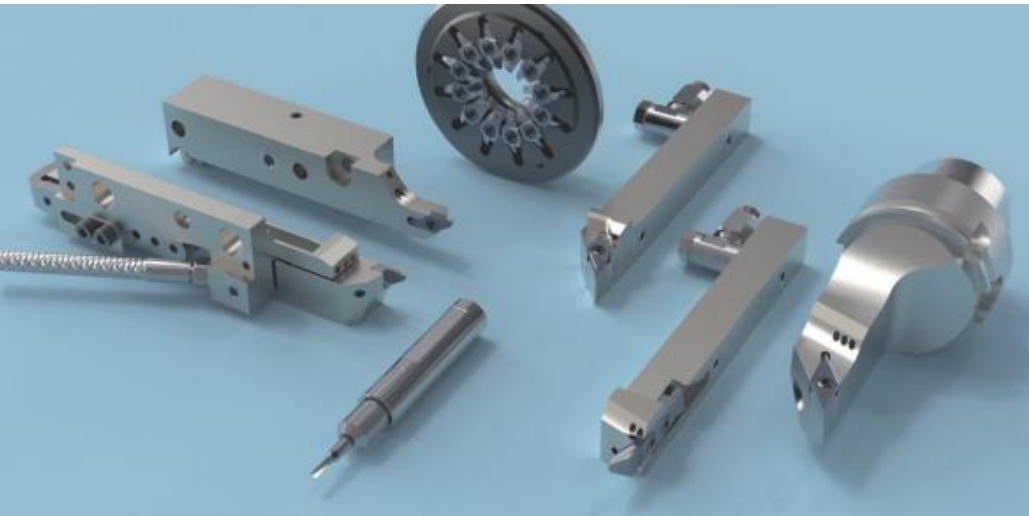
**UTILIS**<sup>®</sup>  
Tooling for High Technology



- *Changes compared to version 2016*
- *Innovations*









UTILIS  
**multidec**<sup>®</sup>  
swiss type tools






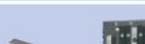

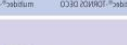

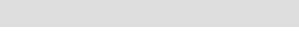



# *New designed front page*



- *OLD (2010-2016)*

# New designed directory

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4		Legend					
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9				Original	Accessories	Drilling	Other
30		multidec®-CUT		•	•	•	
166		multidec®-ISO				•	
298		multidec®-TOP					
326		multidec®-BORE MICRO		•	•	•	
360		multidec®-BROACH			•		
366		multidec®-DRILL					
372		multidec®-THREADMILL					
386		multidec®-GRAVER					
392		multidec®-WHIRLING					
494		multidec®-SHORT					
502		multidec®-BACKTOOLS					
532		multidec®-MODULE					
542		multidec®-TECKO					
549		multidec®-KM™					
560		multidec®-HSK					
572		multidec®-PSC					
582		multidec®-MULTITASK					
606		multidec®-ESCOMATIC					
614		multidec®-TORNOS DECO					
626		multidec®-LUB					
632		Coolant connections					
656		multidec®-TAPER-IN					
664		Screwdriver					
670		Collets / Reduction sleeves					
672		Index of designations					

• OLD

# *Informations*

*About UTILIS*

**4**

*Legend*

**6**

*Technical information*

**9**

# About UTILIS

- Presentation of the company, strategy, values, goals
- 25 years anniversary of multidec
- 24 hours online shopping
- News / Innovations

**4**

**UTILIS**  
Leading edge technology

**At UTILIS, it's all about cutting. And your success.**



**Future service**

For more than 100 years we have been developing, producing and distributing premium quality cutting tools for micro-mechanics, watch and medical technology.

UTILIS AG is one of the world's leading suppliers of precision tools for the metal working industry. Ever since the company was founded in 1915 it has been our declared goal to "keep ahead" in the production of high quality cutting tools for micro-mechanics that are reliable and beneficial for our customers. For us, as a traditional, mid-sized family owned Swiss business, it is only natural that we place the greatest value on precision, service and our customers. We consciously decided to produce our multidec® brand products in Switzerland. It is the only way that we can ensure the established and proven quality of UTILIS brand products that we currently sell in 37 countries around the world. A positive side effect: we ensure, create and maintain employment in Switzerland.

**2018 – 25 years of multidec®**



For more than a quarter of a century we have been developing innovative precision tools under our own brand "multidec", which is specifically designed to meet the challenges of the watch, medical and dental implant industries. By using state-of-the-art, advanced technology and our extensive know-how in the manufacture of our "multidec" product line we are positioning our selves as a specialist and as one of the leading companies in the market for cutting tools in the metal cutting industry.

**24-hour shopping, information and knowledge – and already more than 25,000 products.**

Our e-shop offers you a large range of functions and assistance. Take advantage of the product search or the direct service area that we can fulfil your orders, wishes and suggestions quickly.

[www.utilis.com](http://www.utilis.com) – Visit our e-shop this very day



- An extensive product portfolio
- Multidec® order helper – the guided multidec® product search
- UTILIS service area – quick search, contacts and assistance
- UTILIS adviser
- Tools, information and more

**5**

**UTILIS**  
Leading edge technology

**Innovative precision tools – new in this catalogue.**

We develop and manufacture innovative solutions and precise cutting tools for you in the micro-mechanics area. Our class? Superior quality and performance. We set ourselves challenging tasks in order to make use of our solutions and enhance our reputation as an innovative company. You will find the following innovations (as well as many "new" additions to the range) in this multidec® general catalogue.



- ...D.46 TWIN holder, the tool for more flexibility with double cutting edges in one holder.
- ...D.46 H.A.S.T. holder for machining to a position that is offset by 90°.
- ...D.204 FC holder float change with facility for damping the undesirable insert from the rear.
- ...D.494 multidec®-SHORT holder (short version) with optimally directed, integrated "TC" coolant supply.
- ...D.139 Full profile threading inserts "TP-S" with reinforced thread profile.
- ...D.386 Drill point line from multidec® DRILL with high performance drills.
- ...D.360 multidec® BRIDACH polygonal and TORX impact tools.
- ...D.386 multidec® GRAVEL engraving tool, finished ground or as unfinished product.

**The sustainable profit of your company is at the cutting edge.**

We have a market-oriented strategy which makes the sustainable benefit of our customers the main focus of our actions. We stand by our claim of being better than the competition. Within the scope of our corporate strategy, both global networking and direct presence play a decisive part in all of the markets that are relevant to us. We are therefore anxious to make our own multidec® brand comprehensive available directly on the site of our international representatives. The enclosed general catalogue is excellent for this purpose – as well as personal discussions and our e-shop.

We wish you every success with our multidec® products, and we welcome you to UTILIS.



Marco Macari, Managing Director (CEO)



# Categorization of materials

- *Material list renewed and enlarged*
- *New: mentions the market designation*

## Categorization of materials

Stainless steel								
Category	Material number	Specifications					Market designation	Hardness (HB)
		DIN	ISO	AFNOR	AISI/SAE/ASTM	JIS		
V	1.4581	GX 5 CrNiMoNb 19-11-2	–	Z 4 CNDNb 18-12 M	–	SCS 22	–	130–200
V	1.4583	X 10 CrNiMoNb 18-12	–	–	318	–	–	130–220
VI	1.4718	X 45 CrSi 9-3	–	Z 45 CS 9	HNV 3	SUH 1	Pyrodur 4718	–300
V	1.4724	X 10 CrAl 13, X 10 CrAlSi 13	–	Z 13 C 13	405	SUS 405	–	–192
V	1.4742	X 10 CrAl 18, X 10 CrSiAl 18-1-1	–	Z 10 CAS 18	430	SUH 21, SUS 430	–	–212
VI	1.4757	X 80 CrNiSi 20	–	–	HNV6	SUH 4	–	–
V	1.4762	X 10 CrAl 24, X 10 CrAlSi 25	–	Z 12 CAS 25	446	SUH 446	–	–223
V	1.4828	X 15 CrNiSi 20-12	–	Z 9 CN 24-13, Z 17 CNS 20-12	309	SUH 309	–	–223
V	1.4841	X 15 CrNiSi 25-20	–	Z 15 CNS 25-20	314	–	–	165–225
VI	1.4845	X 8 CrNi 25-21, X 12 CrNi 25-21	–	Z 8 CN 25-20, Z 12 CN 25-20	310 S	SUH 310, SUS 310 S	–	–
VI	1.4864	X 12 NiCrSi 35-16, X 12 NiCrSi 36-16	–	Z 20 NCS 33-16	330	SUH 330	–	–
VI	1.4865	GX 40 NiCrSi 38-19, GX 40 NiCrSi 38-18	–	–	–	SCH 15, SCH 16	–	–
V	1.4871	X 53 CrMnNiN 21-9	–	Z 52 CMN 21-09 Az	EV 8	SUH 35, SUH 36	–	–
V	1.4876	X 10 NiAlTi 32-21, X 10 NiCrAlTi 32-21	–	–	314	–	NICROFER® 3220 h	135–205
V	1.4878	X 12 CrNiTi 18-9, X 8 CrNiTi 18-10	–	Z 6 CNT 18-10	321	SUS 321	–	215
VI	1.4923	X 20 CrMoV 12-1, X 22 CrMoV 12-1	–	–	–	–	–	–270
V	1.4944	X 6 NiCrTiMoV 26-15	–	–	660	–	–	–200
VI	1.4980	X 6 NiCrTiMoVB 25-15 2	–	–	453	–	INCOLOY® Alloy A-286	248–341
VI	1.6359	X 2 NiCoMo 18-8-5	–	–	–	–	MARVAL 18	–
VI	2.4068	Nickel 201	–	UNS N02201	–	–	–	–
VI	2.4668	NiCr19Fe18Nb5Mo3 TiAlC	–	–	–	–	INCONEL® Alloy 718	> 352
VI	2.4711	CoCr20Ni15Mo7	–	K13C20Ni16Fe15D7	F1058	–	Phynox® KL	–
VI	Co Cr	Co Cr	–	–	–	–	–	–



# Coatings

- *New in 3 categories*
  - *Added the coatings HX-F and TX+*
  - *Removed HX-A+, HLX und DX.*
- HX-A+ can be replaced with HX-F*
- HLX is hardly used*
- DX to expensive and hardly used (can be replaced with DX-T)*

## Properties and application range of coatings

Coating	Standard for general applications			General applications (upon customer request)			Special applications (upon customer request)			
	HX	HPX	MZ	SX	BX	HX-A	HX-F	TX+	DX-T	DX-HC
UTILIS coating code										
Coating	TiAlN/ AlTiN	TiAlN/ AlTiN	TiN/ TiAlN	TiN	TiCN	AlCrN	AlCrN	TiSiN	Diamond DLC	Diamond Ta-C
Procedure	PVD	PVD	CVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD



# Properties and applications range of coatings

Properties and application range of coatings

Coating	Standard for general applications			General applications (upon customer request)			Special applications (upon customer request)			
	HX	HPX	MZ	SX	BX	HX-A	HX-F	TX+	DX-T	DX-HC
UTILIS coating code										
Coating	TiAlN / AlTiN	TiAlN / AlTiN	TiN / TiAlN	TiN	TiCN	AlCrN	AlCrN	TiSiN	Diamond DLC	Diamond Ta-C
Procedure	PVD	PVD	CVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD

Materials (Category)	Application areas	HX	HPX	MZ	SX	BX	HX-A	HX-F	TX+	DX-T	DX-HC
Steel non-alloyed (I)		●	●	●	●	●	●	●	-	-	-
Steel low alloyed (II)		●	●	●	●	●	●	●	-	-	-
Steel high alloyed (III)		●	●	●	○	○	●	●	-	-	-
Titanium (IV)		●	●	-	-	○	○	○	●	-	-
Stainless steel (V)		●	●	●	○	●	●	●	●	-	-
Stainless steel (VI)		●	●	●	○	○	●	●	●	-	-
Aluminum (VII)		●	○	-	○	-	-	-	-	●	●
Brass (VIII)		●	○	-	○	-	-	-	-	●	●
Synthetics reinforced/composites (IX)		○	○	-	-	-	-	-	-	○	●
Hard materials >70 HRC		-	-	-	-	-	-	-	●	-	-

Characteristics	Standard allround coating for finishing and micro-finishing operations on a wide range of materials.	Standard allround coating for roughing and finishing operations in steel and stainless steel.	Coating for the machining of steel materials for slow and medium cutting speeds. Not recommended for highly heat resistant materials.	Coating with extreme hardness and outstanding toughness. Extremely suitable for steel, stainless steel and conditionally for titanium, at slow cutting speeds.	Universally usable coating for dry and wet machining at fast cutting speeds in steel, stainless steel and titanium.	High performance coating for micro finishing operations in steel and stainless steel. Recommended for sharp edges, which are used in micro machining.	High performance coating for micro finishing and finishing operations in stainless steel and highly heat resistant materials as well as micro cutting of hardened steels up to 70 HRC.	Diamond coating for non-ferrous metals. Recommended for aluminium, plastic, brass and copper.	High performance diamond coating for non-ferrous metals. Recommended for aluminium alloys, platinum, silver, gold, composites and reinforced synthetics

Brief description of the coatings characteristics



# Properties range of coatings

- *HX-F optimal to be used on steel and stainless steel in the micromechanics industries.*
- *TX+ for hard turning up to 70 HRC and difficult-to-machine materials such as Cr-Co steels and superalloys*
- *Diamond like coatings for non-ferrous metals and DX-HC for difficult-to-machine non-ferrous metals (Aluminum with Si >16%, carbon, fiberglass reinforced plastic etc.)*

## Coatings for special applications

### Properties and application range of coatings

Coating	Standard for general applications			General applications (upon customer request)			Special applications (upon customer request)			
	HX	HPX	MZ	SX	BX	HX-A	HX-F	TX+	DX-T	DX-HC
UTILIS coating code										
Coating	TiAlN / AlTiN	TiAlN / AlTiN	TiN / TiAlN	TiN	TiCN	AlCrN	AlCrN	TiSiN	Diamond DLC	Diamond Ta-C
Procedure	PVD	PVD	CVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD

Materials (Category)		Application areas									
Steel non-alloyed (I)	●	●	●	●	●	●	●	●	-	-	-
Steel low alloyed (II)	●	●	●	●	●	●	●	●	-	-	-
Steel high alloyed (III)	●	●	●	○	○	●	●	-	-	-	
Titanium (IV)	●	●	-	-	○	○	○	●	-	-	
Stainless steel (V)	●	●	●	○	●	●	●	●	-	-	
Stainless steel (VI)	●	●	●	○	○	●	●	●	-	-	
Aluminum (VII)	●	○	-	○	-	-	-	-	●	●	
Brass (VIII)	●	○	-	○	-	-	-	-	●	●	
Synthetics reinforced/composites (IX)	○	○	-	-	-	-	-	-	○	●	
Hard materials >70 HRC	-	-	-	-	-	-	-	●	-	-	

*As known from previous versions are all new products marked with a red dot*

## **Availability**



Standard



New (in this catalog)

## Many innovative precision tools are new in this catalog

- A large number of new products has enlarged the catalog by about 100 pages

### Innovative precision tools – new in this catalogue.

We develop and manufacture innovative solutions and precise cutting tools for you in the micromechanics area. Our claim? Superior quality and performance. We set ourselves challenging tasks in order to make use of our solutions and enhance our reputation as an innovative company. You will find the following innovations (as well as many "new" additions to the range) in this multidec® general catalogue.

**UTILIS**  
Tooling for High Technology



... □ 46

TWIN holder, the tool for more flexibility with double cutting edges in one holder.



... □ 46

Y-AXIS holder for machining to a position that is offset by 90°.



... □ 204

FC holder (fast change) with facility for clamping the indexable insert from the rear.



... □ 494

multidec®-SHORT holder (short version) with optimally directed, integrated "IC" coolant supply.



... □ 139

Full profile threading inserts "VP-S" with reinforced thread profile.



... □ 366

Drill product line from multidec®-DRILL with high performance drills.



... □ 360

multidec®-BROACH polygonal and TORX impact tools.



... □ 386

multidec®-GRAVER engraving tool, finished ground or as semifinished product.

*Indexable insert tools*

***multidec®-CUT***



**30**

***multidec®-ISO***



**166**

***multidec®-TOP***



**298**

***CUT 500***

***CUT 1600, 1700,***

***CUT 3000, 3600***

## *General about CUT:*

- *Some existing inserts and holders have been enhanced with new varieties / shank sizes*
- *Cut 500 holders new in 3/8 inch*
- *New: 1607 R0.4mm*
- *New: 1611 with 0.6mm width*
- *New: 3605-4.0-10 R / L CP 08 with corner radius 0.8mm*



## General about CUT:

- The cut off insert have been resorted, now they are sorted by the chip breaker

Inserts
3001...
3002..., 3002... V
3002... TOP, 3002... V TOP
3002... 16, 3002... 16 V
3002... SC, 3002... V SC
3002... SC TOP, 3002... V SC TOP
3002... N SC
3002... SPT, 3002... V SPT
3002... N SPT
3002... GS, 3002... V GS
3002... N GS

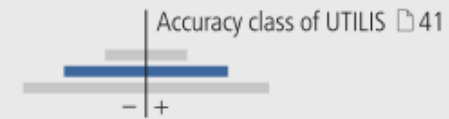
OLD

Inserts
3001...
3002..., 3002... V
3002... 16, 3002... 16 V
3002... GS, 3002... V GS
3002... SC, 3002... V SC
3002... SPT, 3002... V SPT
3002... TOP, 3002... V TOP
3002... SC TOP, 3002... V SC TOP
3002... N GS
3002... N SC
3002... N SPT

## 1606.. VP

- New in UHM20 / UHM20 HPX

### STANDARD-LINE

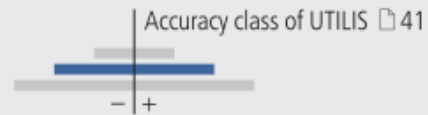


1606-0.5-60 VP L ...	1606-0.5-60 VP R ...	■ ■ ■ ■	M 3	M 3	–	0.5	0.307	0.28	0.28	4	1.3	1600...
1606-0.6-60 VP L ...	1606-0.6-60 VP R ...	■ ■ ■ ■	–	M 3.5	–	0.6	0.368	0.33	0.33	4	1.5	1600...
1606-0.7-60 VP L ...	1606-0.7-60 VP R ...	■ ■ ■ ■	M 4	M 4	–	0.7	0.429	0.39	0.39	4	1.8	1600...
1606-0.75-60 VP L ...	1606-0.75-60 VP R ...	■ ■ ■ ■	–	M4.5	–	0.75	0.46	0.41	0.41	4	1.9	1600....
1606-0.8-60 VP L ...	1606-0.8-60 VP R ...	■ ■ ■ ■	M5	M5	–	0.8	0.491	0.44	0.44	4	2	1600....
1606-1.0-60 VP L ...	1606-1.0-60 VP R ...	■ ■ ■ ■	M6/7	–	–	1	0.613	0.55	0.55	4	2.5	1600....
1606-1.25-60 VP L ...	1606-1.25-60 VP R ...	■ ■ ■ ■	M8/9	–	–	1.25	0.767	0.69	0.69	4	3	1600....

## 1606.. UN..VP

- Program enhanced on 28, 24 and 20 threads per inch (TPI)

### STANDARD-LINE



1606-48 UN 60 VP L ...	1606-48 UN 60 VP R ...			■ ■		● ●		●		48	0.529	0.325	0.29	0.29	4	1.4	1600...
1606-44 UN 60 VP L ...	1606-44 UN 60 VP R ...			■ ■				●		44	0.577	0.354	0.32	0.32	4	1.4	1600...
1606-40 UN 60 VP L ...	1606-40 UN 60 VP R ...			■ ■		● ●		●		40	0.635	0.39	0.35	0.35	4	1.8	1600...
1606-36 UN 60 VP L ...	1606-36 UN 60 VP R ...			■ ■				●		36	0.705	0.432	0.39	0.39	4	1.8	1600...
1606-32 UN 60 VP L ...	1606-32 UN 60 VP R ...			■ ■		● ●		●		32	0.794	0.487	0.44	0.44	4	2	1600...
1606-28 UN 60 VP L ...	1606-28 UN 60 VP R ...			■ ■		● ●		● ●		28	0.907	0.556	0.5	0.5	4	2.2	1600...
1606-24 UN 60 VP L ...	1606-24 UN 60 VP R ...			■ ■		● ●		● ●		24	1.058	0.649	0.58	0.58	4	2.2	1600...
1606-20 UN 60 VP L ...	1606-20 UN 60 VP R ...			■ ■	●	● ●		●		20	1.27	0.779	0.7	0.7	4	2.9	1600...

# *multidec<sup>®</sup>-CUT 1600, TWIN tool holder*

## *THE TOOL FOR A HIGHER FLEXIBILITY*

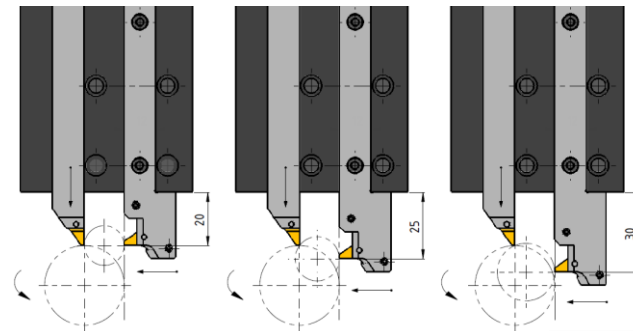
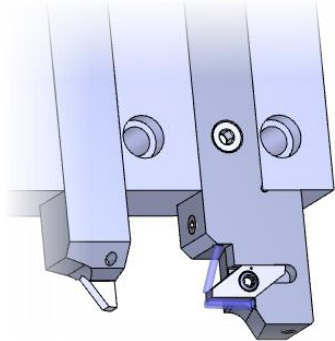
- When using a «TWIN»-Tool, can you place two inserts on one tool holder.*
- Different combinations are available which offer high flexibility.*
- Two operations can be made with one tool holder.*
- Available with a square shank from 8 to 20mm, with or without internal cooling.*
- «TWIN» doubles the number of tools on a machine.*
- The travel of the tool is smaller and what shortens the cycle times.*



# *multidec<sup>®</sup>-CUT 1600, Y-AXIS tool holder*

## *Ideal chip removal*

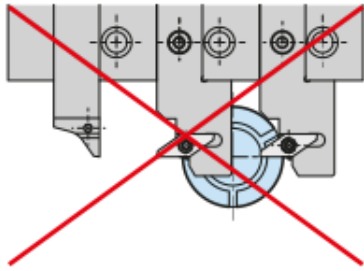
- *For long-chipping materials*
- *Tangled chips are optimally removed*
- *All tool holders with internal cooling*
- *Different overhang lengths enable the processing of different diameters*



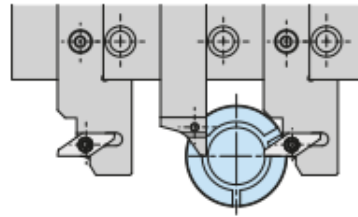
# *multidec<sup>®</sup>-CUT 1600, Y-AXIS tool holder*

## *Correct use*

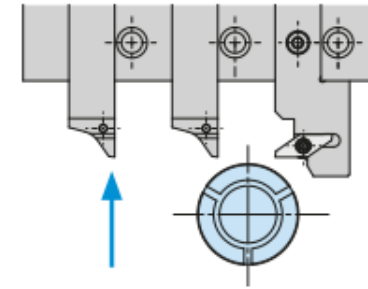
### Usage notes:



To avoid problems, two Y-AXIS holders must not be mounted directly next to each other.



Mount a standard tool holder between the Y-AXIS holders.



To prevent collisions, move back the holder in accordance with the overhanging length before changing the tool position.

# multidec<sup>®</sup>-CUT inserts 3002...GS, Value-Line

- *All positions are available now uncoated as well*



Order designation		Carbide		19	
L	R	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX

**VALUE-LINE**

3002-2.0-10 EL GS ...    3002-2.0-10 ER GS ...

- *Chip breaker allows a good chip control and high feeds*
- *Rounded cuttings edge «E» for steels and easily machinable stainless steels*
- *Sharp cutting edge «F» for superalloys, non-ferrous metals and difficult machinable stainless steels*
- *inexpensive*



# *multidec<sup>®</sup>-CUT insert 3006... VP-S*

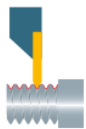


## *Strengthened single point threading insert*

- *stable*
- *reliable with high lifetimes*
- *Reduces the number of passes by up to 20%*
- *inexpensive*

# multidec<sup>®</sup>-CUT inserts 3006... VP-S

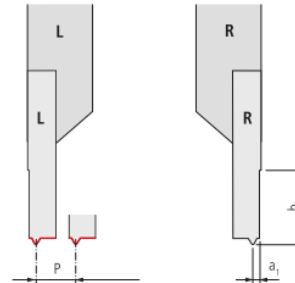
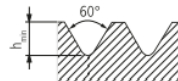
Available for M1 up to M14, Pitch 0.25 up to 2.0 mm



Threading (full profile metric)  
Strengthen type "S"



3006... VP-S



Order designation	Carbide	Standard	Dimensions	Holder
	<input type="radio"/> UHM 20 <input type="radio"/> UHM 20 HPX <input type="radio"/> UHM 30 <input type="radio"/> UHM 30 HX	ISO DIN13 NIHS 06-03 NIHS 06-02	P h <sub>min</sub> a <sub>1</sub> b	<input type="checkbox"/> 146...

STANDARD-LINE






























Accuracy class of UTILIS  41

3006-0.25-60 VP-S L ...	3006-0.25-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M 1/1.2	M 1/1.2	S1/S1.2	0.25	0.153	0.16	8		3000...
3006-0.3-60 VP-S L ...	3006-0.3-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		–	M1.4	S1.4	0.3	0.184	0.2	8		3000...
3006-0.35-60 VP-S L ...	3006-0.35-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M1.6	M1.6/1.8	–	0.35	0.215	0.23	8		3000...
3006-0.4-60 VP-S L ...	3006-0.4-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M2	M2	–	0.4	0.245	0.26	8		3000...
3006-0.45-60 VP-S L ...	3006-0.45-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M2.5	M2.2/2.5	–	0.45	0.276	0.29	8		3000...
3006-0.5-60 VP-S L ...	3006-0.5-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M3	M3	–	0.5	0.307	0.33	8		3000...
3006-0.6-60 VP-S L ...	3006-0.6-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		–	M3.5	–	0.6	0.368	0.39	8		3000...
3006-0.7-60 VP-S L ...	3006-0.7-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M4	M4	–	0.7	0.429	0.46	8		3000...
3006-0.75-60 VP-S L ...	3006-0.75-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		–	M4.5	–	0.75	0.46	0.49	8		3000...
3006-0.8-60 VP-S L ...	3006-0.8-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M5	M5	–	0.8	0.491	0.52	8		3000...
3006-1.0-60 VP-S L ...	3006-1.0-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M6/7	–	–	1	0.613	0.65	8		3000...
3006-1.25-60 VP-S L ...	3006-1.25-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M8/9	–	–	1.25	0.767	0.81	8		3000...
3006-1.5-60 VP-S L ...	3006-1.5-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M10/11	–	–	1.5	0.92	0.98	8		3000...
3006-1.75-60 VP-S L ...	3006-1.75-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M12	–	–	1.75	1.073	1.14	8		3000...
3006-2.0-60 VP-S L ...	3006-2.0-60 VP-S R ...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		M14/16	–	–	2	1.227	1.3	8		3000...

# multidec®-CUT insert 3006... UN

## 3006.. UN..VP

- Program enhanced on 80, 72, 64 and 56 threads per inch (TPI) with carbide UHM30 and coating HX

Order designation		Carbide  19				Standard/thread type						Dimensions						Holder	
						ANSI/ASME B1.1 (Tolerance class 2A/2B/ 3A/3B)												 146...	
						UN	UNC	UNF	UNEF	UNS	UNR	P (T/Inch)	P	$h_{min}$	$a_1$	$a_2$	b	c	
		UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX														
		Accuracy class of UTILIS  41																	
																			
3006-80 UN 10-60 VP L ...	3006-80 UN 10-60 VP R ...										80	0.317	0.194	0.19	0.17	8	-	3000...	
3006-72 UN 10-60 VP L ...	3006-72 UN 10-60 VP R ...										72	0.353	0.217	0.21	0.19	8	-	3000...	
3006-64 UN 10-60 VP L ...	3006-64 UN 10-60 VP R ...										64	0.397	0.244	0.24	0.22	8	-	3000...	
3006-56 UN 10-60 VP L ...	3006-56 UN 10-60 VP R ...										56	0.453	0.278	0.27	0.25	8	-	3000...	

**PREMIUM-LINE**

# *multidec<sup>®</sup>-CUT inserts 1606.../3006... UN.. VP*

## *Designation change for single point threading inserts UNC/UNF*

### *Reason:*

- *These inserts can be used for all threads of the UN standard ANSI / ASME B1.1.*
- *Only the UN standard and the number of threads per inch determine the choice of the correct insert.*
- *Therefore, only the number of gears per inch and "UN" appears in the new designation.*

### *Example:*

***Old Designation: 1606-00-80 UNF 60 VP R UHM30***

***New designation: 1606-80 UN 60 VP R UHM30***

# multidec®-CUT inserts 1606.../3006... UN.. VP

Order designation		Carbide <input type="checkbox"/> 19				Standard / thread type						Dimension
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	ANSI/ASME B1.1 (Tolerance class 2A/2B/ 3A/3B)						P
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	UN	UNC	UNF	UNEF	UNS	UNR	(T/Inch)
		UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX							
<b>PREMIUM-LINE</b>												
3006-80 UN 10-60 VP L ...	3006-80 UN 10-60 VP R ...			■	■			●				80
3006-72 UN 10-60 VP L ...	3006-72 UN 10-60 VP R ...			■	■			●				72
3006-64 UN 10-60 VP L ...	3006-64 UN 10-60 VP R ...			■	■		●	●				64
3006-56 UN 10-60 VP L ...	3006-56 UN 10-60 VP R ...			■	■		●	●		●		56
<b>STANDARD-LINE</b>												
3006-48 UN 10-60 VP L ...	3006-48 UN 10-60 VP R ...			■	■		●	●			●	48
3006-44 UN 10-60 VP L ...	3006-44 UN 10-60 VP R ...			■	■			●				44
3006-40 UN 10-60 VP L ...	3006-40 UN 10-60 VP R ...			■	■		●	●		●		40
3006-36 UN 10-60 VP L ...	3006-36 UN 10-60 VP R ...			■	■			●			●	36
3006-32 UN 10-60 VP L ...	3006-32 UN 10-60 VP R ...			■	■		●	●	●		●	32
3006-28 UN 10-60 VP L ...	3006-28 UN 10-60 VP R ...			■	■		●	●	●	●	●	28
3006-24 UN 10-60 VP L ...	3006-24 UN 10-60 VP R ...			■	■		●	●	●	●	●	24
3006-20 UN 10-60 VP L ...	3006-20 UN 10-60 VP R ...			■	■	●	●	●	●		●	20
3006-18 UN 10-60 VP L ...	3006-18 UN 10-60 VP R ...			■	■		●	●	●	●		18
3006-16 UN 10-60 VP L ...	3006-16 UN 10-60 VP R ...			■	■	●	●	●	●	●	●	16
3006-14 UN 10-60 VP L ...	3006-14 UN 10-60 VP R ...			■	■		●	●		●		14
3006-13 UN 10-60 VP L ...	3006-13 UN 10-60 VP R ...			■	■		●					13

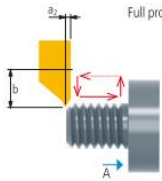
## Advantage:

- *Smaller assortment needed*
- *Different types of threads can be made with the same insert*  
(UN, UNC, UNF, UNEF, UNS, UNR)
- *Only the UN standard and the number of threads per inch determine the choice of the correct insert.*

# multidec<sup>®</sup>-CUT single point threading inserts

## Clarified recommendations for thread cutting

### Properties and applications

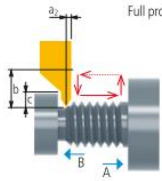


Full profile threading inserts 1606... VP / 3006... VP up to pitch of 0.45 mm

**Properties:**

- Insert front side ground far back (b)
- At a minimum reduced distance between the thread tip and front side (a<sub>2</sub>)

This makes it possible to move extremely close to the shoulder (A) with an extremely narrow or non-existent undercut.

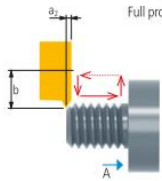


Full profile threading inserts 1606... VP / 3006... VP from pitch of 0.5 mm

**Properties:**

- Insert front side ground far back (b)
- At a minimum reduced distance between the thread tip and front side (a<sub>2</sub>)
- Back of insert ground free towards the rear (c)

This makes it possible to move extremely close to the shoulder (A) with an extremely narrow or non-existent undercut. This version also makes it possible to manufacture a thread behind a shoulder (B).

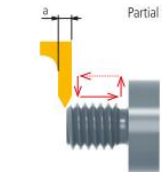


Full profile threading inserts, reinforced 3006... VP – from pitch of 0.25 mm

**Properties:**

- Insert front side ground far back (b)
- At a minimum reduced distance between the thread tip and front side (a<sub>2</sub>)
- Reinforcement of the threading profile using a special cut

The reinforcement makes it possible to reduce the number of passes by up to 20%. It is possible to move extremely close to the shoulder (A) with an extremely narrow or non-existent undercut.



Partial profile threading inserts 1606... / 3006... with pitch of 0.25–2 mm

**Properties:**

- Front of insert with wide partial profile cut (a) for covering a bigger pitch area

This makes it possible to manufacture various pitches with the same indexable insert, but requires an undercut for smaller pitches.

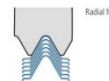
### Recommendations for thread cutting

multidec<sup>®</sup>-CUT

#### Number of passes

Pitch (mm)	Pitch (mm)													
	0.06-0.09	0.1-0.35	0.4	0.45	0.5	0.75	0.8	1	1.25	1.5	1.75	2-2.5		
Steel (DIN)	–	80/72	64	56	48/44	40/36	32	28/24	20/19	18/16	14	13/11		
Steel	2-4	3-5	3-6	3-7	5-10	7-11	7-12	8-15	10-18	11-22	12-24	15-28		
Stainless steel	3-6	4-7	5-8	6-9	8-10	9-12	10-15	11-17	13-20	18-22	20-26	25-30		
Titanium	3-6	4-7	5-8	6-9	8-10	9-12	10-15	11-17	13-20	18-22	20-26	25-30		
Non-ferrous metal	2-4	3-5	3-6	3-7	3-8	4-9	5-10	6-11	7-14	8-16	8-16	17-22		

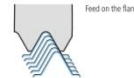
#### Choice of feed movement



Radial feed

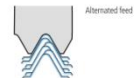
**Applicability:**  
– For conventional lathes  
– For pitches < 2 mm  
– Short chipping materials

**Disadvantage:**  
– Poor chip control



Feed on the flanks

**Applicability:**  
– For CNC lathes  
– For pitches 2 to 4 mm  
– Long chipping materials  
– Good chip control



Alternated feed

**Applicability:**  
– For pitches > 4 mm  
– Long chipping materials  
– Regular wear of insert  
– High tool-life  
– Good chip control

**Disadvantage:**  
– Complex CNC programming

# multidec<sup>®</sup>-CUT 3600... tool holder with IC

*Whole assortment available now with internal cooling*

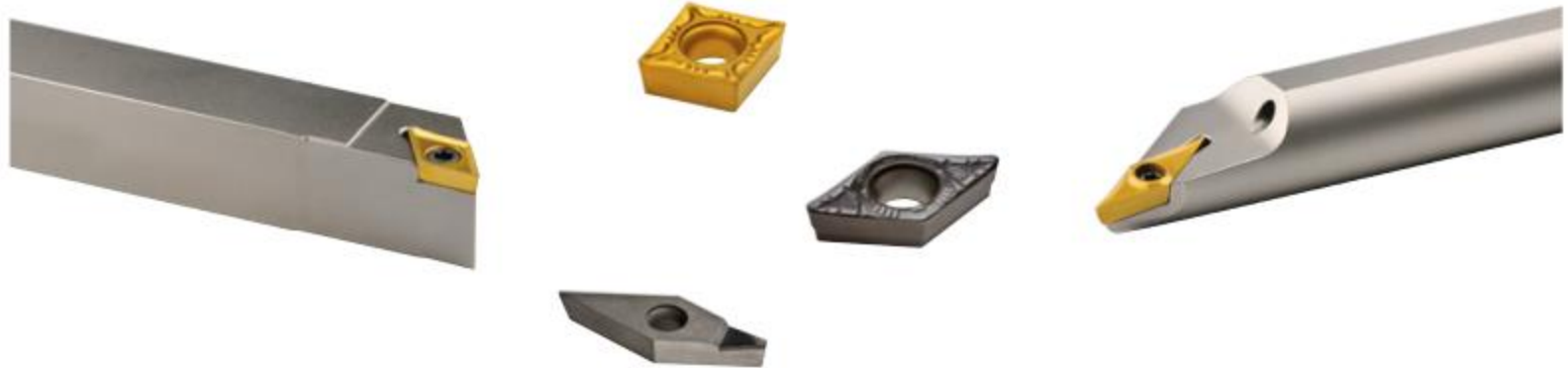


Order designation		Dimensions										Inserts
L	R	h	b	l	a	z <sup>1</sup>	x <sup>1</sup>	c	d	□ 156...		
Accuracy class of UTILIS □ 41												
3600-1215x100 LIC	3600-1215x100 RIC	12	15	100	6	21	16	M5	M5	36...		
3600-16x125 LIC	3600-16x125 RIC	16	16	125	6	21	20	M5	G1/8"	36...		
3600-20x125 LIC	3600-20x125 RIC	20	20	125	6	21	24	M5	G1/8"	36...		
3600-25x125 LIC	3600-25x125 RIC	25	25	125	6	21	29	M5	G1/8"	36...		

## 3600... IC INCH

Order designation		Dimensions										Inserts
L	R	h	b	l	a	z <sup>1</sup>	x <sup>1</sup>	c	d	□ 156...		
Accuracy class of UTILIS □ 41												
3600-1/2"15x100 LIC	3600-1/2"15x100 RIC	12.7	15	100	6	21	16.7	M5	M5	36...		
3600-5/8"x125 LIC	3600-5/8"x125 RIC	15.875	15.875	125	6	21	19.9	M5	G1/8"	36...		
3600-3/4"x125 LIC	3600-3/4"x125 RIC	19.05	19.05	125	6	21	23	M5	G1/8"	36...		





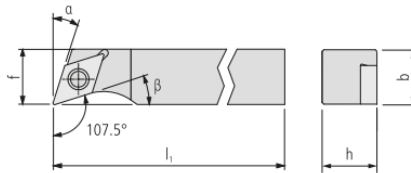
## *General:*

- *ISO has been separated from TOP*
- *Many inserts and tool holder have been enhanced with additional carbides and sizes*
- *Many more tool holders are available with internal cooling now*
- *Diamond-insert DCGW 0702005 UPCD20 (R=0.05) has been added to the catalogue*
- *Diameters 25 and the solid carbide shank version «E» have been removed from the assortment of the boring bars.*

*Typ DC.. (55°)*

## SDHC.. (107.5°)

- Neue Schaftgrößen
- NEU auch mit IC

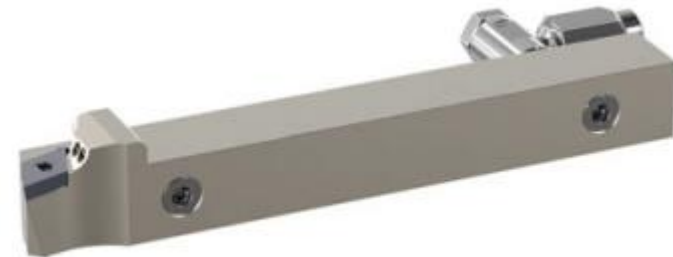


SDHC... U (107.5°)

Order designation		Dimensions						Inserts
L	R	h	b	l <sub>1</sub>	f	a	β	□206...

### STANDARD-LINE

Order designation		Dimensions						Accuracy class of UTILIS
L	R	h	b	l <sub>1</sub>	f	a	β	
SDHCL 0808 H07 U	SDHCR 0808 H07 U	8	8	100	11	17.5°	17.5°	□171
SDHCL 1010 H07 U	SDHCR 1010 H07 U	10	10	100	11	17.5°	17.5°	□171
SDHCL 1212 H07 U	SDHCR 1212 H07 U	12	12	100	12	17.5°	17.5°	□171
SDHCL 1616 K11 U	SDHCR 1616 K11 U	16	16	125	16	17.5°	17.5°	□171



SDHC... U IC (107.5°)

SDHC... U (107.5°) INCH

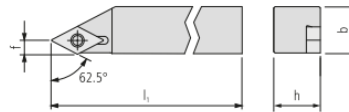
Order designation		Dimensions						Accuracy class of UTILIS
L	R	h	b	l <sub>1</sub>	f	a	β	□171

### STANDARD-LINE

Order designation		Dimensions						Accuracy class of UTILIS
L	R	h	b	l <sub>1</sub>	f	a	β	
SDHCL 3/8" H07 U	SDHCR 3/8" H07 U	9.525	9.525	100	11	17.5°	17.5°	DC..0702..
SDHCL 1/2" H07 U	SDHCR 1/2" H07 U	12.7	12.7	100	12.7	17.5°	17.5°	DC..0702..
SDHCL 5/8" K11 U	SDHCR 5/8" K11 U	15.875	15.875	125	15.875	17.5°	17.5°	DC..11T3..

## SDNCR / L .. (62.5°)

- Available now as inch version and with internal cooling



SDNC... U (62.5°)

Order designation		Dimensions					Inserts
L	R	h	b	l <sub>1</sub>	f		□ 206...
Accuracy class of UTILIS □ 171							
- +							

### STANDARD-LINE

SDNCL 0808 F07 U	■	SDNCR 0808 F07 U	■	8	8	80	3.38	
SDNCL 0808 H07 U	■	SDNCR 0808 H07 U	■	8	8	100	3.38	
SDNCL 1010 F07 U	■	SDNCR 1010 F07 U	■	10	10	80	3.38	
SDNCL 1010 H07 U	■	SDNCR 1010 H07 U	■	10	10	100	3.38	
SDNCL 1212 H07 U	■	SDNCR 1212 H07 U	■	12	12	100	3.38	
SDNCL 1212 H11 U	■	SDNCR 1212 H11 U	■	12	12	100	5.17	
SDNCL 1616 K11 U	■	SDNCR 1616 K11 U	■	16	16	125	5.17	
SDNCL 2020 K11 U	■	SDNCR 2020 K11 U	■	20	20	125	5.17	

SDNC... U (62.5°) INCH

Order designation		Dimensions					Inserts
L	R	h	b	l <sub>1</sub>	f		
Accuracy class of UTILIS □ 171							
- +							

### STANDARD-LINE

SDNCL 3/8" H07 U	■	SDNCR 3/8" H07 U	■	9.525	9.525	100	3.38	DC..0702..
SDNCL 1/2" H07 U	■	SDNCR 1/2" H07 U	■	12.7	12.7	100	3.38	DC..0702..
SDNCL 1/2" H11 U	■	SDNCR 1/2" H11 U	■	12.7	12.7	100	5.17	DC..11T3..
SDNCL 5/8" K11 U	■	SDNCR 5/8" K11 U	■	15.875	15.875	125	5.17	DC..11T3..



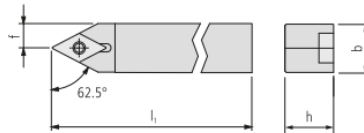
SDNC... U IC (62.5°)

## SDNCN.. (62.5°)

- Available now as inch version and with internal cooling



SDNCN ... U (62.5°)



Order designation		Dimensions					Inserts
N		h	b	l <sub>1</sub>	f		□ 206...
STANDARD-LINE							
Accuracy class of UTILIS □ 171							
- +							

SDNCN 0808 F07 U	■		8	8	80	4		DC..0702..
SDNCN 0808 K07 U	■		8	8	125	4		
SDNCN 1010 F07 U	■		10	10	70	5		
SDNCN 1010 M07 U	■		10	10	150	5		
SDNCN 1212 F07 U	■		12	12	80	6		
SDNCN 1212 M07 U	■		12	12	150	6		
SDNCN 1212 M11 U	■		12	12	150	6		
SDNCN 1616 H11 U	■		16	16	100	8		
SDNCN 2020 K11 U	■		20	20	125	10		

SDNCN ... U (62.5°) INCH

Order designation		Dimensions					Inserts
N		h	b	l <sub>1</sub>	f		
STANDARD-LINE							
Accuracy class of UTILIS □ 171							
- +							

SDNCN 3/8"H07 U	■		9.525	9.525	100	4.76		DC..0702..
SDNCN 1/2"H07 U	■		12.7	12.7	100	6.35		DC..0702..
SDNCN 1/2"H11 U	■		12.7	12.7	100	6.35		DC..11T3..
SDNCN 5/8"H11 U	■		15.875	15.875	125	7.94		DC..11T3..

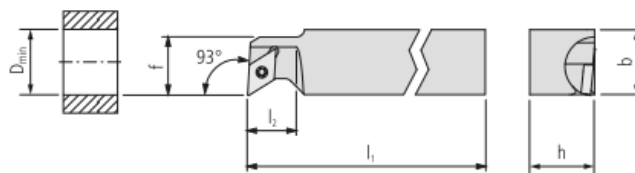


SDNCN ... U IC (62.5°)

- *SDUC.. available now with internal cooling*



SDUC... (93°)

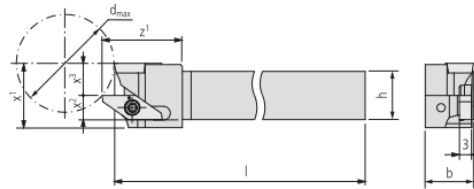


Order designation		Dimensions						
L	R	h	b	l <sub>1</sub>	l <sub>2</sub>	f	D <sub>min</sub>	
<b>STANDARD-LINE</b>		Accuracy class of UTILIS $\square 1$						
SDUCL 0808 XH07	■ SDUCR 0808 XH07	■	8	8	100	12	14	16
SDUCL 1010 XH07	■ SDUCR 1010 XH07	■	10	10	100	12	14	16
SDUCL 1212 XH07	■ SDUCR 1212 XH07	■	12	12	100	12	14	16
SDUCL 1616 XK07	■ SDUCR 1616 XK07	■	16	16	125	12	14	16



SDUC... IC (93°)

## TWIN-tool holder SDJC./1600 with or without internal cooling



SDJC. (93°)/1600... TWIN

Order designation	Dimensions							Inserts	
	h	b	l	z¹	x¹	x²	x³	d_max	□ 206...

STANDARD-LINE

Accuracy class of UTILIS □ 171

SDJCR/1600R-0810 H07 Twin	8	10	100	20	16	4	8	23	DC..0702...	16...
SDJCR/1600R-1010 H07 Twin	10	10	100	20	16	5	8	23	DC..0702...	16...
SDJCR/1600R-1212 H07 Twin	12	12	100	20	16	6	8	23	DC..0702...	16...
SDJCR/1600R-1616 K11 Twin	16	16	125	20	20	8	10	35	DC..11T3...	16...
SDJCR/1600R-2020 K11 Twin	20	20	125	20	24	8	14	68	DC..11T3...	16...

SDJC. (93°)/1600... TWIN INCH

Order designation	Dimensions							Inserts	
	h	b	l	z¹	x¹	x²	x³	d_max	□ 206...

STANDARD-LINE

Accuracy class of UTILIS □ 171

SDJCR/1600R-3/8" H07 Twin	9.525	9.525	100	20	16	4.76	8	23	DC..0702...	16...
SDJCR/1600R-1/2" H07 Twin	12.7	12.7	100	20	16	6.35	8	23	DC..0702...	16...
SDJCR/1600R-5/8" K11 Twin	15.875	15.875	125	20	20	7.94	10	35	DC..11T3...	16...
SDJCR/1600R-3/4" K11 Twin	19.05	19.05	125	20	24	7.53	14	68	DC..11T3...	16...



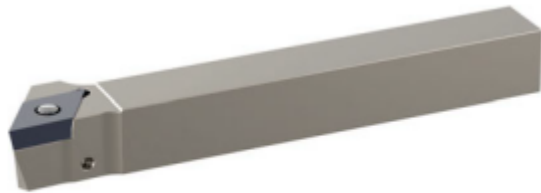
SDJC. (93°)/1600... TWIN IC



# *multidec<sup>®</sup>-ISO/-TOP, FC-holder (Fast Change)*

## *Fast Change*

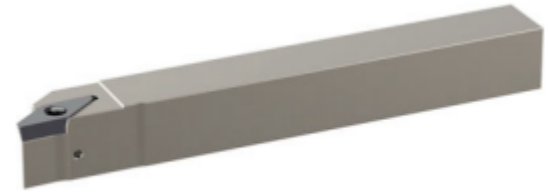
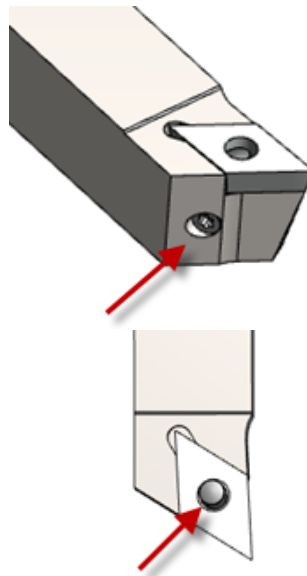
- *Change the insert without removing the tool holder*
- *Fix the insert with a toggle lever which is operated by a clamping screw on the rear side of the holder*
- *Holder without and with internal cooling*
- *Shank sizes 10, 12, 16 and INCH*



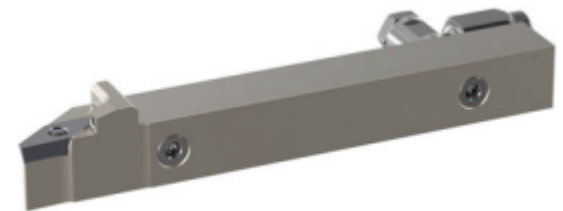
SDJC... U FC\* (93°)



SDJC... U FC\* IC (93°)

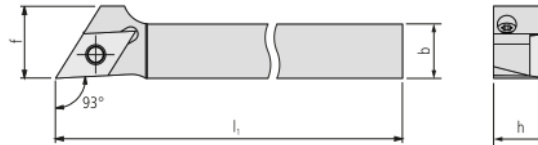
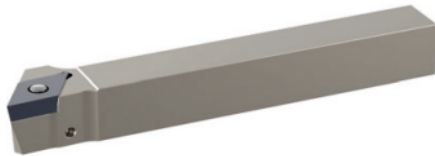


SVJP... FC\* (93°)



SVJP... FC\* IC (93°)

## FC-holder SDJC... with and without internal cooling



SDJC... U FC\* (93°)

Order designation		Dimensions					Inserts
L	R	h	b	l <sub>1</sub>	f		□ 206...
Accuracy class of UTILIS □ 171							
- +							
SDJCL 1012 H11 U FC	SDJCR 1012 H11 U FC	10	12	100	16		DC..01
SDJCL 1212 H11 U FC	SDJCR 1212 H11 U FC	12	12	100	16		DC..01
SDJCL 1616 K11 U FC	SDJCR 1616 K11 U FC	16	16	125	16		DC..1

SDJC... U FC\* (93°) INCH

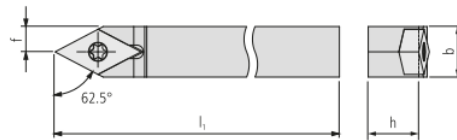
Order designation		Dimensions					Inserts
L	R	h	b	l <sub>1</sub>	f		□ 206...
Accuracy class of UTILIS □ 171							
- +							
SDJCL 1/2" H11 U FC	SDJCR 1/2" H11 U FC	12.7	12.7	100	16		DC..0702..
SDJCL 5/8" K11 U FC	SDJCR 5/8" K11 U FC	15.875	15.875	125	15.875		DC..11T3..



SDJC... U FC\* IC (93°)



## SDNNN.. With and without internal cooling



SDNNN ... (62.5°)

Order designation		Dimensions						Inserts
N		h	b	l <sub>1</sub>	f		∅ 250...	

**STANDARD-LINE**



SDNNN 1012 H11	■			10	12	100	6		
SDNNN 1212 H11	■			12	12	100	6		
SDNNN 1616 K11	■			16	16	125	8		
SDNNN 2020 K11	■			20	20	125	10		
SDNNN 2525 K11	■			25	25	125	12.5		

SDNNN ... (62.5°) INCH

Order designation		Dimensions						Inserts
N		h	b	l <sub>1</sub>	f			

**STANDARD-LINE**



SDNNN 3/8" H11	■			9.525	9.525	100	4.76		DN..11..
SDNNN 1/2" H11	■			12.7	12.7	100	6.35		DN..11..
SDNNN 5/8" K11	■			15.875	15.875	125	7.94		DN..11..
SDNNN 3/4" K11	■			19.05	19.05	125	9.525		DN..11..



SDNNN ... IC (62.5°)

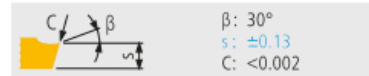
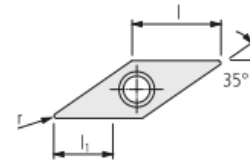
*Typ VC.. (35°)*

## VCGT 0702006 FN-A3

- New inserts in size 07, carbide UHM10 and coating UHM10 HX



VCGT ... -A3



Order designation	Carbide										C19	Cermet	Diamond	Dimensions				Holder □ 279...
	-	-	•	•	•	•	•	•	•	•				l	r	l <sub>1</sub>		
	UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20				

**STANDARD-LINE**



<b>N</b>	VCGT 0702006 FN-A3 ...	■	■												6.8	0.06	3		SV...07...
	VCGT 1103008 FN-A3 ...	■	■	■											11.1	0.08	6		SV...11...
	VCGT 1103015 FN-A3 ...	■	■		■										11.1	0.15	6		SV...11...
	VCGT 1103035 FN-A3 ...	■	■		■										11.1	0.35	6		SV...11...

# *multidec<sup>®</sup>-ISO holder*

*Many toolholder and boring bars to be used with the new insert size VC..07*

- *Tool holders with size 8-12mm with and without internal cooling*
- *Twin-holders with size 8-12mm with and without internal cooling*
- *Boring bars with diameter 10-16mm*



SVJC... U (93°)



SVJC... U IC (93°)



A... SVOC... (140°)



SVHC... U (107.5°)



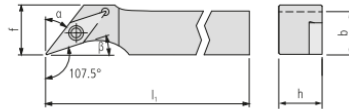
SVJC. (93°)/1600... TWIN

## SVHC.. With and without internal cooling

- New holders for insert VC..07..
- New tool holder INCH
- New with internal cooling



SVHC... U (107.5°)



Order designation		Dimensions							Inserts
L	R	h	b	l <sub>1</sub>	f	a	β	□ 260...	

### STANDARD-LINE

Order designation		Dimensions							Inserts
L	R	h	b	l <sub>1</sub>	f	a	β	□ 260...	
SVHCL 0808 H07 U	SVHCR 0808 H07 U	8	8	100	8	37.5°	17.5°	VC..0702..	
SVHCL 1010 H07 U	SVHCR 1010 H07 U	10	10	100	10	37.5°	17.5°	VC..1103..	
SVHCL 1010 H11 U	SVHCR 1010 H11 U	10	10	100	13	37.5°	17.5°	VC..0702..	
SVHCL 1212 H07 U	SVHCR 1212 H07 U	12	12	100	12	37.5°	17.5°	VC..1103..	
SVHCL 1212 H11 U	SVHCR 1212 H11 U	12	12	100	13	37.5°	17.5°	VC..1103..	
SVHCL 1616 K11 U	SVHCR 1616 K11 U	16	16	125	16	37.5°	17.5°	VC..1103..	



SVHC... U IC (107.5°)

SVHC... U (107.5°) INCH

Order designation		Dimensions							Inserts
L	R	h	b	l <sub>1</sub>	f	a	β	□ 260...	

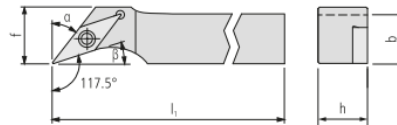
### STANDARD-LINE

Order designation		Dimensions							Inserts
L	R	h	b	l <sub>1</sub>	f	a	β	□ 260...	
SVHCL 3/8" H07 U	SVHCR 3/8" H07 U	9.525	9.525	100	9.525	37.5°	17.5°	VC..0702..	
SVHCL 3/8" H11 U	SVHCR 3/8" H11 U	9.525	9.525	100	13	37.5°	17.5°	VC..1103..	
SVHCL 1/2" H07 U	SVHCR 1/2" H07 U	12.7	12.7	100	12.7	37.5°	17.5°	VC..0702..	
SVHCL 1/2" H11 U	SVHCR 1/2" H11 U	12.7	12.7	100	13	37.5°	17.5°	VC..1103..	
SVHCL 5/8" K11 U	SVHCR 5/8" K11 U	15.875	15.875	125	16	37.5°	17.5°	VC..1103..	



## SVOC.. With and without internal cooling

- New holders for insert VC..07..
- New tool holder INCH
- New with internal cooling



SVOC... U (117.5°)

Order designation		Dimensions							Inserts
L	R	h	b	l <sub>1</sub>	f	a	β	□ 260...	

**STANDARD-LINE**

SVOCL 0808 H07 U	SVOCR 0808 H07 U	h	b	l <sub>1</sub>	f	a	β	VC
SVOCL 1010 H07 U	SVOCR 1010 H07 U	10	10	100	10	27.5°	27.5°	VC
SVOCL 1010 H11 U	SVOCR 1010 H11 U	10	10	100	16	27.5°	27.5°	VC
SVOCL 1212 H07 U	SVOCR 1212 H07 U	12	12	100	12	27.5°	27.5°	VC
SVOCL 1212 H11 U	SVOCR 1212 H11 U	12	12	100	16	27.5°	27.5°	VC
SVOCL 1616 K11 U	SVOCR 1616 K11 U	16	16	125	16	27.5°	27.5°	VC

SVOC... U (117.5°) INCH

Order designation		Dimensions							Int
L	R	h	b	l <sub>1</sub>	f	a	β	□	

**STANDARD-LINE**

SVOCL 3/8" H07 U	SVOCR 3/8" H07 U	h	b	l <sub>1</sub>	f	a	β	VC..0702..
SVOCL 3/8" H11 U	SVOCR 3/8" H11 U	9.525	9.525	100	16	27.5°	27.5°	VC..1103..
SVOCL 1/2" H07 U	SVOCR 1/2" H07 U	12.7	12.7	100	12.7	27.5°	27.5°	VC..0702..
SVOCL 1/2" H11 U	SVOCR 1/2" H11 U	12.7	12.7	100	16	27.5°	27.5°	VC..1103..
SVOCL 5/8" K11 U	SVOCR 5/8" K11 U	15.875	15.875	125	16	27.5°	27.5°	VC..1103..



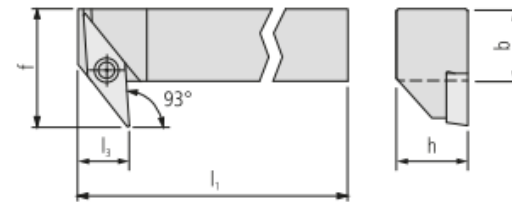
SVOC... U IC (117.5°)

## SVQC..

- New holders for insert VC..07..



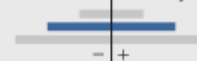
SVQC... (93°)



Order designation		Dimensions							Inserts
L	R	h	b	l <sub>1</sub>	f	l <sub>3</sub>		□ 260...	

**STANDARD-LINE**

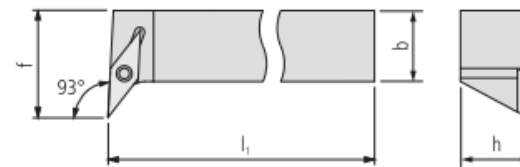
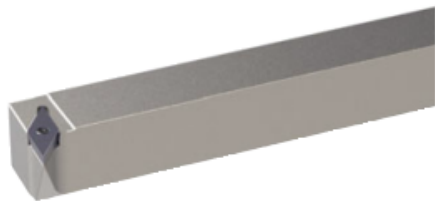
Accuracy class of UTILIS □ 171



SVQCL 0808 H07	■	SVQCR 0808 H07	■	8	8	100	13.5	6	VC..0702..
SVQCL 1010 H07	■	SVQCR 1010 H07	■	10	10	100	15.5	6	VC..0702..
SVQCL 1212 H07	■	SVQCR 1212 H07	■	12	12	100	17.5	6	VC..0702..
SVQCL 1212 H11	■	SVQCR 1212 H11	■	12	12	100	20	8.5	VC..1103..
SVQCL 1616 K11	■	SVQCR 1616 K11	■	16	16	125	24	8.5	VC..1103..

## SVUC..

- New holders for insert VC..07..

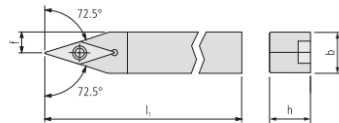
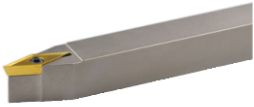


SVUC... (93°)

Order designation		Dimensions								Inserts	
L	R	h	b	l <sub>1</sub>	f					□ 260...	
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #0056b3; color: white; padding: 5px; transform: rotate(-2deg); font-weight: bold;">STANDARD-LINE</div> <div style="text-align: center;">                     Accuracy class of UTILIS □ 171  </div> </div>											
SVUCL 0808 H07	■	SVUCR 0808 H07	■	8	8	100	13.5				VC..0702..
SVUCL 1010 H07	■	SVUCR 1010 H07	■	10	10	100	15.5				VC..0702..
SVUCL 1212 H07	■	SVUCR 1212 H07	■	12	12	100	17.5				VC..0702..
SVUCL 1212 H11	■	SVUCR 1212 H11	■	12	12	100	20				VC..1103..
SVUCL 1616 K11	■	SVUCR 1616 K11	■	16	16	125	24				VC..1103..
SVUCL 2020 K11	■	SVUCR 2020 K11	■	20	20	125	28				VC..1103..

## SVVCN

- *New holders for insert VC..07..*
- *New tool holder INCH*
- *New with internal cooling*



SVVCN ... U (72.5°)

Order designation		Dimensions					Inserts
N		h	b	l <sub>1</sub>	f		□260...
STANDARD-LINE							
Accuracy class of UTILIS □ 171							
SVVCN 0808 F11 U	■	8	8	80	4		VC..11
SVVCN 0808 H07 U	■	8	8	100	4		VC..07
SVVCN 0808 H11 U	■	8	8	100	4		VC..11
SVVCN 1010 F11 U	■	10	10	80	5		VC..11
SVVCN 1010 H07 U	■	10	10	100	5		VC..07
SVVCN 1010 H11 U	■	10	10	100	5		VC..11
SVVCN 1212 F11 U	■	12	12	80	6		VC..11
SVVCN 1212 H07 U	■	12	12	100	6		VC..07
SVVCN 1212 H11 U	■	12	12	100	6		VC..11
SVVCN 1616 H11 U	■	16	16	100	8		VC..11
SVVCN 2020 K11 U	■	20	20	125	10		VC..11
SVVCN 2020 K16 U	■	20	20	125	10		VC..16

SVVCN ... U (72.5°) INCH

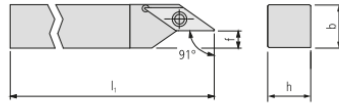
Order designation		Dimensions					Inserts
L	R	h	b	l <sub>1</sub>	f		□260
STANDARD-LINE							
Accuracy class of UTILIS □ 171							
SVVCN 3/8" H07 U	■	9.525	9.525	100	4.76		VC..0702..
SVVCN 3/8" H11 U	■	9.525	9.525	100	4.76		VC..1103..
SVVCN 1/2" H07 U	■	12.7	12.7	100	6.35		VC..0702..
SVVCN 1/2" H11 U	■	12.7	12.7	100	6.35		VC..1103..
SVVCN 5/8" K11 U	■	15.875	15.875	125	7.93		VC..1103..
SVVCN 3/4" K11 U	■	19.05	19.05	125	9.525		VC..1103..
SVVCN 3/4" K16 U	■	19.05	19.05	125	9.525		VC..1604..



SVVCN ... U IC (72.5°)

## SVXC.

- *New holders for insert VC..07..*
- *New with internal cooling*



SVXC... U (91°)

Order designation		Dimensions					Inserts
L	R	h	b	l <sub>1</sub>	f		□ 260...

**STANDARD-LINE**

SVXCL 0808 H07 U	SVXCR 0808 H07 U	8	8	100	2.5	VC.07
SVXCL 1010 F11 U	SVXCR 1010 F11 U	10	10	80	3	VC.11
SVXCL 1010 H07 U	SVXCR 1010 H07 U	10	10	100	4.5	VC.07
SVXCL 1010 H11 U	SVXCR 1010 H11 U	10	10	100	3	VC.11
SVXCL 1212 H07 U	SVXCR 1212 H07 U	12	12	100	6.5	VC.07
SVXCL 1212 H11 U	SVXCR 1212 H11 U	12	12	100	5	VC.11
SVXCL 1616 K11 U	SVXCR 1616 K11 U	16	16	125	9	VC.11
SVXCL 2020 K16 U	SVXCR 2020 K16 U	20	20	125	9	VC.16

SVXC... U (91°) INCH

Order designation		Dimensions					Inserts
L	R	h	b	l <sub>1</sub>	f		□ 260

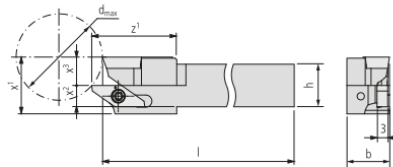
**STANDARD-LINE**

SVXCL 3/8" F11 U	SVXCR 3/8" F11 U	9.525	9.525	80	2	VC.1103..
SVXCL 3/8" H07 U	SVXCR 3/8" H07 U	9.525	9.525	100	4	VC.0702..
SVXCL 3/8" H11 U	SVXCR 3/8" H11 U	9.525	9.525	100	2	VC.1103..
SVXCL 1/2" H07 U	SVXCR 1/2" H07 U	12.7	12.7	100	7.2	VC.0702..
SVXCL 1/2" H11 U	SVXCR 1/2" H11 U	12.7	12.7	100	5	VC.1103..
SVXCL 5/8" K11 U	SVXCR 5/8" K11 U	15.875	15.875	125	8	VC.1103..
SVXCL 3/4" K16 U	SVXCR 3/4" K16 U	19.05	19.05	125	8	VC.1604..



SVXC... U IC (91°)

## TWIN-holder SVJC./1600 with and without internal cooling



SVJC. (93°)/1600... TWIN

Order designation		Dimensions								Inserts	
R R		h	b	l	z'	x¹	x²	x³	d_max	□ 260...	□ 47...
Accuracy class of UTILIS □ 171											
-   +											
	SVJCR/1600R-0810 H07 Twin	8	10	100	24	16	4	8	24	VC_01	
	SVJCR/1600R-1010 H07 Twin	10	10	100	24	16	5	8	24	VC_01	
	SVJCR/1600R-1212 H07 Twin	12	12	100	24	16	6	8	24	VC_01	
	SVJCR/1600R-0810 H11 Twin	8	10	100	24	16	4	8	24	VC_11	
	SVJCR/1600R-1010 H11 Twin	10	10	100	24	16	5	8	24	VC_11	
	SVJCR/1600R-1212 H11 Twin	12	12	100	24	16	6	8	24	VC_11	
	SVJCR/1600R-1616 K11 Twin	16	16	125	24	20	8	10	36	VC_11	
	SVJCR/1600R-2020 K11 Twin	20	20	125	24	24	8	14	68	VC_11	

SVJC. (93°)/1600... TWIN INCH

Order designation		Dimensions								Inserts	
R R		h	b	l	z'	x¹	x²	x³	d_max	□ 260	
Accuracy class of UTILIS □ 171											
-   +											
	SVJCR/1600R-3/8" H07 Twin	9.525	9.525	100	24	16	4.76	8	24	VC_0702..	16...
	SVJCR/1600R-1/2" H07 Twin	12.7	12.7	100	24	16	6.35	8	24	VC_0702..	16...
	SVJCR/1600R-3/8" H11 Twin	9.525	9.525	100	24	16	4.76	8	24	VC_1103..	16...
	SVJCR/1600R-1/2" H11 Twin	12.7	12.7	100	24	16	6.35	8	24	VC_1103..	16...
	SVJCR/1600R-5/8" K11 Twin	15.875	15.875	125	24	20	7.94	10	36	VC_1103..	16...
	SVJCR/1600R-3/4" K11 Twin	19.05	19.05	125	24	24	7.53	14	68	VC_1103..	16...



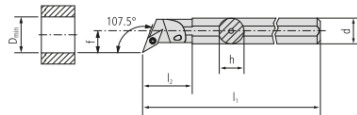
SVJC. (93°)/1600... TWIN IC

## Boring bars A..SVQ.. (107.5°), A..SVOC.. (140°), A..SVUC..(93°)

- New boring bars for inserts VC..07..



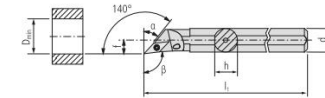
A... SVQC... (107.5°)



Order designation		Dimensions							Inserts
L	R	d	h	l <sub>1</sub>	l <sub>2</sub>	f	D <sub>min</sub>	□260...	
Accuracy class of UTILIS □ 171									
- +									
A10 H SVQCL 07	A10 H SVQCR 07	10	9.5	100	23	8	16	VC..0702..	
A12 K SVQCL 07	A12 K SVQCR 07	12	11.5	125	25	9	17	VC..0702..	
A16 M SVQCL 07	A16 M SVQCR 07	16	15	150	29	11	20	VC..0702..	
A16M SVQCL 11	A16M SVQCR 11	16	15	150	29	11	20	VC..1103..	
A20Q SVQCL 11	A20Q SVQCR 11	20	18.5	180	32	13	25	VC..1103..	



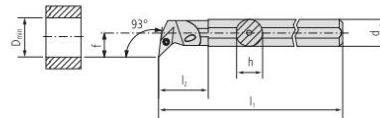
A... SVOC... (140°)



Order designation		Dimensions							Inserts	
L	R	d	h	l <sub>1</sub>	l <sub>2</sub>	f	D <sub>min</sub>	alpha	beta	□260...
Accuracy class of UTILIS □ 171										
- +										
A10 H SVOCL 07	A10 H SVOCR 07	10	9.5	100	6	16	50°	95°	VC..07..	
A12 K SVOCL 07	A12 K SVOCR 07	12	11.5	125	7	17	50°	95°	VC..07..	
A12K SVOCL 11	A12K SVOCR 11	12	11.5	125	7	17	50°	95°	VC..11..	
A16 M SVOCL 07	A16 M SVOCR 07	16	15.5	150	9	20	50°	95°	VC..07..	
A16M SVOCL 11	A16M SVOCR 11	16	15.5	150	9	20	50°	95°	VC..11..	



A... SVUC... (93°)



Order designation		Dimensions							Inserts
L	R	d	h	l <sub>1</sub>	l <sub>2</sub>	f	D <sub>min</sub>	□260...	
Accuracy class of UTILIS □ 171									
- +									
A10 K SVUCL 07	A10 K SVUCR 07	10	9.5	100	23	8	16	VC..0702..	
A12 K SVUCL 07	A12 K SVUCR 07	12	11.5	125	25	9	17	VC..0702..	
A16 M SVUCL 07	A16 M SVUCR 07	16	15.5	150	29	11	20	VC..0702..	
A16M SVUCL 11	A16M SVUCR 11	16	15	150	29	11	20	VC..1103..	
A20Q SVUCL 11	A20Q SVUCR 11	20	18.5	180	32	13	25	VC..1103..	

*Typ VP.. 1003... (35°)*

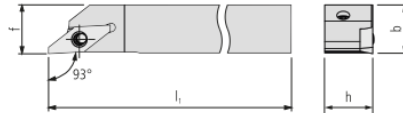


## FC-holder SVJP.. with and without internal cooling

- Reinforced tool holders «V» FC / «V» FC IC



SVJP... FC\* (93°)



Order designation		Dimensions						Inserts
L	R	h	b	l <sub>1</sub>	f			□ 300...
STANDARD-LINE								
Accuracy class of UTILIS □ 171								
SVJPL 1212 H10 FC	SVJPR 1212 H10 FC	12	12	100	12			VP..1003..
SVJPL 1616 K10 FC	SVJPR 1616 K10 FC	16	16	125	16			VP..1003..

SVJP... FC\* (93°) INCH

Order designation		Dimensions						Inserts
L	R	h	b	l <sub>1</sub>	f			□ 300...
STANDARD-LINE								
Accuracy class of UTILIS □ 171								
SVJPL 1/2" H10 FC	SVJPR 1/2" H10 FC	12.7	12.7	100	12.7			VP..1003..
SVJPL 5/8" K10 FC	SVJPR 5/8" K10 FC	15.875	15.875	125	15.875			VP..1003..



SVJP...V FC\* (93°)



SVJP...V FC\* IC (93°)



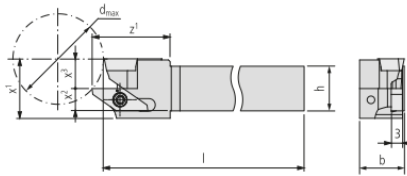
SVJP... FC\* IC (93°)

## TWIN-holder SVJP./1600 with and without internal cooling

- Many different combinations R-R / R-L



SVJP. (93°)/1600... TWIN (R-R)



Order designation	Dimensions							Inserts		
	h	b	l	z¹	x¹	x²	x³	d <sub>max</sub>	□ 300...	□ 47...
Accuracy class of UTILIS □ 171										
SVJPR/1600R-0810 H10 Twin	8	10	100	21	16	4	8	23	VP..1003..	16...
SVJPR/1600R-1010 H10 Twin	10	10	100	21	16	5	8	23	VP..1003..	16...
SVJPR/1600R-1212 H10 Twin	12	12	100	21	16	6	8	23	VP..1003..	16...
SVJPR/1600R-1616 K10 Twin	16	16	125	21	20	8	10	34	VP..1003..	16...
SVJPR/1600R-2020 K10 Twin	20	20	125	21	24	8	14	63	VP..1003..	16...

STANDARD-LINE



SVJP. (93°)/1600... TWIN (R-L)



SVJP. (93°)/1600... TWIN IC (R-L)

SVJP. (93°)/1600... TWIN INCH (R-R)

Order designation	Dimensions							Inserts		
	h	b	l	z¹	x¹	x²	x³	d <sub>max</sub>	□ 300...	□ 47...
Accuracy class of UTILIS □ 171										
SVJPR/1600R-3/8" H10 Twin	9.525	9.525	100	21	16	4.76	8	23	VP..1003..	16...
SVJPR/1600R-1/2" H10 Twin	12.7	12.7	100	21	16	6.35	8	23	VP..1003..	16...
SVJPR/1600R-5/8" K10 Twin	15.875	15.875	125	21	20	7.94	10	34	VP..1003..	16...
SVJPR/1600R-3/4" K10 Twin	19.05	19.05	125	21	24	7.53	14	63	VP..1003..	16...

STANDARD-LINE



SVJP. (93°)/1600... TWIN IC (R-R)

# multidec®-TOP, Halter Y-AXIS

## Ideal chip removal

- For long-chipping materials
- Tangled chips are optimally removed
- All tool holders with internal cooling
- Different overhang lengths enable the processing of different diameters



SVJP.YA... IC (93°)

Order designation		Dimensions									Inserts
L	R	h	b	l <sub>1</sub>	z <sup>1</sup>	x <sup>1</sup>	f	c	d	□300...	
<b>PREMIUM-LINE</b>											
Accuracy class of UTILIS □ 171 —+—											
	SVJPR YA-1212 H10-20 IC	■	12	12	100	20	19.5	M5	M5	VP.. 1003...	
	SVJPR YA-1212 H10-25 IC	■	12	12	100	25	19.5	M5	M5	VP.. 1003...	
	SVJPR YA-1212 H10-30 IC	■	12	12	100	30	19.5	M5	M5	VP.. 1003...	
	SVJPR YA-1616 K10-20 IC	■	16	16	125	20	19.5	M5	G1/8	VP.. 1003...	
	SVJPR YA-1616 K10-25 IC	■	16	16	125	25	19.5	M5	G1/8	VP.. 1003...	
	SVJPR YA-1616 K10-30 IC	■	16	16	125	30	19.5	M5	G1/8	VP.. 1003...	

SVJP.YA... IC (93°) INCH

Order designation		Dimensions									Inserts
L	R	h	b	l <sub>1</sub>	z <sup>1</sup>	x <sup>1</sup>	f	c	d	□300...	
<b>PREMIUM-LINE</b>											
Accuracy class of UTILIS □ 171 —+—											
	SVJPR YA-1/2" H10-20 IC	■	12.7	12.7	100	20	19.5	M5	M5	VP.. 1003...	
	SVJPR YA-1/2" H10-25 IC	■	12.7	12.7	100	25	19.5	M5	M5	VP.. 1003...	
	SVJPR YA-1/2" H10-30 IC	■	12.7	12.7	100	30	19.5	M5	M5	VP.. 1003...	
	SVJPR YA-5/8" K10-20 IC	■	15.875	15.875	125	20	19.5	M5	G1/8	VP.. 1003...	
	SVJPR YA-5/8" K10-25 IC	■	15.875	15.875	125	25	19.5	M5	G1/8	VP.. 1003...	
	SVJPR YA-5/8" K10-30 IC	■	15.875	15.875	125	30	19.5	M5	G1/8	VP.. 1003...	

*Solid carbide tools*

***multidec®-BORE MICRO***



**326**

***multidec®-BROACH***



**360**

***multidec®-DRILL***



**366**

***multidec®-THREADMILL***



**372**

***multidec®-GRAVER***



**386**

## *Broaching tools in standard assortment*

- *short processing times*
- *Can be used in tool holders SD ...*
- *complex geometries with sharp corners feasible*
- *Full profile tools reduces the number of strokes*
- *reliable with long service life*



*Square punch*



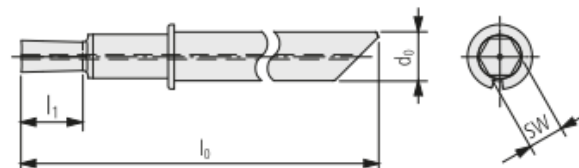
*Hexagonal punch*



*Torx punch*



## Standard programm for hexagonal punches



SD-BRH ...

Order designation	Carbide <input type="checkbox"/> 19	Dimensions						Holder	
		SW	l <sub>1</sub>	d <sub>0</sub>	l <sub>0</sub>			<input type="checkbox"/> 352...	
	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> UHM 20								
Accuracy class of UTILIS <input type="checkbox"/> 362									
SD-BRH 435 100 ...		1	1.5	4	35				SDA 4...
SD-BRH 435 150 ...		1.5	2	4	35				SDA 4...
SD-BRH 435 200 ...		2	2.5	4	35				SDA 4...
SD-BRH 435 300 ...		3	3.5	4	35				SDA 4...
SD-BRH 644 400 ...		4	6	6	44				SDA 6...
SD-BRH 850 500 ...		5	7	8	50				SDA 8...
SD-BRH 850 600 ...		6	8	8	50				SDA 8...

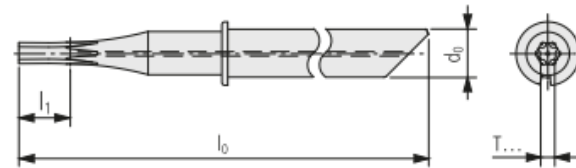
**PREMIUM-LINE**

Standard programm for Torx punches

- Only uncoated available



SD-BRT ...



Order designation	Carbide □ 19 UHM 20	Standard ISO 10664	Dimensions						Holder □ 352...
			$l_1$	$d_0$	$l_0$				
SD-BRT 440 002 ...	■	T2	1.5	4	40				SDA 4...
SD-BRT 440 003 ...	■	T3	1.5	4	40				SDA 4...
SD-BRT 440 006 ...	■	T6	2.5	4	40				SDA 4...
SD-BRT 440 008 ...	■	T8	2.5	4	40				SDA 4...
SD-BRT 440 010 ...	■	T10	3.5	4	40				SDA 4...
SD-BRT 644 020	■	T20	6	6	44				SDA 6...
SD-BRT 644 030 ...	■	T30	8	6	44				SDA 6...
SD-BRT 850 040 ...	■	T40	9	8	50				SDA 8...

**PREMIUM-LINE**

Accuracy class of UTILIS □ 362





*Standard assortment precision center drill 90°, 120° and 140°*



*DRP...*

- *Tiny death center*
- *Self centering*
- *Point angle fits drills*



*DRS... / DRL...*

- *Matched to the core diameter of metric threads*
- *Short version 3x D, long version 6xD*





## *Carbide graver standard program and blanks*

- *standardized tools with point angle of 30 °, for engraving from 0.2 to 2 mm*
- *blanks, with lapped rake surface, for individually sharpenable tools*
- *Short and Long versions*



## Carbide graver blanks

- FGA.. short, FGB.. long

Bestell-Bezeichnung	Hartmetall □ 19 UHM 20	Dimensionen					Halter
		$l_1$	$l_0$	$d_0$			
							UTILIS-Genauigkeitsklasse □ 388
							-   +
FGA 020 032 ...	■	3	32	2			
FGA 025 032 ...	■	4	32	2.5			
FGA 030 036 ...	■	5	36	3			
FGA 040 042 ...	■	6	42	4			
FGA 050 050 ...	■	8	50	5			
FGA 060 060 ...	■	10	60	6			
FGA 080 060 ...	■	12	60	8			
FGA 100 060 ...	■	15	60	10			

### FGB ...

Bestell-Bezeichnung	Hartmetall □ 19 UHM 20	Dimensionen					Halter
		$l_1$	$l_0$	$d_0$			
							UTILIS-Genauigkeitsklasse □ 388
							-   +
FGB 020 042 ...	■	4	42	2			
FGB 025 042 ...	■	5	42	2.5			
FGB 030 050 ...	■	6	50	3			
FGB 040 060 ...	■	8	60	4			
FGB 050 075 ...	■	10	75	5			
FGB 060 100 ...	■	12	100	6			
FGB 080 100 ...	■	16	100	8			
FGB 100 100 ...	■	20	100	10			



## Carbide graver

- FGQ.. short FGR.. long

Bestell-Bezeichnung	Hartmetall <input type="checkbox"/> 19	Dimensionen						Halter
		d <sub>1</sub>	α	l <sub>1</sub>	l <sub>0</sub>	d <sub>0</sub>		
	UHM 20							
								UTILIS-Genauigkeitsklasse <input type="checkbox"/> 388
								-   +
FGQ 020 032 ...	■	0.2	30°	3	32	2		
FGQ 025 032 ...	■	0.4	30°	4	32	2.5		
FGQ 030 036 ...	■	0.5	30°	5	36	3		
FGQ 040 042 ...	■	0.6	30°	6	42	4		
FGQ 050 050 ...	■	0.8	30°	8	50	5		
FGQ 060 060 ...	■	1	30°	10	60	6		
FGQ 080 060 ...	■	1.5	30°	12	60	8		
FGQ 100 060 ...	■	2	30°	15	60	10		

### FGR ...

Bestell-Bezeichnung	Hartmetall <input type="checkbox"/> 19	Dimensionen						Halter
		d <sub>1</sub>	α	l <sub>1</sub>	l <sub>0</sub>	d <sub>0</sub>		
	UHM 20							
								UTILIS-Genauigkeitsklasse <input type="checkbox"/> 388
								-   +
FGR 020 042 ...	■	0.2	30°	4	42	2		
FGR 025 042 ...	■	0.4	30°	5	42	2.5		
FGR 030 050 ...	■	0.5	30°	6	50	3		
FGR 040 060 ...	■	0.6	30°	8	60	4		
FGR 050 075 ...	■	0.8	30°	10	75	5		
FGR 060 100 ...	■	1	30°	12	100	6		
FGR 080 100 ...	■	1.5	30°	16	100	8		
FGR 100 100 ...	■	2	30°	20	100	10		

Whirling tools

***multidec***<sup>®</sup>-WHIRLING



392

# *multidec<sup>®</sup>-WHIRLING*





*Simplifying the search for the driven tool with new columns with tool types A, B and C.*

Maschine		Angetriebenes Werkzeug	
Hersteller	Typ	Hersteller	Typ
BENZINGER	TNI	WTO	350..
	A 20	CITIZEN	■
	A 2 20	MADAULA	■
	A 2 32	PCM	■
	A 3 20		■
	A 32	CITIZEN	■

*old*

Maschine		Angetriebenes Werkzeug			
Hersteller	Typ	Hersteller	Typ		
			A	B	C
			400 ..	460 ..	464 ..
BENZINGER	TNI	WTO	■	■	■
	A 20	CITIZEN	■	■	■
	A 2 20	CITIZEN	■	■	■
	A 3 20	CITIZEN	■	■	■

*NEW*

*Program enhancement with various new driven tools and whirling heads on a total of 74 pages*



MWT... (Typ A)



MWT... (Typ B)



MWT... (Typ C)



MWT... (HSK...)



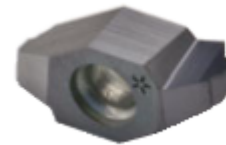
MWT... (PSC...)



MWT... (ER...)

## New carbide for whirling inserts

Order designation	Carbide					
	-	-	-	-	-	-
	○	○	○	○	○	○
	●	●	○	○	○	○
	UHM 10	UHM 10 HX	UHM 20	UHM 20 HPX	UHM 30	UHM 30 HX
<b>PREMIUM-LINE</b>						
MWI06 164 M1.4 VP ...	■	■	■	■	■	■
MWI06 164 M1.6 VP ...	■	■	■	■	■	■
MWI06 164 M2x0.25 VP ...	■	■	■	■	■	■
MWI06 164 M2 VP ...	■	■	■	■	■	■
MWI06 164 M3x0.35 VP ...	■	■	■	■	■	■
MWI06 164 M3 VP ...	■	■	■	■	■	■
MWI12 164 M1.6 VP ...	■	■	■	■	■	■
MWI12 164 M2x0.25 VP ...	■	■	■	■	■	■
MWI12 164 M2 VP ...	■	■	■	■	■	■
MWI12 164 M2.5 VP ...	■	■	■	■	■	■
MWI12 164 M3x0.35 VP ...	■	■	■	■	■	■



- *UHM20 HPX is used most and makes good results in stainless steels as well*
- *UHM10 HX is used in titanium grades 5, 6 and 7*

## *Digital inclinometer*



- *simple, accurate and fast adjustment of the thread pitch angle*
- *magnets on the housing for easy attachment*
- *easy to set*

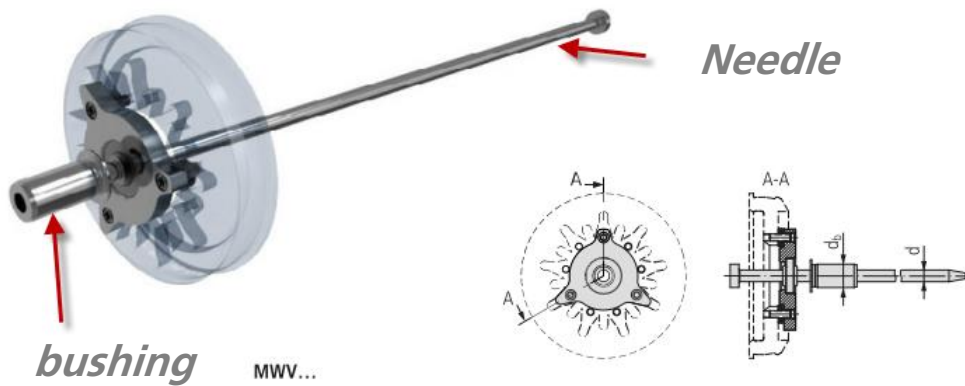
UMI ...

Order designation

UMI DI-490

## Centering device to adjust the point height

- easy manual of the center by inserting the needle into a bushing which is mounted in the machine spindle



Order designation		Dimensions			
		D <sub>F</sub>	d	d <sub>b</sub>	z
MWV06 07 402000	■	6	4	6, 8, 10	7
MWV06 00 402000	■	6	4	6, 8, 10	9, 12
MWV12 00 402000	■	12	4	6, 8, 10	9, 12
MWV15 00 402000	■	15	4	6, 8, 10	9, 12
MWV25 00 402000	■	25	4	6, 8, 10	9, 12

## Measuring the difference in length of the driven tool

### Measurement of length difference

multidec®-WHIRLING

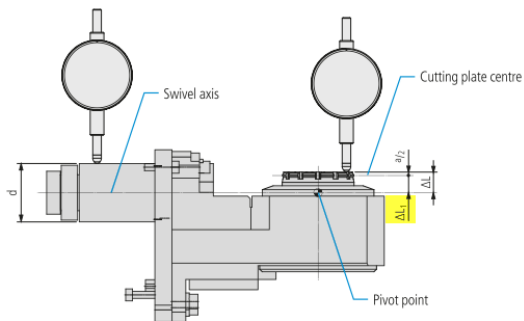
The measurement of the length difference  $\Delta L_1$  is appropriate for determination when the following situations exist:

- New whirling tool or holder
- Checking the  $\Delta L_1$
- After a machine collision
- Point height compensation

Outside the machine the length difference  $\Delta L_1$  must be determined using the height measuring device for calculating the point height and correcting it if necessary using the following procedure:

1. The swivel axis is usually the centre axis of the arbor. In order to do this, the diameter  $d$  must be measured and halved. This position must be zeroed and used as a reference for further measurement.
2. We take the uppermost surface of the cutting edge as the second measuring point. The difference results in  $\Delta L$ .
3. Use dimension  $\frac{1}{2}$  (half the cutting edge width) in accordance with the whirling tool designation for the remaining calculation. The length difference  $\Delta L_1$  is calculated from this, whereby the exact point height compensation can be adjusted.

See usage examples □ 485



Whirling tool designation	$\frac{1}{2}$	$\Delta L$	$\Delta L_1 = \Delta L - \frac{1}{2}$
MWT. 164 ... ..	2		
MWT. 166 ... ..	3		
MWT. 168 ... ..	4		

*In order to be able to correctly set the cutting height, the predefined dimension  $\Delta L_1$  must be determined. The manual on page 486 supports you.*



Tool systems ... 493

*multidec*<sup>®</sup>-SHORT



494

*multidec*<sup>®</sup>-BACKTOOLS



502

*multidec*<sup>®</sup>-MODULINE



532

*multidec*<sup>®</sup>-TECKO



542

*multidec*<sup>®</sup>-KM<sup>™</sup>



549

*multidec*<sup>®</sup>-HSK



560

*multidec*<sup>®</sup>-PSC



572

*multidec*<sup>®</sup>-MULTITASK



582

*multidec*<sup>®</sup>-ESCOMATIC



606

*multidec*<sup>®</sup>-TORNOS DECO



614

## Tool holders version short IC-S

- Useable as short tool holder with internal cooling or compatible with the Sandvik QS system
- Tool holder with 3 connection options.



**Transfer the tube from QS-System and mount it on the IC-S holder**



## *Tool holder assortment short IC-S*

- *Square shank 12, 16mm and INCH 1/2, 5/8 for inserts CUT, ISO und TOP*



1600... IC-S



SVJP... IC-S (93°)



SVJP... V IC-S (93°)



SVJC... IC-S (93°)

*Diverse Ergänzungen des bestehenden Programms mit Grundhaltern, Wendeplattenhaltern und Zwischenplatten*

- NEW**
- *Tool holder for comet insert W01 34 ..*
  - *CUT 1600 holder with 45 °*
  - *Collet holder size ER 08*
  - *Bore Micro holder SDA-4, 6, 8*



MBS ...-W0134



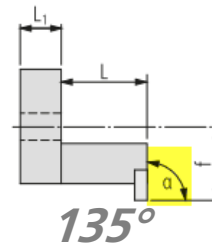
MBS E...



MBS ...-Cut ...



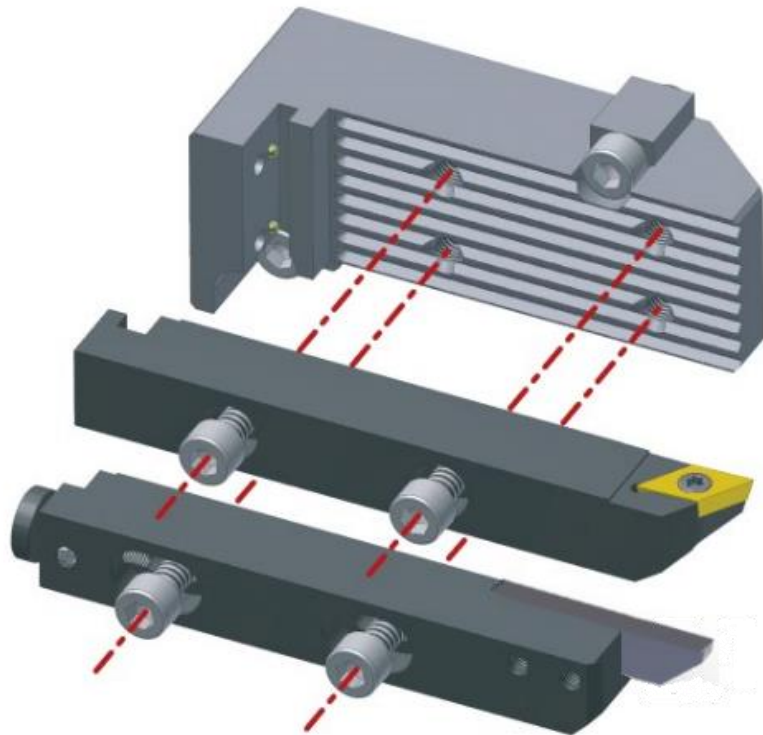
MBS ...-Cut .A ...



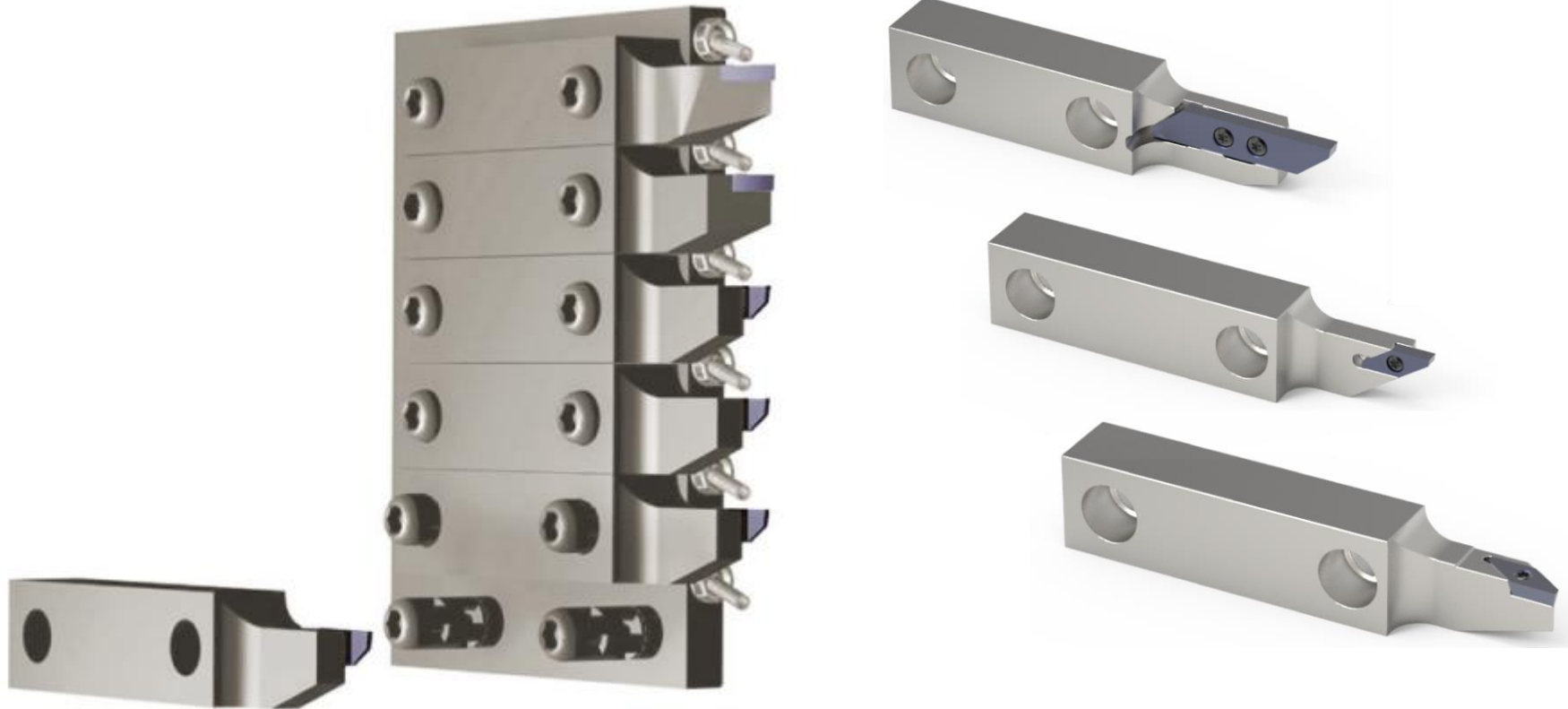
MBS SDA...

# multidec<sup>®</sup>-MODULINE

*No changes, tool holder with internal cooling on request*



*No changes*



# *multidec<sup>®</sup>-KM Micro, -KM Mini, KM TS*

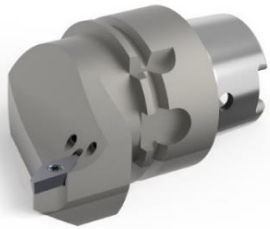
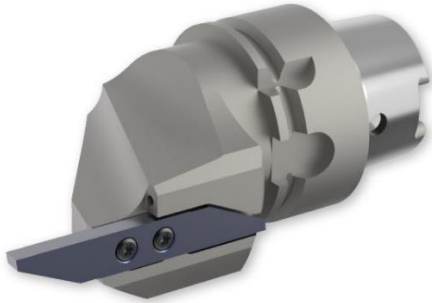
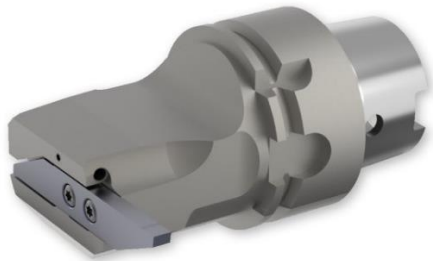
*No changes*

*Reminder: KM32+KM40 compatible with Ceratizit  
UT32+UT40*

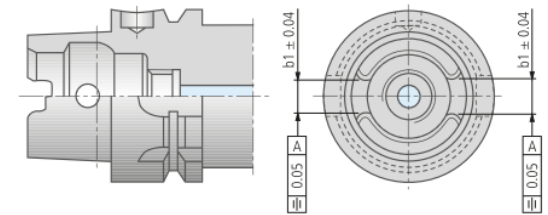


*No changes*

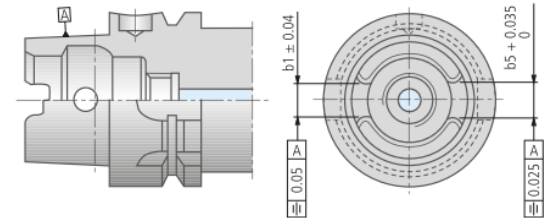
*Size 32 and 40 standard other sizes on request*



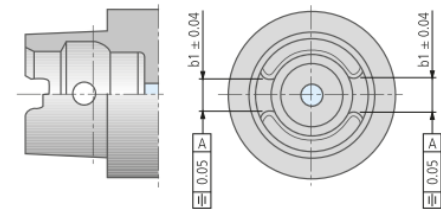
HSK – Form A



HSK – Form T



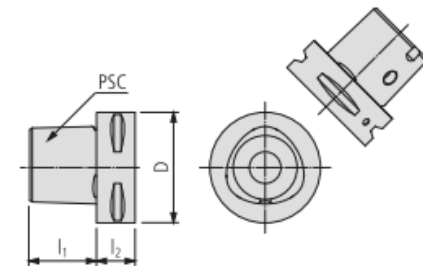
HSK – Form C



*No changes*

*Size 32 and 40 standard other sizes on request*

*Reminder: KM32+KM40 compatible with Capto (Sandvik Coromant)*



Grösse	Dimensionen			
	Sandvik Coromant Capto <sup>®</sup>	D	l <sub>1</sub>	l <sub>2</sub>
32	C3	32	19	15
40	C4	40	24	20
50	C5	50	30	20
63	C6	63	38	22
80	C8	80	48	30
100	C10	100	60	32

# *multidec<sup>®</sup>-MULTITASK, HSK and PSC*

*Holder assortment with monobloc tools for turning-milling centers by  
Willemin-Macodel and Bumotec*





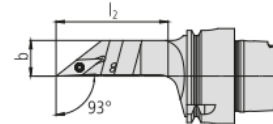
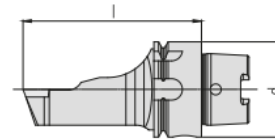
# multidec®-MULTITASK, HSK and PSC

## Assortment enhancement

- New tools HSK-T32 and HSK-T40 in the standard program
- All holders type SVJC .. new also for new insert VC..07
- ..



HSK... MT SVJC... (93°)

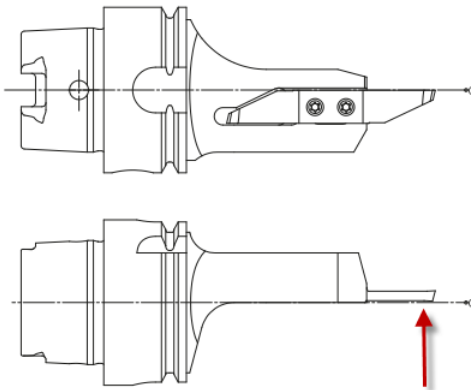


Bestell-Bezeichnung		Form / Grösse	Dimensionen				Schneiden	
L	R	HSK	d	b	l	l <sub>2</sub>		□ 259...
HSK-T32 MT SVJCL 07	■ HSK-T32 MT SVJCR 07	■ T32	32	12	65	36		VC.. 0702..
HSK-T32 MT SVJCL 11	■ HSK-T32 MT SVJCR 11	■ T32	32	12	65	36		VC.. 1103..
HSK-T40 MT SVJCL 07	■ HSK-T40 MT SVJCR 07	■ T40	40	15	75	46		VC.. 0702..
HSK-T40 MT SVJCL 11	■ HSK-T40 MT SVJCR 11	■ T40	40	15	75	46		VC.. 1103..
HSK-T40 MT SVJCL 13	■ HSK-T40 MT SVJCR 13	■ T40	40	15	75	46		VC.. 1303..
HSK-A40 MT SVJCL 07	■ HSK-A40 MT SVJCR 07	■ A40	40	15	75	46		VC.. 0702..
HSK-A40 MT SVJCL 11	■ HSK-A40 MT SVJCR 11	■ A40	40	15	75	46		VC.. 1103..
HSK-A40 MT SVJCL 13	■ HSK-A40 MT SVJCR 13	■ A40	40	15	75	46		VC.. 1303..

# multidec<sup>®</sup>-MULTITASK, HSK and PSC

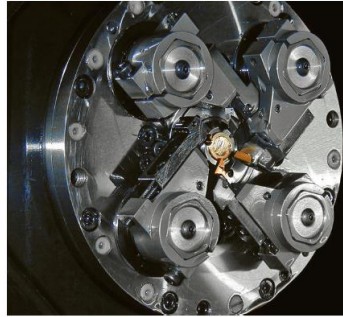
## Main features

- The cutting edge is positioned on the centerline, to reduce the torsion on the spindle and for a more accurate center height.
- Multitask tool holders always have "MT" in their designation.



Order designation				Form / Size
<b>L</b>		<b>R</b>		HSK
HSK-T32 MT CUT 3000 L	■	HSK-T32 MT CUT 3000 R	■	T32
HSK-T40 MT CUT 3000 L	■	HSK-T40 MT CUT 3000 R	■	T40
HSK-A40 MT CUT 3000 L	■	HSK-A40 MT CUT 3000 R	■	A40

# multidec®-ESCOMATIC



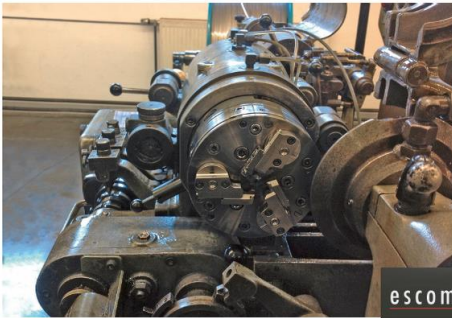
escomatic **EC 08**

escomatic **EC 12**

escomatic **NM 64X**

escomatic **NM 6 Flexi**

- *Maximum productivity through the use of insert*
- *Inserts with 2 cutting edges*
- *No regrinding*
- *Fast and easy insert change*
- *Short downtimes*



escomatic **D6**



escomatic **D2/D4/D5**



- *Traditional system*

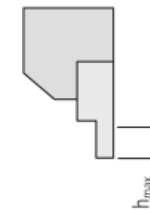
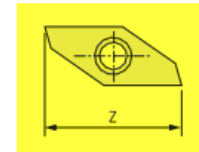
## *Assortment enhancement*

- *2 new typed of holder for Newmach NM64x*



*Depending on the insert length, the short travel of the machine may not be enough. Therefore, it is important to know the length of the insert to select the matching holder.*

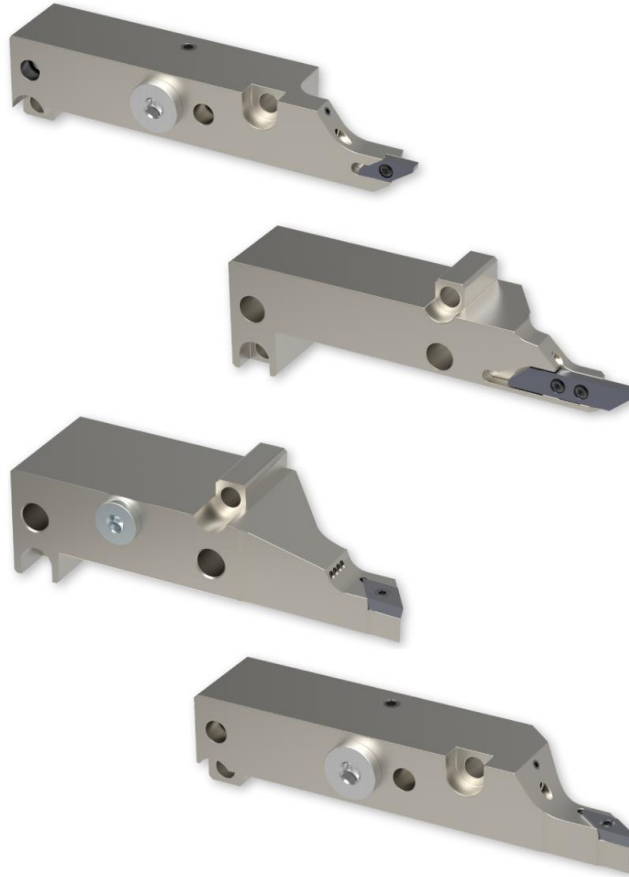
## New holders for CUT 1600 inserts



ESCO ... CUT 1600 .

Order designation	Execution			Machine type	Dimensions		Inserts □ 47...
	L	N	R		z	h <sub>max</sub>	
ESCO 503-0679 CUT 1600 R			■	EC 08	15-16	5	16...
ESCO 503-0403 CUT 1600 R*			■	EC 08	13-14	4	16...
ESCO 403-0875 CUT 1600 R*			■	EC 12	13-14	4	16...
ESCO 303-1711 CUT 1600 R			■	NM 64 X	15-16	5	16...
ESCO 303-2126 CUT 1600 R			■	NM 64 X	14-15	5	16...
ESCO 303-2125 CUT 1600 R			■	NM 64 X	14.5-15.5	4.5	16...
ESCO 303-1657 CUT 1600 R*			■	NM 64 X	13-14	4	16...
ESCO D6-12-5451 CUT 1600 R			■	D6	15	5	16...
ESCO D6-12-5452 CUT 1600 L	■			D6	15	5	16...
ESCO D2-R-6353 CUT 1600 R*			■	D2, D4, D5	14	4	16...
ESCO D2-R-6353-1 CUT 1600 R			■	D2, D4, D5	15	5	16...

*No changes*



Accessories ... 625

***multidec®-LUB***



626

***Coolant connections***



632

***multidec®-TAPER-IN***



656

***Screwdriver***



664

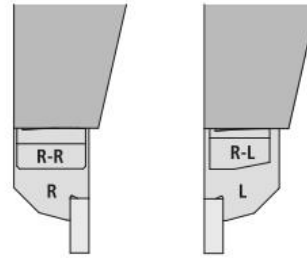
***Collets / Reduction sleeves***



670

## Clamping wedges with integrated cooling and adjustable stop

- New positions clamping wedges
- Actual Standing List on the webshop or can be found with the us of the QR code



### MLU... IC CITIZEN

R-R: Clamping shim for right-hand holders "R"; R-L: Clamping shim for left-hand holders "L"

Type of machine	Tool plate	Holder	Positions	Order designation			
R07	QFT4308	8 × 8	T11–T12	MLU CI-12 R-R IC-F	■	MLU CI-12 R-L IC-F	■
L12	GTF7020	8 × 8	T1–T6	MLU CI-10 R-R IC-F	■	MLU CI-10 R-L IC-F	■
L12	GTF7010L	¾" (9.525)	T1–T6	MLU CI-07 R-R IC-F	■	MLU CI-07 R-L IC-F	■
C16, K12, K16, M16	GTF6010, BTF1010, GTF5110, GTF5210	10 × 10	T1–T6	MLU CI-02 R-R IC-F	■	MLU CI-02 R-L IC-F	■
K12, L12	GTF7010	10 × 10	T1–T6	MLU CI-09 R-R IC-F	■	MLU CI-09 R-L IC-F	■
L16	GTF3110	10 × 10	T1–T4	MLU CI-14 R-R IC-F	■	MLU CI-14 R-L IC-F	■
A20, K12, K16, L20, M16	BTF1012, GTF3812	12 × 12	T1–T6	MLU CI-01 R-R IC-F	■	MLU CI-01 R-L IC-F	■
A20, L20	GTF3612, BTF2212, BTF2412	12 × 12	T2–T5	MLU CI-01 R-R IC-F	■	MLU CI-01 R-L IC-F	■
A20, M20	BTF2413, GTF2513	12 × 12	T1–T6	MLU CI-05 R-R IC-F	■	MLU CI-05 R-L IC-F	■
A20, L20	BTF2213, BTF2413, GTF3113	½" (12.7)	T2–T6	MLU CI-03 R-R IC-F	■	MLU CI-03 R-L IC-F	■
M32	GTF5216, GTF5816	16 × 16, ¾" (15.875)	T1–T5	MLU CI-08 R-R IC-F	■	MLU CI-08 R-L IC-F	■
L25, L32	GTF4016, GTF4516	16 × 16, ¾" (15.875)	T11–T15	MLU CI-08 R-R IC-F	■	MLU CI-08 R-L IC-F	■
L20	BTF2413, GTF3612	16 × 16, ¾" (15.875)	T1 (Cut Off)	MLU CI-08 R-R IC-F	■	MLU CI-08 R-L IC-F	■



The latest information about multidec®-LUB

<https://www.utilis.com/online-business/utilis-website/multidec/lub/utilis-multidec-lub-actual-standing-list-08.2017.pdf>

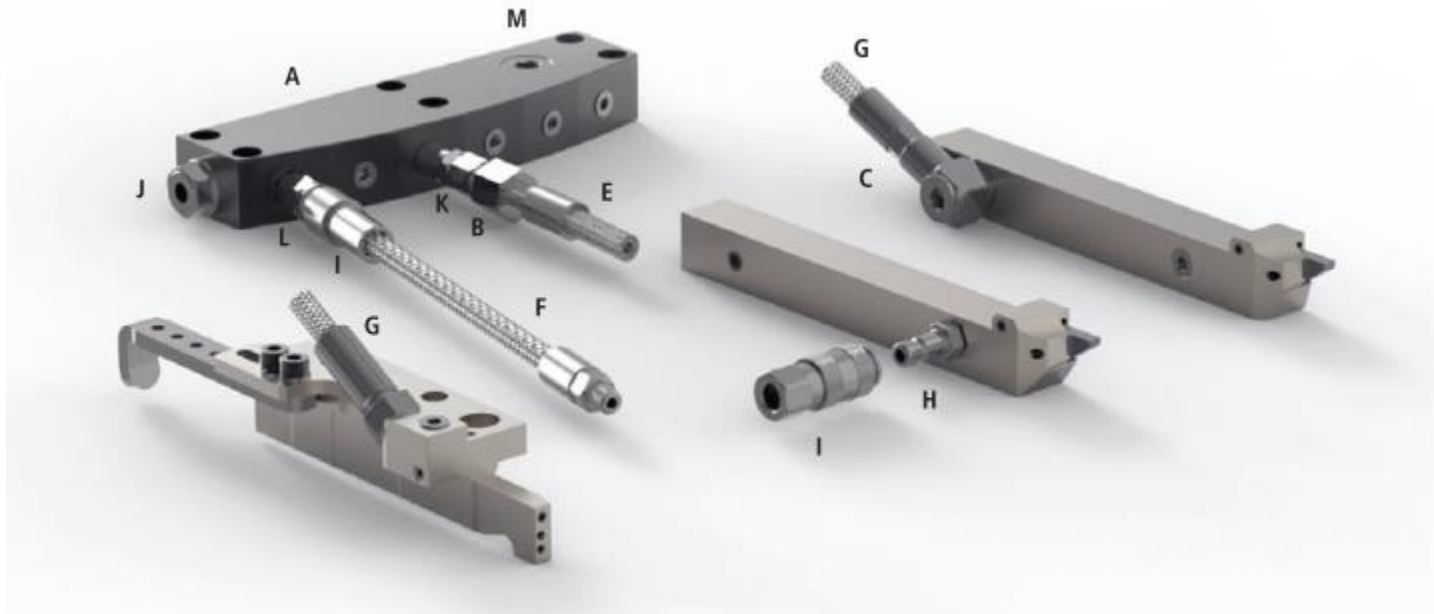


*Clamping wedges setting "SE" without internal cooling have been removed from the standard program*



**MLU... SE CITIZEN**

*Coolant connections high and low pressure.  
Complete revision of the assortment*



## Coolant tubes

- *Only one size in standard assortment anymore*
- *Dimension «l» 3mm or 3.7mm for 50% higher flow.*



## Coolant tubes

- *New variants with thread and quick change connector*

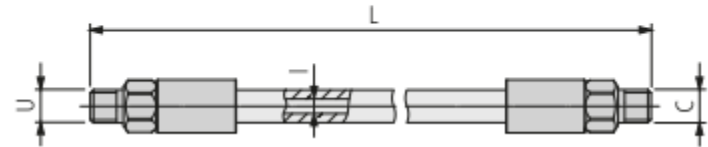


## Coolant tubes

- *New version with threads on both ends*

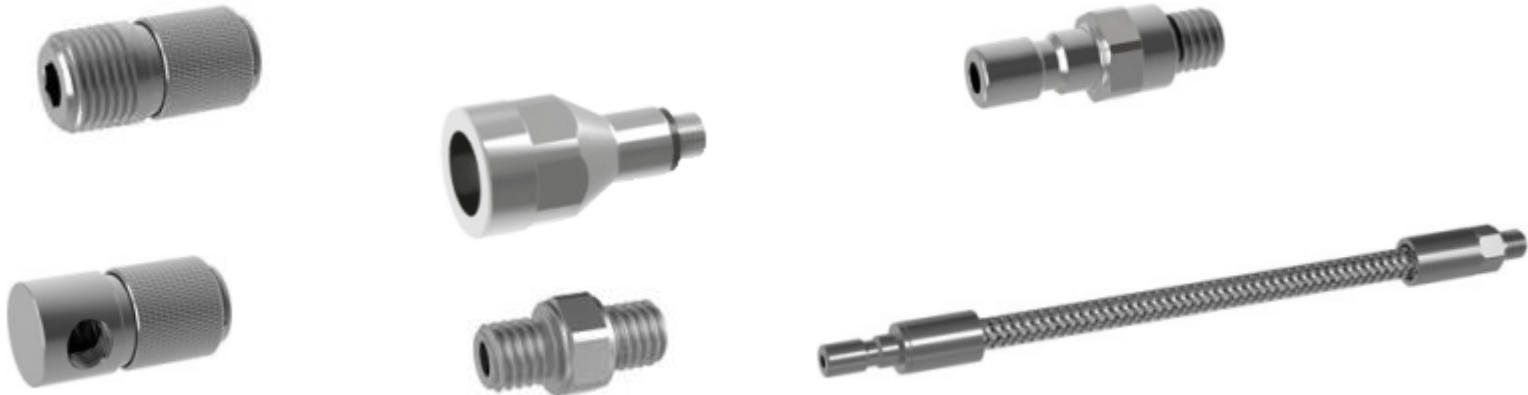


MSP UHPT ... M5-M5

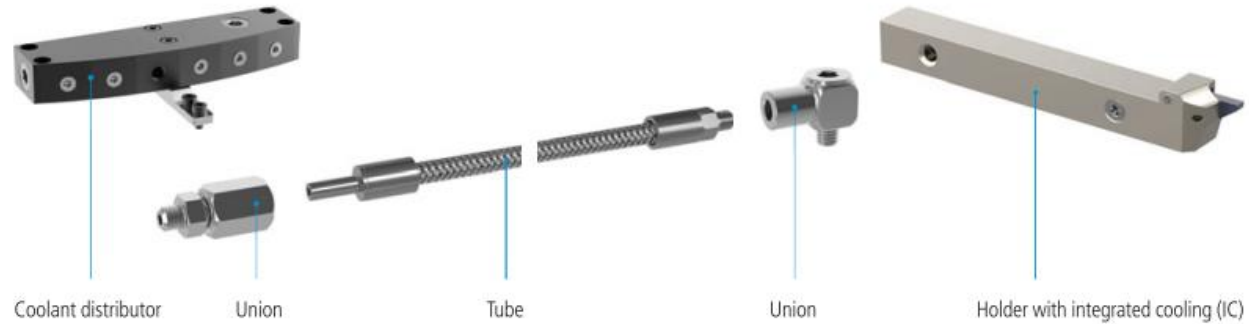


## Unions

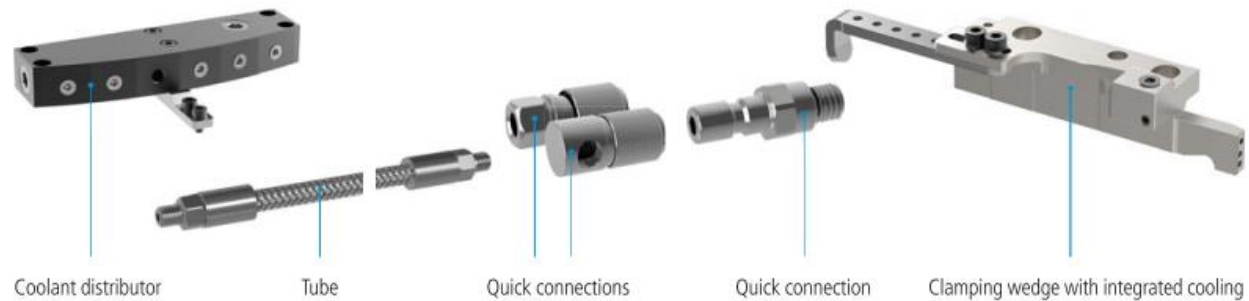
- *Various new connectors and quick change connectors, straight and angled, together with a variety of coolant tubes, allow almost any desired connection between the coolant distributor and the tool. (LUB wedge or internal cooling tool holder)*



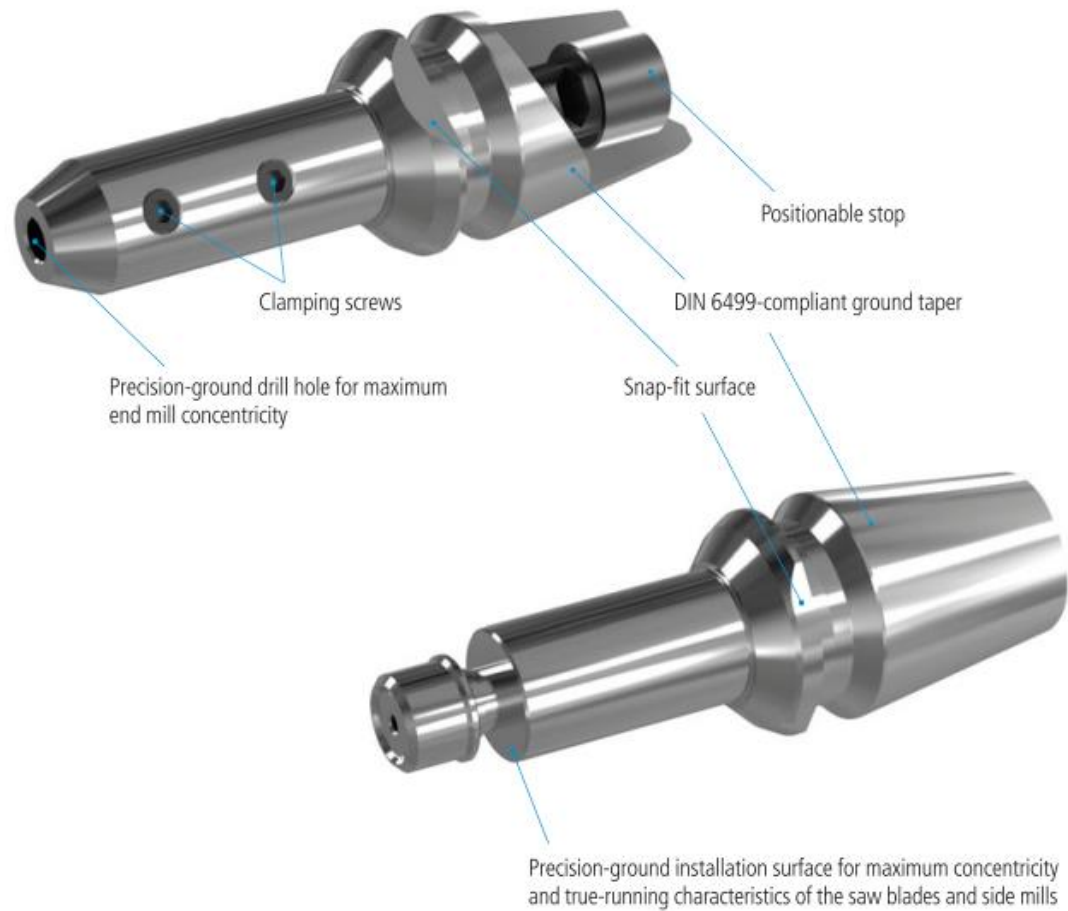
## Unions, assembly examples



### Example with quick connections



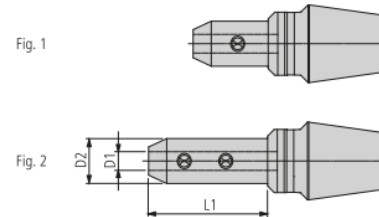
# *multidec*<sup>®</sup>-TAPER-IN





## Monoblock ER tool holder for end mills

- Assortement enhance ment with size ER 8
- Clamping nuts Hi-Q in as standard



MTIM ER ...

Order designation		Dimensions					Fig.
		ER	D1	L1	D2		
MTIM ER8-1.00-10	■	8	1	10	6.4		1
MTIM ER8-1.00-15	■	8	1	15	6.4		1
MTIM ER8-1.50-10	■	8	1.5	10	6.4		1
MTIM ER8-1.50-15	■	8	1.5	15	6.4		1
MTIM ER8-1.59-10	■	8	1.59	10	6.4		1
MTIM ER8-1.59-15	■	8	1.59	15	6.4		1
MTIM ER8-2.00-10	■	8	2	10	6.4		1
MTIM ER8-2.00-15	■	8	2	15	6.4		1
MTIM ER8-3.00-10	■	8	3	10	7		1
MTIM ER8-3.00-15	■	8	3	15	7		1
MTIM ER8-3.18-10	■	8	3.18	10	7		1
MTIM ER8-3.18-15	■	8	3.18	15	7		1

### For spindle-connection

Illustration	Description	Dimensions	Order designation	Tool holder
	Clamping nut	M10 × 0.75	HI-Q/ERM 8	■ ER8
		M13 × 0.75	HI-Q/ERM 11	■ ER11
		M19 × 1	HI-Q/ERM 16	■ ER16
		M24 × 1	HI-Q/ERM 20	■ ER20
		M30 × 1	HI-Q/ERM 25	■ ER25

# *multidec<sup>®</sup>-Screwdriver*

*No changes*



# *multidec<sup>®</sup> - Collets / Reduction sleeves*

*No changes*



# UTILIS – Catalog 2018



*The new catalogue has arrived in the languages German, French, Italian and English.*

*Available on the homepage and «Home Cloud» as well*

*<https://www.utilis.com/en/shopwebsite>*

# Presentation of the new catalog 2018



*Found a mistake in the catalogue?  
Any further questions?  
Let us know!*

# *Presentation of the new catalog 2018*

*The End*

*Thank you for your attention*

**MULTIDEC – 25 YEARS OF QUALITY,  
INNOVATION AND SUSTAINABILITY**

