

DSAS

BROCAS DE METAL DURO PARA MATERIALES DE HRSA



DSAS

APLICACIÓN

Excelente taladrado para aplicaciones en aeroespacial donde los materiales HRSA están relacionados con los siguientes criterios:

- **Fiabilidad**
- **Proceso estable**
- **Calidad del agujero**
- **Estabilidad dimensional**

Las brocas de Metal Duro DSAS pueden cumplir con los requisitos del cliente, para alcanzar agujeros de alta calidad en materiales HRSA, como en aleaciones de cobalto, Inconel, níquel y titanio.

Las brocas DSAS se puede utilizar para taladrar piezas de motores a reacción, turbinas de gas, cohetes, aviones y partes de hornos.



CARACTERÍSTICAS

CALIDAD DP9020 PARA UN MECANIZADO DE ALEACIONES TERMO-RESISTENTES

La resistente calidad de Metal Duro proporciona una alta resistencia al desgaste y a la rotura, por lo que proporciona una larga vida útil de la herramienta.

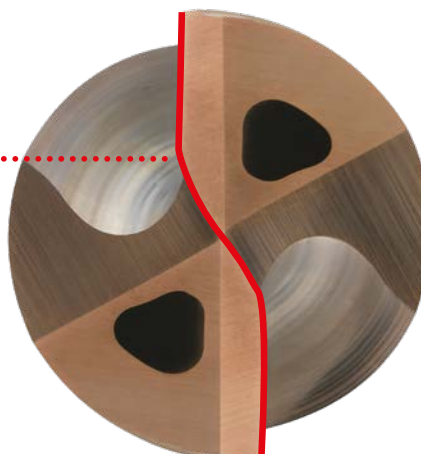


MARGEN ESPECIAL

El estrecho margen reduce el área de contacto y evita la producción de capas endurecidas por trabajo al mecanizar aleaciones termo-resistentes.

FILO DE CORTE RECTO CON HONING ESPECÍFICO

Un filo de corte recto y tenaz con un honing específico provee una formación de viruta estable que evita su adhesión al filo de corte.



VENTAJAS

CONSTANTE CALIDAD DEL AGUJERO

ELEVADA REPETIBILIDAD

SEGURIDAD DEL PROCESO

PRECISIÓN DEL TALADRADO



GAMA PRODUCTOS

BROCAS	DC	L / D	GEOMETRÍA DE MANGO	S	
DSAS	Ø 3 mm - 12 mm	3	DIN6535HA	©	✓

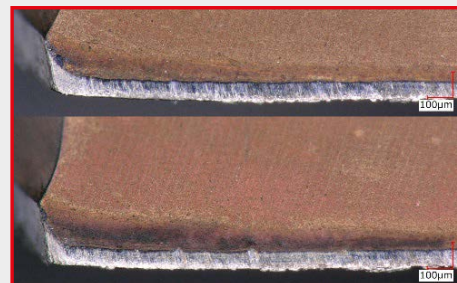
Los diámetros están disponibles en pulgadas.



DSAS

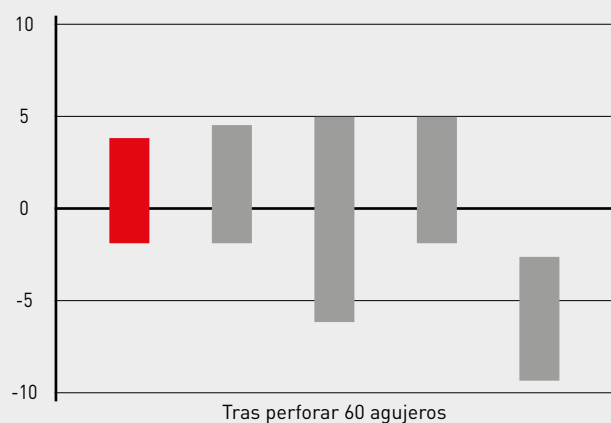
COMPARACIÓN DEL RENDIMIENTO

Material	Inconel 718
Herramienta	DSAS0700X03S080
ap (mm)	12
Vc (m/min)	15
f (mm/rev.)	0.10
Refrigerante	Emulsión (10 %), refrigeración interna
Máquina	Centro de mecanizado vertical

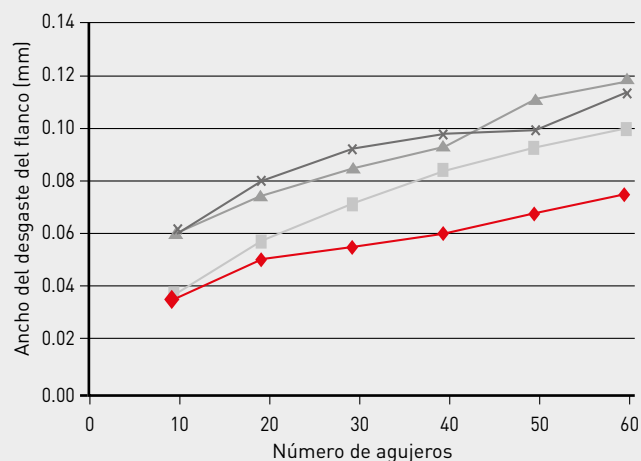


Anchura del desgaste del flanco después de taladrar 60 agujeros

Ø DESCENTRADO DEL AGUJERO (µm)

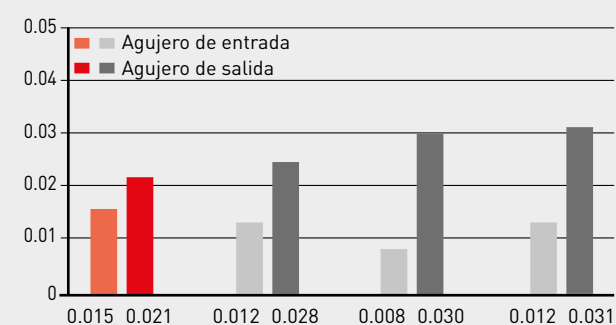


VIDA ÚTIL DE LA HERRAMIENTA

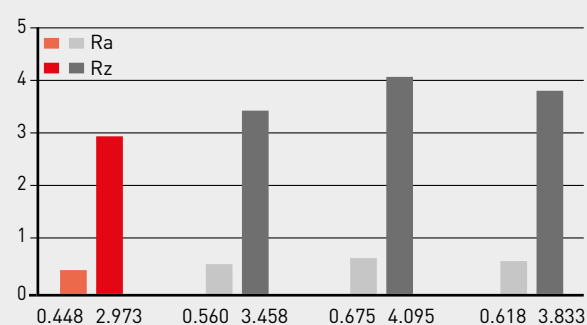


Material	Inconel 718
Herramienta	DSAS0700X03S080
ap (mm)	10
Vc (m/min)	15
f (mm/rev.)	0.10
Refrigerante	Emulsión (10 %), refrigeración interna
Máquina	Centro de mecanizado vertical

REDONDEZ



RUGOSIDAD DE LA PARED (µm)



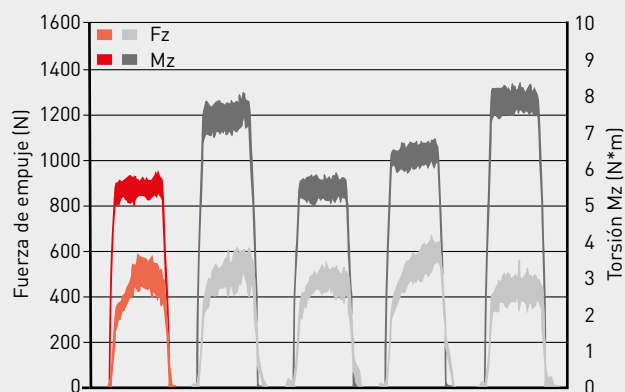
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COMPARACIÓN DE FUERZAS DE CORTE

FILOS DE CORTE AFILADOS, CON UNA BAJA FUERZA DE PRESIÓN

Debido a los filos de corte más afilados, la broca DSAS tenía una fuerza de empuje menor al taladrar titanio en comparación con los productos convencionales.

Material	Aleación de titanio (Ti-6Al-4V)
Herramienta	DSAS0700X03S080
ap (mm)	10
Vc (m/min)	40
f (mm/rev.)	0.15
Refrigerante	Emulsión (10 %), refrigeración interna
Máquina	Centro de mecanizado vertical

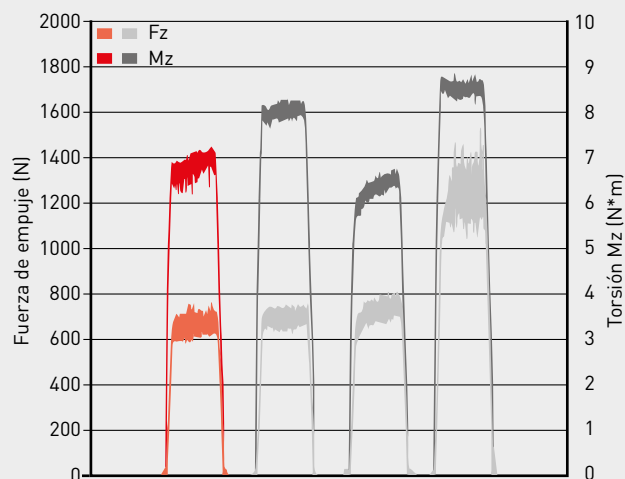


BAJA FUERZA DE CORTE, ELEVADA CALIDAD

La comparación de la resistencia de corte se llevó a cabo con una máquina RENE 41.

En comparación con los productos convencionales, la broca DSAS mantuvo la fuerza de corte más baja.

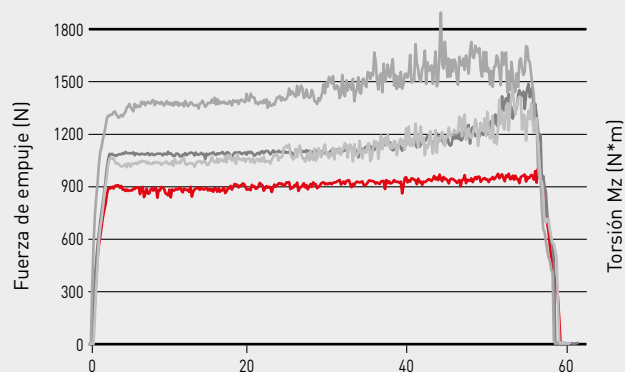
Material	RENE41
Herramienta	DSAS0700X03S080
ap (mm)	10
Vc (m/min)	15
f (mm/rev.)	0.10
Refrigerante	Emulsión (10 %), refrigeración interna
Máquina	Centro de mecanizado vertical



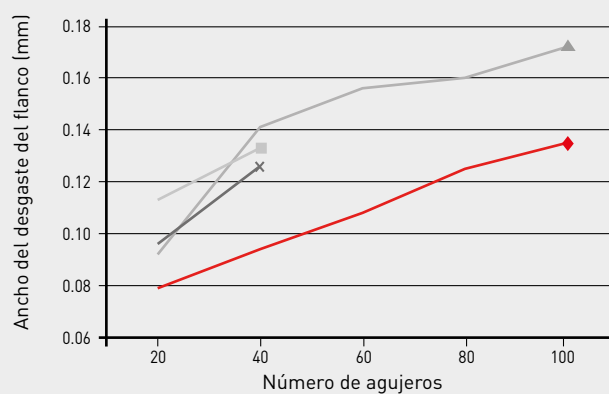
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COMPARACIÓN DE FUERZAS DE CORTE

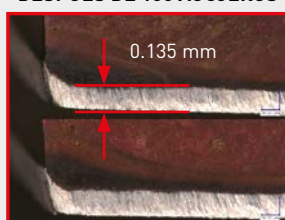
Material	Inconel 718
Herramienta	DSAS0600X05S060
DC (mm)	6
ap (mm)	30
Vc (m/min)	20
f (mm/rev.)	0.16
Refrigerante	Emulsión (10 %), refrigeración interna
Máquina	Centro de mecanizado vertical



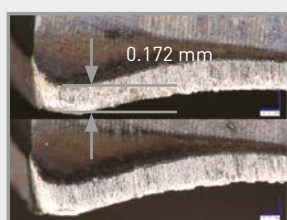
Material	Inconel 718
Herramienta	DSAS0600X05S060
DC (mm)	6
ap (mm)	30
Vc (m/min)	20
f (mm/rev.)	0.10
Refrigerante	Emulsión (10 %), refrigeración interna
Máquina	Centro de mecanizado vertical



DESPUÉS DE 100 AGUJEROS



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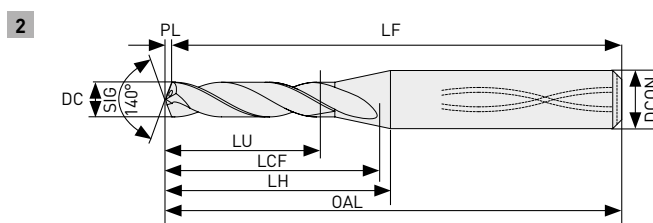
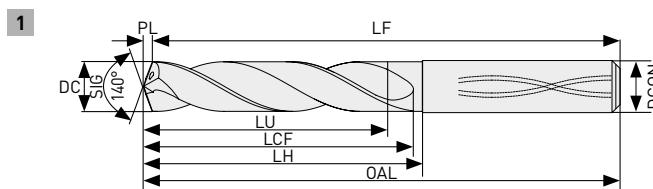
Convencional

DSAS



BROCA DE METAL DURO CON REFRIGERACIÓN INTERNA

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

Referencia	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
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
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
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
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
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
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
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
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
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
DSAS0360X05S060	●	3.60	6	5	78.7	18.7	30.7	31.7	78	0.7	1

DSAS

Referencia	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
DSAS0370X03S060	●	3.70	6	3	70.7	11.8	22.7	23.7	70	0.7	1
DSAS0370X05S060	●	3.70	6	5	78.7	19.2	30.7	31.7	78	0.7	1
DSAS0380X03S060	●	3.80	6	3	70.7	12.1	22.7	23.7	70	0.7	1
DSAS0380X05S060	●	3.80	6	5	78.7	19.7	30.7	31.7	78	0.7	1
DSAS0390X03S060	●	3.90	6	3	70.7	12.4	22.7	23.7	70	0.7	1
DSAS0390X05S060	●	3.90	6	5	78.7	20.2	30.7	31.7	78	0.7	1
DSAS0397X03S060	●	3.97	6	3	70.7	12.6	22.7	23.7	70	0.7	1
DSAS0397X05S060	●	3.97	6	5	78.7	20.5	30.7	31.7	78	0.7	1
DSAS0400X03S060	●	4.00	6	3	70.7	12.7	22.7	23.7	70	0.7	1
DSAS0400X05S060	●	4.00	6	5	78.7	20.7	30.7	31.7	78	0.7	1
DSAS0410X03S060	●	4.10	6	3	73.7	13.0	24.7	26.7	73	0.7	1
DSAS0410X05S060	●	4.10	6	5	82.7	21.2	33.7	35.7	82	0.7	1
DSAS0420X03S060	●	4.20	6	3	73.8	13.4	24.8	26.8	73	0.8	1
DSAS0420X05S060	●	4.20	6	5	82.8	21.8	33.8	35.8	82	0.8	1
DSAS0430X03S060	●	4.30	6	3	73.8	13.7	24.8	26.8	73	0.8	1
DSAS0430X05S060	●	4.30	6	5	82.8	22.3	33.8	35.8	82	0.8	1
DSAS0437X03S060	●	4.37	6	3	73.8	13.9	24.8	26.8	73	0.8	1
DSAS0437X05S060	●	4.37	6	5	82.8	22.6	33.8	35.8	82	0.8	1
DSAS0440X03S060	●	4.40	6	3	73.8	14.0	24.8	26.8	73	0.8	1
DSAS0440X05S060	●	4.40	6	5	82.8	22.8	33.8	35.8	82	0.8	1
DSAS0450X03S060	●	4.50	6	3	73.8	14.3	24.8	26.8	73	0.8	1
DSAS0450X05S060	●	4.50	6	5	82.8	23.3	33.8	35.8	82	0.8	1
DSAS0460X03S060	●	4.60	6	3	75.8	14.6	25.8	28.8	75	0.8	1
DSAS0460X05S060	●	4.60	6	5	85.8	23.8	35.8	38.8	85	0.8	1
DSAS0470X03S060	●	4.70	6	3	75.9	15.0	25.9	28.9	75	0.9	1
DSAS0470X05S060	●	4.70	6	5	85.9	24.4	35.9	38.9	85	0.9	1
DSAS0476X03S060	●	4.76	6	3	75.9	15.2	25.9	28.9	75	0.9	1
DSAS0476X05S060	●	4.76	6	5	85.9	24.7	35.9	38.9	85	0.9	1
DSAS0480X03S060	●	4.80	6	3	75.9	15.3	25.9	28.9	75	0.9	1
DSAS0480X05S060	●	4.80	6	5	85.9	24.9	35.9	38.9	85	0.9	1
DSAS0486X03S060	●	4.86	6	3	75.9	15.5	25.9	28.9	75	0.9	1
DSAS0486X05S060	●	4.86	6	5	85.9	25.2	35.9	38.9	85	0.9	1
DSAS0490X03S060	●	4.90	6	3	75.9	15.6	25.9	28.9	75	0.9	1
DSAS0490X05S060	●	4.90	6	5	85.9	25.4	35.9	38.9	85	0.9	1
DSAS0500X03S060	●	5.00	6	3	81.9	15.9	28.9	29.9	81	0.9	2
DSAS0500X05S060	●	5.00	6	5	89.9	25.9	39.9	42.9	89	0.9	2
DSAS0510X03S060	●	5.10	6	3	81.9	16.2	28.9	29.9	81	0.9	2
DSAS0510X05S060	●	5.10	6	5	89.9	26.4	39.9	42.9	89	0.9	2
DSAS0516X03S060	●	5.16	6	3	82.0	16.5	29.0	30.0	81	1.0	2
DSAS0516X05S060	●	5.16	6	5	90.0	26.8	40.0	43.0	89	1.0	2
DSAS0520X03S060	●	5.20	6	3	82.0	16.6	29.0	30.0	81	1.0	2
DSAS0520X05S060	●	5.20	6	5	90.0	27.0	40.0	43.0	89	1.0	2
DSAS0530X03S060	●	5.30	6	3	82.0	16.9	29.0	30.0	81	1.0	2
DSAS0530X05S060	●	5.30	6	5	90.0	27.5	40.0	43.0	89	1.0	2
DSAS0540X03S060	●	5.40	6	3	82.0	17.2	29.0	30.0	81	1.0	2
DSAS0540X05S060	●	5.40	6	5	90.0	28.0	40.0	43.0	89	1.0	2
DSAS0550X03S060	●	5.50	6	3	82.0	17.5	29.0	30.0	81	1.0	2
DSAS0550X05S060	●	5.50	6	5	90.0	28.5	40.0	43.0	89	1.0	2
DSAS0556X03S060	●	5.56	6	3	82.1	17.8	31.1	31.1	81	1.1	2
DSAS0556X05S060	●	5.56	6	5	90.1	28.9	43.1	43.1	89	1.1	2

El agujero refrigerante de Ø 5 mm o menos tendrá forma redonda.

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Referencia	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

El agujero refrigerante de Ø 5 mm o menos tendrá forma redonda.

DSAS

Referencia	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

El agujero refrigerante de Ø 5 mm o menos tendrá forma redonda.

DSAS

Referencia	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

El agujero refrigerante de Ø 5 mm o menos tendrá forma redonda.



DSAS

Referencia	DP9020	DC	DCON	L / D	OAL	LU	LCF	LH	LF	PL	Fig.
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
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
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
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
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
DSAS1200X05S120	●	12.00	12	5	142.2	62.2	86.2	86.2	140	2.2	2

El agujero refrigerante de Ø 5 mm o menos tendrá forma redonda.

DSAS

CONDICIONES DE CORTE RECOMENDADAS

Material	DC	L / D	Vc	n	f
S	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]
	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]

Se recomienda a través del eje y del sistema de refrigeración de alta presión.

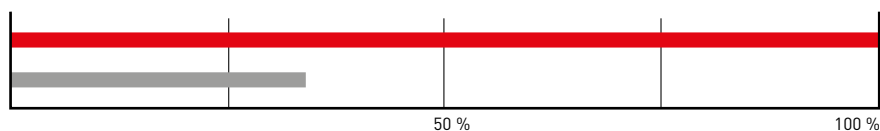
Se recomienda la refrigeración por emulsión del tipo hidrosoluble.

Si se utiliza refrigerante no soluble en agua, reduzca la velocidad de corte entre un 10-20%

Cuando se taladra utilizando refrigeración externa, se recomienda el taladrado por picoteo, avance por paso en cada profundidad DC x 0,5 para favorecer la rotura de las virutas.

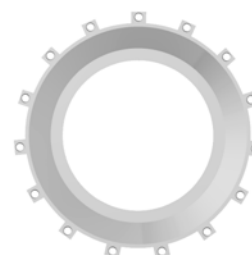
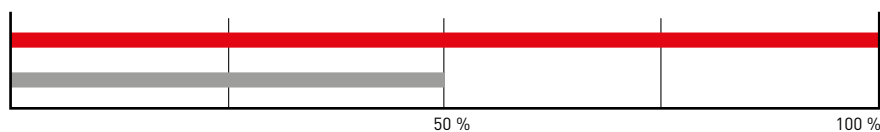
EJEMPLOS DE APLICACIÓN

Herramienta	DSAS0800X03S080
Material de la pieza de trabajo	Carcasa de motor: Inconel718
Vc (m/min)	15
f (mm/rev.)	0.10
ap (mm)	5
Refrigerante	Emulsión interna
Resultados	12 agujeros (Es posible el taladrado continuo)

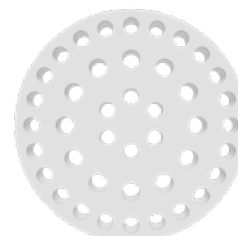
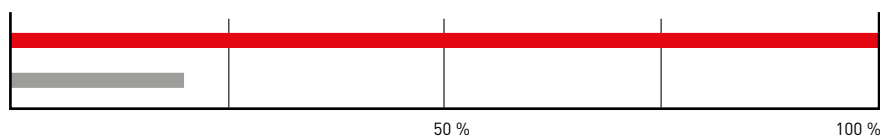


La broca DSAS logró una vida útil de la herramienta 3 veces mayor y mostró un taladrado estable con una buena precisión.

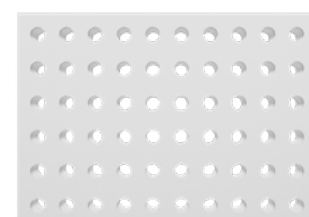
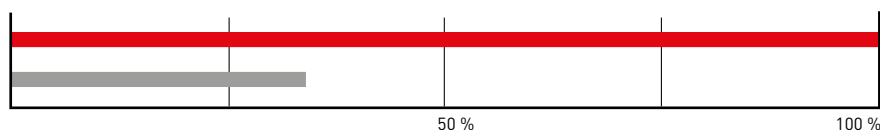
Herramienta	DSAS0560X03S060
Material de la pieza de trabajo	Junta interior: HS188
Vc (m/min)	15
f (mm/rev.)	0.035
ap (mm)	5
Refrigerante	Emulsión interna
Resultados	64 agujeros (Es posible el taladrado continuo)



Herramienta	DSAS0800X03S080
Material de la pieza de trabajo	K-Monel
Vc (m/min)	26
f (mm/rev.)	0.1
ap (mm)	32
Refrigerante	Emulsión interna
Resultados	50 agujeros



Herramienta	DSAS0580X03S060
Material de la pieza de trabajo	Rene41
Vc (m/min)	23.6
f (mm/rev.)	0.05
ap (mm)	12
Refrigerante	Emulsión interna
Resultados	60 agujeros



Se mantuvo la tolerancia de agujeros.

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