PART PRESENTATION SLIDES

THE WELKER PART PRESENTATION SLIDE OFFERS A COST AND SPACE SAVING ALTERNATIVE TO CONVEYORS. THE SLIDES UTILIZE ELECTRIC ACTUATORS, WHICH DELIVER A 90% REDUCTION IN ENERGY USAGE COMPARED TO LONG STROKE PNEUMATIC SLIDES.

APPLICATIONS:
NESTED PART PRESENTATION
DUNNAGE BIN/CART PRESENTATION
END EFFECTOR STORAGE/RETRIEVAL
WELD OR CLINCHING GUNS
OVERHEAD SHUTTLE WITH DB4 LIFTER
TIP DRESSER SHUTTLE
REPLACE ACCUMULATING OR INDEX CONVEYOR AT MUCH LOWER COST

RELEASED 3/30/21
SINGLE EXTRUSION SLIDE ~ ORDER INFORMATION

Index
0400 400, 800, 1200, 1600, 2000, 2400
2000, 3200, 3600, 4000, 4400

Leg Style
0 Aluminum Extrusion (Std)
A Weldment Brown 2.5Y 5/2
B Weldment Cream RAL-9001
C Weldment Light Grey RAL-7035
D Weldment Signal White RAL-9003
S Weldment Safety Blue RAL-5017
X Weldment (Customer to specify on Purchase Order)

Screw Type
B1 Ball 1.500 x 1.875
L1 Lead 1.875 x 4 (Standard)

Style
01 Single Extrusion (2 Bearing)
02 Single Extrusion (3 Bearing)

Angle Mounting
A None (Customer to supply)
B Inboard (Facing in towards extrusion)
C Outboard (Facing away from extrusion)

Leg Height
000 No legs (Standard Floor Plates)
350 350mm to 900mm
500mm Minimum for motor @ P3 (to clear floor)

Brake Motor & Gearbox Ratio ~ See Load Charts
A 460 VAC 1 hp 5:1
B 460 VAC 1 hp 7.5:1
E Servo (Contact Welker)
H 575 VAC 1 hp 5:1
J 575 VAC 1 hp 7.5:1
M 460 VAC 1 hp 10:1
P 575 VAC 1 hp 10:1

Extrusion Orientation
0 Open left of motor, Std
R Open right of motor

Switches (6)
0 None / Customer Supplied
W Welker Standard

Motor Orientation
1 Motor @ P1
2 Motor @ P2
3 Motor @ P3
4 Motor @ P4

EXTRUSION ORIENTATION
OPTION R, OPEN RIGHT SIDE OF MOTOR

PART TRANSFER PLATE SHOWN WITH ANGLE MOUNTING OPTION C

SINGLE ALUMINUM EXTRUSION, STANDARD ORIENTATION SHOWN

STANDARD FLOOR MOUNTING PLATE

3 BEARING ZONE (GREEN, DBL HATCH)
ALL SLIDES OVER 400 LBS LOAD

DO NOT SCALE DRAWING

ENGINEERED PRODUCTS
800-229-0890 www.welkerproducts.com
DOUBLE EXTRUSION SLIDE ~ ORDER INFORMATION

Index

0400  400, 800, 1200, 1600, 2000, 2400
       2800, 3200, 3600, 4000, 4400

Screw Type

B1  Ball 1.500 x 1.875
L1  Lead 1.875 x 4 (Standard)

Style

03  Double Extrusion (2 Bearing)
04  Double Extrusion (3 Bearing)

Angle Mounting

A  None (Customer to supply)
B  Inboard (Facing in towards extrusion)
C  Outboard (Facing away from extrusion)
D  Inboard with Standard Tie Plate
E  Outboard with Standard Tie Plate

Leg Height

000  No legs (Standard Floor Plates)
350  350mm to 900mm
      500mm Minimum for motor @ P3 (to clear floor)

Weights for tie plates (options D & E) are included in load charts. Weights for customer supplied tie plates exceeding weights shown below must be included in tooling load.

<table>
<thead>
<tr>
<th>Angle Mounting</th>
<th>Style 03</th>
<th>Style 04</th>
</tr>
</thead>
<tbody>
<tr>
<td>B - Inboard</td>
<td>28 lbs</td>
<td>41 lbs</td>
</tr>
<tr>
<td>C - Outboard</td>
<td>50 lbs</td>
<td>72 lbs</td>
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</tbody>
</table>

PART TRANSFER PLATE SHOWN WITH ANGLE MOUNTING OPTION E

PROX SENSOR (SWITCH) 6 ea.

LEAD SCREW

DRIVE CARRIAGE

SLAVE CARRIAGE

STANDARD FLOOR MOUNTING PLATE

DOUBLE ALUMINUM EXTRUSION

1905 [75.0]

1219 [48.0]

3 BEARING ZONE (GREEN, DBL HATCH)
ALL SLIDES OVER 400 LBS LOAD

2 BEARING ZONE (RED, SINGLE HATCH)

1524 [60.0]

457 [18.0]

914 [36.0]

SHEET 3

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Leg Style

0  Aluminum Extrusion (Standard)
A  Weldment Brown 2.5Y 5/2
B  Weldment Cream RAL-9001
C  Weldment Light Grey RAL-7035
D  Weldment Signal White RAL-9003
S  Weldment Safety Blue RAL-5017
X  Weldment (Customer to specify on Purchase Order)

Switches (6)
0  None / Customer Supplied
W  Welker Standard

Motor Orientation

1  Motor @ P1
2  Motor @ P2
3  Motor @ P3
4  Motor @ P4

Brake Motor & Gearbox Ratio ~ See Load Charts

C  460 VAC 3 hp 5:1
D  460 VAC 3 hp 7.5:1
E  Servo (Contact Welker)
K  575 VAC 3 hp 5:1
L  575 VAC 3 hp 7.5:1
N  460 VAC 3 hp 10:1
Q  575 VAC 3 hp 10:1

(Do not scale drawing)
**DOUBLE INDEPENDENT EXTRUSION SLIDE ~ ORDER INFORMATION**

**Index**

| 0400 | 400, 800, 1200, 1600, 2000, 2400 |
| 2800, 3200, 3600, 4000, 4400 |

**Screw Type**

- B1 Ball 1.500 x 1.875
- L1 Lead 1.875 x 4 (Standard)

**Style**

- 05 Double Independent (2 Bearing)
- 06 Double Independent (3 Bearing)

**Angle Mounting**

- A None (Customer to supply)
- B Inboard (Facing in towards extrusion)
- C Outboard (Facing away from extrusion)

**Leg Height**

- 000 No legs (Standard Floor Plates)
- 350 350mm to 900mm

  500mm Minimum for motor @ P3 (to clear floor)

**Leg Style**

- 0 Aluminum Extrusion (Standard)
- A Weldment Brown 2.5Y 5/2
- B Weldment Cream RAL-9001
- C Weldment Light Grey RAL-7035
- D Weldment Signal White RAL-9003
- S Weldment Safety Blue RAL-5017
- X Weldment (Customer to specify on Purchase Order)

**Switches (12)**

- 0 None / Customer Supplied
- W Welker Standard

**Motor Orientation**

- 1 Motor @ P1
- 2 Motor @ P2 - Parallel to floor, opposite mounts
- 3 Motor @ P3

**Brake Motor & Gearbox Ratio ~ See Load Charts**

- A 460 VAC 1 hp 5:1
- B 460 VAC 1 hp 7.5:1
- E Servo (Contact Welker)
- H 575 VAC 1 hp 5:1
- J 575 VAC 1 hp 7.5:1
- M 460 VAC 1 hp 10:1
- P 575 VAC 1 hp 10:1

![Diagram of Double Independent Extrusion Slide]

**Engineered Products**

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**PUSH/PULL EXTRUSION SLIDE ~ ORDER INFORMATION**

**CARRIAGES MUST MOVE OPPOSITE**

### Index
- 0400 400, 800, 1200, 1600, 2000, 2400
  - 2800, 3200, 3600, 4000, 4400

### Leg Style
- 0 Aluminum Extrusion (Standard)
- A Weldment Brown 2.5Y 5/2
- B Weldment Cream RAL-9001
- C Weldment Light Grey RAL-7035
- D Weldment Signal White RAL-9003
- S Weldment Safety Blue RAL-5017
- X Weldment (Customer to specify on Purchase Order)

### Screw Type
- B1 Ball 1.500 x 1.875
- L1 Lead 1.875 x 4 (Standard)

### Style
- 07 Push / Pull (2 Bearing)
- 08 Push / Pull (3 Bearing)

### Angle Mounting
- A None (Customer to supply)
- B Inboard (Facing in towards extrusion)
- C Outboard (Facing away from extrusion)

### Leg Height
- 000 No legs (Standard Floor Plates)
- 350 350mm to 900mm
  - 500mm Minimum for motor @ P3 (to clear floor)

### Switches (6)
- 0 None / Customer Supplied
- W Welker Standard

### Motor Orientation
- 1 Motor @ P1
- 2 Motor @ P2
- 3 Motor @ P3
- 4 Motor @ P4

### Brake Motor & Gearbox Ratio ~ See Load Charts
- C 460 VAC 3 hp 5:1
- D 460 VAC 3 hp 7.5:1
- E Servo (Contact Welker)
- K 575 VAC 3 hp 5:1
- L 575 VAC 3 hp 7.5:1
- N 460 VAC 3 hp 10:1
- Q 575 VAC 3 hp 10:1

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www.welkerproducts.com

**DO NOT SCALE DRAWING**
PART PRESENTATION SLIDE: BELT DRIVE, SINGLE

PLEASE USE EXTRUSION SLIDE WORKSHEET QPE-FM-007 FOR ORDERING
CONTACT WELKER FOR BELT APPLICATIONS

SINGLE CARRIAGE - 3 BEARINGS PER CARRIAGE
1 MOTOR: 1 HP STANDARD

APPLICATION: LONG STROKES  5M TO 10M
LOADS UP TO 500 LBF   40" WIDE
SPEED TO 30" PER SECOND

PART TRANSFER PLATE
PROX SENSOR (SWITCH)
BELT
CARRIAGE
DOUBLE ALUMINUM EXTRUSION
PART PRESENTATION SLIDE: BELT DRIVE, PUSH/PULL
CARRIAGES MUST MOVE OPPOSITE

PLEASE USE EXTRUSION SLIDE WORKSHEET QPE-FM-007 FOR ORDERING
CONTACT WELKER FOR BELT APPLICATIONS

DOUBLE CARRIAGE - 3 BEARINGS PER CARRIAGE
1 MOTOR: 3 HP STANDARD

APPLICATION: CONTINUOUS LOAD/UNLOAD REQUIRED
LONG STROKES UP TO 10M
UP TO 400 LBF  36" WIDE

DOUBLe ALUMINUM EXTRUSION
GENERAL DIMENSIONS

OPTION A ~ NO ANGLE MOUNTING BRACKET

LUBE ACCESS NOTE:
- 3 BEARING CARRIAGE FOR DOUBLE EXTRUSION WILL REQUIRE SHOWN/OPPOSITE LUBE ACCESS. 3-POINT ACCESS WILL BE CLOSEST TO MOTOR END FOR BOTH SIDES.
- 3 BEARING CARRIAGE FOR DOUBLE INDEPENDENT, PUSH/PULL PACKAGES AND SINGLE RH EXTRUSIONS, THE SINGLE LUBE PORT WILL BE CLOSEST TO MOTOR END FOR FARSIDE (RH) EXTRUSION.
- VERIFY ALL LUBE LOCATIONS WITH DOWNLOADED CAD MODEL FROM WELKER WEBSITE.

MOTOR END OF SINGLE EXTRUSION (LH) SHOWN

FOR M12 X 1.75 MOUNTING SCREWS:
50mm MAX TAP DEPTH FROM WELKER MOUNTING SURFACE

FOR 12mm S.F. DOWEL:
40mm MAX DOWEL DEPTH FROM WELKER MOUNTING SURFACE

CUSTOMER SUPPLIED BRACKETS MUST PROVIDE CLEARANCE FOR LUBE ACCESS

<table>
<thead>
<tr>
<th>CARRIAGE</th>
<th>ZERK FITTINGS</th>
<th>SCREWS REQ'D</th>
<th>DOWELS REQ'D</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 BEARING</td>
<td>3</td>
<td>8</td>
<td>2*</td>
</tr>
<tr>
<td>3 BEARING</td>
<td>4</td>
<td>12</td>
<td>2*</td>
</tr>
</tbody>
</table>

*DOWEL HOLES LOCATED:

LUBE PORTS: ZERK FITTINGS PROVIDED

SAFETY SWITCH MOUNT (CUSTOMER TO SUPPLY SWITCH)

FOR 12mm S.F. DOWEL:
40mm MAX DOWEL DEPTH FROM WELKER MOUNTING SURFACE

3 BEARING CARRIAGE

2 BEARING CARRIAGE

30 CENT.

30.00 CENT.

85

170

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(DO NOT SCALE DRAWING)
ANGLE MOUNTING BRACKET DIMENSIONS

ANGLE MOUNTING BRACKET
2 BEARING CARRIAGE

ANGLE MOUNTING BRACKET
3 BEARING CARRIAGE

LUBE ACCESS

LUBE ACCESS
STANDARD TIE PLATES FOR DOUBLE EXTRUSION UNITS
CUSTOMER MOUNTING PATTERNS
OPTION D & E

3 BEARING INBOARD
OPTION D

2 BEARING INBOARD
OPTION D

3 BEARING OUTBOARD
OPTION E

2 BEARING OUTBOARD
OPTION E

(DO NOT SCALE DRAWING)
STANDARD FLOOR MOUNTING PLATES

SINGLE, STYLE 01/02

- Motor positions: 400-2000mm index: 2 legs
  2400-4400mm index: 3 legs, centered middle leg

- Leg options:
  - P1, P2, P4 leg height: 350-900mm
  - P3 leg height: 500mm required for motor to clear floor

- Single, style 01/02
  - 100.00 cent.
  - Ø15.00 thru (4) holes
  - 3/4-10 UNC tap thru (2) holes

- Double, styles 03-08
  - 100.00 cent.
  - Ø15.00 thru (4) holes
  - 3/4-10 UNC tap thru (2) holes

LEG STYLES

- A, B, C, D, S, X
- Weldment, painted

LEG OPTIONS

- 400-2000mm index: 2 legs
- 2400-4400mm index: 3 legs, centered middle leg

- Leg mounting plate
  - Ø22.00 thru (4)
  - 160.00 cent.
  - 400 REF
  - 3/4-10 UNC tap thru (2)

- Motor positions:
  - P1, P2, P4
  - 400-2000mm index: 2 plates
  - 2400-4400mm index: 3 plates, centered middle plate

- Shown: style 03 with motor in position P4

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SHEET 11
GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>SLIDE STYLE</th>
<th>MAX LOAD</th>
<th>MAX TRAVEL</th>
<th>MAX LOAD SIZE, CENTERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Extrusion Frame Rail</td>
<td>500 lbf</td>
<td>Screw: 4400mm Belt: Contact Welker</td>
<td>36&quot;W x 48&quot;L</td>
</tr>
<tr>
<td>Double Extrusion Frame Rail</td>
<td>1000 lbf</td>
<td>Screw: 4400mm Belt: Contact Welker</td>
<td>60&quot;W x 72&quot;L</td>
</tr>
</tbody>
</table>

ELECTRIC ACTUATORS

(PANEL BOXES & CONTROLS SOLD SEPARATELY)

<table>
<thead>
<tr>
<th>ACTUATOR TYPE</th>
<th>FEATURES &amp; BENEFITS</th>
<th>APPLICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VFD (Variable Frequency Drive) Welker standard AC induction motor and gearbox is Nord brand, right angle gearbox with brake.</td>
<td>Cost saving; least expensive when used with &lt;1HP (800 watt) applications. Lowest cost in low speed applications. Easy to change decel and stop points by moving switches. Space saving right-angle configurations. Repeatability +/- 1mm</td>
<td>Part presentation Cart pullers</td>
</tr>
<tr>
<td>Servo Welker standard is Exlar Tritex II integrated servo with Ethernet Absolute encoder and brake.</td>
<td>High speed capacities. High load capacities. Extreme accuracy. Repeatability +/- .005 rolled ball screw Repeatability +/- .001 ground ball screw Multiple positions; cycle resumes after e-stop</td>
<td>Clinch or weld gun positioning Geo model select Tool tray actuator</td>
</tr>
</tbody>
</table>

All robot motors and controllers are supplied by customer (Kuka, Fanuc, Nachi, ABB, Kawasaki, etc.) Welker will provide motor math and an engineering drawing of the slide in PDF format based on the information submitted with the Electric Slide Worksheet. The PDF must be approved and signed before an order can be accepted. Welker will supply ONLY what is shown on the signed PDF.

STANDARD SCREW DRIVES

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MAX SPEED</th>
</tr>
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<tbody>
<tr>
<td>Lead screw 1-7/8 x 4</td>
<td>18 inches per second</td>
</tr>
<tr>
<td>Ball screw 1-1/2 x 1-7/8</td>
<td>Depends on length</td>
</tr>
</tbody>
</table>

Other screws available per application

800-229-0890 www.welkerproducts.com
PROX SENSORS (SWITCHES)

WELKER STANDARD SWITCHES
IFM EFECTOR

SWITCHES FOR DECEL AND OVER TRAVEL
(4) IGC207  (PNP CLOSED)

SWITCHES FOR IN POSITION ARE
(2) IG5539  (PNP COMPLEMENTARY)

NOTE: SWITCH QUANTITIES ARE DOUBLED
FOR STYLES 05 & 06

SHOWN: STYLE 01 WITH NO
ANGLE MOUNTING BRACKET
AND MOTOR AT POSITION P3

105mm SET UP
TYP. BOTH ENDS

38mm TYP.

150mm TYP.

38mm TYP.

150mm TYP.
## 1 HP MOTOR LOAD CHART

### Load Chart: Single, Double, Double Independent

<table>
<thead>
<tr>
<th>Pounds</th>
<th>400</th>
<th>800</th>
<th>1200</th>
<th>1600</th>
<th>2000</th>
<th>2400</th>
<th>2800</th>
<th>3200</th>
<th>3600</th>
<th>4000</th>
<th>4400</th>
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<tbody>
<tr>
<td>50</td>
<td>1.9</td>
<td>2.7</td>
<td>3.5</td>
<td>4.4</td>
<td>5.2</td>
<td>6</td>
<td>6.9</td>
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<td>2.7</td>
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<td>4.4</td>
<td>5.2</td>
<td>6</td>
<td>6.9</td>
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<td>10.6</td>
<td>11.9</td>
<td>11</td>
<td>12.5</td>
<td>13.5</td>
</tr>
</tbody>
</table>

### Gear Box

- **5:1**
- **7.5:1**
- **10:1**

**Voltage Note:** Motor voltage and brake voltage are the same. Contact Welker if different voltage is required between motor & brake.

**Values shown are in seconds, cycle time: one way based on 18”/sec minimum speed after acceleration**
# 3 HP MOTOR LOAD CHARTS

## Load Chart: Single, Double, Double Independent

<table>
<thead>
<tr>
<th>Pounds</th>
<th>Standard Index Lengths in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
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<tr>
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<td>2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
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<tr>
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<td>2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
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<tr>
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<tr>
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<tr>
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<tr>
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<td>2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
</tr>
<tr>
<td>225</td>
<td>2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
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<tr>
<td>250</td>
<td>2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
</tr>
<tr>
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<td>2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
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<tr>
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<tr>
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</tr>
<tr>
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<tr>
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<tr>
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</tr>
<tr>
<td>450</td>
<td>2 2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
</tr>
<tr>
<td>475</td>
<td>2 2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
</tr>
<tr>
<td>500</td>
<td>2 2.7 3.5 4.4 5.2 6 6.9 7.7 10.3 11.3 12.3</td>
</tr>
</tbody>
</table>

**Gear Box: 5:1 7.5:1 10:1**

## Load Chart: Push/Pull

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<tr>
<td>425</td>
<td>4 4.5 5.3 7 8 9 10.3 11.3 12.3</td>
</tr>
<tr>
<td>450</td>
<td>4 5 6 7 8 9 10.3 11.3 12.3</td>
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<td>500</td>
<td>4 5 6 7 8 9 10.3 11.3 12.3</td>
</tr>
</tbody>
</table>

**Gear Box: 5:1 7.5:1 10:1**

**VALUES SHOWN ARE IN SECONDS, CYCLE TIME: ONE WAY BASED ON 18"/SEC MINIMUM SPEED AFTER ACCELERATION**

**VOLTAGE NOTE: MOTOR VOLTAGE AND BRAKE VOLTAGE ARE THE SAME. CONTACT WELKER IF DIFFERENT VOLTAGE IS REQUIRED BETWEEN MOTOR & BRAKE.**

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(Do not scale drawing)

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