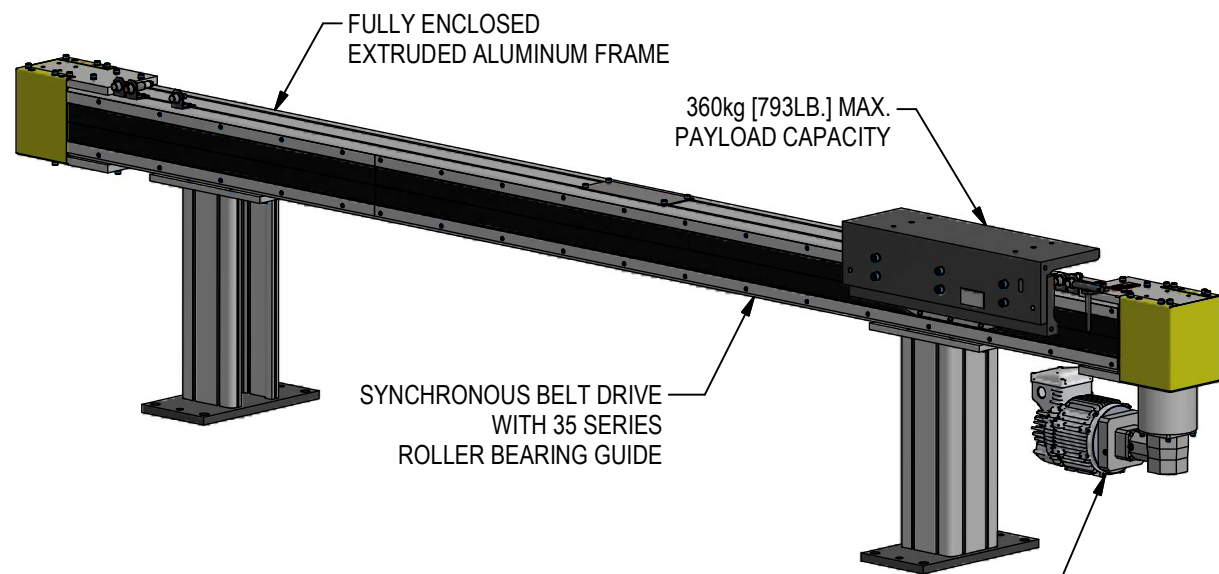


BES LINEAR SLIDE

THE WELKER BES SLIDE OFFERS A COST AND SPACE SAVING ALTERNATIVE TO CONVEYORS AND SCREW DRIVEN SLIDES. THIS NEW SLIDE UTILIZES A RELIABLE SYNCHRONOUS BELT DRIVE WITH HIGH CAPACITY LINEAR BEARINGS, OFFERING FASTER SPEEDS AND LOWER MAINTENANCE REQUIREMENTS THAN A SCREW DRIVEN UNIT.



STANDARD STROKE LENGTHS UP TO 4400mm
(CONTACT WELKER FOR LONGER STROKE LENGTHS)

VFD AND SERVO MOTOR OPTIONS

THE OPTIONAL CLEARPATH® SERVO IS EASY TO PROGRAM AND PROVIDES INCREASED ACCURACY AND REPEATABILITY OVER AC INDUCTION MOTORS. CUSTOMER-SPECIFIED MOTORS ARE ALSO OPTIONAL

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 8/24/2023

ORDERING INFORMATION

BES					A	0	1	B						
-----	--	--	--	--	---	---	---	---	--	--	--	--	--	--

Index _____

0400 400mm To 4400mm
(in 400mm Increments)

Leg Height - See Sheet 3 _____

000 No legs (Std Floor Plates)
350 350mm to 900mm

Leg Style - See Sheet 4 _____

- W** Aluminum Ext (Std) or No Leg
- 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)

Motor - See Sheet 5 _____

- 100** VFD - Nord 460 VAC, 2 hp brakemotor
- 101** ClearPath® Integrated Servo, 230-3ph VAC
- XXX** Customer Specified (Contact Welker)

Motor Orientation - See Sheet 5 _____

- A1** Motor down @ P1 (motor option 101 only)
- A2** Motor down @ P2
- A3** Motor down @ P3
- A4** Motor down @ P4
- B2** Motor up @ P2
- B3** Motor up @ P3
- B4** Motor up @ P4

Switches - see sheet 6 _____

- 0** None
- V** (3) Switches at each end (VFD)
- W** (1) Switch at each end (servo)

GENERAL SPECIFICATIONS

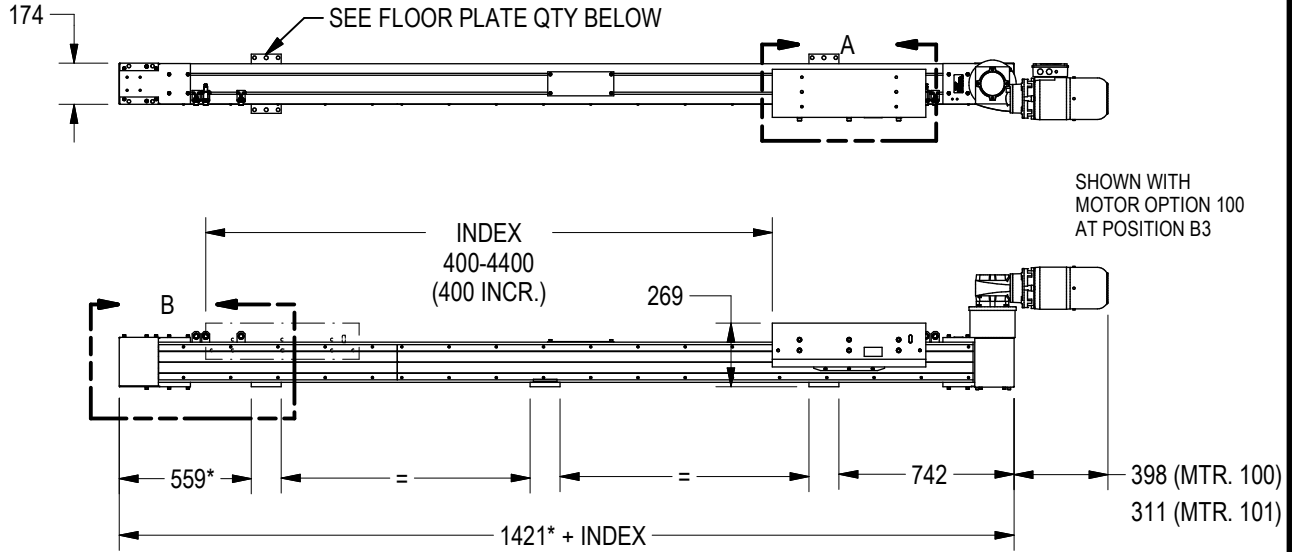
DRIVE TYPE	HIGH PERFORMANCE, STEEL REINFORCED POLYURETHANE TIMING BELT
GUIDE TYPE	PROFILED LINEAR GUIDES WITH ROLLER BEARING CARRIAGE
MAX. PAYLOAD, CENTERED (SEE SHEET 7 FOR OFFSET LOADING)	360kg
MAX. RECOMMENDED LOAD SIZE	900mm x 1200mm
MAX. INDEX LENGTH	4.4m STANDARD, LONGER INDEX LENGTHS UPON REQUEST
MAX. SPEED	0.74m/s [VFD] 1.0 m/s [SERVO]
STOPPING POSITION REPEATABILITY	±1.0mm [VFD] ±0.1mm [SERVO]

ALL DIMENSIONS ARE MILLIMETERS
UNLESS OTHERWISE NOTED
DO NOT SCALE DRAWING

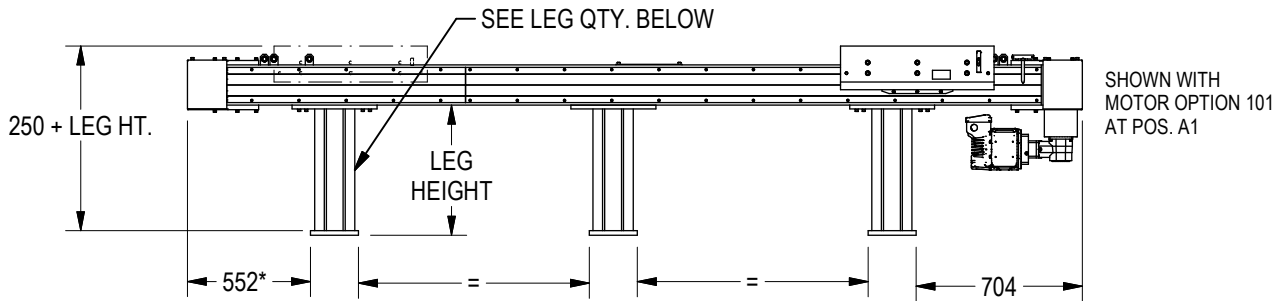


GENERAL DIMENSIONS

SLIDE SHOWN WITH FLOOR PLATES



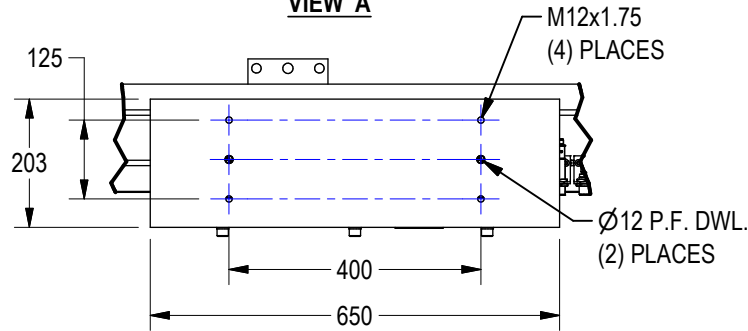
SLIDE SHOWN WITH EXTRUSION LEGS



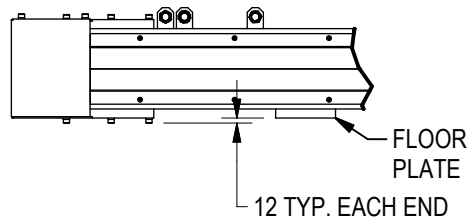
MIN. LEG HT.
500mm FOR MOTOR POS. A1 THRU A4

* DIMENSION VARIES WITH OPTIMAL BELT TENSION. MAX. SHOWN.

VIEW A



VIEW B



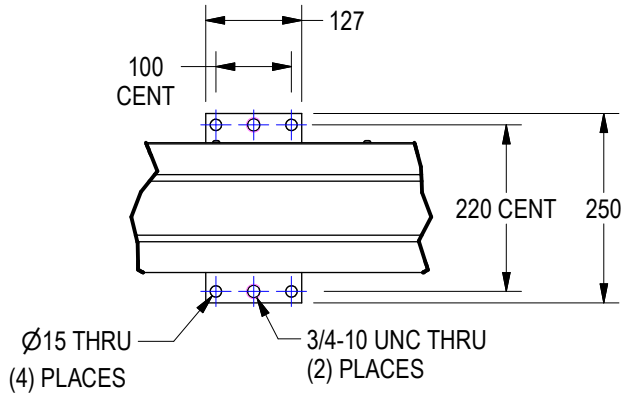
FLOOR PLATE/LEGS	
INDEX LENGTH	QTY
400-1200	2
1600-2800	3
3200-4400	4

SHEET 3

ALL DIMENSIONS ARE MILLIMETERS
UNLESS OTHERWISE NOTED
DO NOT SCALE DRAWING

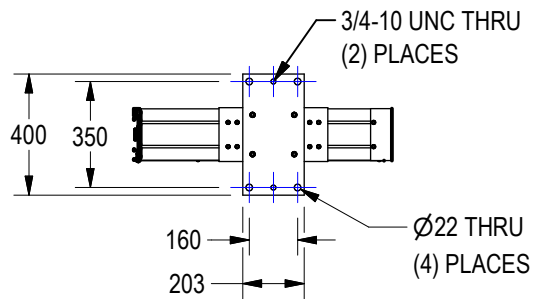
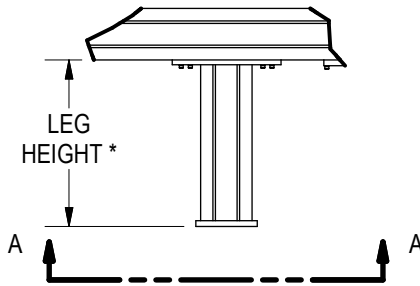
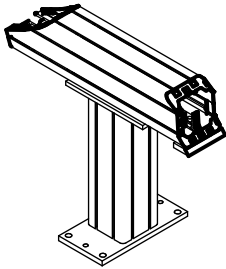
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FLOOR PLATE



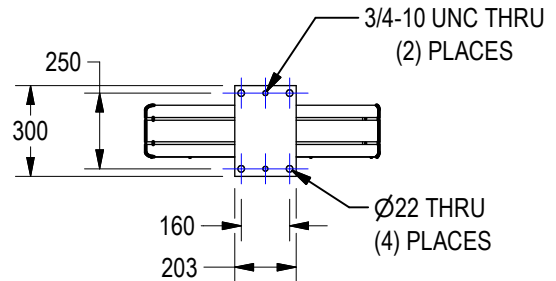
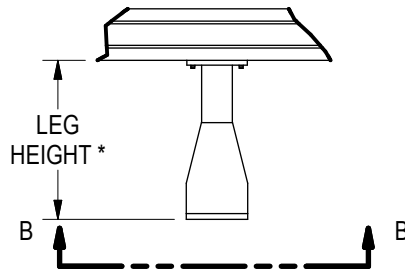
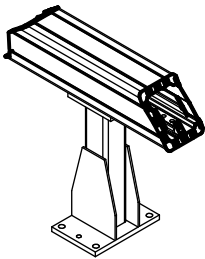
LEG OPTIONS

LEG STYLE W - ALUMINUM EXTRUSION (STANDARD)



VIEW A-A

LEG STYLES A, B, C, D, S, X - WELDMENT, PAINTED



VIEW B-B

* MINIMUM LEG HEIGHT

MOTOR POSITIONS A1 THRU A4: 500mm

MOTOR POSITIONS B2 THRU B4: 350mm

STYLE	PAINT
A	Brown 2.5Y 5/2
B	Cream RAL-9001
C	Light Grey RAL-7035
D	Signal White RAL-9003
S	Safety Blue RAL-5017
X	Customer spec on P.O.

FLOOR PLATE/LEGS	
INDEX	QTY
400-1200	2
1600-2800	3
3200-4400	4

NOTE:
ALL LEVELING PADS, ANCHOR ANGLES, AND OTHER MOUNTING HARDWARE IS THE RESPONSIBILITY OF OTHERS.

ALL DIMENSIONS ARE MILLIMETERS
UNLESS OTHERWISE NOTED
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MOTOR INFORMATION

MOTOR OPTION 100 - 460VAC GEARMOTOR

TYPE	NORD INDUCTION GEARMOTOR WITH BRAKE, INVERTER DUTY (10:1)
POWER	2hp [1.5kW]
VOLTAGE	230/460 VAC
BRAKE VOLTAGE	460 VAC
FL CURRENT	5.6/2.8 A

MOTOR OPTION 101 - INTEGRATED SERVO MOTOR

TYPE	CLEARPATH® INTEGRATED SERVO WITH BUILT-IN MOTION CONTROLLER
PEAK POWER	3.5kW
CONT. POWER	986W
VOLTAGE	240 VAC 3-ph
INPUT LOGIC VOLTAGE	4.0 VDC TO 28 VDC

THE CLEARPATH® INTEGRATED SERVO MOTOR OPTION PROVIDES A SIMPLE, COST-EFFECTIVE WAY TO PRECISELY CONTROL MULTIPLE POSITIONS WITH A WIDE VARIETY OF OPERATING MODES (i.e., ABSOLUTE POSITIONING, SWITCH-TO-SWITCH) WITHOUT THE NEED FOR A SEPARATE MOTION CONTROLLER OR SERVO DRIVE. ALL PROGRAMMING AND CONTROLS ARE THE RESPONSIBILITY OF OTHERS.

CONTACT WELKER FOR ADDITIONAL INFORMATION ON THIS OPTION.

MOTOR OPTION XXX - CUSTOMER SPECIFIED MOTOR

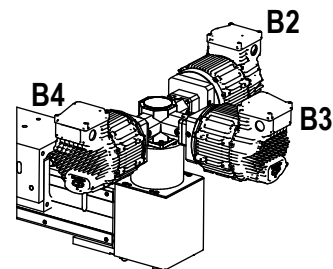
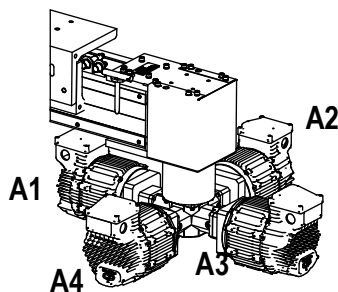
IN ADDITION TO THE MOTOR OPTIONS ABOVE, WELKER CAN SIZE AND INSTALL YOUR CHOICE OF MOTOR (i.e., FANUC, ALLEN-BRADLEY, AND OTHERS).

CONTACT WELKER FOR INFORMATION ON THIS OPTION.

MOTOR ORIENTATION

(MOTOR OPTION 101 SHOWN)

A1 AVAILABLE WITH
MOTOR OPTION 101 ONLY



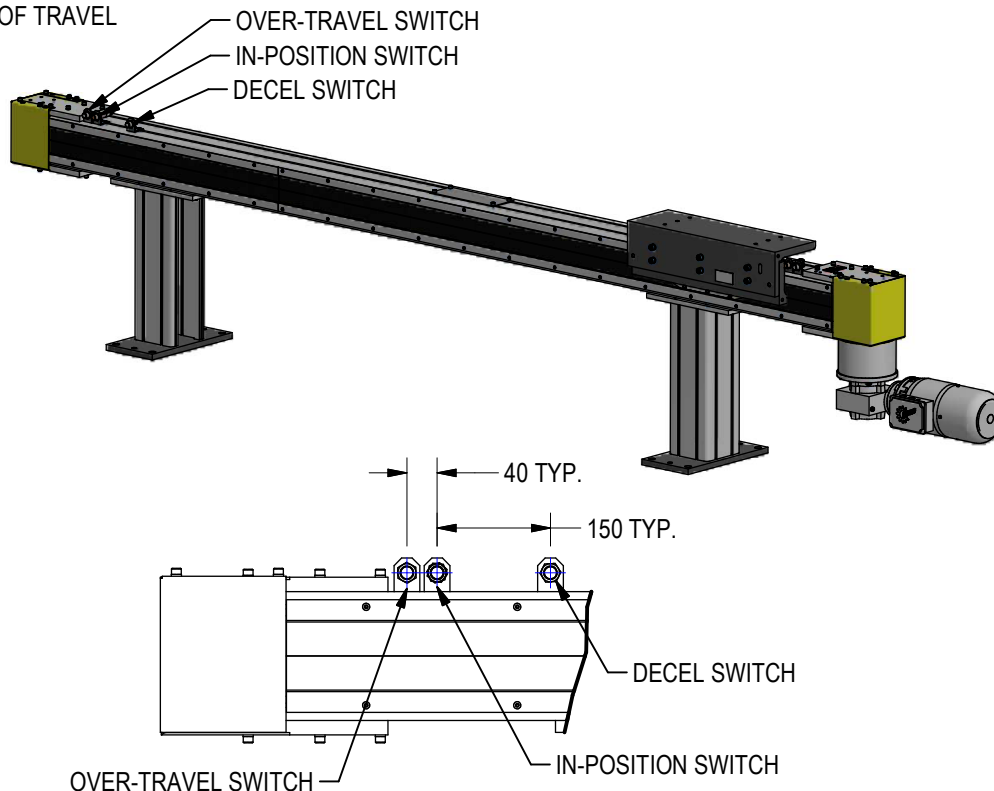
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PROX SENSORS (SWITCHES)

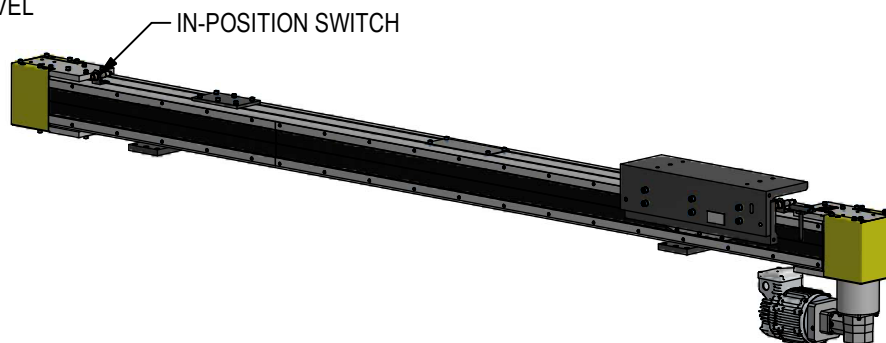
SWITCH OPTION V - VFD SET-UP

SWITCH SET-UP TYPICAL AT EACH END OF TRAVEL



SWITCH OPTION W - SINGLE SWITCH AT EACH END OF TRAVEL

SWITCH SET-UP TYPICAL AT EACH END OF TRAVEL

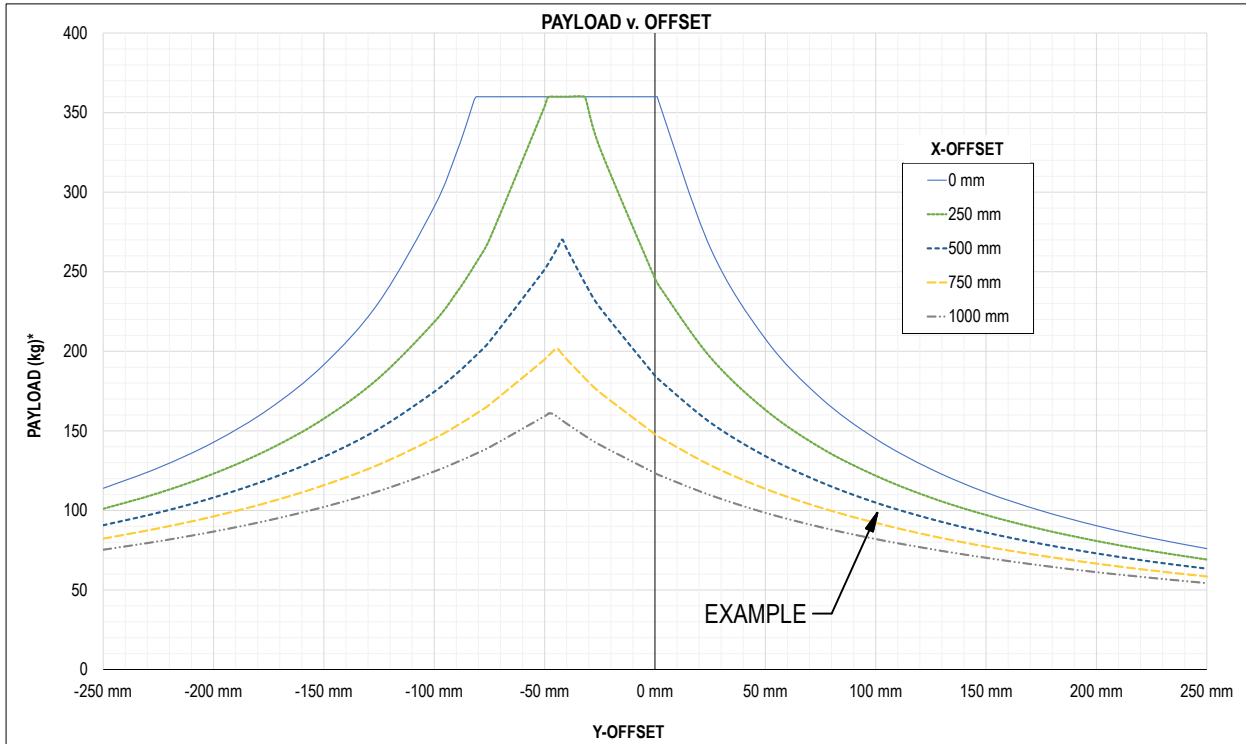


SWITCH INFORMATION, OPTIONS V & W	
DECEL SWITCH	IFM EFECTOR #IGC207 PNP, NC
IN-POSITION SWITCH	IFM EFECTOR #IG5539 PNP, COMPLEMENTARY, NO/NC
OVER-TRAVEL SWITCH	IFM EFECTOR #IGC207 PNP, NC

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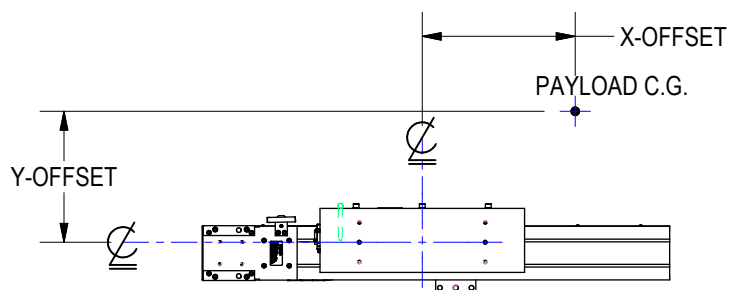
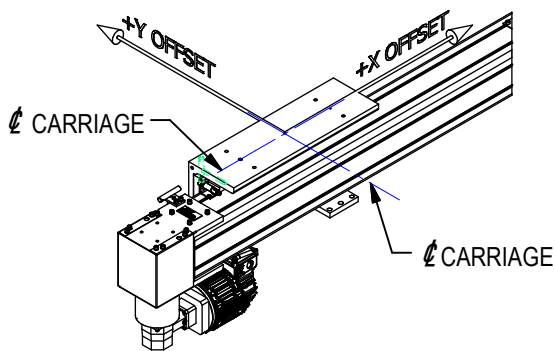
PAYLOAD CAPACITY



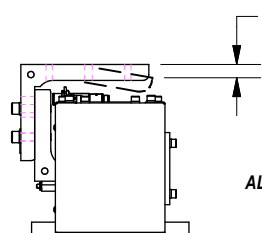
* VALUES FOR REFERENCE ONLY AND ARE BASED ON A SERVICE LIFE OF 8,800km.
 FOR HORIZONTAL APPLICATIONS ONLY.
 REFER TO ONLINE BES EXTRUSION SLIDE CALCULATOR FOR APPLICATION-SPECIFIC VALIDATION.
 VISIT www.welkerproducts.com/scs_calculator_ps.php?series=BES

EXAMPLE:

AN APPLICATION WITH A 100kg LOAD HAS THE CENTER OF GRAVITY LOCATED AT X=250mm AND Y=100mm. PLOT A POINT AT +100mm ALONG THE VERTICAL AXIS AND 100kg ALONG THE HORIZONTAL AXIS. THE PLOTTED POINT FALLS BELOW THE X-OFFSET=250mm CURVE, SO THE APPLICATION PASSES.



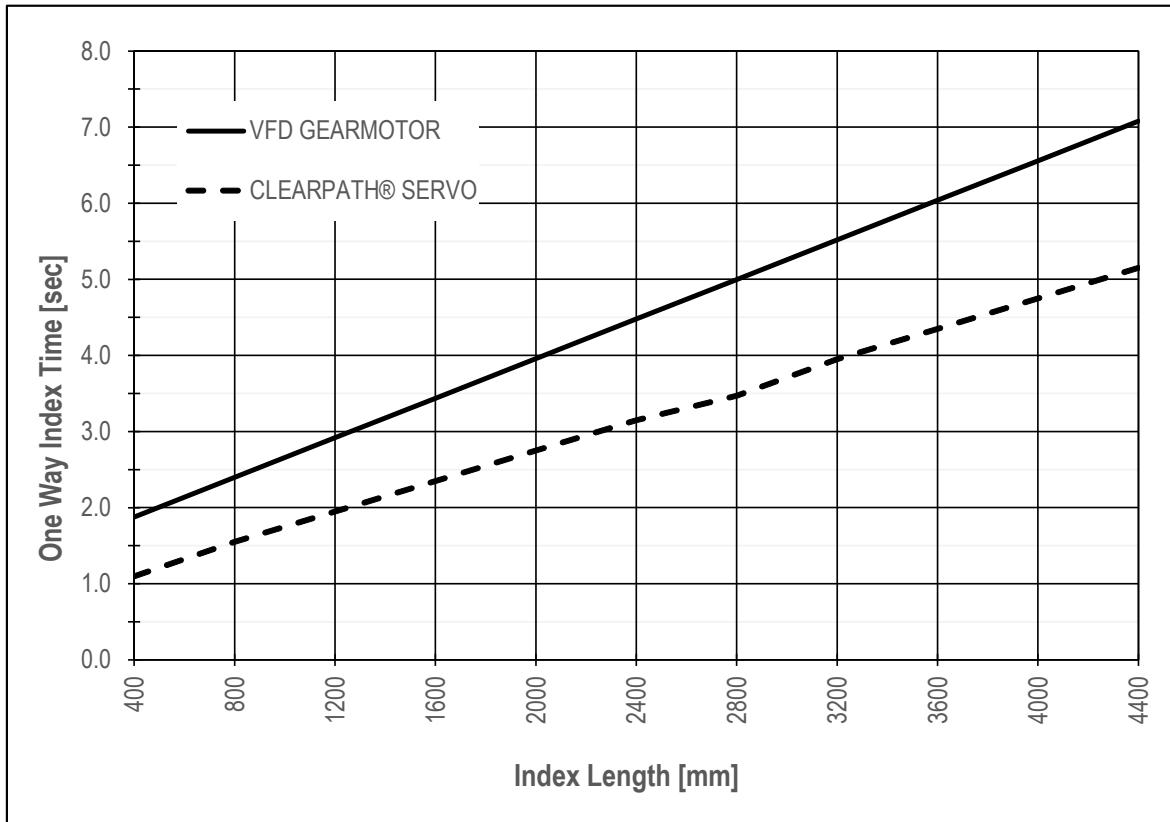
APPLICATION CONSIDERATION:
 OFFSET LOADING IN THE Y-DIRECTION MAY IMPACT DEFLECTION, d , OF THE CARRIAGE ANGLE.
 THIS DEFLECTION MAY BE APPROXIMATED AS:
 $d [mm] = \text{APPLIED MOMENT [N-m]} / 8286$.
 EXAMPLE: FOR AN APPLIED MOMENT (ABOUT X) OF 200 N-m,
 THE APPROXIMATED DEFLECTION, $d = 200/8286 = 0.024mm$



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INDEX TIMES



TIMES SHOWN ARE APPROXIMATE AND BASED ON THE FOLLOWING PARAMETERS:

VFD GEARMOTOR: 0.74m/s TRAVEL SPEED, 0.18m/s LOW SPEED DECEL (MOTOR: 100%, 25% LOW SPEED DECEL, 0.5s ACCEL/DECEL RAMP)

CLEARPATH® SERVO: 1.0 m/s TRAVEL SPEED, 1.33 m/s² ACCEL/DECEL (MOTOR: 2625rpm/3500rpm/s)

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