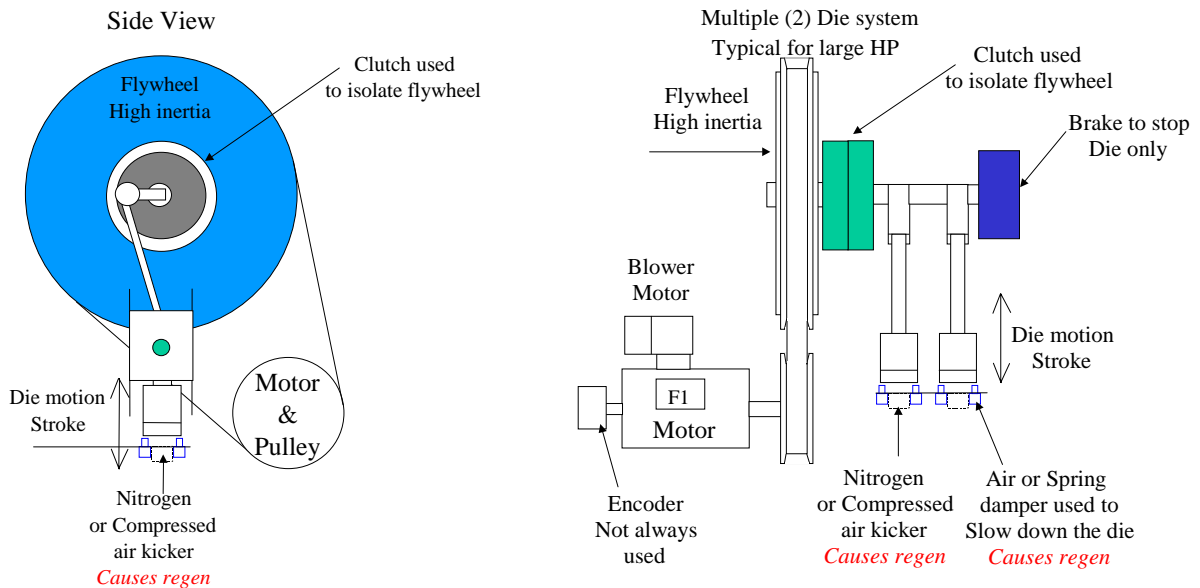
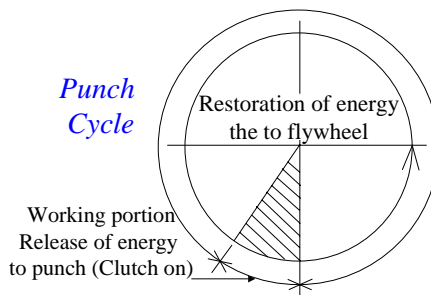


A **Punch Press** is a machine used to supply power to a die that is used to blank, form, emboss, coin, shape metal or even non-metallic material. Finished product examples for automobiles are: fenders, valve lifters, gas tanks, air cleaner covers, etc. Some of these products require a multi-step punch process.

The **Die** is a component of the press that is connected to a crankshaft, which transmits energy from the flywheel to the material that is being modified. The die is the tool that forms, cuts, draws, and pierces the metal that is being modified.



The **Flywheel**, a rotating high inertia body, is used on a press to store energy that is being provided by a drive/motor. The flywheel is used to prevent excessive or sudden changes in speed during the transfer of energy in the punch cycle which is 20 degree. The motor restores the released punch energy to the flywheel during the non-working portion (340-degree) of the press cycle. Regeneration is possible during this cycle if flywheel is unbalanced.



Torque Capacity is the ability to take the energy of the flywheel and transmit it through the gears, clutch, crankshaft, and die. The ratings are typically in tons.

Punch Press Application Data / Specification

Customer Data

Company Name	<input type="checkbox"/> End user <input type="checkbox"/> Distributor <input type="checkbox"/> OEM
Contact Name #1	Contact Name #1 e-mail
Contact Name #2	Contact Name #2 e-mail
Address	City
State	Zip
Phone	Fax

Machine Data

Type of Press (i.e. Stamping, Punching, Coining-minting) _____

Design speed (SPM¹) _____ Existing required Max speed (SPM¹) _____

New required speed. (SPM¹) Max* _____ New required speed. (SPM¹) Min* _____

Number of dies _____ or NA Duty cycle _____

Ambient Temperature in control room _____ °F or _____ °C

Environment** _____

** Note: It should not be any more than 3:1 from Max (Strokes/Minute) /Min(Strokes/Minute)*

***Note: If oily, corrosive, high temperature etc*

Existing Drive Data

Manufacturer _____ Model # _____

Horse Power _____

Existing Voltage 230VAC 460VAC 575VAC Other _____

Existing Drive system AC drive DC drive Eddy Current

Mechanical Varispede NEMA D AC Motor

Other _____

Existing Motor Data

Existing motor Manufacturer _____ Model # _____

New motor required Yes No

Existing motor full load ratings _____ Amps, _____ Volts, _____ RPM (1150, 1750 etc.)

Conduit Box location, if motor is to be replaced F1 F2 F3 or Not Applicable

Existing Blower Motor _____ Phase _____ Voltage _____ Amps or Not Applicable

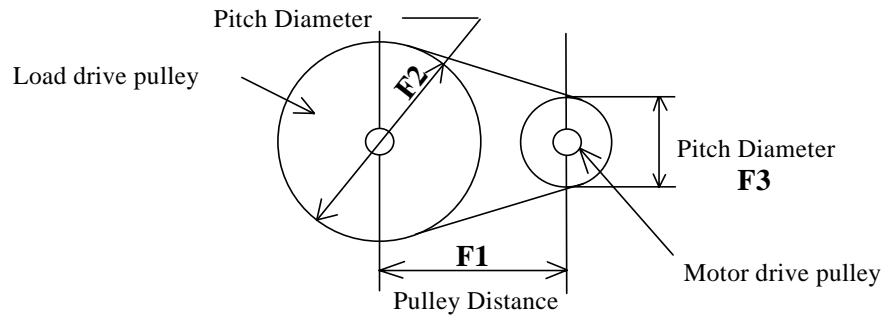
Existing Encoder Digital Analog AC Analog DC

¹Strokes per Minute
Yaskawa Electric America

Existing Encoder Manufacturer³ _____ NA

Resolution Existing (PPR) _____ OR Volts/RPM _____

Encoder Pickup Optical Magnetic pickup



Motor belting data

The V-belt system produces a heavy shaft and bearing loading, making it necessary to calculate bending moment and the bearing life of the motor shaft. The bearing life and bending moment of the motor shaft can be calculated from the following data.

Pulley Distance (**F1**) _____ INCHES Pitch diameter Motor pulley (**F3**) _____ INCHES
Pitch Diameter of load pulley (**F2**) _____ INCHES Number & type of Belts _____

Drive Enclosure information

Existing Drive Enclosure NEMA 1 NEMA 12 Other _____
New Enclosure Spec NEMA 1 NEMA 12 Other _____
Enclosure options Duplex outlet Lights Empty cabinet for future use
 Other _____

Existing Power Distribution⁴

Isolation Transformer _____ KVA Primary Voltage _____ AC Secondary voltage _____ AC
 Line Reactors Impedance _____ (%) Load Reactor Impedance _____ (%)
 Dynamic Braking Resistor: Duty Cycle i.e. 3%, 5% _____ % Resistance _____ Ohms
Dynamic Resistor Power rating _____ Watts

³ Encoders are not typically used.

⁴ The existing power distribution is required if Yaskawa is providing a complete drive system

Drive Communication Requirements

Modbus Plus Modbus Device Net Profibus Arcnet LAN Other _____

Drive Input Requirements

Start Stop Forward Reverse Run Jog
 Preset Speed 1 Preset Speed 2 Preset Speed 3 Other _____

Drive Output Requirements

Drive alarm fault Drive severe fault Run Zero speed
 At speed Encoder feedback pass through (PGX card)
 Other _____

Analog Input

speed reference 0-10VDC 4-20ma Other _____

Analog Output

Drive Speed (SPM) Bus Voltage Other _____

Special Types of Control

Drive system start Drive system stop Regenerative to fast stop - full current limit or ramped
 DC Bus Over Voltage Suppression (Used to prevent overvoltage tripping from an unbalanced load)
 In Window, or OK to feed product. Counter for # of parts produced
 Other _____