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# DSAS

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PUNTE IN METALLO DURO PER MATERIALI HRSA

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# DSAS

## APPLICAZIONE

Foratura efficace in applicazioni aerospaziali di superleghe resistenti al calore, per le quali devono essere garantiti i seguenti importanti criteri:

- **Affidabilità**
- **Lavorazione stabile**
- **Qualità dei fori**
- **Stabilità dimensionale**

Le punte in metallo duro DSAS sono in grado di soddisfare i requisiti dei clienti, per raggiungere un'elevata qualità dei fori nei materiali HRSA quali cromo-cobalto, Inconel, leghe a base nichel e leghe di titanio.

Le DSAS possono essere impiegate per la foratura di esoreattori, gruppi turbogas, razzi, parti per aeromobili e fornaci.



## CARATTERISTICHE

### GRADO DP9020 PER LA LAVORAZIONE DI LEGHE RESISTENTI AL CALORE

Un grado tenace di metallo duro fornisce un'elevata resistenza all'usura e alla scheggiatura, con un conseguente prolungamento della vita utensile.

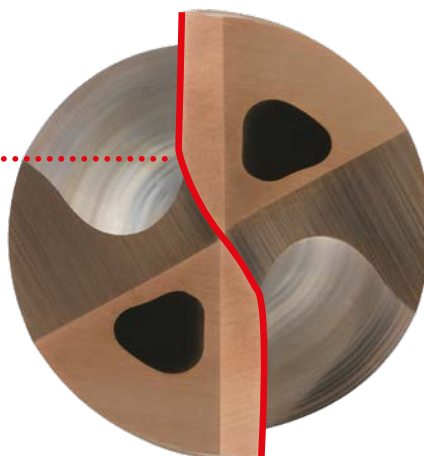


#### MARGINE SPECIALE

Il margine sottile riduce l'area di contatto ed evita la produzione di un eccessivo calore durante la lavorazione di leghe HRSA.

#### TAGLIANTE DIRITTO CON ONATURA DEDICATA

Il robusto tagliente diritto con onatura dedicata offre una formazione regolare dei trucioli e previene la formazione di scheggiature.



# VANTAGGI

QUALITÀ DEI FORI INCREMENTATA


ELEVATA RIPETIBILITÀ

SICUREZZA DEL PROCESSO

PRECISIONE DELLA FORATURA



# GAMMA DI PRODOTTO

PUNTA	DC	L / D	GEOMETRIA DEL CODOLO	S	
DSAS	Ø 3 mm - 12 mm	3	DIN6535HA	©	✓

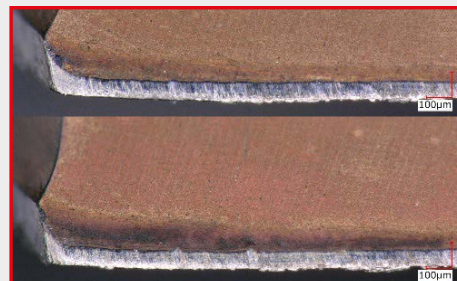
1. Sono disponibili diametri in pollici.



# DSAS

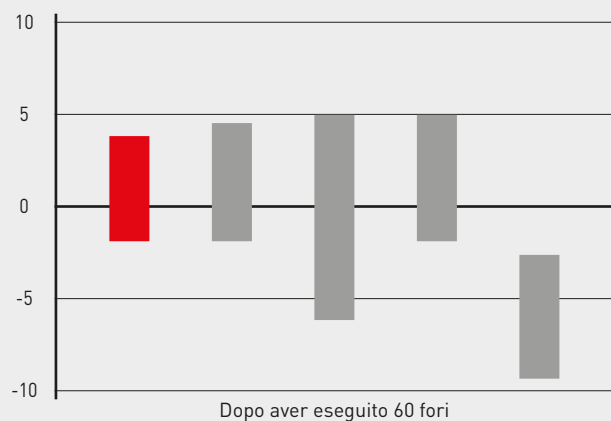
## CONFRONTO PRESTAZIONI

Materiale	Inconel 718
Utensile	DSAS0700X03S080
ap (mm)	12
Vc (m/min)	15
f (mm/giro)	0.10
Refrigerante	Emulsione (10 %), refrigerante interno
Macchina	Verticale MC

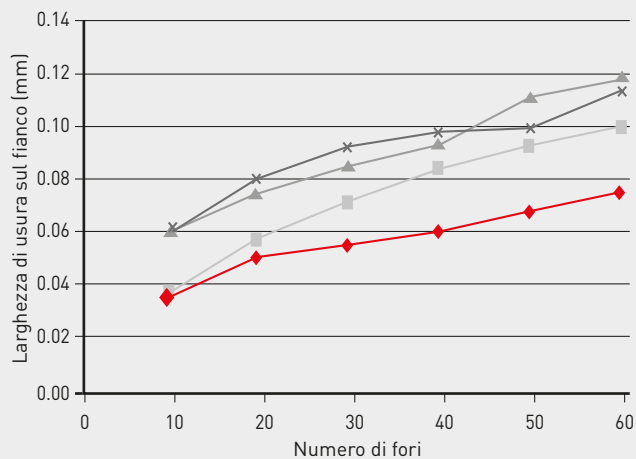


Larghezza di usura sul fianco dopo aver eseguito 60 fori

### Ø SOVRADIMENSIONAMENTO FORO (µm)

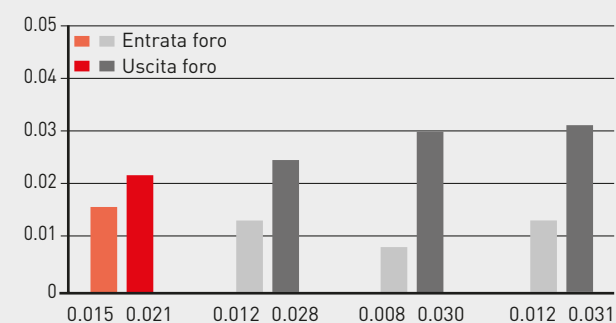


### VITA UTILE UTENSILE

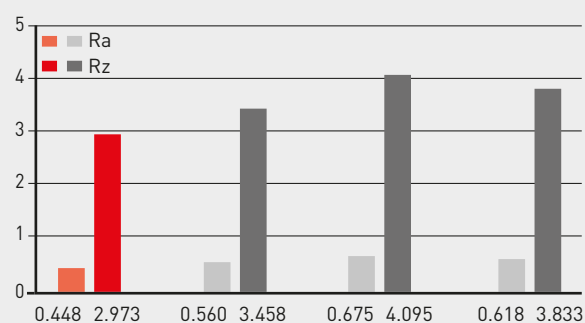


Materiale	Inconel 718
Utensile	DSAS0700X03S080
ap (mm)	10
Vc (m/min)	15
f (mm/giro)	0.10
Refrigerante	Emulsione (10 %), refrigerante interno
Macchina	Verticale MC

### ROTONDITÀ



### RUGOSITÀ SUPERFICIALE (µm)



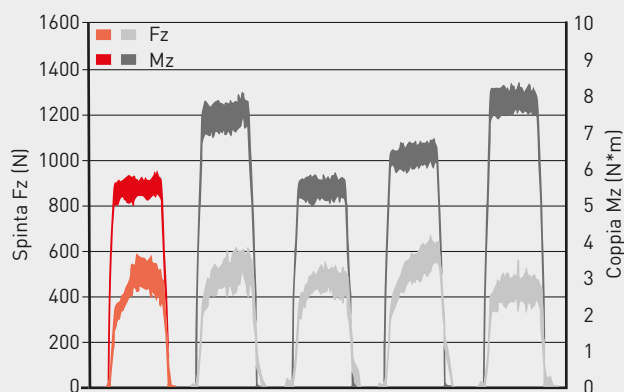
# DSAS

## CONFRONTO DELLA FORZA DI TAGLIO

### TAGLIENTI AFFILATI CON BASSA FORZA DI SPINTA

Grazie ai taglienti affilati, la punta DSAS ha dimostrato una forza di spinta inferiore durante la foratura del titanio rispetto ai prodotti convenzionali.

Materiale	Leghe di titanio (Ti-6Al-4V)
Utensile	DSAS0700X03S080
ap (mm)	10
Vc (m/min)	40
f (mm/giro)	0.15
Refrigerante	Emulsione (10 %), refrigerante interno
Macchina	Verticale MC

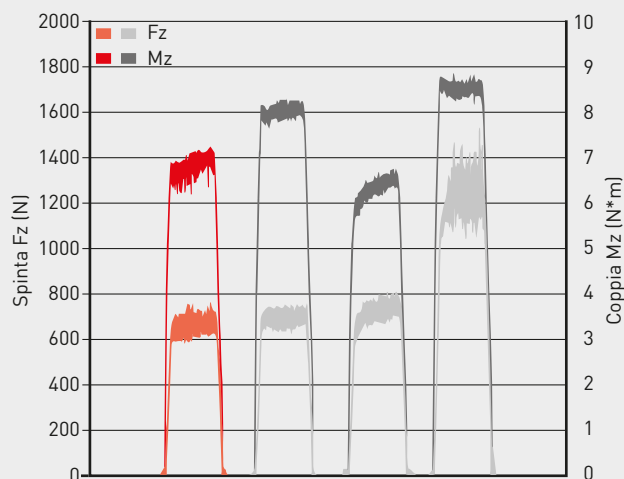


### FORZA DI TAGLIO RIDOTTA, ELEVATA QUALITÀ

È stata misurata la resistenza al taglio nella lavorazione di RENE 41.

Rispetto ai prodotti convenzionali, DSAS ha fatto riscontrare il più basso sforzo di taglio.

Materiale	RENE41
Utensile	DSAS0700X03S080
ap (mm)	10
Vc (m/min)	15
f (mm/giro)	0.10
Refrigerante	Emulsione (10 %), refrigerante interno
Macchina	Verticale MC

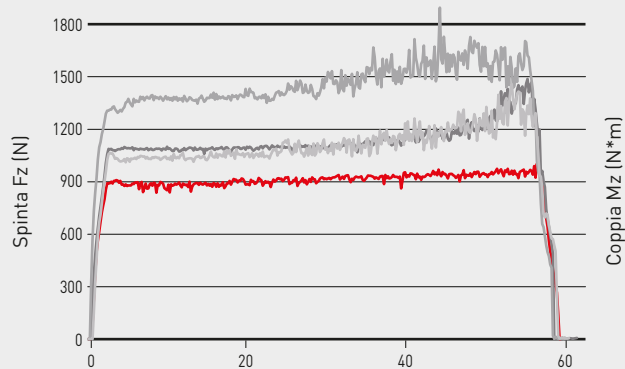




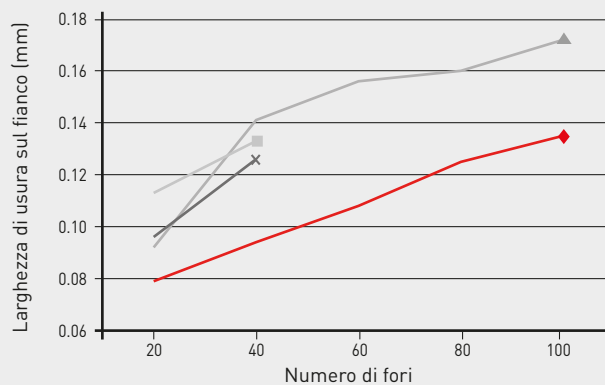
# DSAS

## CONFRONTO DELLA FORZA DI TAGLIO

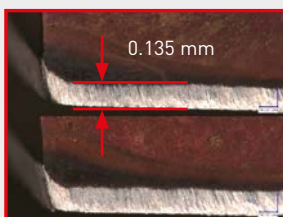
Materiale	Inconel 718
Utensile	DSAS0600X05S060
DC (mm)	6
ap (mm)	30
Vc (m/min)	20
f (mm/giro)	0.16
Refrigerante	Emulsione (10 %), refrigerante interno
Macchina	Verticale MC



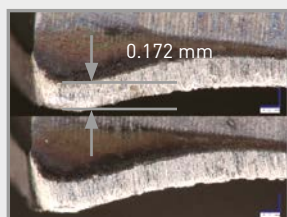
Materiale	Inconel 718
Utensile	DSAS0600X05S060
DC (mm)	6
ap (mm)	30
Vc (m/min)	20
f (mm/giro)	0.10
Refrigerante	Emulsione (10 %), refrigerante interno
Macchina	Verticale MC



DOPO 100 FORI



DSAS

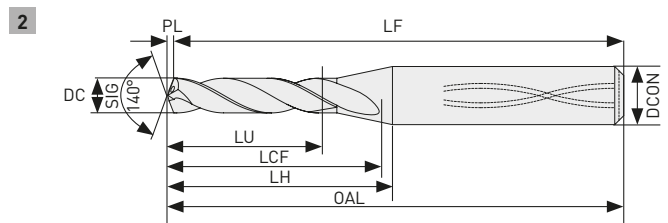
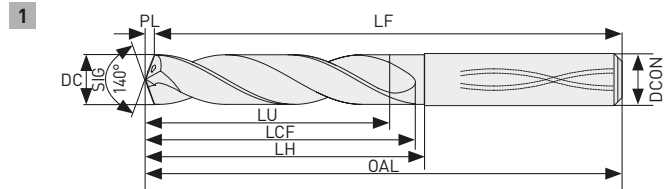


Convenzionale



## PUNTA IN METALLO DURO CON REFRIGERANTE INTERNO

S



DC=3	3<DC≤6	6<DC≤10	10<DC≤12
0	0	0	0
-0.018	-0.018	-0.022	-0.027



DC=3	3<DC≤6	6<DC≤10	10<DC≤12
0	0	0	0
-0.008	-0.008	-0.009	-0.011

Codice di ordinazione	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
DSAS0300X03S060	●	3.00	6	3	70.5	9.5	21.5	23.5	70	0.5	1
<b>NEW</b> DSAS0300X05S060	●	3.00	6	5	78.5	15.5	28.5	31.5	78	0.5	1
DSAS0310X03S060	●	3.10	6	3	70.6	9.9	21.6	23.6	70	0.6	1
<b>NEW</b> DSAS0310X05S060	●	3.10	6	5	78.6	16.1	28.6	31.6	78	0.6	1
DSAS0318X03S060	●	3.18	6	3	70.6	10.1	21.6	23.6	70	0.6	1
<b>NEW</b> DSAS0318X05S060	●	3.18	6	5	78.6	16.5	28.6	31.6	78	0.6	1
DSAS0320X03S060	●	3.20	6	3	70.6	10.2	21.6	23.6	70	0.6	1
<b>NEW</b> DSAS0320X05S060	●	3.20	6	5	78.6	16.6	28.6	31.6	78	0.6	1
DSAS0326X03S060	●	3.26	6	3	70.6	10.4	21.6	23.6	70	0.6	1
<b>NEW</b> DSAS0326X05S060	●	3.26	6	5	78.6	16.9	28.6	31.6	78	0.6	1
DSAS0330X03S060	●	3.30	6	3	70.6	10.5	21.6	23.6	70	0.6	1
<b>NEW</b> DSAS0330X05S060	●	3.30	6	5	78.6	17.1	28.6	31.6	78	0.6	1
DSAS0340X03S060	●	3.40	6	3	70.6	10.8	21.6	23.6	70	0.6	1
<b>NEW</b> DSAS0340X05S060	●	3.40	6	5	78.6	17.6	28.6	31.6	78	0.6	1
DSAS0350X03S060	●	3.50	6	3	70.6	11.1	21.6	23.6	70	0.6	1
<b>NEW</b> DSAS0350X05S060	●	3.50	6	5	78.6	18.1	28.6	31.6	78	0.6	1
DSAS0357X03S060	●	3.57	6	3	70.7	11.4	22.7	23.7	70	0.7	1
<b>NEW</b> DSAS0357X05S060	●	3.57	6	5	78.7	18.6	30.7	31.7	78	0.7	1
DSAS0360X03S060	●	3.60	6	3	70.7	11.5	22.7	23.7	70	0.7	1
<b>NEW</b> DSAS0360X05S060	●	3.60	6	5	78.7	18.7	30.7	31.7	78	0.7	1

# DSAS

	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
	●	3.70	6	3	70.7	11.8	22.7	23.7	70	0.7	1
NEW	●	3.70	6	5	78.7	19.2	30.7	31.7	78	0.7	1
	●	3.80	6	3	70.7	12.1	22.7	23.7	70	0.7	1
NEW	●	3.80	6	5	78.7	19.7	30.7	31.7	78	0.7	1
	●	3.90	6	3	70.7	12.4	22.7	23.7	70	0.7	1
NEW	●	3.90	6	5	78.7	20.2	30.7	31.7	78	0.7	1
	●	3.97	6	3	70.7	12.6	22.7	23.7	70	0.7	1
NEW	●	3.97	6	5	78.7	20.5	30.7	31.7	78	0.7	1
	●	4.00	6	3	70.7	12.7	22.7	23.7	70	0.7	1
NEW	●	4.00	6	5	78.7	20.7	30.7	31.7	78	0.7	1
	●	4.10	6	3	73.7	13.0	24.7	26.7	73	0.7	1
NEW	●	4.10	6	5	82.7	21.2	33.7	35.7	82	0.7	1
	●	4.20	6	3	73.8	13.4	24.8	26.8	73	0.8	1
NEW	●	4.20	6	5	82.8	21.8	33.8	35.8	82	0.8	1
	●	4.30	6	3	73.8	13.7	24.8	26.8	73	0.8	1
NEW	●	4.30	6	5	82.8	22.3	33.8	35.8	82	0.8	1
	●	4.37	6	3	73.8	13.9	24.8	26.8	73	0.8	1
NEW	●	4.37	6	5	82.8	22.6	33.8	35.8	82	0.8	1
	●	4.40	6	3	73.8	14.0	24.8	26.8	73	0.8	1
NEW	●	4.40	6	5	82.8	22.8	33.8	35.8	82	0.8	1
	●	4.50	6	3	73.8	14.3	24.8	26.8	73	0.8	1
NEW	●	4.50	6	5	82.8	23.3	33.8	35.8	82	0.8	1
	●	4.60	6	3	75.8	14.6	25.8	28.8	75	0.8	1
NEW	●	4.60	6	5	85.8	23.8	35.8	38.8	85	0.8	1
	●	4.70	6	3	75.9	15.0	25.9	28.9	75	0.9	1
NEW	●	4.70	6	5	85.9	24.4	35.9	38.9	85	0.9	1
	●	4.76	6	3	75.9	15.2	25.9	28.9	75	0.9	1
NEW	●	4.76	6	5	85.9	24.7	35.9	38.9	85	0.9	1
	●	4.80	6	3	75.9	15.3	25.9	28.9	75	0.9	1
NEW	●	4.80	6	5	85.9	24.9	35.9	38.9	85	0.9	1
	●	4.86	6	3	75.9	15.5	25.9	28.9	75	0.9	1
NEW	●	4.86	6	5	85.9	25.2	35.9	38.9	85	0.9	1
	●	4.90	6	3	75.9	15.6	25.9	28.9	75	0.9	1
NEW	●	4.90	6	5	85.9	25.4	35.9	38.9	85	0.9	1
	●	5.00	6	3	81.9	15.9	28.9	29.9	81	0.9	2
NEW	●	5.00	6	5	89.9	25.9	39.9	42.9	89	0.9	2
	●	5.10	6	3	81.9	16.2	28.9	29.9	81	0.9	2
NEW	●	5.10	6	5	89.9	26.4	39.9	42.9	89	0.9	2
	●	5.16	6	3	82.0	16.5	29.0	30.0	81	1.0	2
NEW	●	5.16	6	5	90.0	26.8	40.0	43.0	89	1.0	2
	●	5.20	6	3	82.0	16.6	29.0	30.0	81	1.0	2
NEW	●	5.20	6	5	90.0	27.0	40.0	43.0	89	1.0	2
	●	5.30	6	3	82.0	16.9	29.0	30.0	81	1.0	2
NEW	●	5.30	6	5	90.0	27.5	40.0	43.0	89	1.0	2
	●	5.40	6	3	82.0	17.2	29.0	30.0	81	1.0	2
NEW	●	5.40	6	5	90.0	28.0	40.0	43.0	89	1.0	2
	●	5.50	6	3	82.0	17.5	29.0	30.0	81	1.0	2
NEW	●	5.50	6	5	90.0	28.5	40.0	43.0	89	1.0	2
	●	5.56	6	3	82.1	17.8	31.1	31.1	81	1.1	2
NEW	●	5.56	6	5	90.1	28.9	43.1	43.1	89	1.1	2

1. Il foro per l'adduzione di refrigerante con diametro  $\leq 5$  mm avrà forma circolare.



# DSAS

Codice di ordinazione	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
DSAS0560X03S060	●	5.60	6	3	82.1	17.9	31.1	31.1	81	1.1	2
<b>NEW</b> DSAS0560X05S060	●	5.60	6	5	90.1	29.1	43.1	43.1	89	1.1	2
DSAS0570X03S060	●	5.70	6	3	82.1	18.2	31.1	31.1	81	1.1	2
<b>NEW</b> DSAS0570X05S060	●	5.70	6	5	90.1	29.6	43.1	43.1	89	1.1	2
DSAS0580X03S060	●	5.80	6	3	82.1	18.5	31.1	31.1	81	1.1	2
<b>NEW</b> DSAS0580X05S060	●	5.80	6	5	90.1	30.1	43.1	43.1	89	1.1	2
DSAS0590X03S060	●	5.90	6	3	82.1	18.8	31.1	31.1	81	1.1	2
<b>NEW</b> DSAS0590X05S060	●	5.90	6	5	90.1	30.6	43.1	43.1	89	1.1	2
DSAS0595X03S060	●	5.95	6	3	82.1	19.0	31.1	31.1	81	1.1	2
<b>NEW</b> DSAS0595X05S060	●	5.95	6	5	90.1	30.9	43.1	43.1	89	1.1	2
DSAS0600X03S060	●	6.00	6	3	82.1	19.1	31.1	31.1	81	1.1	2
<b>NEW</b> DSAS0600X05S060	●	6.00	6	5	90.1	31.1	43.1	43.1	89	1.1	2
DSAS0610X03S080	●	6.10	8	3	87.2	19.5	34.2	37.2	86	1.2	2
<b>NEW</b> DSAS0610X05S080	●	6.10	8	5	96.2	31.7	47.2	49.2	95	1.2	2
DSAS0620X03S080	●	6.20	8	3	87.2	19.8	34.2	37.2	86	1.2	2
<b>NEW</b> DSAS0620X05S080	●	6.20	8	5	96.2	32.2	47.2	49.2	95	1.2	2
DSAS0630X03S080	●	6.30	8	3	87.2	20.1	34.2	37.2	86	1.2	2
<b>NEW</b> DSAS0630X05S080	●	6.30	8	5	96.2	32.7	47.2	49.2	95	1.2	2
DSAS0635X03S080	●	6.35	8	3	87.2	20.3	34.2	37.2	86	1.2	2
<b>NEW</b> DSAS0635X05S080	●	6.35	8	5	96.2	33.0	47.2	49.2	95	1.2	2
DSAS0640X03S080	●	6.40	8	3	87.2	20.4	34.2	37.2	86	1.2	2
<b>NEW</b> DSAS0640X05S080	●	6.40	8	5	96.2	33.2	47.2	49.2	95	1.2	2
DSAS0650X03S080	●	6.50	8	3	87.2	20.7	34.2	37.2	86	1.2	2
<b>NEW</b> DSAS0650X05S080	●	6.50	8	5	96.2	33.7	47.2	49.2	95	1.2	2
DSAS0660X03S080	●	6.60	8	3	91.3	21.1	36.3	38.3	90	1.3	2
<b>NEW</b> DSAS0660X05S080	●	6.60	8	5	99.3	34.3	50.3	52.3	98	1.3	2
DSAS0670X03S080	●	6.70	8	3	91.3	21.4	36.3	38.3	90	1.3	2
<b>NEW</b> DSAS0670X05S080	●	6.70	8	5	99.3	34.8	50.3	52.3	98	1.3	2
DSAS0675X03S080	●	6.75	8	3	91.3	21.5	36.3	38.3	90	1.3	2
<b>NEW</b> DSAS0675X05S080	●	6.75	8	5	99.3	35.0	50.3	52.3	98	1.3	2
DSAS0680X03S080	●	6.80	8	3	91.3	21.7	36.3	38.3	90	1.3	2
<b>NEW</b> DSAS0680X05S080	●	6.80	8	5	99.3	35.3	50.3	52.3	98	1.3	2
DSAS0690X03S080	●	6.90	8	3	91.3	22.0	36.3	38.3	90	1.3	2
<b>NEW</b> DSAS0690X05S080	●	6.90	8	5	99.3	35.8	50.3	52.3	98	1.3	2
DSAS0695X03S080	●	6.95	8	3	91.3	22.2	36.3	38.3	90	1.3	2
<b>NEW</b> DSAS0695X05S080	●	6.95	8	5	99.3	36.1	50.3	52.3	98	1.3	2
DSAS0700X03S080	●	7.00	8	3	91.3	22.3	36.3	38.3	90	1.3	2
<b>NEW</b> DSAS0700X05S080	●	7.00	8	5	99.3	36.3	50.3	52.3	98	1.3	2
DSAS0710X03S080	●	7.10	8	3	91.4	22.7	39.4	40.4	90	1.4	2
<b>NEW</b> DSAS0710X05S080	●	7.10	8	5	104.4	36.9	54.4	57.4	103	1.4	2
DSAS0714X03S080	●	7.14	8	3	91.4	22.8	39.4	40.4	90	1.4	2
<b>NEW</b> DSAS0714X05S080	●	7.14	8	5	104.4	37.1	54.4	57.4	103	1.4	2
DSAS0720X03S080	●	7.20	8	3	91.4	23.0	39.4	40.4	90	1.4	2
<b>NEW</b> DSAS0720X05S080	●	7.20	8	5	104.4	37.4	54.4	57.4	103	1.4	2
DSAS0730X03S080	●	7.30	8	3	91.4	23.3	39.4	40.4	90	1.4	2
<b>NEW</b> DSAS0730X05S080	●	7.30	8	5	104.4	37.9	54.4	57.4	103	1.4	2
DSAS0740X03S080	●	7.40	8	3	91.4	23.6	39.4	40.4	90	1.4	2
<b>NEW</b> DSAS0740X05S080	●	7.40	8	5	104.4	38.4	54.4	57.4	103	1.4	2
DSAS0750X03S080	●	7.50	8	3	91.4	23.9	39.4	40.4	90	1.4	2

1. Il foro per l'adduzione di refrigerante con diametro  $\leq 5$  mm avrà forma circolare.

# DSAS

	Codice di ordinazione	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
<b>NEW</b>	DSAS0750X05S080	●	7.50	8	5	104.4	38.9	54.4	57.4	103	1.4	2
	DSAS0754X03S080	●	7.54	8	3	91.5	24.1	41.5	41.5	90	1.5	2
<b>NEW</b>	DSAS0754X05S080	●	7.54	8	5	104.5	39.2	57.5	57.5	103	1.5	2
	DSAS0760X03S080	●	7.60	8	3	91.5	24.3	41.5	41.5	90	1.5	2
<b>NEW</b>	DSAS0760X05S080	●	7.60	8	5	104.5	39.5	57.5	57.5	103	1.5	2
	DSAS0770X03S080	●	7.70	8	3	91.5	24.6	41.5	41.5	90	1.5	2
<b>NEW</b>	DSAS0770X05S080	●	7.70	8	5	104.5	40.0	57.5	57.5	103	1.5	2
	DSAS0780X03S080	●	7.80	8	3	91.5	24.9	41.5	41.5	90	1.5	2
<b>NEW</b>	DSAS0780X05S080	●	7.80	8	5	104.5	40.5	57.5	57.5	103	1.5	2
	DSAS0790X03S080	●	7.90	8	3	91.5	25.2	41.5	41.5	90	1.5	2
<b>NEW</b>	DSAS0790X05S080	●	7.90	8	5	104.5	41.0	57.5	57.5	103	1.5	2
	DSAS0794X03S080	●	7.94	8	3	91.5	25.3	41.5	41.5	90	1.5	2
<b>NEW</b>	DSAS0794X05S080	●	7.94	8	5	104.5	41.2	57.5	57.5	103	1.5	2
	DSAS0800X03S080	●	8.00	8	3	91.5	25.5	41.5	41.5	90	1.5	2
<b>NEW</b>	DSAS0800X05S080	●	8.00	8	5	104.5	41.5	57.5	57.5	103	1.5	2
	DSAS0810X03S100	●	8.10	10	3	97.5	25.8	44.5	47.5	96	1.5	2
<b>NEW</b>	DSAS0810X05S100	●	8.10	10	5	114.5	42.0	61.5	63.5	113	1.5	2
	DSAS0820X03S100	●	8.20	10	3	97.5	26.1	44.5	47.5	96	1.5	2
<b>NEW</b>	DSAS0820X05S100	●	8.20	10	5	114.5	42.5	61.5	63.5	113	1.5	2
	DSAS0830X03S100	●	8.30	10	3	97.5	26.4	44.5	47.5	96	1.5	2
<b>NEW</b>	DSAS0830X05S100	●	8.30	10	5	114.5	43.0	61.5	63.5	113	1.5	2
	DSAS0833X03S100	●	8.33	10	3	97.5	26.5	44.5	47.5	96	1.5	2
<b>NEW</b>	DSAS0833X05S100	●	8.33	10	5	114.5	43.2	61.5	63.5	113	1.5	2
	DSAS0840X03S100	●	8.40	10	3	97.5	26.7	44.5	47.5	96	1.5	2
<b>NEW</b>	DSAS0840X05S100	●	8.40	10	5	114.5	43.5	61.5	63.5	113	1.5	2
	DSAS0850X03S100	●	8.50	10	3	97.5	27.0	44.5	47.5	96	1.5	2
<b>NEW</b>	DSAS0850X05S100	●	8.50	10	5	114.5	44.0	61.5	63.5	113	1.5	2
	DSAS0860X03S100	●	8.60	10	3	102.6	27.4	46.6	48.6	101	1.6	2
<b>NEW</b>	DSAS0860X05S100	●	8.60	10	5	117.6	44.6	64.6	66.6	116	1.6	2
	DSAS0870X03S100	●	8.70	10	3	102.6	27.7	46.6	48.6	101	1.6	2
<b>NEW</b>	DSAS0870X05S100	●	8.70	10	5	117.6	45.1	64.6	66.6	116	1.6	2
	DSAS0873X03S100	●	8.73	10	3	102.6	27.8	46.6	48.6	101	1.6	2
<b>NEW</b>	DSAS0873X05S100	●	8.73	10	5	117.6	45.3	64.6	66.6	116	1.6	2
	DSAS0880X03S100	●	8.80	10	3	102.6	28.0	46.6	48.6	101	1.6	2
<b>NEW</b>	DSAS0880X05S100	●	8.80	10	5	117.6	45.6	64.6	66.6	116	1.6	2
	DSAS0890X03S100	●	8.90	10	3	102.6	28.3	46.6	48.6	101	1.6	2
<b>NEW</b>	DSAS0890X05S100	●	8.90	10	5	117.6	46.1	64.6	66.6	116	1.6	2
	DSAS0900X03S100	●	9.00	10	3	102.6	28.6	46.6	48.6	101	1.6	2
<b>NEW</b>	DSAS0900X05S100	●	9.00	10	5	117.6	46.6	64.6	66.6	116	1.6	2
	DSAS0910X03S100	●	9.10	10	3	102.8	29.1	49.8	50.8	101	1.8	2
<b>NEW</b>	DSAS0910X05S100	●	9.10	10	5	122.8	47.3	68.8	71.8	121	1.8	2
	DSAS0920X03S100	●	9.20	10	3	102.8	29.4	49.8	50.8	101	1.8	2
<b>NEW</b>	DSAS0920X05S100	●	9.20	10	5	122.8	47.8	68.8	71.8	121	1.8	2
	DSAS0930X03S100	●	9.30	10	3	102.8	29.7	49.8	50.8	101	1.8	2
<b>NEW</b>	DSAS0930X05S100	●	9.30	10	5	122.8	48.3	68.8	71.8	121	1.8	2
	DSAS0940X03S100	●	9.40	10	3	102.8	30.0	49.8	50.8	101	1.8	2
<b>NEW</b>	DSAS0940X05S100	●	9.40	10	5	122.8	48.8	68.8	71.8	121	1.8	2
	DSAS0950X03S100	●	9.50	10	3	102.8	30.3	49.8	50.8	101	1.8	2
<b>NEW</b>	DSAS0950X05S100	●	9.50	10	5	122.8	49.3	68.8	71.8	121	1.8	2
	DSAS0953X03S100	●	9.53	10	3	102.8	30.4	49.8	50.8	101	1.8	2

1. Il foro per l'adduzione di refrigerante con diametro  $\leq 5$  mm avrà forma circolare.



# DSAS

	Codice di ordinazione	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
<b>NEW</b>	DSAS0953X05S100	●	9.53	10	5	122.8	49.4	68.8	71.8	121	1.8	2
	DSAS0960X03S100	●	9.60	10	3	102.8	30.6	49.8	50.8	101	1.8	2
<b>NEW</b>	DSAS0960X05S100	●	9.60	10	5	122.8	49.8	68.8	71.8	121	1.8	2
	DSAS0970X03S100	●	9.70	10	3	102.8	30.9	49.8	50.8	101	1.8	2
<b>NEW</b>	DSAS0970X05S100	●	9.70	10	5	122.8	50.3	68.8	71.8	121	1.8	2
	DSAS0980X03S100	●	9.80	10	3	102.8	31.2	51.8	51.8	101	1.8	2
<b>NEW</b>	DSAS0980X05S100	●	9.80	10	5	122.8	50.8	71.8	71.8	121	1.8	2
	DSAS0990X03S100	●	9.90	10	3	102.8	31.5	51.9	51.8	101	1.8	2
<b>NEW</b>	DSAS0990X05S100	●	9.90	10	5	122.8	51.3	71.8	71.8	121	1.8	2
	DSAS0992X03S100	●	9.92	10	3	102.8	31.6	51.8	51.8	101	1.8	2
<b>NEW</b>	DSAS0992X05S100	●	9.92	10	5	122.8	51.4	71.8	71.8	121	1.8	2
	DSAS1000X03S100	●	10.00	10	3	102.8	31.8	51.8	51.8	101	1.8	2
<b>NEW</b>	DSAS1000X05S100	●	10.00	10	5	122.8	51.8	71.8	71.8	121	1.8	2
	DSAS1010X03S120	●	10.10	12	3	112.9	32.2	54.9	57.9	111	1.9	2
<b>NEW</b>	DSAS1010X05S120	●	10.10	12	5	135.9	52.4	75.9	79.9	134	1.9	2
	DSAS1020X03S120	●	10.20	12	3	112.9	32.5	54.9	57.9	111	1.9	2
<b>NEW</b>	DSAS1020X05S120	●	10.20	12	5	135.9	52.9	75.9	79.9	134	1.9	2
	DSAS1030X03S120	●	10.30	12	3	112.9	32.8	54.9	57.9	111	1.9	2
<b>NEW</b>	DSAS1030X05S120	●	10.30	12	5	135.9	53.4	75.9	79.9	134	1.9	2
	DSAS1032X03S120	●	10.32	12	3	112.9	32.9	54.9	57.9	111	1.9	2
<b>NEW</b>	DSAS1032X05S120	●	10.32	12	5	135.9	53.5	75.9	79.9	134	1.9	2
	DSAS1040X03S120	●	10.40	12	3	112.9	33.1	54.9	57.9	111	1.9	2
<b>NEW</b>	DSAS1040X05S120	●	10.40	12	5	135.9	53.9	75.9	79.9	134	1.9	2
	DSAS1050X03S120	●	10.50	12	3	112.9	33.4	54.9	57.9	111	1.9	2
<b>NEW</b>	DSAS1050X05S120	●	10.50	12	5	135.9	54.4	75.9	79.9	134	1.9	2
	DSAS1060X03S120	●	10.60	12	3	112.9	33.7	54.9	57.9	111	1.9	2
<b>NEW</b>	DSAS1060X05S120	●	10.60	12	5	135.9	54.9	75.9	79.9	134	1.9	2
	DSAS1070X03S120	●	10.70	12	3	112.9	34.0	54.9	57.9	111	1.9	2
<b>NEW</b>	DSAS1070X05S120	●	10.70	12	5	135.9	55.4	75.9	79.9	134	1.9	2
	DSAS1072X03S120	●	10.72	12	3	118.0	34.1	57.0	59.0	116	2.0	2
<b>NEW</b>	DSAS1072X05S120	●	10.72	12	5	142.0	55.6	79.0	80.0	140	2.0	2
	DSAS1080X03S120	●	10.80	12	3	118.0	34.4	57.0	59.0	116	2.0	2
<b>NEW</b>	DSAS1080X05S120	●	10.80	12	5	142.0	56.0	79.0	80.0	140	2.0	2
	DSAS1090X03S120	●	10.90	12	3	118.0	34.7	57.0	59.0	116	2.0	2
<b>NEW</b>	DSAS1090X05S120	●	10.90	12	5	142.0	56.5	79.0	80.0	140	2.0	2
	DSAS1100X03S120	●	11.00	12	3	118.0	35.0	57.0	59.0	116	2.0	2
<b>NEW</b>	DSAS1100X05S120	●	11.00	12	5	142.0	57.0	79.0	80.0	140	2.0	2
	DSAS1110X03S120	●	11.10	12	3	118.1	35.4	60.1	61.1	116	2.1	2
<b>NEW</b>	DSAS1110X05S120	●	11.10	12	5	142.1	57.6	83.1	86.1	140	2.1	2
	DSAS1111X03S120	●	11.11	12	3	118.1	35.4	60.1	61.1	116	2.1	2
<b>NEW</b>	DSAS1111X05S120	●	11.11	12	5	142.1	57.7	83.1	86.1	140	2.1	2
	DSAS1120X03S120	●	11.20	12	3	118.1	35.7	60.1	61.1	116	2.1	2
<b>NEW</b>	DSAS1120X05S120	●	11.20	12	5	142.1	58.1	83.1	86.1	140	2.1	2
	DSAS1130X03S120	●	11.30	12	3	118.1	36.0	60.1	61.1	116	2.1	2
<b>NEW</b>	DSAS1130X05S120	●	11.30	12	5	142.1	58.6	83.1	86.1	140	2.1	2
	DSAS1140X03S120	●	11.40	12	3	118.1	36.3	60.1	61.1	116	2.1	2
<b>NEW</b>	DSAS1140X05S120	●	11.40	12	5	142.1	59.1	83.1	86.1	140	2.1	2
	DSAS1150X03S120	●	11.50	12	3	118.1	36.6	60.1	61.1	116	2.1	2
<b>NEW</b>	DSAS1150X05S120	●	11.50	12	5	142.1	59.6	83.1	86.1	140	2.1	2
	DSAS1151X03S120	●	11.51	12	3	118.2	36.7	62.2	62.2	116	2.2	2

1. Il foro per l'adduzione di refrigerante con diametro  $\leq 5$  mm avrà forma circolare.

# DSAS

	Codice di ordinazione	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
<b>NEW</b>	DSAS1151X05S120	●	11.51	12	5	142.2	59.7	86.2	86.2	140	2.2	2
	DSAS1160X03S120	●	11.60	12	3	118.2	37.0	62.2	62.2	116	2.2	2
<b>NEW</b>	DSAS1160X05S120	●	11.60	12	5	142.2	60.2	86.2	86.2	140	2.2	2
	DSAS1170X03S120	●	11.70	12	3	118.2	37.3	62.2	62.2	116	2.2	2
<b>NEW</b>	DSAS1170X05S120	●	11.70	12	5	142.2	60.7	86.2	86.2	140	2.2	2
	DSAS1180X03S120	●	11.80	12	3	118.2	37.6	62.2	62.2	116	2.2	2
<b>NEW</b>	DSAS1180X05S120	●	11.80	12	5	142.2	61.2	86.2	86.2	140	2.2	2
	DSAS1190X03S120	●	11.90	12	3	118.2	37.9	62.2	62.2	116	2.2	2
<b>NEW</b>	DSAS1190X05S120	●	11.90	12	5	142.2	61.7	86.2	86.2	140	2.2	2
	DSAS1200X03S120	●	12.00	12	3	118.2	38.2	62.2	62.2	116	2.2	2
<b>NEW</b>	DSAS1200X05S120	●	12.00	12	5	142.2	62.2	86.2	86.2	140	2.2	2

1. Il foro per l'adduzione di refrigerante con diametro  $\leq 5$  mm avrà forma circolare.



# DSAS

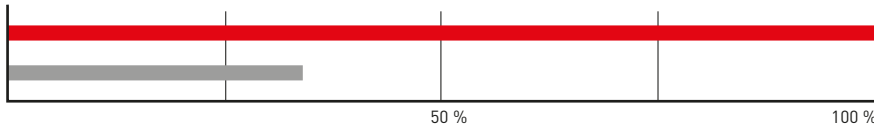
## CONDIZIONI DI TAGLIO RACCOMANDATE

Materiale	DC	L / D	Vc	n	f
S Lega resistente al calore	3	≤5	10	1000	0.06 (0.04-0.1 )
	4		10	790	0.06 (0.04-0.1 )
	5		12	760	0.08 (0.06-0.12)
	6		15	790	0.1 (0.08-0.15)
	8		15	590	0.1 (0.08-0.15)
	10		18	570	0.1 (0.08-0.15)
	12		20	530	0.12 (0.08-0.15)
Leghe di titanio	3	≤5	40	4200	0.08 (0.06-0.12)
	4		40	3100	0.1 (0.08-0.16)
	5		40	2500	0.12 (0.08-0.2 )
	6		40	2100	0.14 (0.1 -0.2 )
	8		42	1600	0.18 (0.15-0.25)
	10		42	1300	0.22 (0.18-0.28)
	12		45	1100	0.24 (0.2 -0.3 )

1. Si consiglia un sistema con mandrino e refrigerante ad alta pressione.
2. Come refrigerante consigliamo un'emulsione di tipo idrosolubile.
3. Quando si utilizza un refrigerante non idrosolubile, ridurre la velocità di taglio del 10-20%.
4. Quando si esegue la foratura con un sistema di raffreddamento esterno, si consiglia di eseguire la foratura a step ogni 0,5 x DC per favorire la rottura dei trucioli.

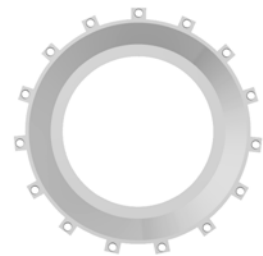
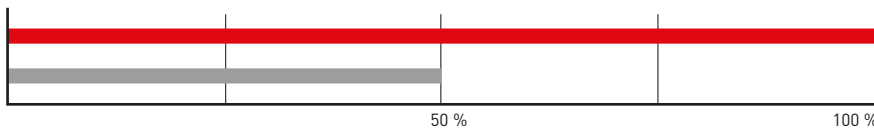
# ESEMPI DI APPLICAZIONE

Utensile	DSAS0800X03S080
Materiale del pezzo da lavorare	Contenitore esoreattore - Inconel718
Vc (m/min)	15
f (mm/giro)	0.10
ap (mm)	5
Refrigerante	Emulsione interna
Risultato	12 fori (è possibile continuare la foratura)

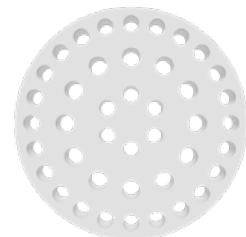
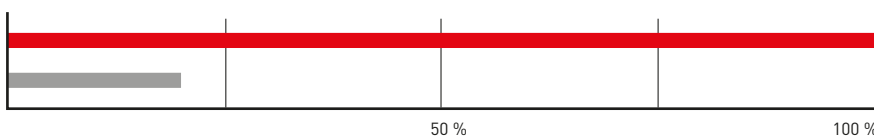


La punta DSAS ha raggiunto una vita utensile tre volte superiore, ha consentito una foratura stabile e una buona precisione dimensionale.

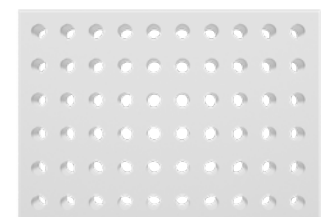
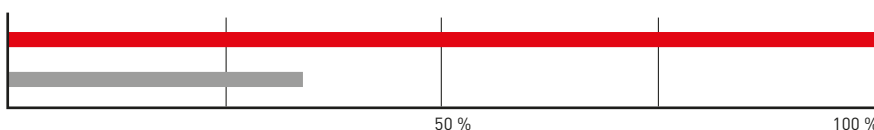
Utensile	DSAS0560X03S060
Materiale del pezzo da lavorare	Guarnizione interna - HS188
Vc (m/min)	15
f (mm/giro)	0.035
ap (mm)	5
Refrigerante	Emulsione interna
Risultato	64 fori (è possibile continuare la foratura)



Utensile	DSAS0800X03S080
Materiale del pezzo da lavorare	K-Monel
Vc (m/min)	26
f (mm/giro)	0.1
ap (mm)	32
Refrigerante	Emulsione interna
Risultato	50 fori



Utensile	DSAS0580X03S060
Materiale del pezzo da lavorare	Rene41
Vc (m/min)	23.6
f (mm/giro)	0.05
ap (mm)	12
Refrigerante	Emulsione interna
Risultato	60 fori



È stata mantenuta la tolleranza foro.





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