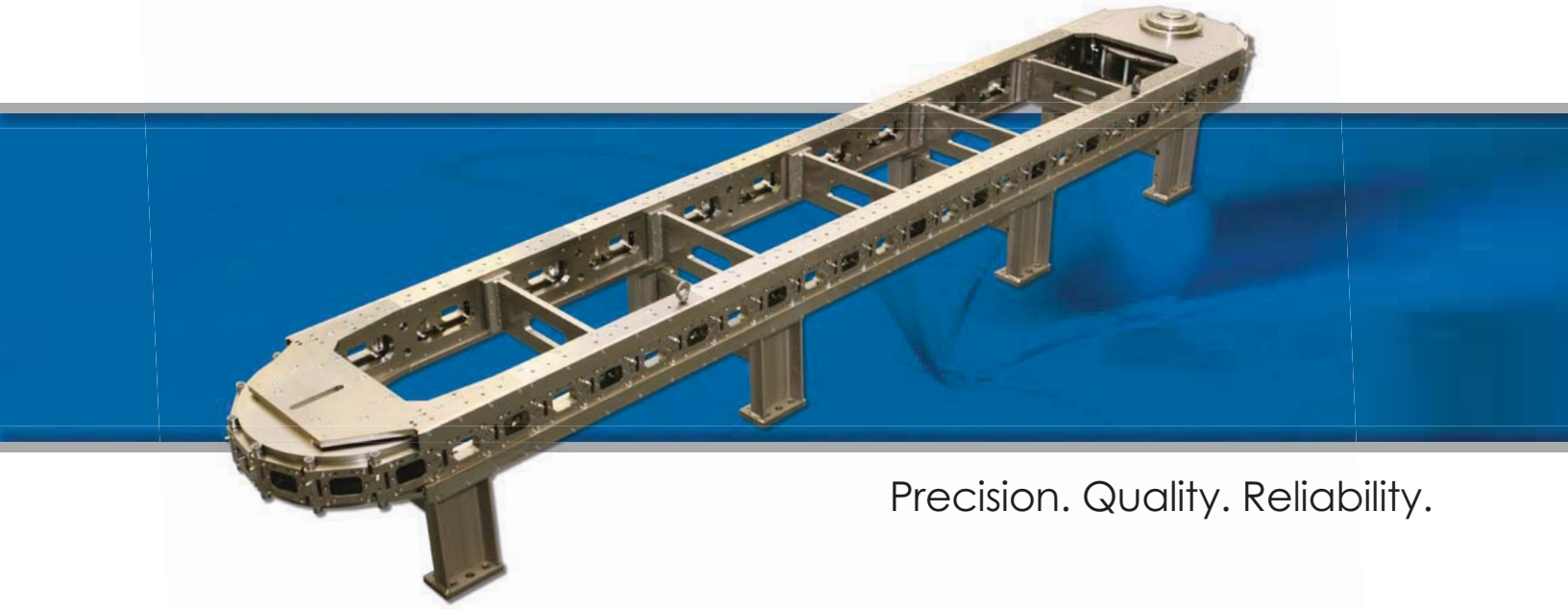
SANKYO AUTOMATION



Precision. Quality. Reliability.

IC80 Series

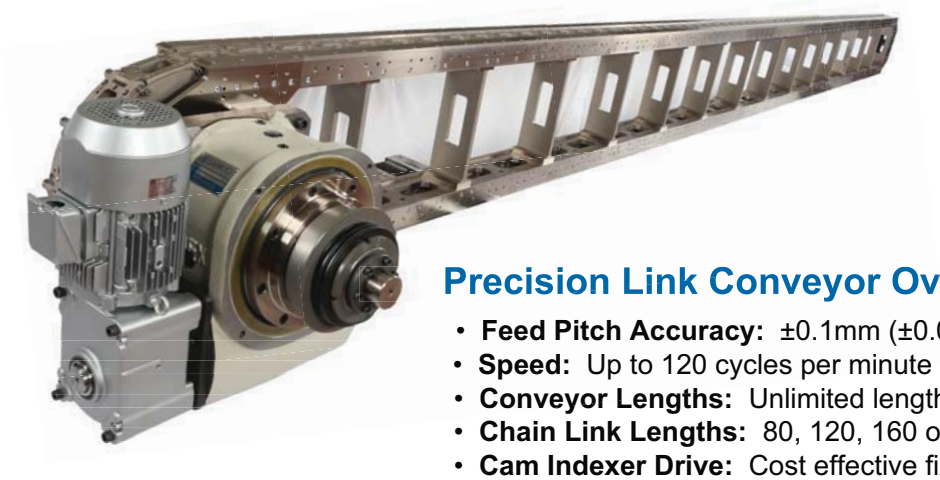
Precision Link Conveyor

Features

Overview

Sankyo's IC80 series precision link conveyor is a robust, accurate linear assembly chassis. Precision machined steel chain links are accurately advanced within ±0.1mm (±0.0039"). This robust, nickel plated steel conveyor frame preloads the chain links in the X-Y-Z axis with 4,500 N (1,011 lbf) static force capacity per each chain link.

An innovative chain tensioning and needle bearing design eliminates chain stretch, reduces vibration and extends the conveyor service life. Unlimited conveyor lengths are available in 480mm (18.89") increments. Drive options include zero backlash fixed motion cam indexers or programmable motion servo drives.

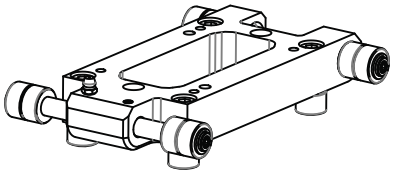


Precision Link Conveyor Overall Features

- **Feed Pitch Accuracy:** ±0.1mm (±0.0039 inches)
- **Speed:** Up to 120 cycles per minute
- **Conveyor Lengths:** Unlimited length in 480mm increments
- **Chain Link Lengths:** 80, 120, 160 or 240mm
- **Cam Indexer Drive:** Cost effective fixed motion applications
- **Servo Motor Drive:** Programmable feed motions or frequent cycling

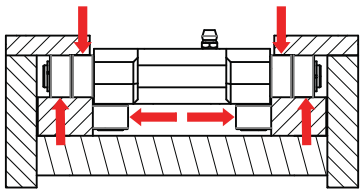
Link Design

Hollow links are lightweight for faster speeds, nickel plated steel material, precision dowel holes, (2) preloaded bearings on each corner with central lubrication and preloaded cam followers support the back of each link.



All Needle Bearing Design

Higher shock load capacity and better lubrication reduces wear for long-term accuracy, less maintenance and downtime are required to address problems associated with chain stretch.



No Backlash Drive

Sankyo AD Series cam indexers and servo-driven RU Series are backlash-free for accurate positioning and reduced vibration when quick indexing is required. Each link bearing is preloaded to eliminate play in every direction. This allows accurate, repeatable positioning, minimum vibration and short settling times.

Chordal Chain Tensioning

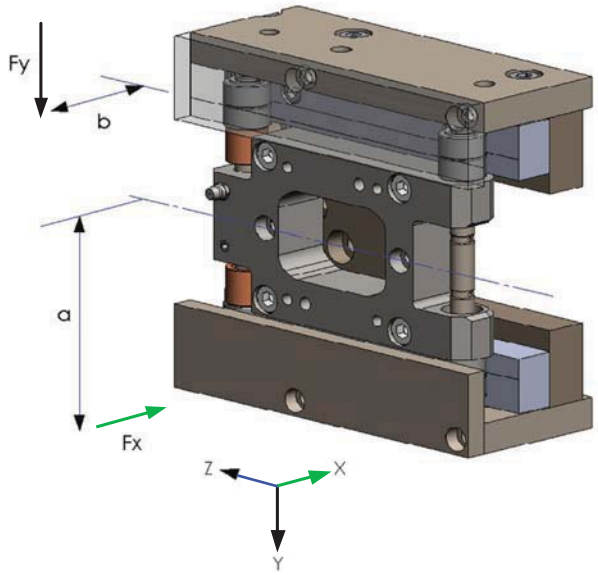
The chain follows its natural path and a cam is used to compensate for the chordal action of the chain. This keeps a constant center distance between the driven and idler ends. This minimizes overall vibration during indexing motions. Minimizing vibration contributes to longer service life and helps to eliminate chain stretch for better long-term accuracy. This means less maintenance and downtime for the customer.

Conveyor End Link Support

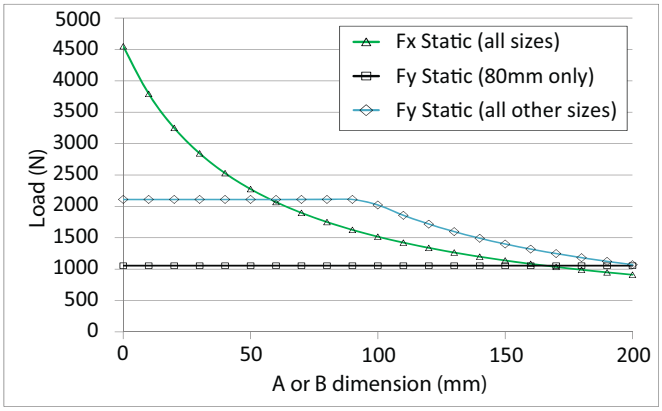
The conveyor chordal compensating cams support the links at the return end of the conveyor. Similar, how the drive sprockets support the links. This allows the conveyor drive and idler radii to be used as workstations for added flexibility.

Dynamic & Static Link Loading

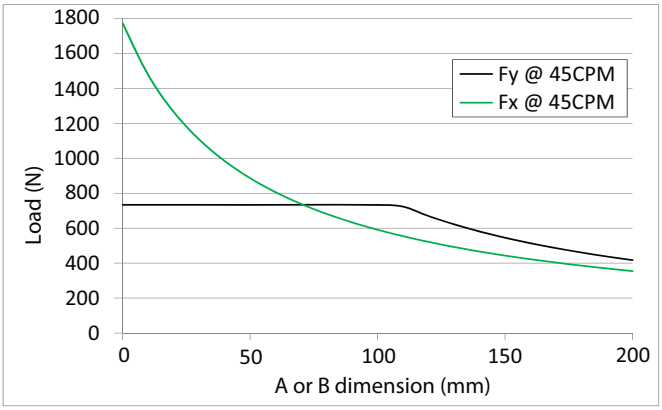
The illustation and charts below show the maximum dynamic & static loading capacities for the X and Y directions for each chain link size. The maximum Fx or Fy force is dependent on the offset distance (A or B dimensions) from the link center.
For example, an 80mm link can withstand a dynamic load of 400 Newton (89.9 lbs) force in the Y-direction when the B-dimension is 200mm (7.87”) distance from the chain link face at 45 cycles/minute. For different cycles/minute rates, please contact Sankyo.



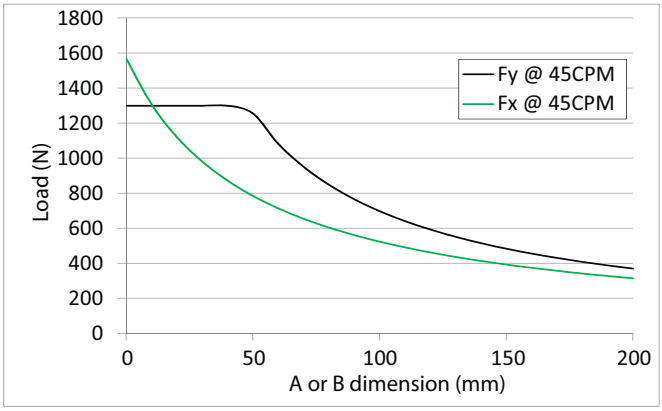
Static Loading Capacity (all sizes)



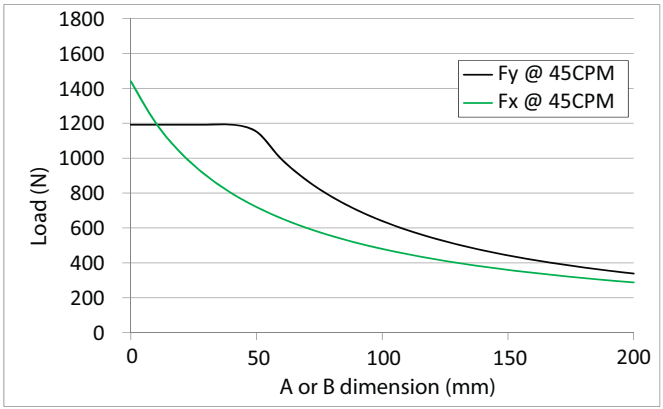
80mm Link Dynamic Capacity



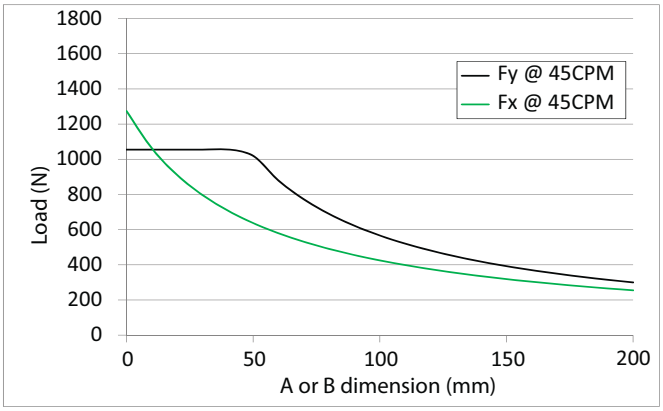
120mm Link Dynamic Capacity



160mm Link Dynamic Capacity



240mm Link Dynamic Capacity



Conveyor Specification

80, 120, 160 & 240mm Link Specifications

Description	Units	IC80-80	IC80-120	IC80-160	IC80-240
Link Length	mm (inch)	80 (3.14)	120 (4.72)	160 (6.29)	240 (9.44)
Cycles per Minute	-	0~120			
Feed Accuracy (without clutch)	mm (inch)	±0.10 (±0.0039)			
Feed Accuracy (with clutch)	mm (inch)	±0.11 (±0.0046)			
Position Accuracy (conveyor ends)	mm (inch)	±0.3 (±0.012)			
Load Capacity	-	(see dynamic & static capacity charts)			
Recommended Leg Spacing	mm (inch)	1440 (56.7")			
Max. Weight Between Legs	kg (lb)	250 (550)			
Drive-End Weight	kg (lb)	120 (265)	131 (288)	122 (268)	134 (295)
Single Mid-Section Weight	kg (lb)	42 (92)	43 (94)	42 (92)	43 (94)
Return-End Weight	kg (lb)	64 (142)	74 (162)	66 (145)	77 (169)
Link Weight (each)	kg (lb)	1.1 (2.42)	1.5 (3.30)	1.8 (3.96)	2.5 (5.51)

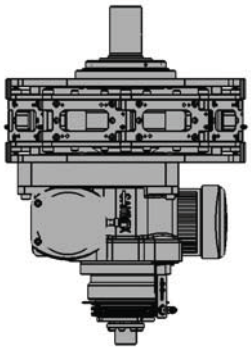
Model Code Nomenclature

IC 80 - 80 - 16T - 3660 - SH CL1 /X

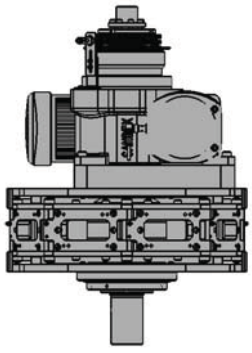
a b c d e f g h

a Model Number	b Link Height (mm / inch)	c Link Length (mm / inch)	d Drive Sprocket Tooth Quantity	e Conveyor Center to Center Distance (mm / feet)	f Link Material & Type	g Mounting Type	h Special Items
Inline Chassis **IC**	80 / 3.14 **80**	80 / 3.14 **80** 120 / 4.72 **120** 160 / 6.29 **160** 240 / 9.44 **240**	16 Teeth **16T** 12 Teeth **12T** 8 Teeth **08T** 6 Teeth **06T**	480 / 1.57 **480** 6240 / 20.47 **6240** 12000 / 39.37 **12000**	Steel Hollow **SH** (standard) Steel Solid **SS**	Carousel **CL1** **CL2** Over-Under **OU1** **OU2**	Requires Drawing **/X**

Carousel Mounting Type

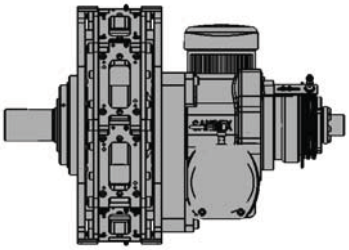


CL1 Drive Position

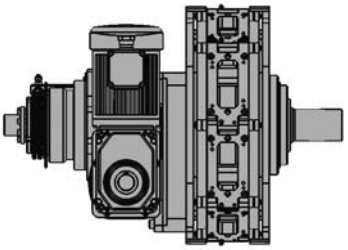


CL2 Drive Position

Over-Under Mounting Type



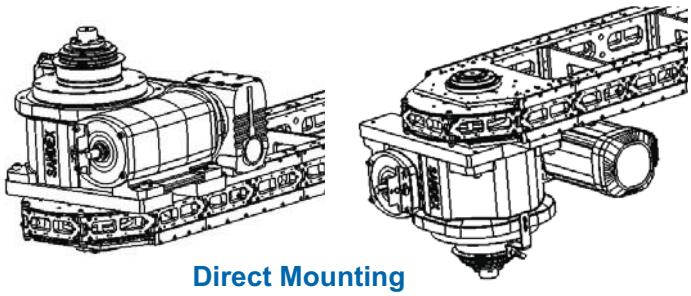
OU1 Drive Position



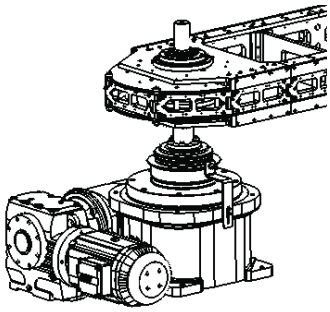
OU2 Drive Position

Direct & Indirect Drive Options

Direct mounting is our standard but for larger drives, the mounting bracket and drive housing may overhang the conveyor frame. An optional spacer can move the drive away from the conveyor frame to accommodate larger parts. We also offer an extended conveyor shaft to mount the drive remotely. A machine base is recommend to connect the conveyor frame and the motor drive.



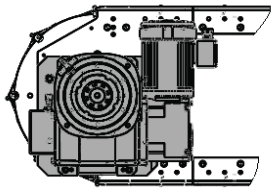
Direct Mounting



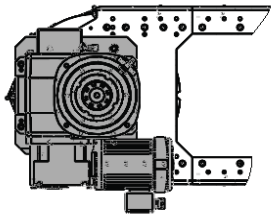
Indirect Mounting

Drive Position Options

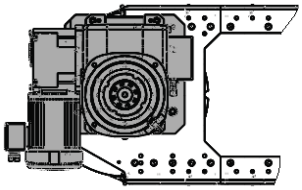
Various drive mounting positions are offered to avoid part interference, minimize footprint size and allow maintenance access.



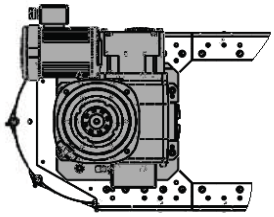
Position 1



Position 2



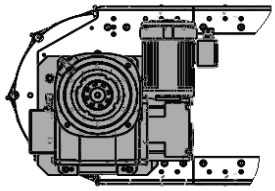
Position 3



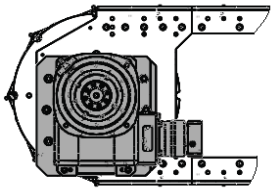
Position 4

Drive Type Options

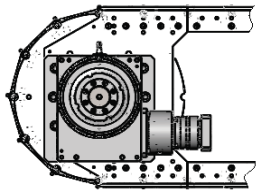
Sankyo offers fixed motion cam indexers and programmable motion, zero-backlash RollerDrive® servo positioners. To match your application, inline or right-angled geared motors or reducers are available. All can be mounted on either side of the AD or RU Series positioners.



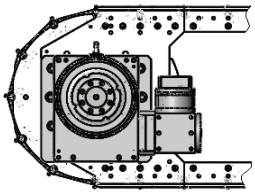
Fixed Motion & Right Angle Type Geared Motor



Fixed Motion & Inline Servo Type (frequent cycling)



Programmable Motion Inline Servo Type



Programmable Motion Right Angle Servo Type

AD Series (fixed motion) Positioner

AD Series Drive

Our standard AD Series uses a globoidal cam and fixed output motions to drive the conveyor. The conveyor link feed pitch can vary from 1 to 4 links.

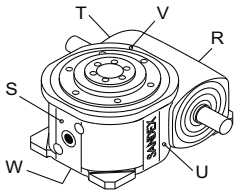
The positioner package includes a stationary through bored output, TC Series torque limiting clutch with overload detect, right-angle geared motor, VFD controller and direct mounting to the conveyor frame.

For frequent cycling, an optional inline or right-angle servo reducer drive is available. The reducer motor mounting brackets can adapt to most servo motor brands. Sankyo can help you select the proper servo motor size.

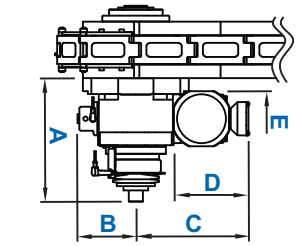
Positioner Model Code

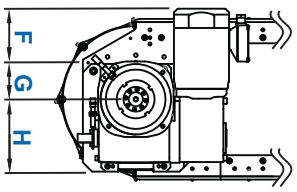
11	AD	-	04	27	7	R	-	L	R3	VW	1	-	8TC-35B	-	IC80
a	b		c	d	e	f		g	h	i	j		k		l

a Size	b Series	c Output Stops	d Index Period	e Cam Curve	f Input to Output Rotation
Input to output centers 11...110mm 15...150mm 19...190mm 23...230mm	AD	1.5, 2, 2.66, 3, 4, 5.33, 6 & 8 (All index periods are not compatible every output stop listed above)	90°, 120°, 150°, 180°, 210°, 240°, 270°, 300° & 330° Continuous operations time: 90°...1 part index/3 parts dwell 180°...1 part index/1 part dwell 270°...3 parts index/1 part dwell	7...Sankyo modified sine 8...Sankyo modifed sine CV-50%	R...Right-hand (std.) L...Left-hand

g Output Type	h Input Shaft	i Mounting Holes	j Housing Mounting	k Torque Limiter	l Mounted To	Surface to Letter Reference
L...(std)	R3...Reducer mounts on T-side (standard) R4...Reducer on U-side (optional)	V...V-side W...W-side	Maintenance free, mounts at any position. 1...W at G.L. 2...V at G.L. 3...U at G.L. 4...T at G.L. 5...R at G.L. 6...S at G.L.	8TC...40~450 Nm 11TC...70~1000 Nm 14TC...100~2000 Nm 18TC...700~5000 Nm	IC80	 W- Side at Ground Level

AD Series Direct Mount Dimensions





Each AD Series model has small and large geared motor drive sizes. The dimensions below list both geared motor sizes. For frequent cycling, optional inline or right-angle servo reducers are available and compatible with most servo motor brands. Contact Sankyo for servo motor sizing or more dimensional information.

Model	A	B	C	D	E	F	G	H
11AD	350	170	*302/310	*195/203	*46/34	*92/129	100	205
15AD	390	207	*281/376	*203/236	*49/37	*80/163	137	265
19AD	470	247	*238/302	*238/302	*6720	*44/101	187	340
23AD	550	283	*517/541	*302/326	*47/12	*23/56	220	391

* Small/large geared motor option dimensions

RU Series (programmable motion) Positioner

RU Series Drive

Our zero-backlash RU Series offers programmable output motions with a constant lead, gear reduction type cam and a servo motor drive. Conveyor link feed pitches can range from fractional to unlimited amounts or be non-patterned with reversing.

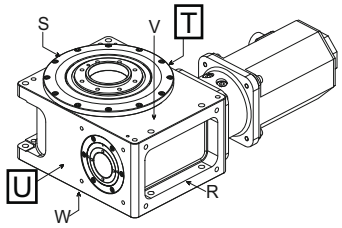
For heavy loading or slow speeds, an inline or right-angle second reducer option enhances the motor torque capacity. Standard package inlcudes our RU positioner mounted directly to the conveyor frame, shaft couplers and motor adapters to fit most servo motor brands. If the conveyor is jammed, the motor torque limiting feature can be programmed into the motor software. Sankyo can help you select the proper servo motor size.

Positioner Model Code

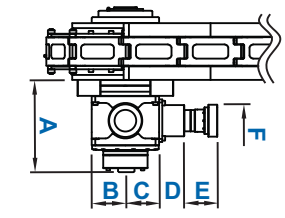
RU 80 - 20 1 T R - VRB 005 - 19EB16 - IC80

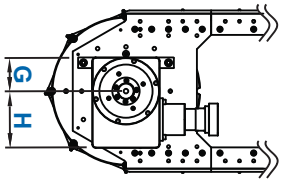
a b c d e f g h i j

a Model	b Size	c Internal Gear Ratio	d Mounting Position	e Motor Mounting	f Coupler Access Position	g Drive Type	h Gear Ratio	i Motor Mount	j Mount To
RU	Input shaft to output center distance 80...80mm 100...100mm 125...125mm 160...160mm 200...200mm	RU80...20:1 RU100...20:1 RU125...20:1 RU160...24:1 RU200...30:1	G...Grease filled 1...Oil, W at G.L. 2...Oil, V at G.L. 3...Oil, U at G.L. 4...Oil, T at G.L. 5...Oil, R at G.L. 6...Oil, S at G.L.	T...T-side (standard) U...U-side (optional)	Facing R-side (std.) Facing S-side Facing V-side Facing W-side	Motor adapter (no 2nd reducer) AA, AB, BB, CC, DD, EE, EF,EG, FE, GH, HG & IE 2nd reducer & motor adapter VRB...Shimpo (inline type) ATB...Apex Dyn. (right-angle type)	005...5:1 010...10:1 100...100:1	Reducer OEM motor adapter code	IC80 Conveyor



RU Series Direct Mount Dimensions





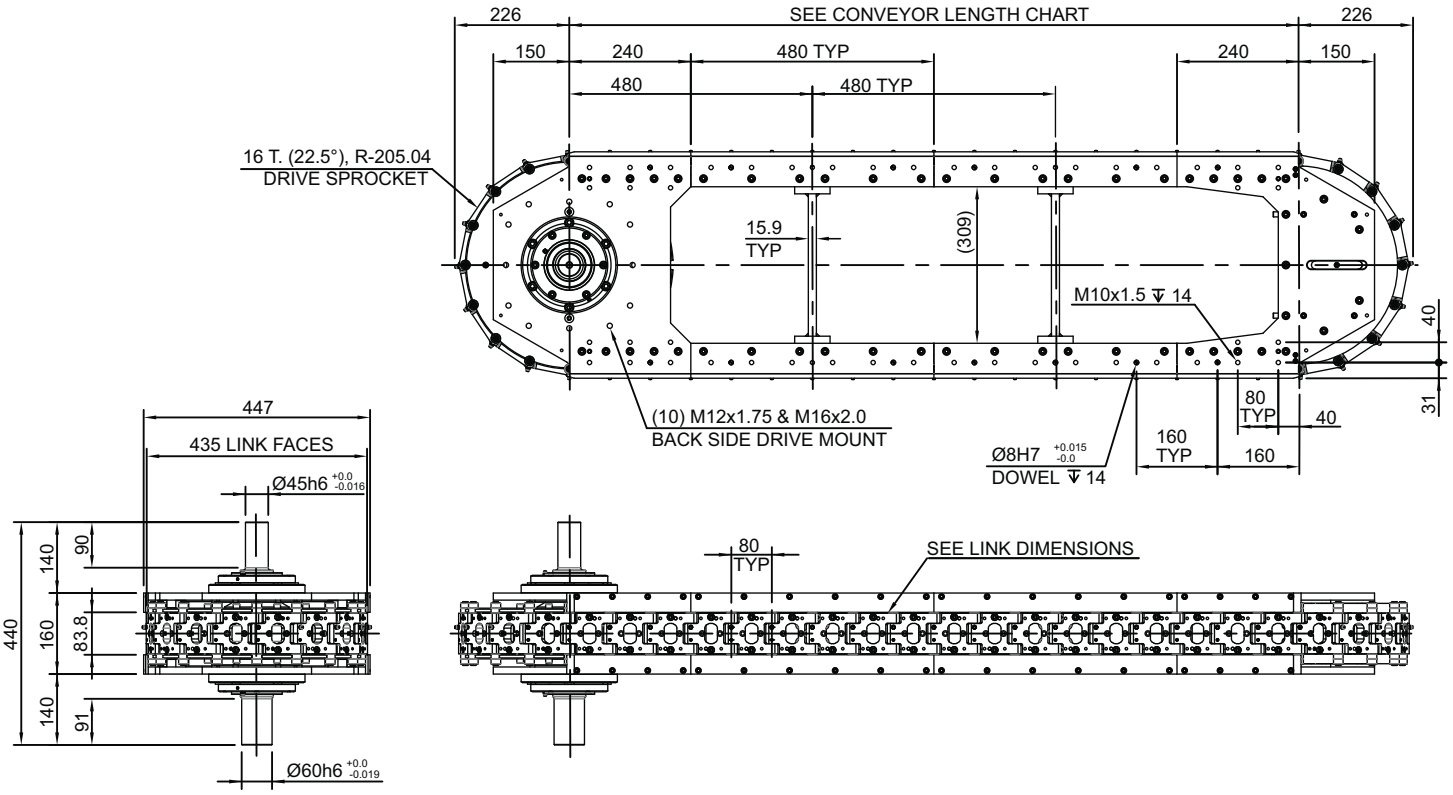
Dimension (**D**) shows a servo motor mounting surface without the second reducer option. Dimension (**E**) includes an inline second reducer option. A right-angle type second reducer is also available. All motor mounting options are compatible with most servo motor brands. Contact Sankyo for servo motor sizing or more dimensional information.

Model	A	B	C	*D	*E	*F	G	H
RU80	257	95	95	71	75/99	71	95	160
RU100	264	115	115	83	95/127	58	115	180
RU125	302	140	140	90	95/127	75	140	230
RU160	310	165	165	119	122/167	75	175	260
RU200	317	205	205	118	122/167	61	205	310

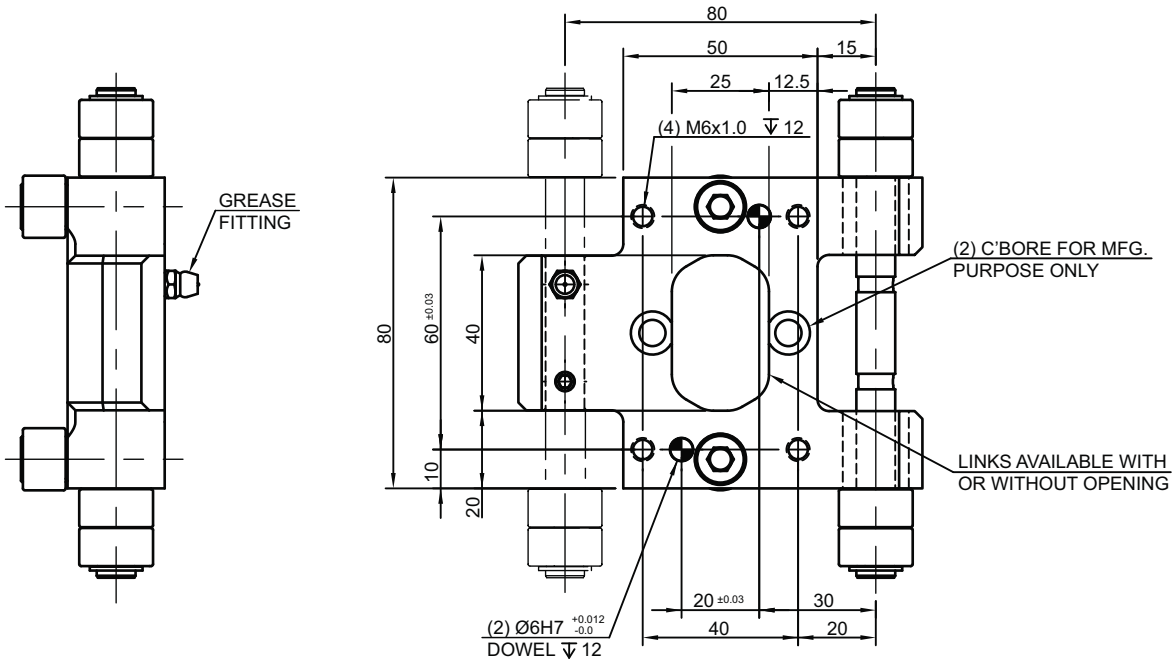
* D, E & F dimensions may vary with different motor frame sizes and reducer gear ratios

80mm (3.14”) Dimensions

80mm (3.14”) Conveyor Dimensions



80mm (3.14”) Link Dimensions



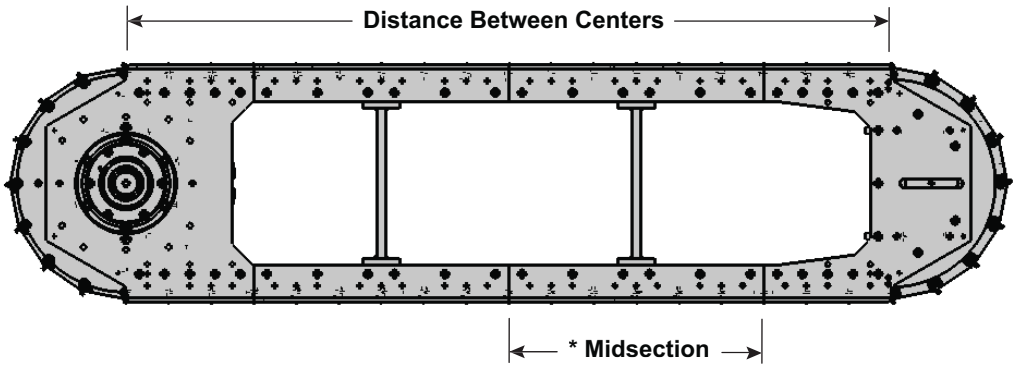
ALL DIMENSIONS ARE IN MM & SUBJECT TO CHANGE WITHOUT NOTICE

80mm (3.14”) Link Conveyor

Model Code	Distance Between Centers			Mid-Section Quantity	Links per Rail	Links per Each End	Total Link Quantity	Link Feed Quantity Compatibility		
	mm	Inches	Feet					2	3	4
IC80-80-16T-480	480	18.89	1.57	0	6	8	28	x		x
IC80-80-16T-960	960	37.78	3.14	0	12	8	40	x		x
IC80-80-16T-1440	1440	56.69	4.72	1	18	8	52	x	*x	x
IC80-80-16T-1920	1920	75.59	6.3	2	24	8	64	x	*x	x
IC80-80-16T-2400	2400	94.49	7.87	3	30	8	76	x	*x	x
IC80-80-16T-2880	2880	113.39	9.45	4	36	8	88	x	*x	x
IC80-80-16T-3360	3360	132.28	11.02	5	42	8	100	x	*x	x
IC80-80-16T-3840	3840	151.18	12.6	6	48	8	112	x	*x	x
IC80-80-16T-4320	4320	170.08	14.17	7	54	8	124	x	*x	x
IC80-80-16T-4800	4800	188.98	15.75	8	60	8	136	x	*x	x
IC80-80-16T-5280	5280	207.87	17.32	9	66	8	148	x	*x	x
IC80-80-16T-5760	5760	226.77	18.9	10	72	8	160	x	*x	x
IC80-80-16T-6240	6240	245.67	20.47	11	78	8	172	x	*x	x
IC80-80-16T-6720	6720	264.57	22.05	12	84	8	184	x	*x	x
IC80-80-16T-7200	7200	283.46	23.62	13	90	8	196	x	*x	x
IC80-80-16T-7680	7680	302.36	25.2	14	96	8	208	x	*x	x
IC80-80-16T-8160	8160	321.26	26.77	15	102	8	220	x	*x	x
IC80-80-16T-8640	8640	340.16	28.35	16	108	8	232	x	*x	x
IC80-80-16T-9120	9120	359.06	29.92	17	114	8	244	x	*x	x
IC80-80-16T-9600	9600	377.95	31.5	18	120	8	256	x	*x	x
IC80-80-16T-10080	10080	396.85	33.07	19	126	8	268	x	*x	x
IC80-80-16T-10560	10560	415.74	34.64	20	132	8	280	x	*x	x
IC80-80-16T-11040	11040	434.64	36.22	21	138	8	292	x	*x	x
IC80-80-16T-11520	11520	453.54	37.79	22	144	8	304	x	*x	x
IC80-80-16T-12000	12000	472.44	39.37	23	150	8	316	x	*x	x

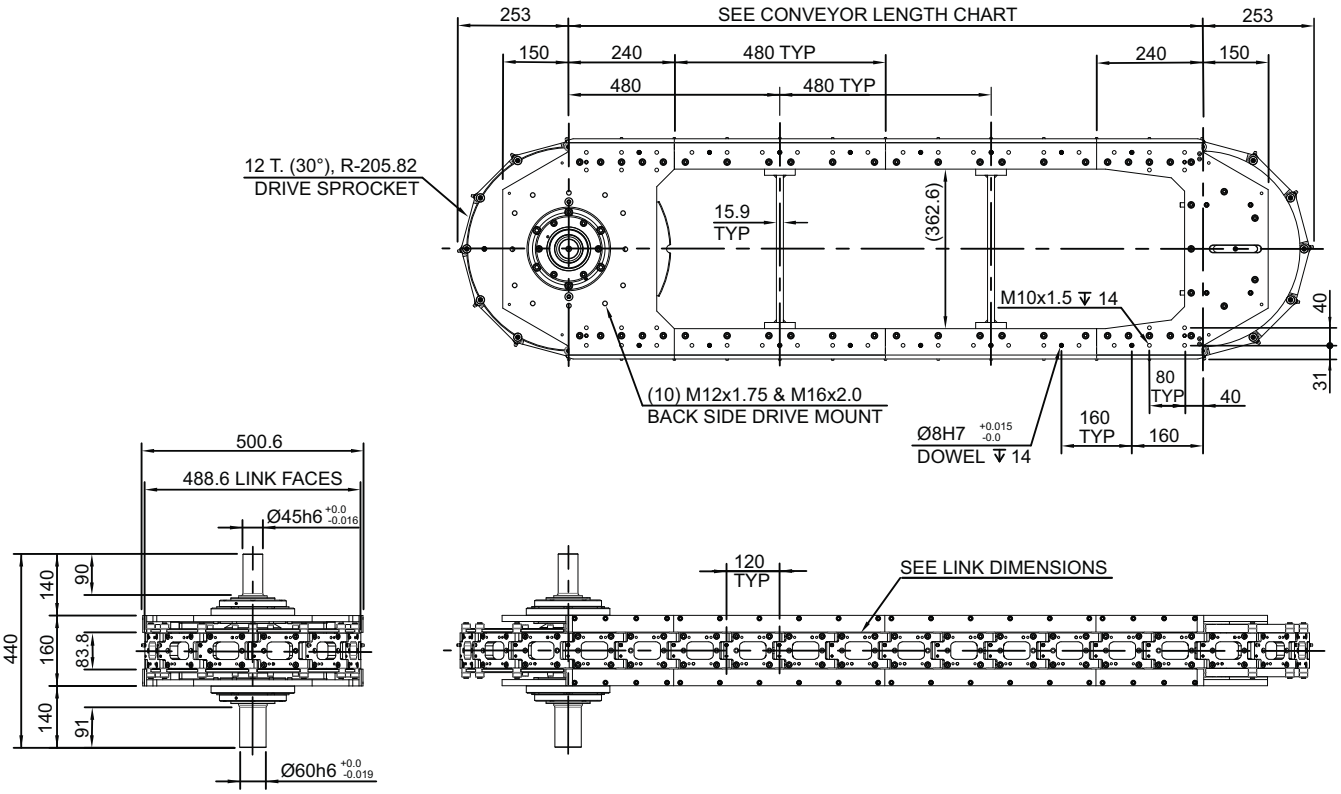
* For a 3-link feed pitch option, 4 links per rail is added or 8 links to the total amount. The standard 480mm midsection will be replaced with a 320mm midsection, thus making the conveyor distance between centers and overall length 160mm shorter than the posted lengths above. Not available for 480 & 960mm conveyor lengths.

- Programmable motion drives can feed the links in fractional or unlimited amounts.
- For longer conveyor lengths, please contact Sankyo Automation (937) 498.4901 or sales@sankyoautomation.com

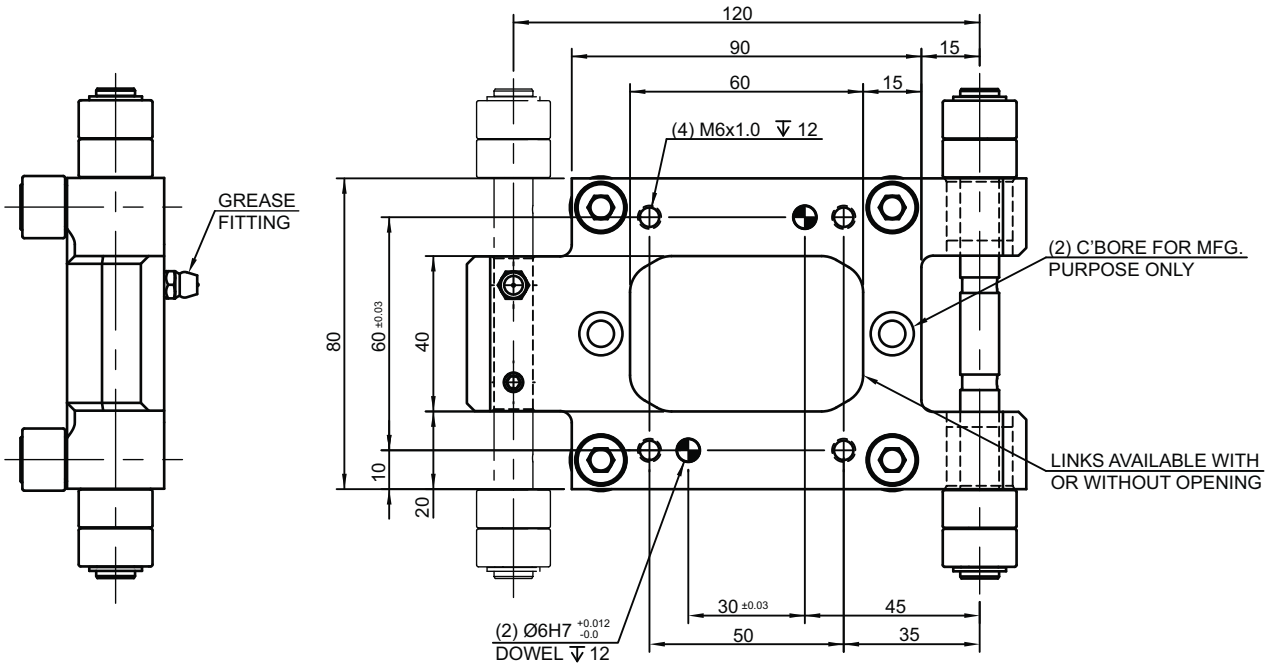


120mm (4.72”) Dimensions

120mm (4.72”) Conveyor Dimensions



120mm (4.72”) Link Dimensions

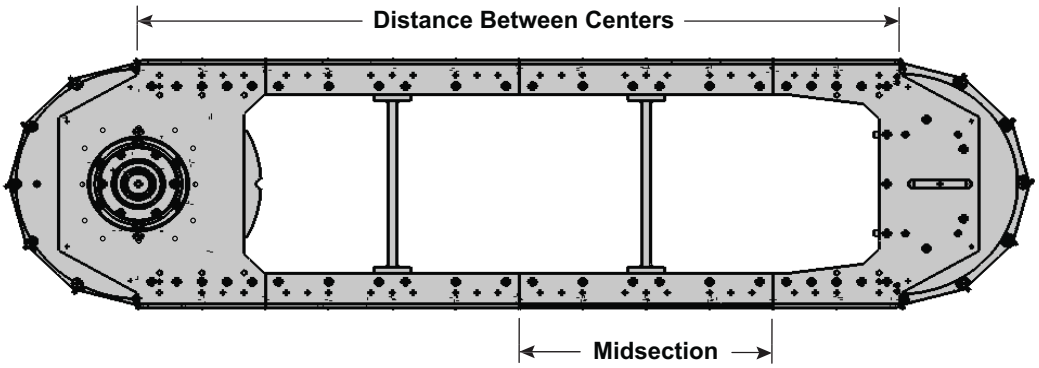


ALL DIMENSIONS ARE IN MM & SUBJECT TO CHANGE WITHOUT NOTICE

120mm (4.72”) Link Conveyor

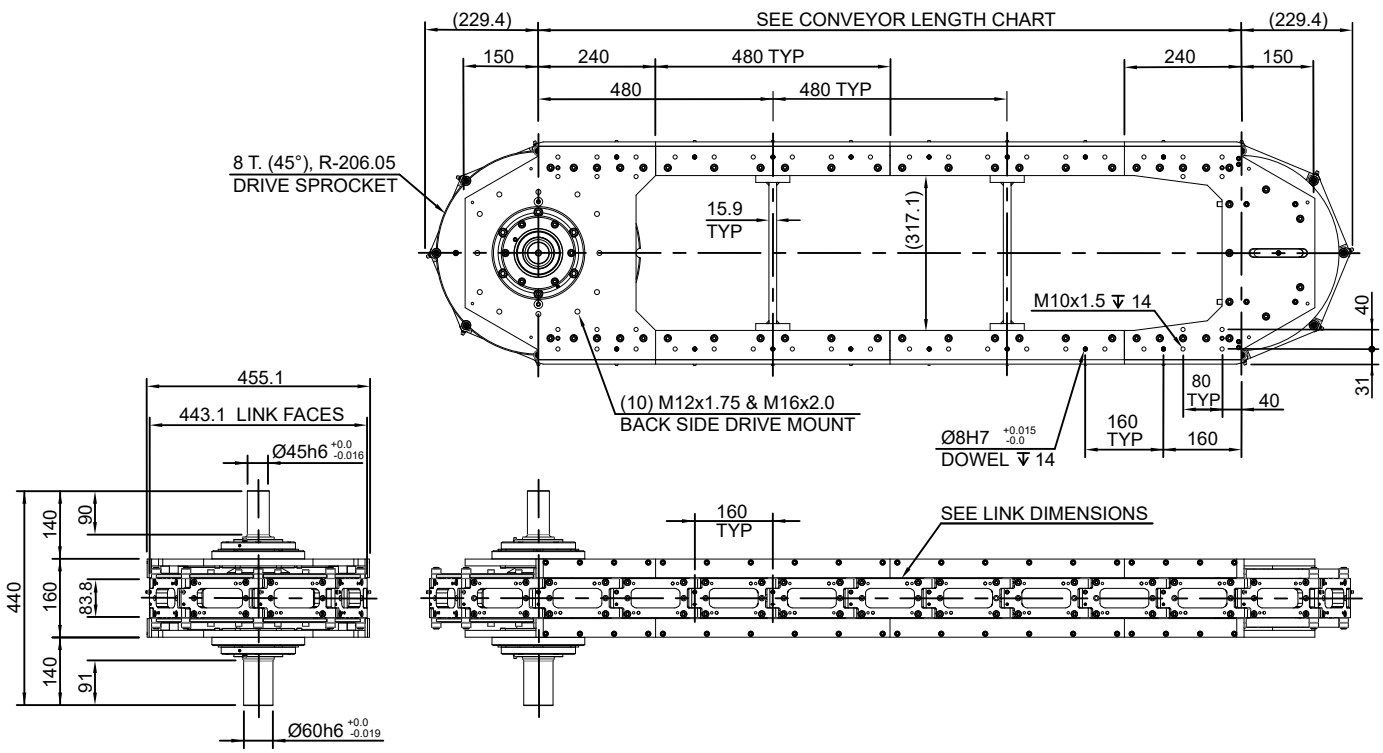
Model Code	Distance Between Centers			Mid-Section Quantity	Links per Rail	Links per Each End	Total Link Quantity	Link Feed Quantity Compatibility		
	mm	Inches	Feet					2	3	4
IC80-120-12T-480	480	18.89	1.57	0	4	6	20	x		x
IC80-120-12T-960	960	37.78	3.14	0	8	6	28	x		x
IC80-120-12T-1440	1440	56.69	4.72	1	12	6	36	x	x	x
IC80-120-12T-1920	1920	75.59	6.3	2	16	6	44	x		x
IC80-120-12T-2400	2400	94.49	7.87	3	20	6	52	x		x
IC80-120-12T-2880	2880	113.39	9.45	4	24	6	60	x	x	x
IC80-120-12T-3360	3360	132.28	11.02	5	28	6	68	x		x
IC80-120-12T-3840	3840	151.18	12.6	6	32	6	76	x		x
IC80-120-12T-4320	4320	170.08	14.17	7	36	6	84	x	x	x
IC80-120-12T-4800	4800	188.98	15.75	8	40	6	92	x		x
IC80-120-12T-5280	5280	207.87	17.32	9	44	6	100	x		x
IC80-120-12T-5760	5760	226.77	18.9	10	48	6	108	x	x	x
IC80-120-12T-6240	6240	245.67	20.47	11	52	6	116	x		x
IC80-120-12T-6720	6720	264.57	22.05	12	56	6	124	x		x
IC80-120-12T-7200	7200	283.46	23.62	13	60	6	132	x	x	x
IC80-120-12T-7680	7680	302.36	25.2	14	64	6	140	x		x
IC80-120-12T-8160	8160	321.26	26.77	15	68	6	148	x		x
IC80-120-12T-8640	8640	340.16	28.35	16	72	6	156	x	x	x
IC80-120-12T-9120	9120	359.06	29.92	17	76	6	164	x		x
IC80-120-12T-9600	9600	377.95	31.5	18	80	6	172	x		x
IC80-120-12T-10080	10080	396.85	33.07	19	84	6	180	x	x	x
IC80-120-12T-10560	10560	415.74	34.64	20	88	6	188	x		x
IC80-120-12T-11040	11040	434.64	36.22	21	92	6	196	x		x
IC80-120-12T-11520	11520	453.54	37.79	22	96	6	204	x	x	x
IC80-120-12T-12000	12000	472.44	39.37	23	100	6	212	x		x

- Programmable motion drives can feed the links in fractional or unlimited amounts.
- For longer conveyor lengths, please contact Sankyo Automation (937) 498.4901 or sales@sankyoautomation.com

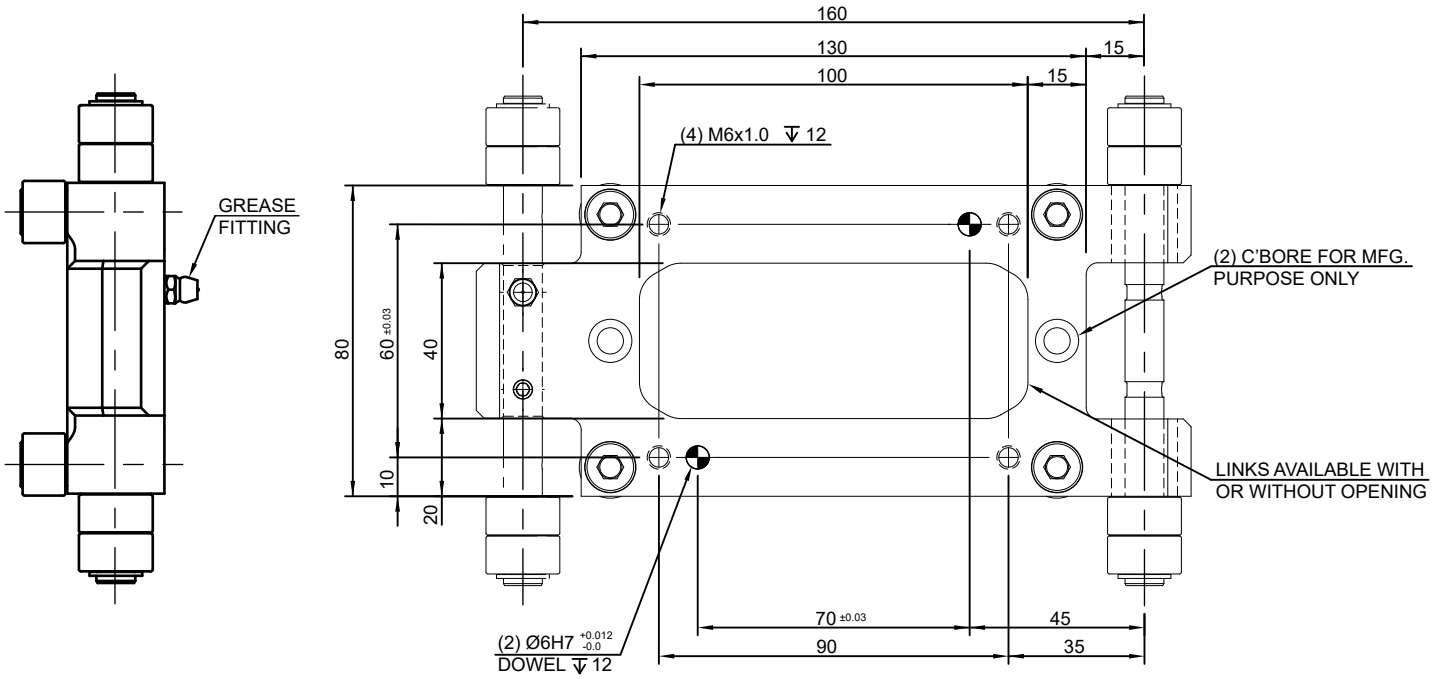


160mm (6.29”) Dimensions

160mm (6.29”) Conveyor Dimensions



160mm (6.29”) Link Dimensions



ALL DIMENSIONS ARE IN MM & SUBJECT TO CHANGE WITHOUT NOTICE

160mm (6.29”) Link Conveyor

Model Code	Distance Between Centers			Mid-Section Quantity	Links per Rail	Links per Each End	Total Link Quantity	Link Feed Quantity Compatibility		
	mm	Inches	Feet					2	3	4
IC80-160-8T-480	480	18.89	1.57	0	3	4	14	x		
IC80-160-8T-960	960	37.78	3.14	0	6	4	20	x		x
IC80-160-8T-1440	1440	56.69	4.72	1	9	4	26	x	*x	
IC80-160-8T-1920	1920	75.59	6.3	2	12	4	32	x	*x	x
IC80-160-8T-2400	2400	94.49	7.87	3	15	4	38	x	*x	
IC80-160-8T-2880	2880	113.39	9.45	4	18	4	44	x	*x	x
IC80-160-8T-3360	3360	132.28	11.02	5	21	4	50	x	*x	
IC80-160-8T-3840	3840	151.18	12.6	6	24	4	56	x	*x	x
IC80-160-8T-4320	4320	170.08	14.17	7	27	4	62	x	*x	
IC80-160-8T-4800	4800	188.98	15.75	8	30	4	68	x	*x	x
IC80-160-8T-5280	5280	207.87	17.32	9	33	4	74	x	*x	
IC80-160-8T-5760	5760	226.77	18.9	10	36	4	80	x	*x	x
IC80-160-8T-6240	6240	245.67	20.47	11	39	4	86	x	*x	
IC80-160-8T-6720	6720	264.57	22.05	12	42	4	92	x	*x	x
IC80-160-8T-7200	7200	283.46	23.62	13	45	4	98	x	*x	
IC80-160-8T-7680	7680	302.36	25.2	14	48	4	104	x	*x	x
IC80-160-8T-8160	8160	321.26	26.77	15	51	4	110	x	*x	
IC80-160-8T-8640	8640	340.16	28.35	16	54	4	116	x	*x	x
IC80-160-8T-9120	9120	359.06	29.92	17	57	4	122	x	*x	
IC80-160-8T-9600	9600	377.95	31.5	18	60	4	128	x	*x	x
IC80-160-8T-10080	10080	396.85	33.07	19	63	4	134	x	*x	
IC80-160-8T-10560	10560	415.74	34.64	20	66	4	140	x	*x	x
IC80-160-8T-11040	11040	434.64	36.22	21	69	4	146	x	*x	
IC80-160-8T-11520	11520	453.54	37.79	22	72	4	152	x	*x	x
IC80-160-8T-12000	12000	472.44	39.37	23	75	4	158	x	*x	

* For a 3-link feed pitch option, 2 links per rail is added or 4 links to the total amount. The standard 480mm midsection will be replaced with a 320mm midsection, thus making the conveyor distance between centers and overall length 160mm shorter than the posted lengths above. Not available for 480 & 960mm conveyor lengths.

- Programmable motion drives can feed the links in fractional or unlimited amounts.
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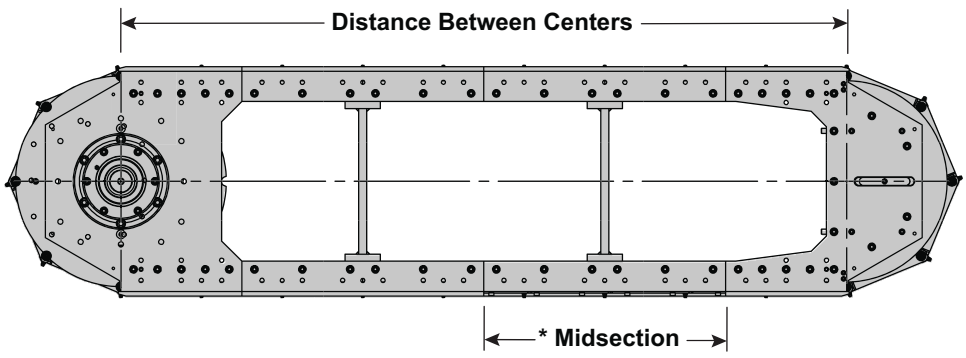
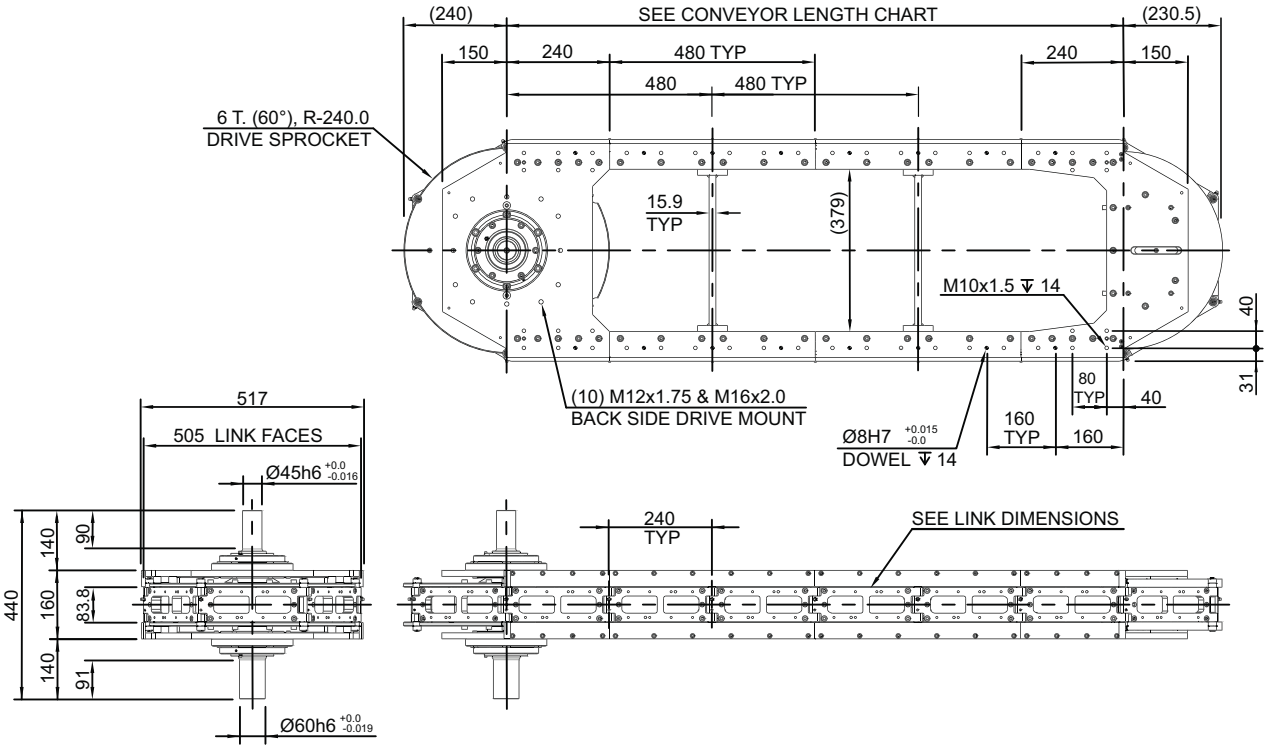
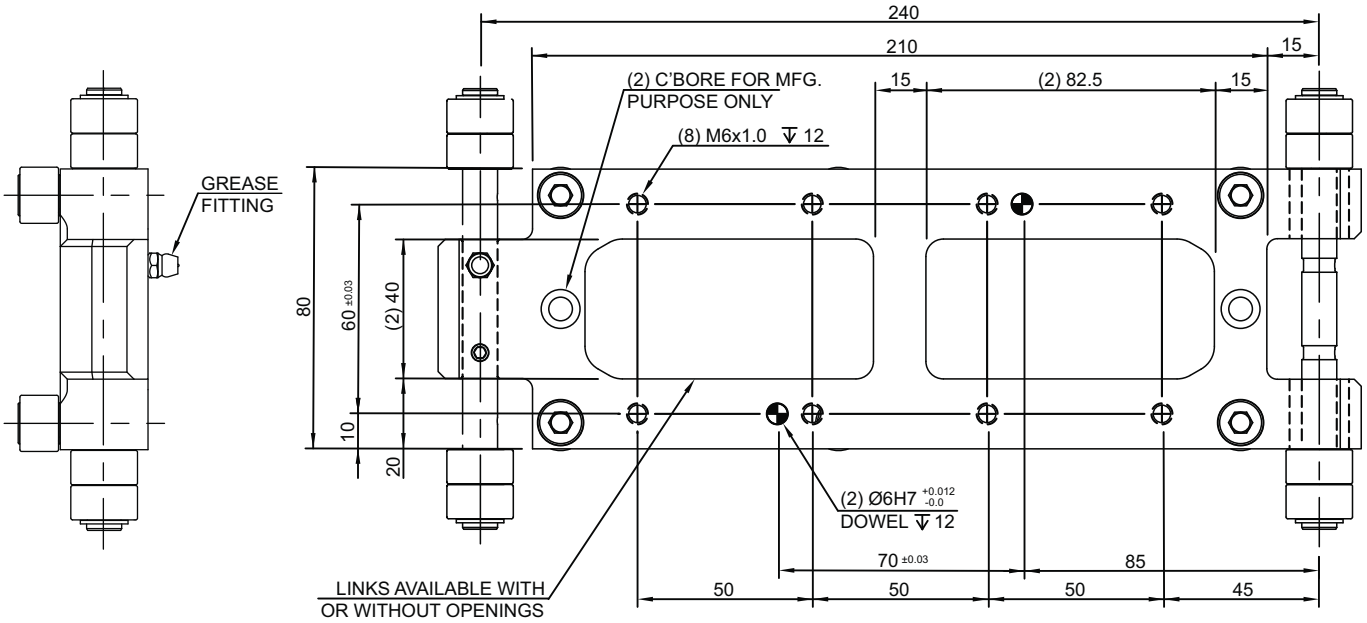


240mm (9.44”) Dimensions

240mm (9.44”) Conveyor Dimensions



240mm (9.44”) Link Dimensions

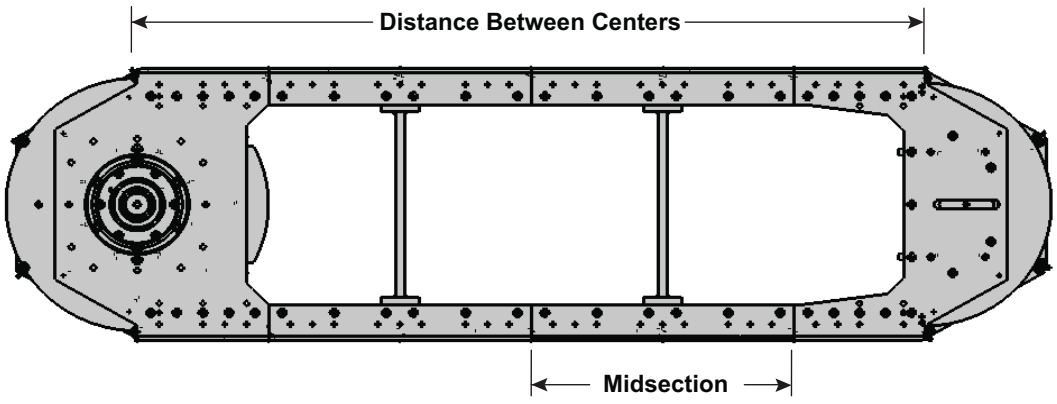


ALL DIMENSIONS ARE IN MM & SUBJECT TO CHANGE WITHOUT NOTICE

240mm (9.44”) Link Conveyor

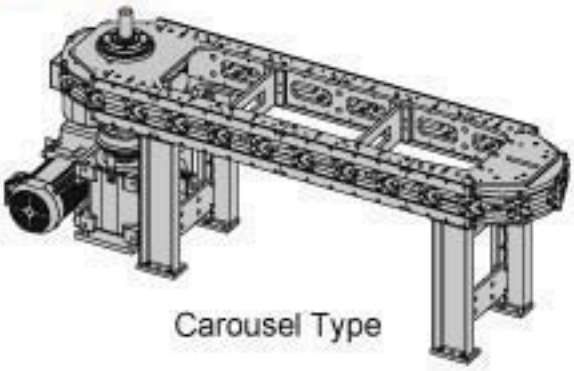
Model Code	Distance Between Centers			Mid-Section Quantity	Links per Rail	Links per Each End	Total Link Quantity	Link Feed Quantity Compatibility		
	mm	Inches	Feet					2	3	4
IC80-240-6T-480	480	18.89	1.57	0	2	3	10	x		
IC80-240-6T-960	960	37.78	3.14	0	4	3	14	x		
IC80-240-6T-1440	1440	56.69	4.72	1	6	3	18	x	x	
IC80-240-6T-1920	1920	75.59	6.3	2	8	3	22	x		
IC80-240-6T-2400	2400	94.49	7.87	3	10	3	26	x		
IC80-240-6T-2880	2880	113.39	9.45	4	12	3	30	x	x	
IC80-240-6T-3360	3360	132.28	11.02	5	14	3	34	x		
IC80-240-6T-3840	3840	151.18	12.6	6	16	3	38	x		
IC80-240-6T-4320	4320	170.08	14.17	7	18	3	42	x	x	
IC80-240-6T-4800	4800	188.98	15.75	8	20	3	46	x		
IC80-240-6T-5280	5280	207.87	17.32	9	22	3	50	x		
IC80-240-6T-5760	5760	226.77	18.9	10	24	3	54	x	x	
IC80-240-6T-6240	6240	245.67	20.47	11	26	3	58	x		
IC80-240-6T-6720	6720	264.57	22.05	12	28	3	62	x		
IC80-240-6T-7200	7200	283.46	23.62	13	30	3	66	x	x	
IC80-240-6T-7680	7680	302.36	25.2	14	32	3	70	x		
IC80-240-6T-8160	8160	321.26	26.77	15	34	3	74	x		
IC80-240-6T-8640	8640	340.16	28.35	16	36	3	78	x	x	
IC80-240-6T-9120	9120	359.06	29.92	17	38	3	82	x		
IC80-240-6T-9600	9600	377.95	31.5	18	40	3	86	x		
IC80-240-6T-10080	10080	396.85	33.07	19	42	3	90	x	x	
IC80-240-6T-10560	10560	415.74	34.64	20	44	3	94	x		
IC80-240-6T-11040	11040	434.64	36.22	21	46	3	98	x		
IC80-240-6T-11520	11520	453.54	37.79	22	48	3	102	x	x	
IC80-240-6T-12000	12000	472.44	39.37	23	50	3	106	x		

- Programmable motion drives can feed the links in fractional or unlimited amounts.
- For longer conveyor lengths, please contact Sankyo Automation (937) 498.4901 or sales@sankyoautomation.com

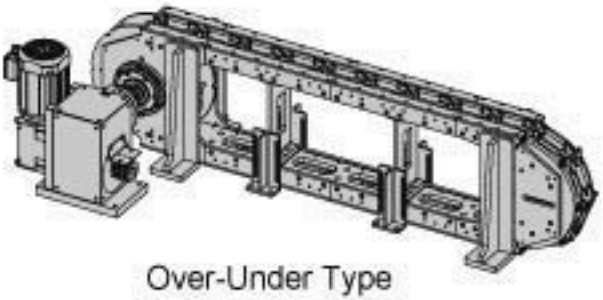


Options

Support Legs

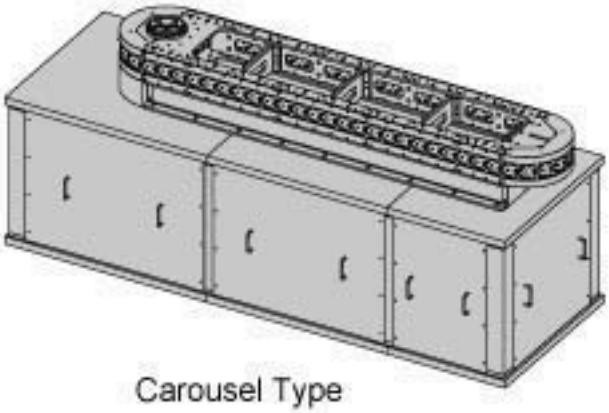


Carousel Type

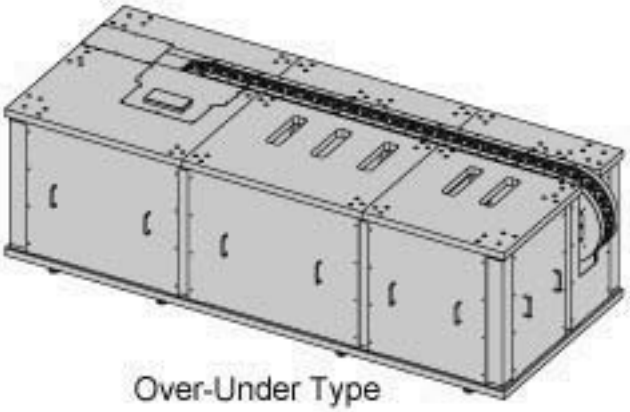


Over-Under Type

Machine Base

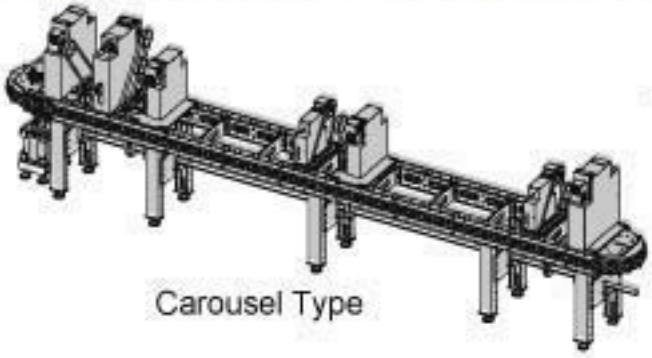


Carousel Type



Over-Under Type

Line Shaft with Pick & Place (GY Series)



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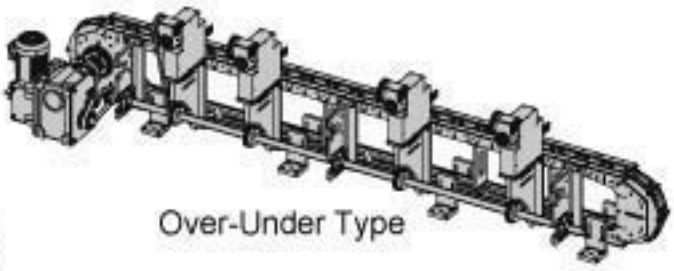


Over-Under Type

Mounting Procedures

This mechanism is capable of high torque forces during the acceleration and deceleration ramps, use removable thread locker or locking devices on all fasteners. When tightening the bolts, use the proper torque to match the bolt size.

	Bolt Tightening Torque Chart	
M5	4.9~7.6 N·m	(3.6~5.6 lb·ft)
M6	8~13.5 N·m	(5.9~9.9 lb·ft)
M8	20~34 N·m	(14.7~25.0 lb·ft)
M10	40~67.5 N·m	(29.5~49.7 lb·ft)
M12	70~84 N·m	(51.6~61.9 lb·ft)
M14	112~134 N·m	(82.6~61.9 lb·ft)
M16	175~210 N·m	(129.0~154.8 lb·ft)
M20	341~402 N·m	(251.5~296.4 lb·ft)

a) If the mounting surfaces have any scratches, burrs or paint, use an oil stone or fine emery paper to correct it. Clean the mounting surfaces and apply grease or mineral oil to prevent rust. While mounting, verify all mounting surfaces are in contact with the base mounting plate. If necessary, install leveling shims to avoid any bending stress on the equipment mounting surfaces.

b) When lifting the conveyor, use caution when placing the eye bolts or lifting straps. Drives mounted directly to the conveyor frame may cause unbalanced loading. Use the same caution when installing support legs with over-hung loads.

Environment

a) Operating temperature: 0 to 40 degrees Celsius (32° to 104° F), for use outside this range, use the proper oil viscosity for your environment. Contact Sankyo for other temperature range recommendations.

b) Moisture: to avoid rust from high humidity condensation, coat any bare metal surfaces with paint, grease, oil or sealant.

c) The AD or RU Series cam drive mechanisms will seal only limited amounts of dirt and foreign particles. Inspect the seals regularly to avoid oil leaks and/or install protective covers if necessary (covers are recommended for grinding applications).

d) If electric current passes through the equipment, the bearings may be damaged with less than 1 volt causing electrolytic corrosion. Use the proper insulation and grounding to protect the internal bearings. For more information and recommendations, please contact Sankyo.

Operation

Prior to powering the machinery, rotate the drive slowly to verify proper clearances and avoid tooling crashes. Verify, the fixtures are mounted properly, correct voltage, check for abnormal noise, vibration and oil leaks. Be prepared to stop the motor quickly if necessary.

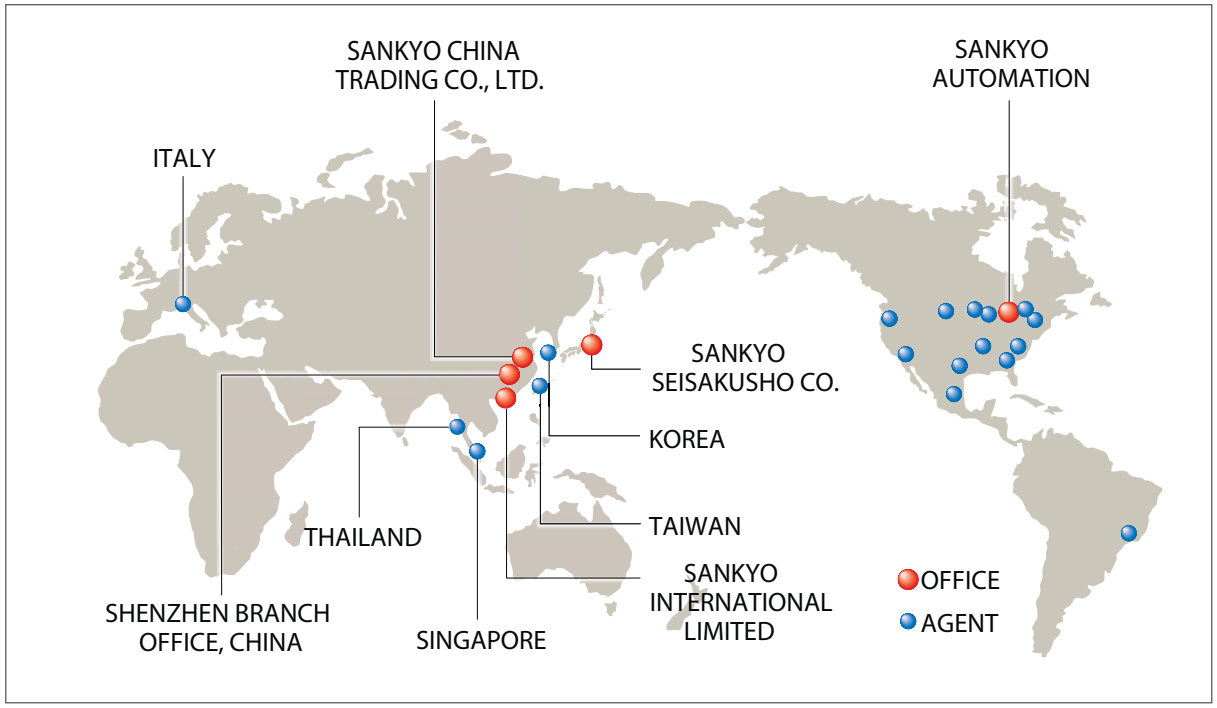
Storage

For long term storage, apply grease or paint the bare metal surfaces. To avoid internal rust, cycle the motor a few times or if power is no longer connected rotate the housing upside down, then upright to coat the internal parts. Storing the housing in fluctuating temperatures may cause the internal components to condensate, rust and contaminate the oil bath with water.

Repair & Inspection

Most components are rolling contact and rarely require replacement. In the event of a tooling crash, some components may be bent or broken. If component are damaged, continuing to operate the unit may cause more damage. Signs of internal damage are positioning correctly, backlash and/or motor torque may increase significantly. Please contact Sankyo for inspection and troubleshooting support.

Sales Network



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IC80 Series Precision Link Conveyor Sizing Form

SANKYO AUTOMATION

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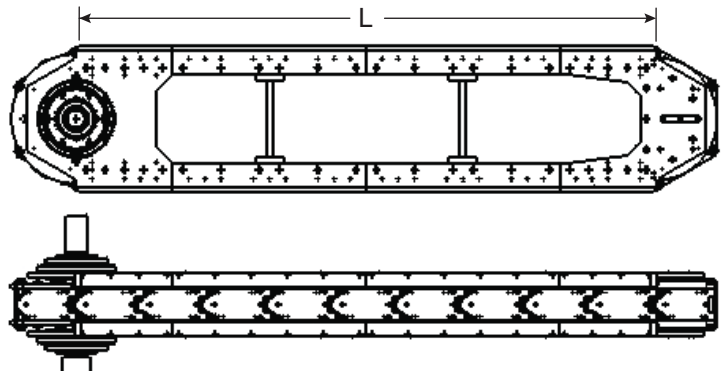
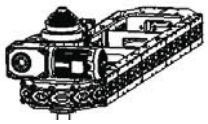
www.sankyoautomation.com

Company	
Address	
Contact Name	
Tel	
E-mail Address	

A) Application information



B) Conveyor mounting [please check one]



☐ Carousel Type

☐ Over-under Type

L - dimension [mm]

Link length (mm)
☐80 ☐120 ☐160 ☐240

Feed pitch [mm]

Feed pitch time [sec]

Dwell/process time [sec]

Link tooling weight [kg]

Link tooling quantity

Part weight [kg]

Part quantity

C) Offset loading (if applicable), distance from chain link center to load center [mm]

D) Drive motor options [please check one]

☐ Fixed motion - AD Series rotary indexer
- Induction motor, 230/460, 3-phase package
- On demand timing cam prox package
- Torque limiting clutch & overload detect prox switch

☐ VDF controller, variable speed

VFD input voltage/phase
- ☐ 115 VAC/1-phase
- ☐ 230 VAC/1-phase
- ☐ 230 VAC/3-phase
- ☐ 460 VAC/3-phase

Notes

☐ Programmable motion - RU Series servo driven positioner
- Motor mounting bracket
- Zero backlash motor coupler
- Motor adapter to your choice of motor brands
- No servo motor or controller, customer supplied

Servo motor brand name

Model number [if known]

Notes

Represented by:

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SAI-IC80-2022/4