

Title (en)
Flexible rotary cutting die

Title (de)
Biegsames Rotationsstanzwerkzeug

Title (fr)
Outil d'estampage flexible

Publication
EP 1092517 A3 20021218 (EN)

Application
EP 00309044 A 20001013

Priority
US 15927099 P 19991013

Abstract (en)
[origin: EP1092517A2] A rotary cutting die includes a durable, flexible rotary die plate (14) having an inner surface and an outer surface (18). A cutting rule (12) that defines a cutting design is supported by the die plate. The cutting rule includes a cutting edge (16), which extends above the outer surface of the die plate, and a support edge (20) disposed within the die plate. The support edge includes a plurality of keyhole shaped notches (22). Preferably, a plurality of S-shaped hooks (24) are connected to the keyhole notches, and serve to reinforce the rotary die plate and to support the cutting rule in the rotary die plate. The rotary die plate (14) is preferably formed from a durable and flexible urethane-based material that exhibits a low shrink factor during curing or hardening. <IMAGE>

IPC 1-7
B26F 1/44

IPC 8 full level
B26F 1/44 (2006.01)

CPC (source: EP)
B26F 1/44 (2013.01); **B26F 1/384** (2013.01); **B26F 2001/4463** (2013.01)

Citation (search report)

- [Y] US 3805657 A 19740423 - SIMPSON J
- [Y] DE 1134880 B 19620816 - FLOSEAL CORP
- [A] GB 1333037 A 19731010 - NOTTING LTD W
- [A] US 5595093 A 19970121 - KAPOLNEK PAUL G [US]
- [A] US 2993421 A 19610725 - PHILLIPS HARRY L, et al
- [A] DE 1786316 A1 19720224 - MACHINES SPECIALES S A SOC ET
- [A] US 5143768 A 19920901 - WILDERMAN RONALD C [US], et al
- [A] US 5943935 A 19990831 - BRAYTON RUSSELL S [US], et al
- [A] US 3789715 A 19740205 - SCHUCHARDT R, et al

Cited by
EP1197306A3

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 1092517 A2 20010418; EP 1092517 A3 20021218; CA 2323381 A1 20010413

DOCDB simple family (application)
EP 00309044 A 20001013; CA 2323381 A 20001013