

Title (en)
MACHINE CONTROL SYSTEMS

Title (de)
MASCHINENSTEUERUNGSSYSTEM

Title (fr)
SYSTEMES DE COMMANDE MACHINE

Publication
EP 1031179 A1 20000830 (EN)

Application
EP 98957767 A 19981110

Priority

- US 9823945 W 19981110
- US 6500797 P 19971110

Abstract (en)
[origin: WO9925056A1] Methods and apparatus for enhancing operations of manufacturing machines, including armature winding machines, utilizing a programmable motion controller and a servo motor and, in different embodiments, an industrial computer or a programmable logic controller. Synchronous parallel sequencing by which one machine operation is initiated before the preceding machine operation is completed is used to increase production speeds of manufacturing machines. Armature winding machines are operated to have S-curve acceleration and deceleration ramps which may be independent of one another.

IPC 1-7
H02K 15/09; G05B 19/18

IPC 8 full level
G05B 19/414 (2006.01); **H02K 15/09** (2006.01)

CPC (source: EP)
G05B 19/4141 (2013.01); **H02K 15/09** (2013.01); **G05B 2219/25367** (2013.01); **G05B 2219/34208** (2013.01)

Citation (search report)
See references of WO 9925056A1

Designated contracting state (EPC)
CH DE FR GB IT LI

DOCDB simple family (publication)
WO 9925056 A1 19990520; CA 2309645 A1 19990520; EP 1031179 A1 20000830

DOCDB simple family (application)
US 9823945 W 19981110; CA 2309645 A 19981110; EP 98957767 A 19981110