

# HSK F



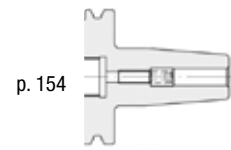
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# Mandrini Toolholders

**HSK F** DIN 69893-6

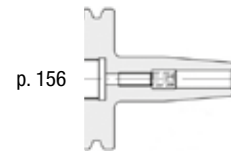
## **CTO 4,5° Standard** similar to DIN 69882-8

Mandrino per calettamento termico  
Shrink fit chuck  
Porte-outils de frettage  
Schrumpfutter



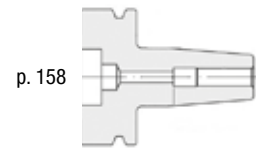
## **CTF 4,5° Slim**

Mandrino per calettamento termico di finitura  
Finishing shrink fit chuck  
Porte outils de frettage pour finissage  
Schrumpfutter zum schlichten



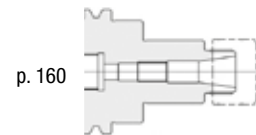
## **CTO 4,5° Extra short - slim design**

Mandrino per lavorazione legno  
Wood working tools



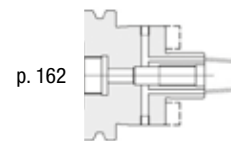
## **ERH High Performance**

Portapinze di precisione ER DIN 6499  
Precision collet chuck ER DIN 6499  
Porte pincés de precision ER DIN 6499  
Präzisions spannzangenfutter ER DIN 6499

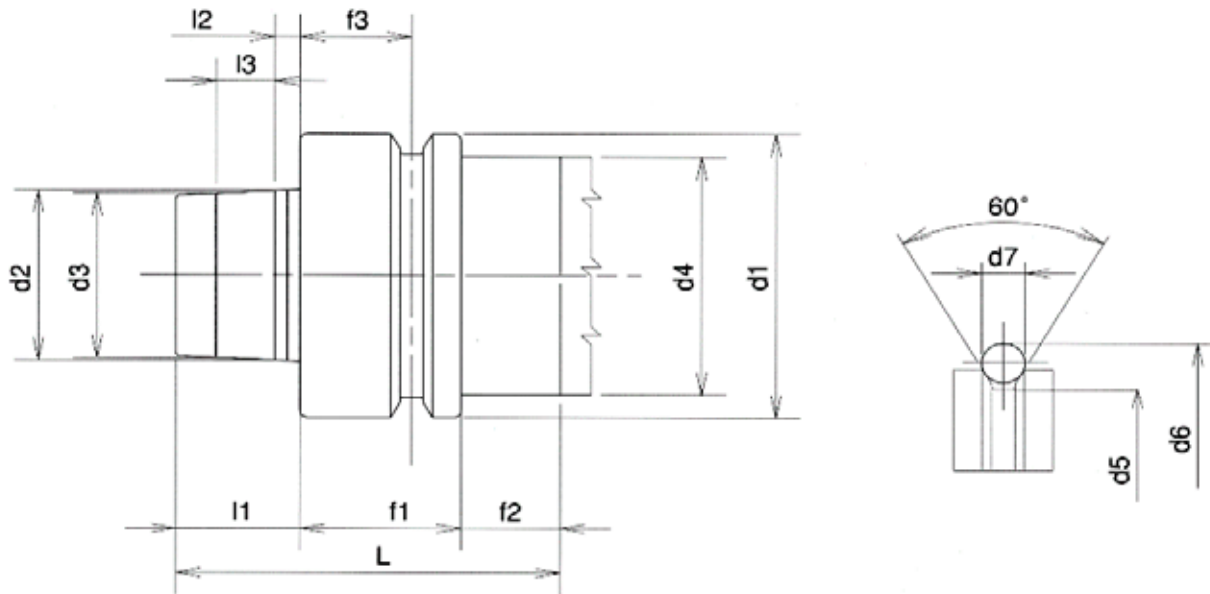


## **FSW Cooling Plus** DIN 6357 B

Portafrese a spianare con trascinatore fisso - con canali di lubrificazione  
Face mill arbor with coolant bores  
Porte-fraises à surfacer avec conduits d'arrosage  
Messerkopf- aufnahme mit Kühlmittelbohrun



# DIN 69893 - HSK F



	HSK 40	HSK 50	HSK 63	HSK 80
<b>d1</b>	40	50	63	80
<b>d2</b>	24	30	38	48
<b>d3</b>	23,270	29,050	36,900	46,530
<b>d4 (max)</b>	34	42	53	68
<b>d5</b>	34,8	43	55	70
<b>d6</b>	45	59,3	72,3	88,8
<b>d7</b>	4	7	7	7
<b>f1</b>	20	26	26	26
<b>f2</b>	15	16	16	16
<b>f3</b>	16	18	18	18
<b>L</b>	51	62	67	74
<b>l1</b>	16	20	25	32
<b>l2</b>	3,2	4	5	6,3
<b>l3</b>	7,3	9,5	11	14,7

# CTO 4,5° standard (similar to DIN 69882-8)

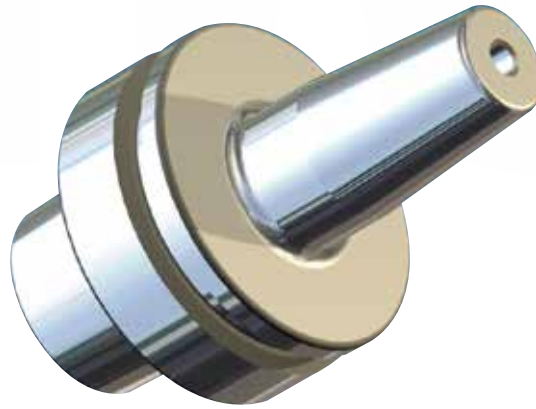
**GRIP PLUS**  
SHRINK FIT TECHNOLOGY

## Mandrino per calettamento termico

Shrink fit chuck

Porte-outils de frettage

Schrumpfutter



## MANDRINI A CALETTAMENTO simile a DIN 69882-8

- Chuck Body Fine Balanced  
G 2,5 - 25.000 Rpm - Or U < 1 gmm
  - Run Out 3 micron
  - Angolo di calettamento esterno 4,5° gradi
  - Con grano di registrazione assiale
  - Ø 3-4-5 senza grano di registrazione assiale
  - Per utensili in HSS e in HM
  - Tolleranza gambo utensile "h6"
- Raffreddamento con fori di refrigerazione "A RICHIESTA"

## SHRINK FIT CHUCKS similar to DIN 69882-8

- Chuck Body Fine Balanced  
G 2,5 - 25.000 Rpm - Or U < 1 gmm
  - Run Out 3 micron
  - 4,5° slope at the top
  - With back-up screw
  - Ø 3-4-5 Without back-up screw
  - For carbide steel and HSS shanks
  - For tools with shank tolerance h6
- With coolant channels ON REQUEST

## Accessori | Accessories

ASC



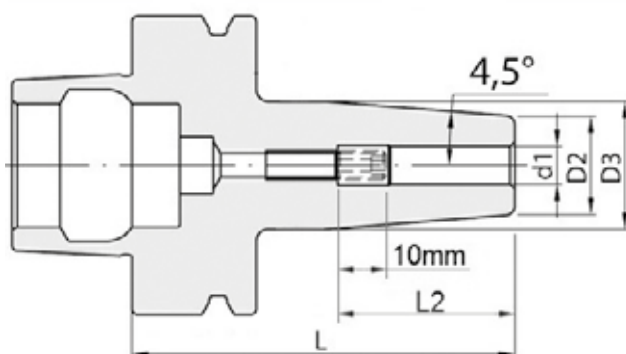
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## Ricambi | Spare parts

RVR CTW



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### HSK 063 (F form) - CTO 4,5° STANDARD

codice - code	D1	L	D2	D3	L2	G	L5 minimum grip	tool shank	Fori Refrigerazione Coolant Channels	APPLICATION
HKF.063.CT003.080	3	80	9	18	-	No RVR	9	h6	-	
HKF.063.CT004.080	4	80	10	18	-	No RVR	12	h6	-	
HKF.063.CT005.080	5	80	11	18	-	No RVR	15	h6	-	
HKF.063.CT006.080	6	80	21	27	37	M5 x 0,8	22	h6	•	
HKF.063.CT008.080	8	80	21	27	37	M6 x 1	26	h6	•	
HKF.063.CT010.085	10	85	24	32	42	M8 x 1	31	h6	•	
HKF.063.CT012.090	12	90	24	32	47	M10 x 1	36	h6	•	
HKF.063.CT014.090	14	90	27	31	47	M10 x 1	36	h6	•	
HKF.063.CT016.095	16	95	27	34	50	M12 x 1	39	h6	•	
HKF.063.CT020.100	20	100	33	42	52	M16 x 1	41	h6	•	
HKF.063.CT025.115	25	115	44	53	58	M16 x 1	47	h6	•	

# CTF slim - 4,5°

**GRIP PLUS**  
SHRINK FIT TECHNOLOGY

## Mandrino per calettamento termico di finitura

*Finishing shrink fit chuck*

*Porte outils de frettage pour finissage*

*Schrumpfutter zum schlichten*



**G 2,5**  
25.000 RPM  
or  
U < 1 gmm

**≤ 3 μm**

**4,5°**



**HM h6**

**HSC**

## MANDRINI A CALETTAMENTO

### Slim - 4,5°

#### MANDRINO A CALETTAMENTO DI FINITURA

- Chuck Body Fine Balanced  
G 2,5 - 25.000 Rpm - Or U < 1 gmm
- Run Out 3 micron
- Angolo di calettamento esterno 4,5° gradi
- con grano di registrazione assiale
- Solo per utensili in HM
- Tolleranza gambo utensile "h6"

## SHRINK FIT CHUCKS

### Slim - 4,5°

#### SHRINK FIT CHUCK FOR FINISHING

- Chuck Body Fine Balanced  
G 2,5 - 25.000 Rpm - Or U < 1 gmm
- Run Out 3 micron
- 4,5° slope at the top
- with back-up screw
- Only for carbide steel shanks
- For tools with shank tolerance h6

## Accessori | Accessories

ASC



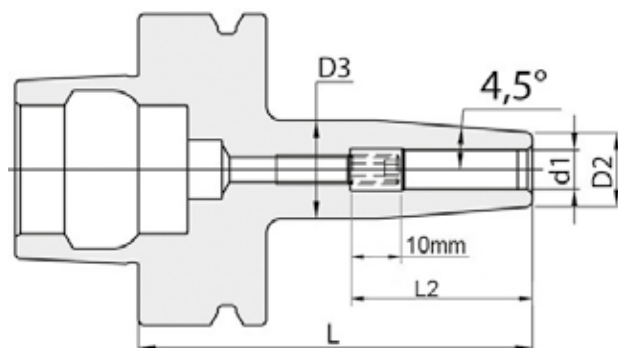
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## Ricambi | Spare parts

RVR CTW



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### HSK 063 (F form) - CTF slim - 4,5°

CODICE - CODE	d1	L	D2	D3	L2	G	L5 minimum GRIP	APPLICATION
HKF.063.CTF06.130- 45	6	130	15	31	37	M5 x 0,8	22	
HKF.063.CTF08.130- 45	8	130	15	31	37	M6 x 1	26	
HKF.063.CTF10.130- 45	10	130	18	34	42	M8 x 1	31	
HKF.063.CTF12.130- 45	12	130	18	34	47	M10 x 1	36	

# CTO 4,5° extra short - slim design

**GRIP PLUS**  
SHRINK FIT TECHNOLOGY

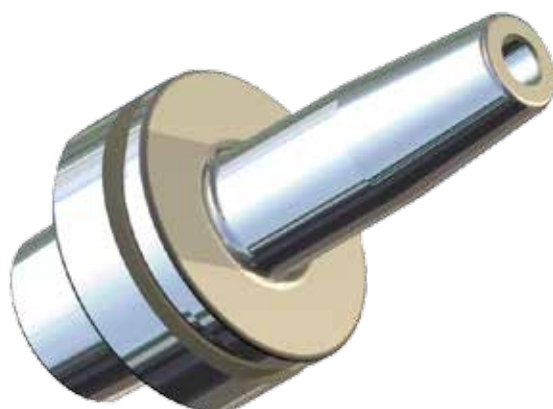
## Mandrino per calettamento termico

Shrink fit chuck

Porte-outils de frettage

Schrumpfutter

### MANDRINI PER LAVORAZIONE LEGNO WOOD WORKING TOOLS



**G 2,5**  
25.000 RPM  
or  
U < 1 gmm

**≤ 3 μm**

**4,5°**

**HSS h6**

**HM h6**

**HSC**

**HPC**

#### MANDRINI PER UTENSILI LAVORAZIONE LEGNO EXTRA SHORT - SLIM DESIGN:

- Toll. gambo utensile g6
- Senza grano di registrazione assiale
- Elevata rigidità
- Elevata forza di serraggio
- Adatto alla produzione ad alta velocità ed alla fresatura pesante
- Aumento della capacità di lavorazione
- Maggiore avanzamento e profondità di taglio più grande

#### WOOD WORKING TOOLS EXTRA SHORT - SLIM DESIGN:

- Tool Shank tolerance g6
- Without back-up screw
- High rigidity
- High clamping force
- Equally suited to high-speed manufacturing and heavy milling
- Increased machining capacity
- Higher feed and larger cutting depth

#### Accessori | Accessories

ASC



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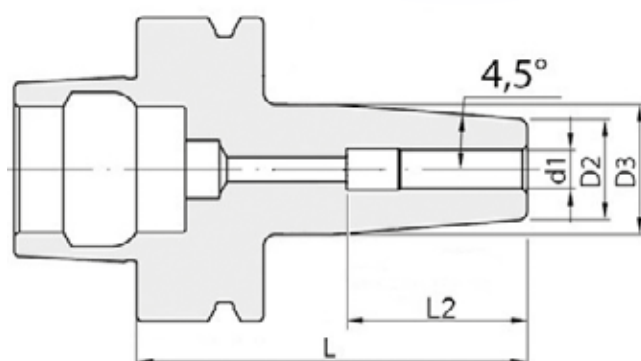
#### Ricambi | Spare parts

RVR CTW



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### HSK 063 (F form) - CT0 4,5° extra short - slim design

CODICE-CODE	d1	L	D2	D3	L2	g	L5 minimum grip	tool shank	APPLICATION
HKF.063.CT012.075 - g6	12	75	28	34	45	M6 x 1	36	g6	
HKF.063.CT012.120 - g6	12	120	28	34	45	M10 x 1	36	g6	
HKF.063.CT016.075 - g6	16	75	28	34	48	M6 x 1	39	g6	
HKF.063.CT020.075 - g6	20	75	36	42	50	M6 x 1	41	g6	
HKF.063.CT025.075 - g6	25	75	36	42	52	M6 x 1	47	g6	

# ER DIN 6499

## Portapinze di precisione ER DIN 6499

Precision collet chuck ER DIN 6499

Porte pinces de precision ER DIN 6499

Prazisions spannzangenfutter ER DIN 6499



### ERO Standard



### ERO MANDRINO PORTAPINZE ER TYPE STANDARD

- Chuck Body Pre-Balanced  
G 6,3 - 24.000 Rpm
- Run Out 3 micron
- Con grano di registrazione assiale
- (1) Senza grano di registrazione assiale

### COLLET CHUCKS ER TYPE STANDARD

- Chuck Body Pre- Balanced  
G 6,3 - 24.000 Rpm
- Run Out 3 micron
- With back-up screw
- (1) Without back-up screw

### ERH H/P High Performance DIN 6499



### ERH MANDRINO PORTAPINZE ER TYPE H/P HIGH PERFORMANCE

- Chuck Body Fine-Balanced  
G 2,5 25.000 Rpm - Or U < 1 gmm
- Run Out 3 micron
- Con grano di registrazione assiale
- (1) Senza grano di registrazione assiale

### PRECISION COLLET CHUCKS ER TYPE H/P HIGH PERFORMANCE

- Chuck Body Fine Balanced  
G 2,5 25.000 Rpm - Or U < 1 gmm
- Run Out 3 micron
- With back-up screw
- (1) Without back-up screw

### Accessori | Accessories



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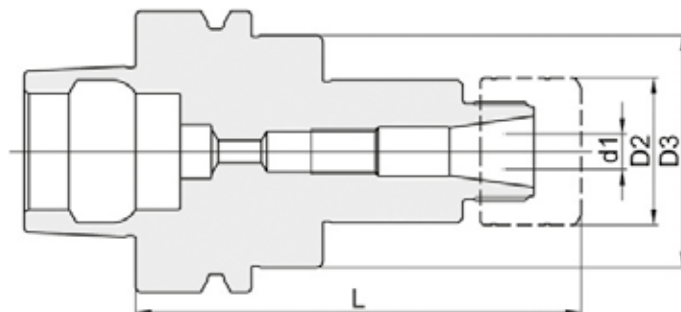
### Ricambi | Spare parts



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### HSK 063 (F form) - ERO - ERH

codice - code		d1	L	D2	D3	Nuts/ghiere	on-request Nuts/ghiere	APPLICATION
<b>ERO</b>	<b>ERH</b>							
	HKF.063.ERH16.100	0,5-10	100	32	52 - CH 46	RGE	RGX.ER16 D 2=28	
	HKF.063.ERH25.100	1,5-16	100	42	52 - CH 46	RGE		
HKF.063.ER032.070	HKF.063.ERH32.070	2,5-20	70		50- CH 46	RGS-RGE		(1) No RVR
HKF.063.ER040.080	HKF.063.ERH40.080	3-26	80		63 - CH 46	RGS-RGE		(1) No RVR

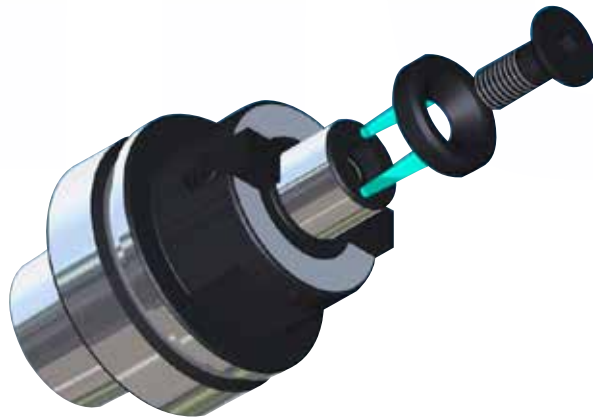
# FSW Cooling Plus Din 6357-B

Portafrese a spianare con trascinatore fisso - con canali di lubrificazione

Face mill arbor with coolant bores

Porte-fraises à surfer avec conduits d'arrosage

Messerkopf- aufnahme mit Kühlmittelbohrun



**G 2,5**  
25.000 RPM  
or  
U < 1 gmm

**≤ 3 μm**



**HSC**

## PORTAFRESE

con canali di lubrificazione

PORTAFRESE A SPIANARE CON TRASCINATORE FISSO

- Chuck Body Fine Balanced  
G 2,5 - 25.000 Rpm - Or U < 1 gmm
- Run Out 3 micron
- Fori di refrigerazione "STANDARD"

## FACE MILL ARBOR

with coolant channels

FACE MILL ARBOR WITH COOLANT CHANNELS

- Chuck Body Fine Balanced  
G 2,5 - 25.000 Rpm - Or U < 1 gmm
- Run Out 3 micron
- With "STANDARD" coolant channels

## Accessori | Accessories

ASC



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## Ricambi | Spare parts

RVU 5931



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RCT FM/DP



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RVU 5933

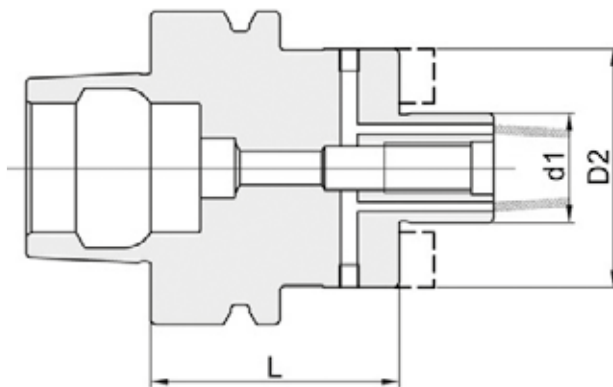


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RRS FM



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### HSK 063 (F form) - FSW Cooling Plus

codice - code	d1	L	D2					APPLICATION
HKF.063.FSW22.050	22	50	48 - CH 41					
HKF.063.FSW27.055	27	55	58 - CH 46					