

Apex Automations

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ENQUIRY FORM

(must be signed by the customer)

FASTENER TIGHTENING APPLICATION DATA SHEET.

This form must be used when requesting a quotation for Fastener Tightening Systems.
This form is to ensure that the application is understood from the beginning and through the design review and manufacturing.

COMPANY NAME: _____

STREET ADDRESS: _____

CITY: _____ STATE: _____

ZIP: _____ TELEPHONE No: (____) _____

E-Mail: _____

SALES CONTACT: _____

ENGINEER CONTACT: _____

ENGINEER DEPT: _____ EXT No: _____

ENGINEER E-Mail: _____

PROJECT NAME; _____ QTY REQ' D: _____

PROPOSAL REQUIRED BY (DATE): _____

ESTIMATED INSTALL DATE: _____

1. APPLICATION INFORMATION:

APPLICATION NAME: _____

A) Area of Operation :

Engine Transmission Final Others

(please specify) _____

B) Present Tightening Method :

Hand held tool → Impact Clutch Type
 Stall Pulse DC Make _____
 Fixtured Unit → Air-Stall Air – MTS
 Air – shut-off DC Make _____

C) Primary Driver for Change :

Quality Productivity Others
 (please specify) : _____

D) Fastening Requirements :

No of fasteners : _____ Fastener Size : _____ Grade : _____

Bolt/Nut A/F size _____ mm Type of Head Drive _____

No. of Spindles _____

Thread length of Bolt/Stud/Nut _____ mm

(Incase of Nut, thread length is Nut thickness+ thread length of bolt coming out of Nut end)

Lubrication provided ? Yes No

Target Torque Requirements : _____ Nm.

Torque Accuracy: _____% Torque Range: _____ Min. _____Max.

Angle Accuracy (in case of angle strategy) : _____% OR Range : _____ Min.
 _____Max.

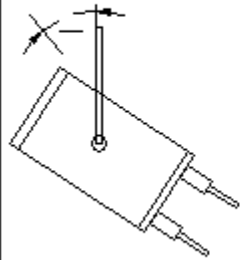
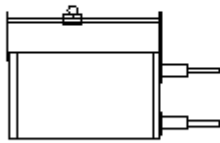

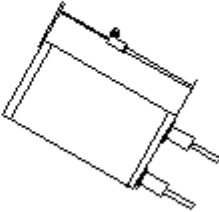
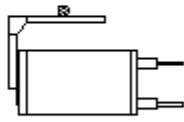
If loosening application than torque requirement is _____Nm.

Type of Tool: DC AIR

Drawing of fastener collected Yes No

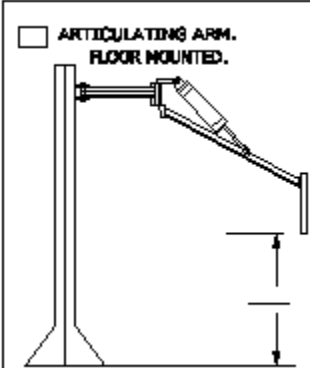
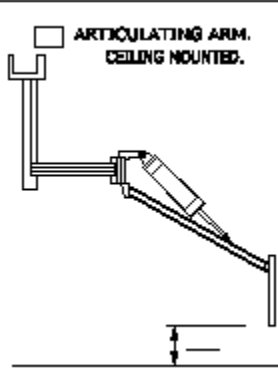
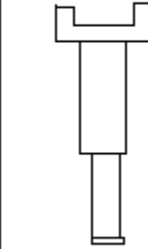
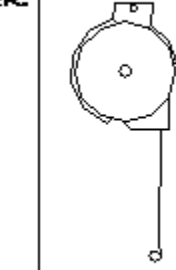
Joint Soft Hard Medium

E) Powerhead Orientation :

<input type="checkbox"/> ANGULAR PIVOT.	<input type="checkbox"/> HORIZONTAL.	<input type="checkbox"/> VERTICAL.	<input type="checkbox"/> ANGULAR FIXED.	<input type="checkbox"/> TRUNNION.
				 ROTATION ANGLE: _____

Parking position (over the job _____ off the job _____) (Specify rail system specs for off the Job)

F) Tool Suspension :

<input type="checkbox"/> ARTICULATING ARM. FLOOR MOUNTED.	<input type="checkbox"/> ARTICULATING ARM. CEILING MOUNTED.	<input type="checkbox"/> TORQUE REACTION BALANCER.	<input type="checkbox"/> SPRING BALANCER.	<input type="checkbox"/> AIR CYLINDER.
				

Work Envelop (Travel Area) : X _____ mm Y _____ mm

Clearance overhead structure to work piece : _____ mm

Available overhead structure Height from Ground : _____mm

Working height from ground level _____ mm

Type of overhead structure : I-beam Closed rail

Other (specify) _____

Direction of structure: Along the conveyor Perpendicular to conveyor

Is closed rail system in Apex Automations scope of supply ? Yes No

Vertical travel of powerhead to work piece : _____ mm

Additional features : Auto retraction Nagara →

Fully auto Semi auto Hands Free

Machine Type Standalone Express Multi

Conveyor availability Yes No

Conveyor Details _____

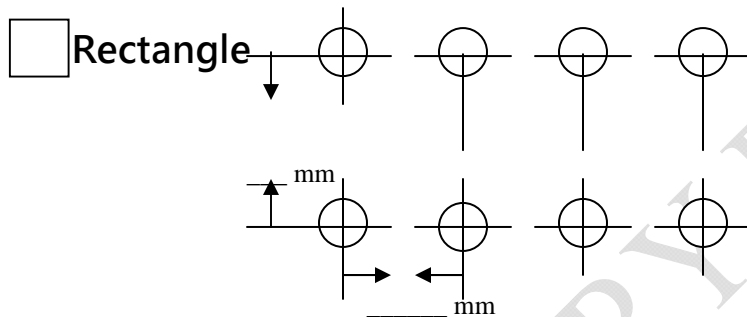
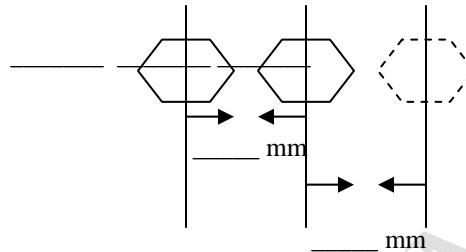
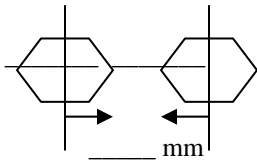
Conveyor height from ground level _____mm

Conveyor linking reqd not reqd , if required please give details _____

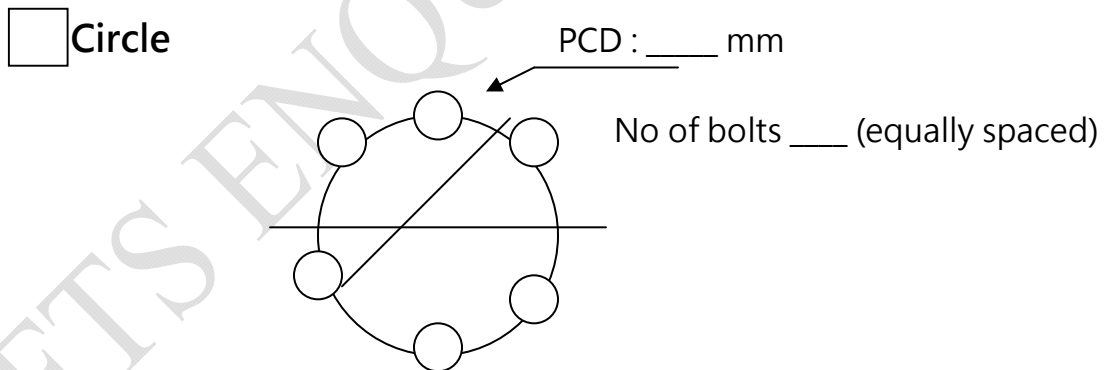
G.) System Layout :

Fixed Centres :

In-line → Two Other(specify) _____



(specify for each bolt)



Sequence of tightening _____

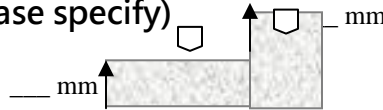
Sequence plate required not required

Please specify Operator side with reference to bolt pattern. _____

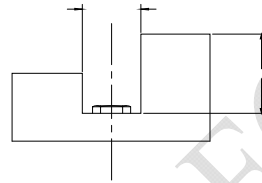
In case of adjustable, please attach drawing

Other (please draw or attached drawing)

Differential heights, if any (please specify)



(Please ensure that centre distances (CDs) are clearly mentioned)



Specify fastener approach dimension for entry of Socket

H) Component Specifications

No. of the Model of the component, if more than 1 _____.

Name of the models(Part Nos.) _____/_____/_____/_____

I) Cycle Time Details :

Cycle time _____ secs. Tightening / Torquing time _____ secs

Tact time _____secs Line speed _____ m/min No Of Cycles Per

Hr: _____ Shift per Day: _____

Cycle description :

- i) _____
- ii) _____
- iii) _____
- iv) _____
- v) _____

D) Proposed Inspection Method/ Acceptance Criteria

- Click torque wrench Dial torque wrench
- Electronic torque wrench Inline transducer
- Other (please specify) _____

Is torque accuracy required consistent with proposed inspection methodology? Yes

No

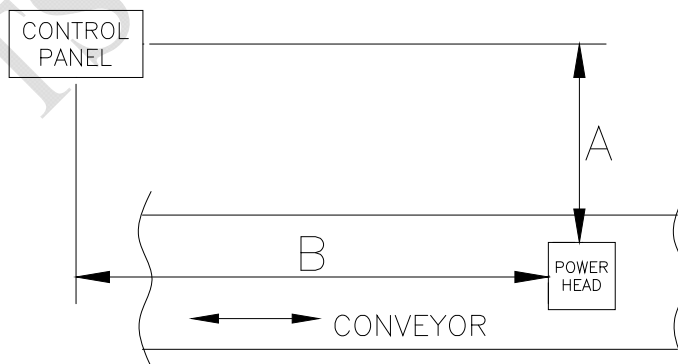
J) Others:

Panel Size Restrictions (if any , please specify W x H x D) _____

i. Location of Electrical Control Panel :

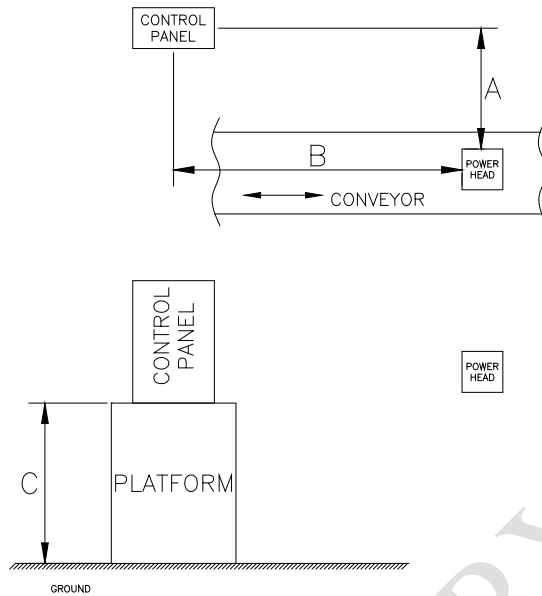
a) Floor Mounted

Distance of Control Panel from power head A____ m B____m



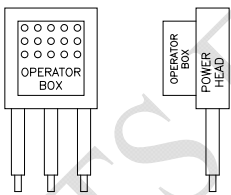
b) Platform Mounted

Distance of Control Panel from power head A ___ m B ___ m C ___ m

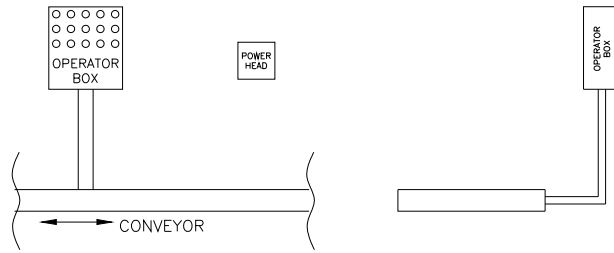


iv. Location of Operator – Box

a) Mounted with power head Yes No



b) Adjacent to Conveyor Yes No



- c) Other mountings Yes No Please specify (if yes) _____
- v. (DC) Controllers Mounting:- Enclosed in panel Open structure mounted
- vi. Location of Pneumatic Controls on Panel in open on a plate
- vii. Scope of component holding fixture: Apex Automations / Customer.(If Apex Automations scope component is required for preparing DAP)
- viii. Type of component holding fixture: Automatic / Manual.
- ix. If existing fixtures to be used, are their accuracy is sufficient to give repeatability in orientation of the components: Yes / No.
- x. Lights & their colors required on Operator – box:
- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- xi. Push button color specify _____
- xii. Machine color code Power head _____ Electrical panel Exterior _____

- xiii. Alarms requirement (specify) Audible NG buzzer OK/NG beacon tower light Other (specify) _____
- xiv. Poke Yoke required (specify) _____
- xv. PLC (Specify Make) _____ no of Extra inputs /outputs ____
- xvi. MIMIC required on Operator – Box : Yes/No.
- xvii. If MMI reqd then make _____ & model _____
- xviii. Relays required in Control- Panel : Yes No
- xix. Pressure Switch required : Yes No make & model _____
- xx. RFID used not used ,if used specify make and model) _____
- xxi. Interlocks required _____
- xxii. Available Air pressure _____
- xxiii. Available Power Supply _____

4. SPECIAL REQUIREMENTS OR CUSTOMER SPECIFICATIONS :

5. CUSTOMER EXPECTATIONS FROM THE SYSTEM :

6. ADDITIONAL COMMENTS :

7. GENERAL :

Above specifications currently reflect our requirements. Any changes to these requirements may effect the quoted price and/or delivery and may necessitate a re-quote.

(Name of Customer Representative)

(Signature)

(Date)

(Sales Engineer)

(Signature)

(Date)