ENGINEERING MANUAL

Complex Configurations & Tight Spaces Ideal for Corrosion Resistant Applications Reduces Conveyor Footprint Capable of Curves, Inclines & Declines



FIEXICY STAINLESS SERIES

High Performance, Stainless Steel, Flexible Chain Conveyors





LÃŞĠÚÖĞŞÖCAĞÚ CÖRAEĞE i İAEŢÖLEİCŶţŞÖCÂŞĞCÚ EĞPAEĂCĂŰ CÖRŞĞE E İAEÂŞBA ŶÇION [ĞÖCÜLÂŞ ŞQŞELÛ] ESŞ}ĞĞŞEÇÜĞŞEÇİ SAN C ĒÖİŞāāĞŞUN AEEA EÖCAEĞ H_ÖĞŞ) î ĈęŞUCÂS [LŞŐA [ā ĈŞŞÖCÂŢÎ ŞÖCÂÜLÂŞÖLƏ ELŞÖCÂŞ ŶÇSSEH[SÔLÎ CÔLĂŞÔLÊ ÚLN [ÖLEÖ ĈE CÖCŞ ŶÇSSŞE CÚLÎ ÇÖL ÇÖL ÇÜL TAEA EÜL MATEA EÜL LÃŞ ŶAEĂCĂBEĞŞAŞDEŞ] CÂULÂN [ÌŞ ŶŞ ŞAÆCÖĞN Ú] AES[ÖLEÖ]

G[&Ö

* āā§ÖQHEİĞ [þàdŰ/ČEĂŞODÍŞĕ< ÚẹŞĞE þÚ}ēs CAPĮÖ, Ö, ŞÇÊ þŞĞE þÚCŞsCŞ}Ĉ ĈĂĘ [ČŞÖČAÇÜ Ö, ŞāÆÖQAŞ»ē [[ÖHEÖAî) HైĔ AB-āÇ þŞŐN [] ŞCRÚCÊē þÚ é Ş[ÖÂÇÜ Ö] []]āî @_\lo[ls,*,*

Product Ov	verview & How to Purchase	4 – 5
Frame Wid	ths	6 – 7
MM	65mm Conveyor System	8 – 18
MG	85mm Conveyor System	19 – 29
M=	105mm Conveyor System	30 – 39
MO	180 mm Conveyor System	40 - 46
MP	260 mm Conveyor System	47 – 53
M;	Conveyor Accessories	54 – 57
MA	Conveyor Guides	58 – 65
Gearmotors		66 - 67
Controllers		68 – 69
Technical Data & Calculations		



FlexMove, STAINLESS SERIES

PRODUCT OVERVIEW



<[mc] Mismn_g M_f_]ncih

We provide a wide selection of chain sizes to cover a wide variety of product sizes and shapes. In order to select the right chain size to use in your application, consider the following selection criteria:

• Jli^o]n>cg_hmeihm

A product can be two or three times wider than the conveyor chain as long as the center of gravity of the product falls within the chain width. Extra supporting guide rails are required and testing is recommended.

• Jli^o]nQ_cabn

Product weight is important in chain selection as each chain has its maximum traction force. Traction force calculation is required when there are several heavy products to be conveyed, and it will increase further if the products are accumulated on the conveyor.

• N_] bho] [f = [f] of[noih

It is important to calculate total load on conveyor based on product weight, distance between products, accumulation and length of the system. The frequency of start /stop, chain tension and service factor are important. If the calculated capacity is higher than the selected drive and chain series, the conveyor should be shortened or select a system with higher capacity.

• Mg[ff@iinjldnn

Straightforward layout and compact design maximizes valuable floor space while minimizing noise, maintenance and footprint.

<_h^m

Bends are used to change the direction of chain movement in conveyors. There are 3 types of bends available:

• Qb_f<_h^m

Designed with top and bottom wheels that rotate freely with the chain and are supported by a dual sealed ball bearing, providing the lowest friction, minimum bend force and smallest turning radius compared to other types of bends. Besides standard 30°, 45°, 60°, 90° and 180° configurations, special angles are also available upon request. Select a horizontal wheel bend whenever is possible.

• Bildtihn[f<_h^m

An alternative to wheel bends, horizontal bends are useful in conditions requiring large space, long products with large turning radius and twin – track bend applications. It has higher friction compared to wheel bends. Larger radius is recommended for lower friction and less stress on slide rail.

• P_Ind [f <_h^m

A vertical bend provides vertical change of the conveyors moving direction. It can be used either as a convex or concave bend. Vertical bends increase the chain tension and cause higher stress on the slide rail. Avoid using more than four 90° vertical bends in one conveyor.



Mfc^_L[f

A slide rail provides low friction and wear resistant track for the chain to slide on. It is mounted to a conveyor frame using screws or rivets. Various types of slide rails are available to meet different requirements like normal operation, high speed, high load, conductive and accumulation applications.

=i hp_si l @[g_m

Conveyor frames are made of Stainless Steel provided in cut to length sizes to match the application. The conveyor side frame is provided with mounting locations for guides and support stands.

A oc^ $L[d; mm_g \setminus fs Msm_g$

Guide rail components are used to guide and contain products throughout the conveyor system and prevent them from falling off the conveyor. We provide a comprehensive range of Stainless Steel guide rails, and brackets either fixed or adjustable to cover many specialized product sizes and shapes.

Mho]nol[fMsm_g

Our Stainless Steel structural support system consists of Stainless support stands cut to the height of the application. Each support includes a tripod base for fine height adjustments.

= i hp_si l;]]_mmilc_m

We offer a wide selection of conveyor accessories from special bolt & nuts, brackets, connecting strips, rivets, rollers, and washers for inter-connection between modules and components.

HOW TO PURCHASE

Purchasing a FlexMove Conveyor

Dorner offers three solutions for purchasing a FlexMove Conveyor.

- The first solution is to order all the necessary parts and components to build your FlexMove Conveyor on site. This will require the proper tools for cutting, bending and installing the conveyor. Consult our installation guide for FlexMove Conveyors for more details.
- The second solution is to have a complete conveyor provided through our FlexMove Solutions. With FlexMove Solutions, you can have the conveyor built in our facility, tested, broken down into shippable sections and shipped to the end site for installation.
- The third solution is to work with Dorner to have your FlexMove Conveyor assembled at the final site. The Conveyor will be purchased similar to option 2, but will be shipped as pre-cut and sized components. The Dorner installation team will then assemble and test the equipment at your location. Contact a Dorner representative for a quote on this service.



FRAME WIDTHS



65 mm (2.5 in)

- Maximum load = 30 kg/m (20 lbs/ft)
- Maximum total load = 136 kg (300 lbs) non-accumulated
- Maximum length = 30 m (98 ft)
- Maximum Speed = 58 mpm (190 fpm)





85 mm (3.4 in)

- Maximum load = 60 kg/m (40 lbs/ft)
- Maximum total load = 272 kg (600 lbs) non-accumulated
- Maximum length = 30 m (98 ft)
- Maximum Speed = 58 mpm (190 fpm)



85 MM WIDTH



105 mm (4.1 in)

- Maximum load = 60 kg/m (40 lbs/ft)
- Maximum total load = 272 kg
- Maximum total load = 272 kg (600 lbs) non-accumulated
- Maximum length = 30 m (98 ft)
- Maximum Speed = 58 mpm (190 fpm)



105 MM WIDTH



FRAME WIDTHS



180 mm (7.1 in)

- Maximum load = 65 kg/m (44 lbs/ft)
- Maximum total load = 272 kg (600 lbs) non-accumulated
- Maximum length = 30 m (98 ft)
- Maximum Speed = 58 mpm (190 fpm)



FlexMcve Stainless

179 MM WIDTH



260 mm (10.2 in)

- Maximum load = 65 kg/m (44 lbs/ft)
- Maximum total load = 272 kg (600 lbs) non-accumulated
- Maximum length = 30 m (98 ft)
- Maximum Speed = 58 mpm (190 fpm)



260 MM WIDTH

Note: Conveyor modules may be made up of several length of conveyor beam. Maximum length piece beam is 3,000 mm (118 in). Note: Dimensions = mm (in)



SS Series

MMM_lc_m4

<_[g Qc^rb465 mm

Jli ^o] nQ c'rb4Refer to Guide Rail Assembly

;]]_mmilc_mH__^_4

Mfc^_ L[f L_kod_^4FASR-25 OR FASR-25U

Mfc^_ L[f = i fi I4White or Natural Color

Mfc^_ L[d G[n_l d f4HDPE OR UHMW

Mfc^_ L[f L qp_n4FASLS-M5

Connecting strip is used to connect 2 beams.

= i hh_] ncha Mh g 4SACS-50x70

Conveyor Beam SSCB-LXXXX







Chain Connecting Module SSCC-160





5.70

OI G4- G_n_I) F_harb



SACS-50x70













SS SERIES: 65 mm

= b[dh = i g g i h > [r[

J[] e[adha45 m per box J d] b425.4 mm Q c^arb463 mm Tensile Strength at 20°C: 4000N = i fi I4White & Black (Conductive)

G[n_l **{** f4

= **b[dh4**White Acetal / POM **J qpi n4**Polyamide **J qpi nJ dh4**Stainless Steel **Chm_I n'Q_^a_ @ d nc h#4**TPE Grey

?r[gjf_`il@M⊨N/;+1'F

7 + cleated top chain with alternate of # link of plain chain



The above chain is FSCT-5A17-L1, 1 link cleated top chain with alternate of 1 link of plain chain. Hi n_4 7 +&, &- & &/ (((((, *

Standard Plain Chain @MJ='/





OI G4/ G_nI) \ i r Application: Suitable for horizontal and slope < 5° transport of products with accumulation.

Universal Chain @MD='/



OI G4/ G_n_I) \ i r Application: Universal Link with M3 Nut, Suitable for attached customer cleat or fixture

Wedge Top Chain @MQ N /;





OI G4/ G_n_I) \ i r Application: Vertical Wedge transportation of products.

Wedge Top Chain @MQ N / =





OI G4/ G_nI) \ i r Application: Vertical Wedge transportation of products. (Heavy Duty)





OI G4/ G_n_I) \ i r Application: Vertical Wedge transportation of products.



SS SERIES: 65 mm

FlexMove, Stainless Series

Friction Top Chain @M@N/





OI G4/ G_n_I) \ i r Application: Suitable for transport product in slope $> 5^{\circ}$ but $\le 30^{\circ}$ without accumulation.

Conductive Chain @MJ='/=>

Friction Top Chain @M@N/=





OI G4/ G_n_l) \ i r Application: Suitable for transport product in slope > 5° but \leq 35° without accumulation. Subject to product weight and packing



Twist Chain @MJ='/G





OI G4/ G_n_I) \ i r Application: Suitable twist conveyor beam; horizontal and slope < 5° transport of products with accumulation

Flocked Chain @M@E'/



OI G4/ G_nI) \ i r Application: Suitable for transport of static sensitive product.



OI G4/ G_nI) \ i r Application: Suitable to transport lightweight, fragile and scratch sensitive product.



SS SERIES: 65 mm

Cleat Top Chain-A @M=N/; +1'F



OI G4/ G_n_I) \ i r Application: Suitable for vertical transport of product with no accumulation.

Cleat Top Chain-C @M=N/=

Cleat Top Chain-A @M=N/; -*'F





OI G4/ G_n_I) \ i r Application: Suitable for vertical transport of product with no accumulation.

Cleat Top Chain-B @W⊨N/<







Ol G4/ G_n_l) \ i r Application: Suitable Cigarette transport.



Ol G4/ G_n_l) \ i r Application: Suitable for Cigarette transport.

Magnet Top Chain @MG N /



OI G4/ G_n_I) \ i r Application: Suitable for conveying ferromagnetic products in slope.

Magnet Top Chain @MG N / ' F 7 +&, &- & &/ (((((, *



OI G4/ G_n_I) \ i r Application: Suitable for conveying ferromagnetic products in slope.



SS SERIES: 65 mm

FlexMcve. Stainless Series

Hardened Steel Top Chain @MMN /



OI G4/ G_n_I) \ i r Application: Suitable to transport metal products in accumulation.

Stainless Steel Top Chain @MVN / M



OI G4/ G_n_I) \ i r Application: Suitable to transport metal products in accumulation.

Roller Cleat Chain @ML='/; 'F





OI G4/ G_n_I) \ i r Application: Suitable for vertical transportation, of product in slope with no accumulation.

Roller Top Chain @MLN/



OI G4/ G_n_I) \ i r Application: Suitable for accumulation of product with low friction and pressure.



FlexMove STAINLESS SERIES

SS SERIES: 65 mm

SS Direct End Drive without Motor "F?@N#

SSDD-A65-0L

SS Direct End Drive without Motor "LOBN#

SSDD-A65-0R







G[r N[] noih@il]_4/**H

The standard Direct End Drive Unit is without torque limiter. See page 66-67 for Gearmotor options.

OI G 4i 1 Chain required 2-way: 0.8 meter

Slide rail required 2-way: 0.5 meter



G[r N[] noih@il]_4/**H

The Direct End Drive GP is used for vertical wedge conveyor. See page 66-67 for Gearmotor options.

OIG4j] Chain required 2-way: 0.8 meter Slide rail required 2-way: 0.5 meter

F&P %6ÉW/≠ ∂Êd/> %Wɉ/ ∂y ÔDÊ %8€%F&P %6Ô ∂y/¢ É



OIG4j]

SS SERIES: 65 mm

FlexMcve Stainless Series



<u> Dornur ()</u>

SS Wheel Bend 5° - 180°



$r[gjf_i MMQb_f < h^l |_h$

- Wheel bend, $\emptyset^{\circ} \pm 1^{\circ}$

If an angle of 65° is needed for wheel bend, the ordering part number is

MMQ < '0/L + / *

$$\begin{split} & \textit{Hü\acute{E}} \& \hat{O} \stackrel{\text{def}}{=} \& \mathcal{O} \stackrel{\text$$

SS Horizontal Plain Bend 30°



Bilctihn[fjf[dh∖_h^&-*a∂+a

$R = 500 \pm 10 \text{ mm}$	MMB<'-*L/**
$R = 700 \pm 10 \text{ mm}$	MMB<'-*L1**

OIG4j]

Chain required 2-way (500, 700): 1.4, 1.6 meter Slide rail required 2-way (500, 700): 2.8, 3.2 meter

SS Horizontal Plain Bend 45°



Bilctihr[fjf[ch_h^&./*∂+*

 $R = 500 \pm 10 \text{ mm}$ $R = 700 \pm 10 \text{ mm}$ MVB<'./L/** MVB<'./L1**

OIG4j]

Chain required 2-way (500, 700): 1.6, 1.9 meter Slide rail required 2-way (500, 700): 2.9, 3.3 meter

SS Horizontal Plain Bend 90°



Bilctihn[fjf[ch_h^&3**∂+*

 $R = 500 \pm 10 \text{ mm}$ $R = 700 \pm 10 \text{ mm}$ MMB<'3*L/** MMB<'3*L1**

OIG4j]

Chain required 2-way (500, 700): 2.4, 3.0 meter Slide rail required 2-way (500, 700): 4.8, 6.0 meter



FlexMcve Stainless

SS Horizontal Plain Bend 5-180°



?r[gjf_`il MMBilctihr[fJf[ch <_h^l l^_lcha

Bilctihn[fjf[ch_h^&Bª∂+ª

R = 500 ± 10 mm	MVB <'	₿ªL/*
R = 700 ± 10 mm	MVB <'	ß ªL 1* *

If an angle of 120° is needed for radius R500 horizontal plain bend, the ordering part number is

MVB<'+, *L/**

OIG4j]

Chain required 2-way (500, 700): meter (Variable to angle) Slide rail required 2-way (500, 700): meter (Variable to angle)

SS Vertical Bend 5°





OIG4j] Chain required 2-way: 0.4 meter Slide rail required 2-way: 0.8 meter

SS Vertical Bend 15°

SS Vertical Bend 30°



SSVB-30R300



OIG4j] Chain required 2-way: 0.6 meter Slide rail required 2-way: 1.1 meter



37.5 0 010 000 0 0 R300 300

OIG4j] Chain required 2-way: 0.8 meter Slide rail required 2-way: 1.5 meter



SS Vertical Bend 5° - 90°



?r[gjf_`ilMMP_Ind][f<_h^ll^_ldha

- Vertical bend, $Ø^{\circ} \pm 1^{\circ}$

If an angle of 25° is needed for vertical bend, the ordering part number is

MMP<',/L-**

$$\begin{split} & \mathsf{H}\ddot{u}\acute{E} \vartheta \hat{C} \acute{E}' \vartheta \acute{E} \leq y & \mathscr{W} \cdot \acute{E} \neq e & \mathscr{D} \mathscr{Q} \ll \acute{O} & \mathscr{Q} \leq \leq \acute{E} \circ \acute{E} \& \circ \land \acute{E} \& \\ & \langle F & \# F \circ i_{_{-}} \circ \cdot i_{_{-}} \circ \rangle & \mathscr{C} \leq \acute{O} & \mathscr{U} & \mathring{C} & \mathscr{D} & \mathscr{U} & \acute{E} & \mathscr{U} & \mathsf{L}'$$



<u>Dornur (</u>



SM Series

MG M_lc_m4

<_[g Qc^rb485 mm

JIi ^o] nQ c'rb4Refer to Guide Rail Assembly

;]]_mmilc_mH__^_4

Mfc^_ L[f L_kod_^4FASR-25 OR FASR-25U

Mic^_ L[d = i fi I4White or Natural Color

Mfc^_ L [f G [n_l f fHDPE OR UHMW

Mfc^_L[ffLqp_n M]l_q4FASLS-M5

Connecting strip is used to connect two beams.

= i hh_] ncha Mh c 4SACS-50x70



Conveyor Beam SMCB-LXXXX



Chain Connecting Module SMCC-160

- 35 -	-	160		- 35
0	0		0	0
0	0		0	0

Connecting Strip – Stainless Steel







5.70





SM SERIES: 85 mm

FlexMove Stainless

=b[dn = iggih > [n]

J[]e[adha45 m per box J al b433.5 mm Q c^hb483 mm Tensile Strength at 20°C: 6000N = i fi I4White & Black (Conductive)

G[nldf4

= b[dh4White Acetal / POM J qoi n4 Polyamide J qpi nJ dh4Stainless Steel Chmln'C_^a_ @ld no: h#4TPE Grey

?r[gjf_`il@G=N/;+1'F

7 + cleated top chain with alternate of # link of plain chain



The above chain is FMCT-5A17-L1, 1 link cleated top chain with alternate of 1 link of plain chain. Hin_4 7 +&, &= & &/ (((((, *

Standard Plain Chain @GJ='/



OIG4/G_n_I)\ir Application: Suitable for horizontal and slope < 5° transport of products with accumulation.

Conductive Chain @GJ='/=>





OIG4/G_n_I)\ir Application: Suitable for transport of static sensitive product.

Twist Chain @GJ='/G







OIG4/G_n_I) \ ir

Application: Suitable twist conveyor beam; horizontal and slope < 5° transport of products with accumulation

Safety Chain @GJ='/P







OIG4/G_n_I)\ir

Application: (Safety Chain) Suitable for horizontal and slope < 5^a transport of products with accumulation

Safety Chain Friction Top @G @N / P';





OIG4/G_n_I)\ir

Application: (Safety Chain) Suitable for transport product in slope > 5° but \leq 30° without accumulation.



SM SERIES: 85 mm

Friction Top Chain @G @N /





Ol G4/ G_n_l) \ i r Application: Suitable for transport product in slope > 5° but \leq 30° without accumulation.







OI G4/ G_n_I) \ i r Application: Suitable for transport product in slope $> 5^{\circ}$ but $\le 30^{\circ}$ without accumulation.



Wedge Top Chain @GQN/;



OI G4/ G_n_I) \ i r Application: Vertical Wedge transportation of products.

Wedge Top Chain @GQN/<



OI G4/ G_n_I) \ i r Application: Vertical Wedge transportation of products (Heavy Duty)



OI G4/ G_n_I) \ i r Application: Vertical Wedge transportation of products (Heavy Duty)





OI G4/ G_n_I) \ i r Application: Vertical Wedge transportation of products.



SM SERIES: 85 mm

FlexMove, Stainless Series

Magnet Top Chain @GGN/





OI G4/ G_nl) \ i r Application: Suitable for conveying of ferromagnetic products in slope.



20

Flocked Chain @G@E'/





OI G4/ G_n_I) \ i r Application: Suitable to transport lightweight, fragile and scratch sensitive product.

Hardened Steel Top Chain @G MN /





OI G4/ G_n_I) \ i r Application: Suitable to transport metal products in accumulation.

Stainless Steel Top Chain @G MN / M

35.5

Application: Suitable for conveying of

ferromagnetic products in slope.

OIG4/G_n_I)\ir





OI G4/ G_n_I) \ i r Application: Suitable to transport metal products in accumulation.

Universal Chain @GO='/





Ol G4/ G_n_l) \ i r Application: Universal Link with M6 Nut, Suitable for attached customer cleat or fixture.



SM SERIES: 85 mm

Roller Top Chain @GLN/





OI G4/ G_n_I) \ i r Application: Suitable for accumulation of product with low friction and pressure. Roller Cleat Chain @GL='/; 'F

7 +&, & & & & (((((, *



OI G4/ G_n_I) \ i r Application: Suitable for vertical transportation of product in slope with no accumulation.

Roller Cleat Chain @GL='/<'F



OI G4/ G_n_I) \ i r Application: Suitable for vertical transportation of product in slope with no accumulation.



OI G4/ G_n_I) \ i r Application: Suitable for vertical transport of product with no accumulation.



Application: Suitable for vertical transport of product with no accumulation.



SM SERIES: 85 mm

FlexMove Stainless Series

SM Direct End Drive without Motor "F?@N#

SMDD-A85-0L

SM Direct End Drive without Motor "LOABN#

SMDD-A85-0R







G[r N[] noih@il]_4+,/*H

The Direct End Drive Unit is without torque limiter. See page 66-67 for Gearmotor options.

OIG4j]

Chain required 2-way: 0.8 meter Slide rail required 2-way: 0.5 meter

SM Direct End Drive GP without Motor "F?@N#

SMDD-A85GP-0L

SM Direct End Drive GP without Motor "LOBN# SMDD-A85GP-0R



G[r N[] noi h @i l]_4+, /*H

The Direct End Drive Unit is without torque limiter. See page 66-67 for Gearmotor options.

OI G4j] Chain required 2-way: 0.8 meter Slide rail required 2-way: 0.5 meter





SM SERIES: 85 mm





SM Wheel Bend 5° - 180°



SM Horizontal Plain Bend 30°

?r[gjf_`ilMGQb__f<_h^ll^_ldha</pre>

- Wheel bend, $\emptyset^{\circ} \pm 1^{\circ}$

If an angle of 65° is needed for wheel bend, the ordering part number is

MGQ < '0/L+0*

$$\begin{split} & \text{Hü}\acute{E} \eth \acute{O}\acute{E}' \wr \acute{E} \leq y \And \mathcal{W} \land \acute{E} \neq e \, \acute{\boxtimes} y \, \acute{\bigtriangleup} \, \& \acute{c} \circ \wr \acute{\partial} d \leq \leq \acute{E} \circ \acute{E} \& \acute{e} \circ \land \acute{E} & e \, \acute{e} \circ \circ \acute{E} \circ \acute{E} \& e \circ \circ \acute{E} \circ \acute{E} & e \, \acute{e} \circ \circ \acute{E} \circ \acute{E} & e \, \acute{e} \circ \circ \acute{E} \circ \acute{E} & e \, \acute{e} \circ \circ \acute{E} \circ \acute{E} & e \, \acute{e} \circ \circ \acute{E} \circ \acute{E} & e \, \acute{e} \circ \circ \acute{E} \circ \acute{E} & e \, \acute{e} \circ \circ \acute{E} \circ \acute{$$



R = 500 ± 10 mm **MG B**<

Bilctihn[fjf[ch_h^&-**∂+*

 $R = 700 \pm 10 \text{ mm}$

MGB<'-*L/** MGB<'-*L1**

OIG4j]

Chain required 2-way (500, 700): 1.4, 1.6 meter Slide rail required 2-way (500, 700): 2.8, 3.2 meter

SM Horizontal Plain Bend 45°





Bilctihn[fjf[ch $_h^&/^a \partial +^a$

 R = 500 ± 10 mm
 MG B<'./L/**</td>

 R = 700 ± 10 mm
 MG B<'./L1**</td>

OIG4j]

Chain required 2-way (500, 700): 1.6, 1.9 meter Slide rail required 2-way (500, 700): 2.9, 3.3 meter

SM Horizontal Plain Bend 90°



Bilctihn[fjf[ch_h^&3**a∂+*

R = 500 ± 10 mm MG B R = 700 ± 10 mm MG B

MGB<'3*L/** MGB<'3*L1**

OIG 4 j]

Chain required 2-way (500, 700): 2.4, 3.0 meter Slide rail required 2-way (500, 700): 4.8, 6.0 meter

SM Horizontal Plain Bend 5-180°



?r[gjf_`il MG Bilotihn[fJf[oh <_h^ | l^_loha

Bilctihn[fjf[dh∖_h^&ߪ∂+ª

$R = 500 \pm 10 \text{ mm}$	MGB<'BL/**
$R = 700 \pm 10 \text{ mm}$	MGB<'ßL1**

If an angle of 70° is needed for radius R500 horizontal plain bend, the ordering part number is

MG B<'1*L/**

OIG4j]

Chain required 2-way (500, 700): meter (Variable to angle) Slide rail required 2-way (500, 700): meter (Variable to angle)





SM Vertical Bend 5° - 90°



?r[gjf_`ilMGP_Ind][f<_h^ll^_ldha</pre>

- Vertical bend, ذ ± 1°

If an angle of 25° is needed for vertical bend, the ordering part number is



 $\begin{array}{l} & {\it H}\ddot{u}\dot{E} \Re \hat{O} \dot{E}' \Re \dot{E} \leq y \, \& \, \mathcal{W} \, \rangle \, \dot{E} \neq e \, \dot{\boxtimes} y \, \hat{\boxtimes} \, \& \dot{c} \circ \partial \partial d \leq \leq \dot{E} \circ \dot{E} \& \dot{c} \otimes \dot{\mathcal{E}} & \\ & \langle F \ \ \# F \circ i \ _{\sim} \circ i \ _{\sim} \otimes \dot{c} \circ \dot{\mathcal{O}} \Re \dot{\mathcal{E}} \& \dot{\mathcal{E}} & \\ & \hat{u} \dot{E} \leq \mathcal{W} \, y \, \dot{E}' \, \& \dot{c} & \\ & \hat{u} \dot{E} \leq \mathcal{W} \, y \, \dot{E}' \, \& \dot{c} & \\ \end{array}$

SAHBS-90M







SM Adjustable Angle Beam Support Bracket

SAHBS-90M-A35

SBSM-HXXXX, where XXXX = H Height (mm)

т

SBSM-A-HXXXX, where XXXX = H Height (mm)





86



SM Horizontal Tripod Support

SM Adjustable Angle Tripod Support



OI G4j] Includes Beam Support Bracket



SC Series

M⊨ M_lc_m4

<_[g Qc^rb4105 mm

Jli ^o] nQ c'rb4Refer to Guide Rail Assembly

;]]_mmilc_mH__^_4

Mfc^_ L[d L_kod_^4FASR-25 OR FASR-25U

Mfc^_ L[f = i fi I4White or Natural Color

Mfc^_ L[d G[n_l d f4HDPE OR UHMW

Mfc^_ L[d L qp_n4FASLS-M5

Connecting strip is used to connect 2 beams.

= i hh_] ndha Mh g 4SACS-50x70



Chain Connecting Module SCCC-160

- 35 -		160		- 35 -
0	0		0	0
0	0		0	0

Connecting Strip – Stainless Steel





SACS-50x70





OIG4j]

5.70





FlexMcve STAINLESS SERIES

SC SERIES: 105 mm

= b[dn = iggih > [n]

J[]e[adha45 m per box J al b435.5 mm Q c^hb4103 mm Tensile Strength at 20°C: 6000N = i fi I4White & Black (Conductive)

G[nldf4

= b[dh4White Acetal / POM J qpi n4 Polyamide J pi nJ dh4Stainless Steel Chm_In'CQ_^a_ @Id no: h#4TPE Grey

?r[gjf_`il @==N/; +1'F # = 1 cleated top chain with alternate

of # link of plain chain



The above chain is FCCT-5A17-L1, 1 link cleated top chain with alternate of 1 link of plain chain.

Cleat Top Chain @==N/; -*'F

Hin_4 7+&, &= & &/ì ((,*



Standard Plain Chain @=J='/



OIG4/G_n_I)\ir Application: Suitable for horizontal and slope $<5^\circ$ transport of products with accumulation.

Conductive Chain @=J='/=>





OIG4/G_n_I)\ir Application: Suitable for transport of static sensitive product.



OIG4/G_n_I)\ir Application: Suitable for vertical transport of product with no accumulation.

32

Cleat Top Chain @==N/; +1'F 7 +&, & & &/ì ((, *

OIG4/G_n_l)\ir Application: Suitable for vertical transport of product with no accumulation.

35.5

Roller Top Chain @=LN/



OIG4/G_n_I)\ir Application: Suitable for accumulation of product with low friction and pressure.



SC SERIES: 105 mm

FlexMove, Stainless Series

Roller Cleat Chain @=L='/; 'F





OI G4/ G_n_I) \ i r Application: Suitable for vertical transportation of product in slope with no accumulation.

Roller Cleat Chain @=L='/<'F



OI G4/ G_n_l) \ i r Application: Suitable for vertical transportation of product in slope with no accumulation.

Friction Top Chain @= @N /



OI G4/ G_n_I) \ i r Application: Suitable for transport product in slope $> 5^{\circ}$ but $\le 30^{\circ}$ without accumulation.

Friction Top Chain @=@N/;



OI G4/ G_n_I) \ i r Application: Suitable for transport product in slope > 5 ° but \leq 30 ° without accumulation.



Friction Top Chain @=@N/<



OI G4/ G_n_I) \ i r Application: Suitable for transport product in slope > 5 ° but ≤ 40 ° without accumulation.

Friction Top Chain @= @N / =



Application: Suitable for transport product in slope $> 5^{\circ}$ but $\leq 35^{\circ}$ without accumulation.



FlexMove Stainless

Hardened Steel Top Chain @= MN /





OIG4/G_n_I)\ir Application: Suitable to transport metal products in accumulation.

Stainless Steel Top Chain @= MN / M





OIG4/G_n_I)\ir Application: Suitable to transport metal products in accumulation.

Twist Chain @=J='/G

Flocked Chain @=@E'/



OIG4/G_n_I)\ir Application: Suitable to transport lightweight, fragile and scratch sensitive product.

35.5





OIG4/G_n_I)\ir Application: (Safety Chain) Suitable for horizontal and slope < 5° transport of products with accumulation.







OIG4/G_n_I)\ir Application: Suitable twist conveyor beam; horizontal and slope < 5° transport of products with accumulation



Safety Chain @=J='/P

SC SERIES: 105 mm

FlexMove Stainless Series

SC Direct End Drive without Motor "F?@N#

SCDD-A105-0L

SC Direct End Drive without Motor "F?@N#

SCDD-A105-0R





G[r N[] roih@il]_4+,/*H

The Direct End Drive Unit is without torque limiter. See page 66-67 for Gearmotor options.

OIG4j]

Chain required 2-way: 0.8 meter Slide rail required 2-way: 0.5 meter







SC Wheel Bend 180°

SCWB-180R170A



SC Wheel Bend 5° - 180°



?r[gjf_`ilM=Qb__f<_h^ll^_ldha

- Wheel bend, $\emptyset^{\circ} \pm 1^{\circ}$

170

If an angle of 65° is needed for wheel bend, the ordering part number is

M=Q < 0/L+1*

HÜÉ%AÔÊ/%E≦y‰‰W>É≠eĆyŵç≲ó%a∂≤≤ÉoÊ≲ó%È¢ «F #F°í ౖ~·í»%≪≤óĆ%A&A|‰ÔÊ%E%&y¢WÉy ^ÜÉ≤%AyÉ/©≤ó


SC SERIES: 105 mm

FlexMcve. Stainless Series

SC Horizontal Plain Bend 30°



Bilctihr[fjf[ch_h^&-*a∂+a

 $R = 500 \pm 10 \text{ mm}$ M = B < ' - * L / * * $R = 700 \pm 10 \text{ mm}$ M = B < ' - * L 1 * *

OIG4j]

Chain required 2-way (500, 700): 1.4, 1.6 meter Slide rail required 2-way (500, 700): 2.8, 3.2 meter

SC Horizontal Plain Bend 45°





Bildtihr[fjf[dh_h^&./* ∂ +*

$R = 500 \pm 10 \text{ mm}$	M⊨B<'./L/
R = 700 ± 10 mm	M⊨B<'./L1

OIG4j]

Chain required 2-way (500, 700): 1.6, 1.9 meter Slide rail required 2-way (500, 700): 2.9, 3.3 meter

SC Horizontal Plain Bend 90°



Bilctihn[fjf[dh _h^&3** ∂ +*

$R = 500 \pm 10 \text{ mm}$	M=B<'3*L/**
R = 700 ± 10 mm	M=B<'3*L1**

OIG4j]

Chain required 2-way (500, 700): 2.4, 3.0 meter Slide rail required 2-way (500, 700): 4.8, 6.0 meter

SC Horizontal Plain Bend 5-180°



?r[gjf_`il M= Bilotihn[fJf[oh <_h^ I l^_loha

Bilctihn[fjf[dh∖_h^&ߪ∂+ª

R = 500 ± 10 mm	M= B<' ß L / * *
R = 700 ± 10 mm	M= B<'₿L1**

If an angle of 70° is needed for radius R500 horizontal plain bend, the ordering part number is

M=B<'1*L/**

OI G4j] Chain required 2-way (500, 700): meter (Variable to angle) Slide rail required 2-way (500, 700): meter (Variable to angle)



FlexMove Stainless Series





SC SERIES: 105 mm

FlexMcve Stainless Series

SC Horizontal beam support bracket – Stainless Steel

SAHBS-90C



SC Adjustable Angle Beam Support Bracket





SAHBS-90C-A35

106



SC Adjustable Angle Tripod Support

SBSC-HXXXX, where XXXX = H Height (mm)

SC Horizontal Tripod Support

SBSC-A-HXXXX, where XXXX = H Height (mm)



OIG4j] Includes Beam Support Bracket

<u>Dornur (</u>

FlexMcve. Stainless Series

SU Series

MD	M	lc	m 4
----	---	----	------------

74

<_**[g Qc^rb4**179mm

Jli ^o] nQ c'rb4Refer to Guide Rail Assembly

;]]_mmilc_mH__^_4

Mfc^_L[dL_kod_^4FASR-25, FASR-25U, FASR-25X

Mfc^_ L[f = i fi 14White or Natural Color

Mfc^_ L[f G [n_l [f4HDPE, UHMWPE or Special PE

Mfc'_ L[fL cp_n4FASLS-M5

Connecting strip is used to connect two beams.

179

= i hh_] ncha Mh g 4SACS-50x70

Conveyor Beam SUCB-LXXXX







Chain Connecting Module SUCC-300



Connecting Strip – Stainless Steel



Qb | 4

OI G4_[]b

2

RRRR 7 F_harb "g g #





OIG4j]

5.70











FlexMcve Stainless Series

SU SERIES: 180 mm

Roller Plain Chain @OJ='/L

= b[dh = i g g i h > [r[

J[] e[ada45 m per box J a] b: 33.5 mm Q c^orb: 175 mm Tensile Strength at 20°C: 6000N = i fi I: White

= **b[dh4**White Acetal / POM **J qbi n4**Polyamide **J qbi nJ dh4**Stainless Steel **Ghm_In'Q_^a_ @d nb h#**TPE Grey

Plain Chain @**OJ='/**





OI G4/ G_nl) \ i r Application: Suitable for horizontal and slope < 5° transport of products with accumulation.



OIG4/G_n_I)\ir

Twist Chain @OJ='/G

Application: Suitable for horizontal and slope $< 5^{\circ}$ transport of products with accumulation.

Hin_4@idjmoih L_^o]oha Liff_l = b[oh l_]ig g_h^_^`il boab mj__^ il boab fi[^jf[oh _h^m



OIG4/G_n_I)\ir

Application: Suitable for horizontal and slope $\leq 30^{\circ}$ transport of products without accumulation.



OI G4/ G_n_I) \ i r Application: Suitable for horizontal and slope ≤ 30° transport of products without accumulation.

Hin_4@lo]noih L_^o]oha Liff_l=b[oh l_]igg_h^_^`ilboab mj__^ ilboab fi[^jf[oh_h^m





OI G4/ G_n_I) \ i r Application: Suitable twist

Application: Suitable twist conveyor beam; horizontal and slope $<5^\circ$ transport of products with accumulation.



SU SERIES: 180 mm

FlexMove Stainless Series

SU Direct End Drive without Motor "F?@N#

SUDD-A180-0L

SU Direct End Drive without Motor "LOBN#

SUDD-A180-0R



G[r N[] noih@il]_4+,/*H

The Direct End Drive Unit is without torque limiter. See page 66-67 for Gearmotor options.

OI G4j]

Chain required 2-way: 0.8 meter Slide rail required 2-way: 0.9 meter

SU Idler End-A180



SUIE-A180



OI G 4j] Chain required 2-way: 0.8 meter Slide rail required 2-way: 0.9 meter





FlexMove Stainless

SU SERIES: 180 mm

SU Horizontal Plain Bend 30°





Bilctihr[fjf[ch_h^&-*a∂+a

R = 500 ± 10 mm	MOB<'-*L/**
R = 700 ± 10 mm	MOB<'-*L1**
R = 1000 ± 10 mm	MOB<'-*L+***

OIG4j]

Chain required 2-way (500, 700, 1000): 1.4, 1.6, 1.9 meter Slide rail required 2-way (500, 700, 1000): 4.0, 4.7, 5.6 meter

SU Horizontal Plain Bend 45°





Bilctihr[fjf[ch_h^&./*∂+*

$R = 500 \pm 10 \text{ mm}$	MOB<'./L/**
$R = 700 \pm 10 \text{ mm}$	MOB<'./L1**
$R = 1000 \pm 10 \text{ mm}$	MOB<'./L+***

Chain required 2-way (500, 700, 1000): 1.6, 2.0, 2.4 meter Slide rail required 2-way (500, 700, 1000): 4.8, 5.8, 7.2 meter

SU Horizontal Plain Bend 90°



Bilctihr[fjf[ch_h^&3**∂+*

R = 500 ± 10 mm	MOB<'3*L/**
R = 700 ± 10 mm	MOB<'3*L1**
R = 1000 ± 10 mm	MOB<'3*L+***

OIG4j] Chain required 2-way (500, 700, 1000): 2.4, 3.1, 4.0 meter Slide rail required 2-way (500, 700, 1000): 7.2, 9.1, 12.0 meter



SU SERIES: 180 mm

FlexMove Stainless Series

SU Horizontal Plain Bend 5-180°



?r[gjf_`il MOBilotihr[fJf[oh <_h^ | |^_loha

Bilctihr[fjf[ch_h^&Bª∂+ª

$R = 500 \pm 10 \text{ mm}$	MOB<'BL/**
$R = 700 \pm 10 \text{ mm}$	MOB<'ßL1**
$R = 1000 \pm 10 \text{ mm}$	MOB<' B L +* * *

If an angle of 120° is needed for radius R500 horizontal plain bend, the ordering part number is

MOB<'1*L/**

OIG4j]

Chain required 2-way (500, 700, 1000): meter (Variable to angle) Slide rail required 2-way (500, 700, 1000): meter (Variable to angle)

SU Vertical Bend 5°

SUVB-5R400



OI G4j] Chain required 2-way: 0.8 meter Slide rail required 2-way: 3.0 meter



FlexMcve. Stainless Series

SU Vertical Bend 5° - 90°



?r[gjf_`il MD P_Ind][f < _h^l l^_ldna</pre>

- Vertical bend, $\emptyset^{\circ} \pm 1^{\circ}$

If an angle of 25° is needed for vertical bend, the ordering part number is

MOP<',/L.**

$$\begin{split} & \mathsf{H}\ddot{u}\acute{E} \Re \hat{\Omega} \acute{E} / \Re \acute{E} \leq y \, \& \mathcal{W} \,, \, \acute{E} \neq e \, \acute{e} y \, \acute{\Omega} \, \& \acute{c} \circ \partial \partial \leq \leq \acute{E} \circ \acute{E} \& \circ \wedge \acute{E} \& \\ & \langle F \ \# F \circ i_{_{-}} \circ \cdot i_{_{-}} \rangle \, \wedge_{\sim} \leq \acute{e} \partial \partial \partial A \& | \, \& \circ \dot{O} \, \mathring{E} \diamond \acute{E} \partial \& y \, \not D \, V \not E \\ & \hat{u} \not E \leq \partial \mathscr{H} \, y \, \acute{E} / \& \acute{c} \diamond \end{split}$$



SU Horizontal Tripod Support	SBSU-HXXXX, where XXXX = H Height (mm)
SU Adjustable Angle Tripod Support	SBSU-A-HXXXX, where XXXX = H Height (mm)



OI G4j] Includes Beam Support Brackets



FlexMcve Stainless Series

SV Series

<u>DORNUR (S)</u>

MP M I c m4 Chain <_[g Qchb4260 mm Slide Rail Jli ^o] nQ c'rb4Refer to Guide Rail Assembly -Pillar ;]]_mmilc_mH__^_4 Stainless Steel Bed Mfc^_ L[d L_kod_^4FASR-25, FASR-25U, FASR-25X Mic^_ L[d = i fi I4White or Natural Color Mfc^_ L[d G[n_l d f4HDPE, UHMWPE or Special PE Mfc^_ L [f L qp_n4FASLS-M5 Connecting strip is used to connect two beams. = i hh_] ncha Ml g 4SACS-50x70 Conveyor Beam SVCB-LXXXX 260 Qb | 4 RRRR 7 F_harb "g g # Ħ 2 OI G4_[]b Chain Connecting Module SVCC-300 Ø. 35 300 35 | 0 Q 0 0 0 Ó 0 0 Connecting Strip – Stainless Steel SACS-50x70 70 5.70 40 50 36 \oplus (+)OIG4j]









SV SERIES: 260 mm

FlexMove Stainless Series

= b[dh = i g g i h > [r[

J[]e[ada45 m per box Ja]b: 33.5 mm Qchb: 255 mm Tensile Strength at 20°C: 6000N =i fil: White

= **b[dh4**White Acetal / POM **J qpi n4**Polyamide **J qpi nJ dh4**Stainless Steel **Chm_In'Q_^a_ @ d nc h#**4TPE Grey



Application: Suitable for horizontal and slope < 5° transport of products with accumulation.

Roller Friction Top Chain @P@N/L





OIG4/G_n_I)\ir

Application: Suitable for horizontal and slope $< 5^{\circ}$ transport of products with accumulation.

Hin_4@iojmoih L_^ojoha Liff_l = b[oh l_]ig g_h^_^`il boab mj__^ il boab fi[^jf[oh _h^m

Friction Top Chain @P@N /



OI G4/ G_n_I) \ i r Application: Suitable for horizontal and slope

Application: Suitable for horizontal and slope
≤ 30° transport of products without accumulation.





Application: Suitable for horizontal and slope < 30° transport of products without accumulation.

Hin_4@idjnoih L_^o]oha Liff_l = b[oh l_]igg_h^_^`il boab mj__^ il boab fi[^jf[oh _h^m





OIG4/G_n_I) \ ir

Application: Suitable twist conveyor beam; horizontal and slope $< 5^{\circ}$ transport of products with accumulation.





FlexMcve Stainless Series

SV SERIES: 260 mm

SV Direct End Drive without Motor "F?@N#

SVDD-A260-0L

SV Direct End Drive without Motor "LOABN#

SVDD-A260-0R





G[r N[]noih@il]_4+,/*H

The Direct End Drive Unit is without torque limiter. See page 66-67 for Gearmotor options.

OI G4j] Chain required 2-way: 0.8 meter

Slide rail required 2-way: 0.9 meter







0

OI G 4j] Chain required 2-way: 0.8 meter Slide rail required 2-way: 0.9 meter

F&P % ÉW/≠ ∂Ê/> % WÉ% JyÔcÊ % & & @ Jy/¢É



FlexMove Stainless Series

SV Horizontal Plain Bend 30°





Bildtihn[fjf[dh $_h^{*a} \partial +^a$

R = 700 ± 10 mm R = 1000 ± 10 mm

MPB<'-*L1** MPB<'-*L+***

OIG4j]

Chain required 2-way (700, 1000): 1.6, 1.9 meter Slide rail required 2-way (500, 700, 1000): 4.7, 5.6 meter

SV Horizontal Plain Bend 45°



Bilctihn[fjf[ch_h^&./*∂+*

R = 700 ± 10 mm **MPB<'./L1**** R = 1000 ± 10 mm **MPB<'./L+*****

OIG4j]

Chain required 2-way (700, 1000): 2.0, 2.4 meter Slide rail required 2-way (700, 1000): 5.8, 7.2 meter

SV Horizontal Plain Bend 90°





Bilctihr[fjf[ch_h^&3**∂+*

 $R = 700 \pm 10 \text{ mm}$ $R = 1000 \pm 10 \text{ mm}$ MPB<'3*L1** MPB<'3*L+***





FlexMove Stainless

SV Horizontal Plain Bend 5-180°



?r[gjf_`il MP Bildtihn[fJf[dh <_h^l l^_ldha

Bilctihn[fjf[ch_h^&B^a∂+^a

$R = 700 \pm 10 \text{ mm}$	MPB<'ßL1**
R = 1000 ± 10 mm	MPB<'ßL+***

If an angle of 120° is needed for radius R700 horizontal plain bend, the ordering part number is

OIG4j]

Chain required 2-way (700, 1000): meter (Variable to angle) Slide rail required 2-way (700, 1000): meter (Variable to angle)

SV Vertical Bend 5°

SV Vertical Bend 15°

SV Vertical Bend 30°

SO -1900



9000 \mathbf{O}

SVVB-5R400

SVVB-15R400

SVVB-30R400

0 œ 0

6

R400

80 35

R400

0000

 \bigcirc

30

000 0

OIG4j] Chain required 2-way: 0.4 meter Slide rail required 2-way: 1.6 meter

OIG4j] Chain required 2-way: 0.6 meter Slide rail required 2-way: 2.2 meter

OIG4j] Chain required 2-way: 0.8 meter Slide rail required 2-way: 3.0 meter



SV SERIES: 260 mm

FlexMove Stainless Series

SU Vertical Bend 5° - 90°



?r[gjf_`il MPP_Ind][f<_h^ll^_ldha

- Vertical bend, $\emptyset^{\circ} \pm 1^{\circ}$

If an angle of 25° is needed for vertical bend, the ordering part number is



$$\begin{split} & H \ddot{u} \dot{E} \Re \hat{O} \dot{E}' \Re \dot{E} \leq y \, \% \mathcal{W} \, \cdot \, \dot{E} \neq e \, \dot{\mathbb{G}} y \, \dot{\mathbb{Q}} \, \langle \not{E} \circ / \partial \dot{E} \leq \dot{E} \circ \dot{E} \dot{E} \\ & \langle F \ \# F^{\circ} i_{_{-}} & \cdot & i_{_{-}} \times \\ & \wedge & \dot{O} \ \dot{E} \partial \dot{E} \dot{\mathcal{H}} \\ & \dot{U} \dot{E} \leq \mathcal{H} \mathcal{Y} \, \dot{E} / \langle \not{E} \circ \dot{O} \\ \end{split}$$

SV Horizontal beam support bracket – Stainless Steel





SAHBS-90



SV Horizontal Tripod Support

SBSV-HXXXX, where XXXX = H Height (mm)

SV Adjustable Angle Tripod Support

SBSV-A-HXXXX, where XXXX = H Height (mm)





OI G4j] Includes Beam Support Brackets



FlexMeve Stainless Series

SA SERIES: CONVEYOR ACCESSORIES

FASR-25	HDPE Slide Rail - White	'9∂/≠ V®∞≈∞@V₩∂≤'
FASR-25U	UHMW-PE Slide Rail - White	'6∂^ %&@Ê8≤%ÂÛÛ&®%8/%boÔ≠Ô®Ê8≤'
FASR-25X	Special PE Slide Rail - Blue	'6∂^ <i>É, Ê%∢¢DÊ</i> B≤%Â ÛÊ V∉ É® A/%boÔ≠Ô®ÊB≤'
FASR-25T	PAPE Slide Rail - Grey	'. фü%Me/W¢É%Mey‰фü%@Wy'‰
FASR-25CD	Conductive Slide Rail - Black	'FÊŴâp%∂≤y Ôdâ; É'
FASR-25P	PVDF Slide Rail - White	',∂/‰æ/W¢É₩¥≈@V₩æ≤'



See page 70 for detail slide rail information





OIG4,/g_n_I)liff



OIG4/*j]m)je

OIG4/*j]m)je



54

SA SERIES: CONVEYOR ACCESSORIES

FlexMove, Stainless Series



55)



SA SERIES: CONVEYOR ACCESSORIES



SA SERIES: CONVEYOR ACCESSORIES

FlexMcve Stainless Series



FlexMeve Stainless Series

SG SERIES: CONVEYOR GUIDE EXAMPLES



SG SERIES: CONVEYOR GUIDE COMPONENTS Flex Move Stainless Stainless





FlexMove Stainless SG SERIES: CONVEYOR GUIDE COMPONENTS



SG SERIES: CONVEYOR GUIDE COMPONENTS Flex Move Stainless Series





FlexMeve: Stainless SG SERIES: CONVEYOR GUIDE COMPONENTS





SGRF-A35

Guide Rail Bracket Support A35 - Polyamide

Jợ[ÏÓLĂääcJ ởĂĂLCJ sáĂġ đ[Ó] ĉ= ë cä



<u>DORNUR (S)</u>

FlexMove Stainless SG SERIES: CONVEYOR GUIDE COMPONENTS



63)

FlexMeve Stainless Series

SG SERIES: CONVEYOR GUIDE COMPONENTS

- SGRF-42x18V
- Guide Rail Bracket Polyamide



OIG4+*j]m)je

FGRD-18A

Spacer for SGRF-42x18V - Polyamide





OIG4+*j]m)je

SGRB-40x18

Guide Rail Bracket, D = 18mm - Polyamide

Jợ[̈ĺÓlĂääĉJċĂĂlĉJsáĂġð[Ó}ĉ⊨ëċä



OIG4+*j]m)je



SG SERIES: CONVEYOR GUIDE COMPONENTS Flex Move Stainless Stainless





FlexMove Stainless

GEARMOTORS

Direct Mount, SEW Equivalent, Fixed Speed - 20 mm Shaft

230/460V 60 Hz

- · Sealed Gearmotor
- SEW SA37 Size gearmotor
- Totally enclosed fan cooled
- 230/460V 3 Phase
- 60 Hz
- · Wiring by others





Part Number	Ft/min	M/min	Ft/min	M/min	RPM	Нр	kW	Amps	lbs.	Nm	Page 69
FMM129(X)DS423EN	17.1	5.2	18	5.5	13	0.25	0.18	1.1/0.56	837	95	L
FMM067(X)DS423EN	32.8	10	34.8	10.6	25	0.5	0.37	1.9/0.95	699	79	М
FMM032(X)DS423EN	69.9	21.3	73.8	22.5	53	0.75	0.55	2.7/1.35	653	74	М
FMM015(X)DS423EN	150.3	45.8	158.5	48.3	114	0.75	0.55	2.7/1.35	341	39	М
FMM013(X)DS423EN	171.3	52.2	180.8	55.1	130	1	0.75	3.1/1.57	425	48	Р
FMM010(X)DS423EN	225.4	68.7	237.9	72.5	171	1.5	1.1	4.2/2.1	490	56	Р

Where (X) is L or R for Right Hand or Left Hand Gearmotor matching RH or LH Drive

SS, SM, SU, SV

230/400V 50 Hz

- Sealed Gearmotor
- SEW SA37 Size gearmotor
- Totally enclosed fan cooled
- 230/400V 3 Phase
- 50 Hz
- · Wiring by others



	Chain Speed										
	SS, SM,	, SU, SV	S	С					in		Starter Chart
Part Number	Ft/min	M/min	Ft/min	M/min	RPM	Нр	kW	Amps	lbs.	Nm	Page 69
FMZ099(X)DS423EN	17.1	5.2	18	5.5	13	0.33	0.25	1.3/0.76	628	71	I
FMZ060(X)DS423EN	30.2	9.2	31.8	9.7	23	0.5	0.37	1.9/1.09	717	81	I I
FMZ029(X)DS423EN	63.3	19.3	66.6	20.3	48	0.75	0.55	2.6/1.52	478	54	1
FMZ013(X)DS423EN	137.1	41.8	144.7	44.1	104	1	0.75	3.1/1.79	363	41	J
FMZ009(X)DS423EN	205.7	62.7	213.9	66.1	156	1.5	1.1	4.1/2.38	336	38	J
FMZ007(X)DS423EN	284.8	86.8	300.5	91.60	216	2	1.5	5.6/3.23	372	42	N/A

Where (X) is L or R for Right Hand or Left Hand Gearmotor matching RH or LH Drive

F&P %6ÉW/≠ ∂Ê∂/> %Wɉ/∂y ÔoÊ %66%5&P %6Ô∂y/¢É

CE Note: When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with the CE Safety Directive.

FLA = Full Load Amperes Some motors and gear reducers may normally operate hot to the touch. Consult factory for specific operating temperatures. Note: Dimensions = mm (in)



FlexMcve. Stainless Series

Direct Mount, SEW Equivalent, Variable Speed - 20 mm Shaft

230/460V 60 Hz

- Sealed Gearmotor
- SEW SA37 Size gearmotor
- Totally enclosed fan cooled
- 230/460V 3 Phase
- 60 Hz
- · Wiring by others

Part Number



FMM129(X)DS423EN	2.9 - 17.1	0.9 - 5.2	3 - 18	0.9 - 5.5	13	0.25	0.18	1.1/0.56	837	95
FMM067(X)DS423EN	5.5 - 32.8	1.7 - 10	5.8 - 34.8	1.8 - 10.6	25	0.5	0.37	1.9/0.95	699	79
FMM032(X)DS423EN	11.7 - 69.9	3.6 - 21.3	12.3 - 73.8	3.8 - 22.5	53	0.75	0.55	2.7/1.35	653	74
FMM015(X)DS423EN	25.1 - 150.3	7.6 - 45.8	26.4 - 158.5	8.1 - 48.3	114	0.75	0.55	2.7/1.35	341	39
FMM013(X)DS423EN	28.6 - 171.3	8.7 - 52.2	30.1 - 180.8	9.2 - 55.1	130	1	0.75	3.1/1.57	425	48
FMM010(X)DS423EN	37.6 - 225.4	11.5 - 68.7	39.7 - 237.9	12.1 - 72.5	171	1.5	1.1	4.2/2.1	490	56
Where (X) is L or R for Rig	ht Hand or Left Ha	and Gearmotor m	atching RH or LH	Drive						

230/400V 50 Hz

- Sealed Gearmotor
- SEW SA37 Size gearmotor
- Totally enclosed fan cooled
- 230/400V 3 Phase
- 50 Hz
- · Wiring by others



		Chain	Speed								
	SS, SM	, SU, SV	S	SC					in		VFD Chart
Part Number	Ft/min	M/min	Ft/min	M/min	RPM	Нр	kW	Amps	lbs.	Nm	Page 68
FMZ099(X)DS423EN	3.4 - 17.1	1 - 5.2	3.6 - 18	1.1 - 5.5	13	0.33	0.25	1.3/0.76	628	71	В
FMZ060(X)DS423EN	6 - 30.2	1.8 - 9.2	6.4 - 31.8	1.9 - 9.7	23	0.5	0.37	1.9/1.09	717	81	В
FMZ029(X)DS423EN	12.7 - 63.3	3.9 - 19.3	13.3 - 66.6	4.1 - 20.3	48	0.75	0.55	2.6/1.52	478	54	В
FMZ013(X)DS423EN	27.4 - 137.1	8.4 - 41.8	28.9 - 144.7	8.8 - 44.1	104	1	0.75	3.1/1.79	363	41	В
FMZ009(X)DS423EN	41.1 - 205.7	12.5 - 62.7	43.4 - 213.9	13.2 - 66.1	156	1.5	1.1	4.1/2.38	336	38	В
FMZ007(X)DS423EN	57 - 284.8	17.4 - 86.8	60.1 - 300.5	18.3 - 91.60	216	2	1.5	5.6/3.23	372	42	В

Where (X) is L or R for Right Hand or Left Hand Gearmotor matching RH or LH Drive

F&P %6ÉW/≠ ∂Ê∂/> %Wɉ/∂y ÔoÊ %∂ê‰&P %6Ô/∂y/¢É

C € Note: When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with the CE Safety Directive.



FLA = Full Load Amperes Some motors and gear reducers may normally operate hot to the touch. Consult factory for specific operating temperatures. **Note:** Dimensions = mm (in)

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FlexMove Stainless Series

Variable Speed Controllers



F&P %6ÉW/≠ ∂Ê∂/> %1/É%+/∂y ÔoÊ %68/F&P %6Ô∂y/¢É

C € Note: When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with the CE Safety Directive.

FLA = Full Load Amperes Some motors and gear reducers may normally operate hot to the touch. Consult factory for specific operating temperatures. Note: Dimensions = mm (in)



Manual Motor Starters

Manual motor starts are manual electronic disconnects that provide motor overload protection and are required by the National Electric Code (NEC) for safe motor operation.

Illustration A Illustration **B** 86 (3.4) 94 (3.7) 86 (3.4) 94 (3.7) • IP 55 Enclosure • Push button Start / Stop Includes mounting hardware 178 (7.0) 178 (7.0) **Regulatory Approvals** (€ ∰ İ ≈⊟₽≈ ⊨⊞⊨≤ ⊐ ⊏[]⊨≤ ⊐ ⊏[]|=≤

Chart I 230/400V 50Hz to 2.5 amp

- 230 Volts, 1 phase includes cord, plug and starter
- 230/400 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 50 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62(c)M21T	230	1	1.6 - 2.5	А
62(c)M23T	230	3	1.0 - 1.6	В
62(c)M43T	400	3	0.63 - 1.0	В

Chart L 230/460V 60 Hz to 1.6 amp

• 230/460 Volts, 3 phase wiring to starter by others

• Wiring between motor and starter provided when ordered together

• 60 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23L	230	3	1.0 - 1.6	B
62MM43L	460	3	0.463	B

Chart P 230/460V 60Hz to 4 amp

- \bullet 230/460 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 60 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23U	208-230	3	2.5 - 4.0	B
62MM43P	460	3	1.6 - 2.5	B

Chart J 230/400V 50 Hz to 4 amp

- 230 Volts, 1 phase includes cord, plug and starter
- 230/400V, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together

•	50	Hz	
	50	Ηz	

Part Number	In Volts	In Phase	Amp Range	Illustration
62(c)M21J 62(c)M23J 62(c)M43J	230 230 400	1 3 3	2.5 - 4.0 1.6 - 2.5 1.0 - 1.6	A B B

Chart M 230/460V 60Hz to 2.5 amp

• 230/460 Volts, 3 phase wiring to starter by others

- Wiring between motor and starter provided when ordered together
- 60 Hz

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Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23M 62MM43M	208-230 460	3 3	1.6 - 2.5 1.0 - 1.6	B B

Chart Q 230/460V 60Hz to 6.3 amp

• 230/460 Volts, 3 phase wiring to starter by others

Wiring between motor and starter provided when ordered together

• 60 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23Q 62MM43Q	208-230 460	3 3	4.0 - 6.3 2.5 - 4.0	B B

CE Note: When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with NEC and CE safety directive.



FlexMove Stainless

Regulatory Approvals:

Conveyors:

All Dorner FlexMove Series standard conveyors (not including gearmotors and controllers) are CE approved. CE approval follows the provisions of the following directives; Machine Directive 2006/42/EC, EU Low Voltage Directive 2006/95/EC, and EMC Directive 2004/108/EC. All conveyors are marked with the CE symbol on the Dorner serial number tag located on the conveyor frame. Contact the factory for the CE Declaration of Conformity.

All Dorner FlexMove Series standard conveyors (not including gearmotors and controllers) are designed and manufactured in accordance with the restrictions defined in the "Restriction of Hazardous Substances" directive, citation 2011/65/EU, commonly known as RoHS. All conveyors are marked with the RoHS symbols on the Dorner serial number tag located on the conveyor frame.

Gearmotors and Controllers:

All Dorner FlexMove Series gearmotors and controllers carry one or more of the following approvals. Products are not covered by each approval. Please see the appropriate part number on the Gearmotor and controller charts located in this manual. In addition, regulatory symbols are located on the product information tags located on the product.

CE	CE Marking on a product is a manufacturer's declaration that the product complies with the essential requirements of the relevant European health, safety and environmental protection legislation, in practice by the Product Directives. CE Marking on a product ensures the free movement of the product within the European Union (EU).
RoHS	This directive restricts (with exceptions) the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment. It is closely linked with the Waste Electrical and Electronic Equipment Directive (WEEE) 2002/96/EC which sets collection, recycling and recovery targets for electrical goods and is part of a legislative initiative to solve the problem of huge amounts of toxic e-waste.
FU ®	The UL Recognized Component mark is for products intended to be installed in another device, system or end product. This Recognized Component Mark is for the United States only. When a complete product or system containing UL Recognized Components is evaluated, the end-product evaluation process can be streamlined.
c FL [®] us	The UL Recognized Component mark is for products intended to be installed in another device, system or end product. This Recognized Component Mark is for the United States and Canada. When a complete product or system containing UL Recognized Components is evaluated, the end-product evaluation process can be streamlined.
۲	CSA International (Canadian Standards Association), is a provider of product testing and certification services for electrical, mechanical, plumbing, gas and a variety of other products. Recognized in the U.S., Canada and around the world, CSA certification marks indicate that a product, process or service has been tested to a Canadian or U.S. standard and it meets the requirements of an applicable CSA standard or another recognized document used as a basis for certification.
cUUUS	The UL Listing Mark means UL found that representative product samples met UL's safety requirements. These requirements are primarily based on UL's own published standards for safety. The C-UL-US Mark indicates compliance with both Canadian and U.S. requirements. The products with this type of Mark have been evaluated to Canadian safety requirements and U.S. safety requirements.



FlexMeve Stainless Series

Clean Room Certifications:

FlexMove Conveyors are often used in clean room applications where the generation of particulates from the conveyor are a concern. In these applications the correct installation and application of the conveyor is critical to the proper running of the conveyor and minimizing the dust generated by the conveyor belt or modular belt. The end user must ensure that the conveyor belts are properly tracked and product accumulation is minimized to providing minimal dust generation.

All of the FlexMove products are designed and constructed to be used in clean room environments. The following FlexMove Series products have gone through third party testing and certification and are certified for use in ISO Standard 14644-1 Class 5 and Federal Standard 209 Class 100 Clean Room applications.

1100 Series Belted Conveyor FlexMove Series Flexible Chain Conveyor FlexMove Stainless Series Conveyor 2200 Series Modular Belted Conveyor 2200 Series Belted Conveyor 2200 Series Precision Move Conveyor 3200 Series Belted Conveyor 3200 Series Precision Move Conveyor

Contact the factory for copy of the certification.





FlexMove Stainless Series

Slide Rail Specifications / Application Data

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Material	HDPE	UHMW	Antistatic HDPE	PAPE	PVDF	Impregnated UHMW
Color	white	white	black	Grey	White	Blue
FDA approved	Yes	Yes	No	No	No	Yes
Coefficient of Friction	0.25	0.25	0.25	0.3	0.35	0.25
Temp Range	-20 to 60 C	-20 to 60 C	-20 to 60 C	-20 to 80 C	-20 to 100 C	-20 to 60 C
Maximum Speed	50 M/min	60 M/min	50 M/min	60 M/min	60 M/min	60 M/min
Heavy Loads	poor	good	poor	excellent	excellent	good
Elongation / wear resistance	poor	good	poor	excellent	excellent	good
Chemical Resistance	Good, poor to petroleum based solvents	Good	Good, poor to petroleum based solvents	Good, not used with wet solvents	Excellent	Good
Application	General conveyance, lowest cost	High speed, moderate loads, low dust generation	Environments sensitive to static electricity	High speed, high load, dry applications only, abrasive particles	High speed, high load, abrasive particles	High speed, moderate loads, low dust generation



TECHNICAL DATA AND CALCULATIONS

FlexMcve Stainless Series

Chains

••••••					
M_lc_m	ММ	MG	M=	MO	MP
'Â[xêcê] ecâcîn în ì	63 mm	83 mm	103 mm	175 mm	255 mm
'ÃĮ ABÔĚ JEOÃĜAË SÃÌ	2.48"	3.27"	4.06"	6.890"	10.039"
L§Öā h §â $\dot{\phi}$ §Ö $,$ Ö \ddot{q} Çâ \dot{q} çæ â=ì	3400 N	4800 N	4800 N	4800 N	4800 N
L§ÖāÁŞÂ¢ŞÖ>ÖÄÇİČC+ƏÂİİîî	764 lbf	1079 lbf	1079 lbf	1079 lbf	1079 lbf
< [ĕî ŒÉÚ þÌ AB→ Œ\$Öā.A\$\$ÇÊ Œ AÇee Ĝ⊨ì	500 N	1250 N	1250 N	1250 N	1250 N
< [ěî đế Ú þÌ AB; đặ đặ đặ đặ đối î	112 lbf	281 lbf	281 lbf	281 lbf	281 lbf
ΤÚDÌAÖİ» ઉઉ̈́βÑé§ҢĮ ઉંεμ§ઉõete Ì	-20 - 60°C	-20 - 60°C	-20 - 60°C	-20 – 60°C	-20 – 60°C
Τ ÚDÌ Α̈́Β» ઉ̈́ζ̈́ŞŇ é ŞҢ ઉં≿þŞઉ̈́æði	-4 – 140°F	-4 – 140°F	-4 – 140°F	-4 – 140°F	-4 – 140°F
< [ěAĐĨēÑ ĜÚÖẹ§ĜÚbÔaé§§}ÔđÑ dÑ AÖB	58 m/min	58 m/min	58 m/min	58 m/min	58 m/min
< [ĕAĐĨēÑ ĠÚÖçş\$CÚ¢Âá§Ş} ĜrởN AB	190 ft/min	190 ft/min	190 ft/min	190 ft/min	190 ft/min
< [ěĩ Ĝ Ú ÖẹŞ ĈÚ ÞÔŞ Ö> ÔÃ ĜÑ Ì	30 m	30 m	30 m	30 m	30 m
< [ĕîĜÚÖẹ§ĜÚÞŨ§Ö» ÖÄĈĊĊ	100 ft	100 ft	100 ft	100 ft	100 ft
< 48 (000 / 00 / 00 / 00 / 00 / 00 / 00 / 0	150 mm	160 mm	170 mm	500 mm	700 mm
< 8 tr () / / / / / / / / / / / / / / / / / /	5.91"	6.30"	6.70"	19.7"	27.6"
:AÖİ Ĝaé[sAÖ⇒ĜĨŇ Ñì	25.4 mm	33.5 mm	35.5 mm	33.5 mm	33.5 mm
: AÖİ Ĝaé[sAÖ» ĜAÖİsÂì	1.0"	1.32"	1.40"	1.32"	1.32"
'ÃĮ ABÔĚ ŞÆRĂĊÔBÉ ([ABÌÔLÌ» ởNì	0.75 kg/m	1.20 kg/m	1.67 kg/m	2.0 kg/m	2.43 kg/m
'Ã[ABÔ̧ÆÃÓÂEÍ[ABÔÁI ćĆ	0.50 lb/ft	0.81 lb/ft	1.12 lb/ft	1.344 lb/ft	1.633 lb/ft
< [ěĩ đễ ŞÆÃ đầ ĐÔ ŜƯÔ ẹŞ Đứ bả » ớN ì	30 kg/m	60 kg/m	60 kg/m	65 kg/m	65 kg/m
< [ěî đế ŞÆÃ đầ ĐÔ SƯ Đẹ Số U pải cơ c	20 lb/ft	40 lb/ft	40 lb/ft	44 lb/ft	44 lb/ft
3CŞÑŒ ÆCĂŒŇÑì	15-140 mm	20-200 mm	25-300 mm	50-400 mm	80 – 500 mm
3ĞŞÑŒĨÆCÄĠĊËSĂ	0.6 - 5.5"	0.8-7.9"	1.0-11.8"	2.0 - 15.4"	3.2 – 19.7"

Drive Unit Specifications

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	MM	MG	M⊨	MD	MP
Number of Teeth on sprocket	16	12	12	12	12
Chain Pitch (mm)	25.4	33.5	35.5	33.5	33.5
Max. Traction force (N)	500	1250	1250	1250	1250
Sprocket Diameter (mm)	128	128	135	128	128



FlexMcve Stainless Series

Stand Location

Maximum Distances: 1 = 914 mm (36 in) 2 = Should be between 1800-2400 mm (6-7.8 ft)* * For conveyors longer than 3000 mm (10 ft), install support at joint. Note: Additional support required on 180° curve modules.

Support must be provided directly at drive end. See accessories for Direct Mount and Suspended Mount support options.

Conveyor Drive Shaft Tolerances:

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Conveyor Load Capacity

Conveyor size and configuration

There are several factors that affect the overall conveyor load of the FlexMove conveyor. These include:

Product accumulation

Conveyor speed

- Number of starts and stops per hour
- Application temperature
- Maximum Drive Unit Output

Located online at <u>www.dornerconveyors.com</u> is the Dorner conveyor configuration tool, DTools. This tool allows you to configure your conveyor layout and determine the maximum load capacity for the conveyor. It is suggested that this program be used to calculate the conveyor load as the calculation is quite complicated. This configuration program however does not take into account temperature, dirty conditions, and conveyor starts and stops. If these conditions are part of your application, please use the load reducing factors as shown below.

Maximum Load = (Load from DTools) (Temperature Factor) (Start/Stop Factor) *See following pages for factors.*

Nominal Maximum Load

A Nominal Maximum Load may be calculated without the use of DTools to determine if the conveyor can generally carry the application load. The following process can be used to calculate Nominal Maximum Load. It <u>does not</u> take into account the conveyor configuration. Please confirm your maximum load per application with the Dorner DTools program at <u>www.</u> <u>dornerconveyors.com</u>.





To calculate the Nominal Maximum Load: Note: This does not include conveyor configuration. Please confirm load with Dorner online DTools configurator.

FlexMcve Stainless

- 1. Determine your Basic Tension Limit from the above two graphs. The Basic Tension Limit is the lesser number of the two. Compare your tension limit to drive unit output. Your tension limit is the smaller.
- 2. Tension Limit = (Basic Tension Limit) (Temperature Factor) (Start/Stop Factor) (Accumulation Factor) (0.7) See following pages for factors.
- Nominal Maximum Load (kg) = (Tension Limit / Chain Coefficient of Friction) - (Conveyor length) (2) (Chain weight)

Nominal Maximum Load (lbs) = (Nominal Maximum Load (kg)) (2.2)

See following pages for Chain Coefficient of Friction. Nominal Maximum load may also be limited by available gearmotors. Conformation of gearmotor torque is required. See pages 66-67 for gearmotors available. Nominal Maximum load cannot exceed overall conveyor load limit of 300 lbs (136kg) for 65 mm wide and 600 lbs (273kg) for 105 mm and 150 mm wide.



FlexMcve. Stainless Series

TECHNICAL DATA AND CALCULATIONS

Nominal Maximum Load (continued)

Example:

105 mm FlexMove by 20 meters total length running at 15 Meters/min. Accumulated load with dry metal parts running in a 40°C environment. Continuous running.

- Basic Tension Limit Tension vs. Speed = 1050N
- Basic Tension Limit Tension vs. Length = 1100N
- Therefore Basic Tension Limit = 1050N
- Tension Limit = (Basic Tension Limit) (Temperature Factor) (Start/Stop Factor) (Accumulation Factor) (0.7)
- Tension Limit = (1050) (0.9) (1.0) (0.5) (0.7) = 330N
- Nominal Maximum Load (kg) = (Tension Limit / Chain Coefficient of Friction) (Conveyor length) (2) (Chain weight)
- Nominal Maximum Load (kg) = (330 / 0.3) (20) (2) (16.4) = 1100 984 = 116 kg
- Nominal Maximum Load (lbs) = 116*2.2 = 256 lbs

Temperature Factor

Ambient temperature can negatively affect the tension capacity of the conveyor chain.

Temperature (°F)	Temperature (°C)	Temperature Factor
-4	-20	1.0
32	0	1.0
68	20	1.0
104	40	0.9
140	60	0.8

Start / Stop Factor

Frequent Start / Stops of the conveyor can negatively affect the tension capacity of the conveyor chain. All start / stop applications must use a soft start mechanism such as a Frequency Inverter with a 1 second acceleration cycle.

Application Condition	Start / Stop Factor
Continuous Run or 1 start/stop per hour	1.00
Maximum 10 starts/stop per hour	0.83
Maximum 30 starts/stop per hour	0.70
Greater than 30 starts/stop per hour	0.62

Accumulation Factor

Product accumulation greatly reduces the conveyor load capacity. Product accumulation may only be done with the plain chain. Based on the product being accumulated apply the below Accumulation Factor in determining your Nominal Maximum Load. All factors below are assuming dry conditions.

Product Being Accumulated	Typical Coefficient of Friction	Accumulation Factor
Steel	0.25	0.50
Glass	0.20	0.60
Aluminum	0.25	0.50
Plastic	0.25	0.50
Wood	0.30	0.40
Paper and Cardboard	0.30	0.40

Chain Coefficient of Friction

The following table provides the coefficient of friction between the standard UHMW wearstrips and the Acetal chain. Coefficient of friction as shown may be reduced by addition of a lubricant.

Application Condition	Coefficient of Friction
Dry	0.30
Water Lubrication	0.27
Coolant Lubrication	0.20
Oil Lubrication	0.20

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• Traction force F (N) • Chain speed V (m/min)

To calculate power, the equation is P = 1/60 (F x V)

There are several drive unit designs, the maximum permissible traction force on each type of drive unit as below:

	G[rogog rl[]noih`il]_oh H_qrih "H#				
>lop_ohonnsj_	SS	SM	SC	SU	SV
End	500	1250	1250	1250	1250



Conveyor Noise Level

The actual noise level generated by the conveyor depends on several factors; the installation configuration, the product running on the conveyor, the surrounding equipment, the conveyor options and chain speed. The noise level generated by the conveyor is typically less than the general noise level of factory equipment.

Generally, a higher speed chain will result in a higher noise level. In addition, 65 mm conveyors will run slightly quieter, and power transfer tails will add a few decibel points as well. The following charts provide basic decibel ratings for typical conveyor arrangements, such as wheeled and plain bend corners, and power transfers.



Decibel ratings are taken approximately 3 feet away from the conveyor modules.



FlexMove Stainless Series

Bend Factors

Bend factors must be considered and calculated at every plain chain. It depends on the angle of the bend α in radians and friction coefficient μ between chain and slide rails. In application when conveyor is dry and clean, the friction coefficient μ is close to 0.1.

The bend factor is important to calculate since the frictional force of a plain bend depends not only on the weight of chain and product but also the actual the tension throughout the bend. The result an additional pressure force of the chain towards the conveyor beam directed toward the center of the bend. Since the chain tension varies throughout the conveyor, calculation of this additional pressure force is complicated. The highest values are present at the pulling side of the drive unit and virtually zero at the chain inlet. Using bend factor is the easiest way of including added friction in the plain bend for both horizontal and vertical into the calculation. Always use wheel bend unless for exceptional cases. If using plain bend is a must, the combined plain bends angle should not more than 180°, unless it is for a very short and light application.

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30°1	.2
45°	1.3
60°1	.4
90°1	.6

8° inclined is the maximum a product could convey for plain chain whereas friction top chain could take up to 30°

Material

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POM (PolyOxyMethylene)	Conveyor Chain, rollers
POM Conductive (PolyOxyMethylene)	Conductive chain
Aluminum, extruded & anodized	Angle bracket, beam support bracket, conveyor beam, support beam, guide rail, distance tube, fixed and adjustable side guide bracket, spacer
Steel, electro-zinc plated	Bolts and nuts, connecting strips, foot connecting strip
Steel, powder coated	Foot, connecting plate
PA, Polyamide	Chain pivot, side guide bracket, side guide support, drive and idler steering guide, end caps, wheel guide
Polyamide PA + Glass fiber	Drive sprocket, idler wheel
PVC, Polyvinyl Chloride	T-slot cover
HDPE, High Density Polyethylene	Slide rail, guide rail
UHMW-PE, Ultra High Molecular Weight Polyethylene	Slide Rail, drive and idler steering guides
PVDF, Polyvinylidene fluoride	Slide Rail
TPE, Thermoplastic Elastomer	Chain insert for friction top and wedge top



FlexMove Stainless

Resistance to Chemical

FlexMove® components can withstand continuous contact with most chemicals. However, it is recommended to avoid:

• Acids with pH less than 4 • Bases with pH higher than 9

The following table specifies the resistance of several material used in the conveyor on selected chemicals

3 = Moderate resistance

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- 1 = Very good
- 2 = Good4 = Not recommended
 - 5 = No data available

Boab'^_hmoors Jifs_nbsf_h_ B>J? ;]_r[f JIG ; fog chog ?f[mnig_l NJ? sÆāy Acetic acid Benzoic acid _ Citric acid Chromic acid Hydrofluoric acid _ Hydrochloric acid Hydro cyanic acid Nitric acid _ Phosphoric acid Sulphuric acid Tartaric acid _ &[āÆĠÛÑéÚēÖ}āy Ammonia Calcium hydroxide _ Caustic soda Potassium hydroxide -J[ĺĠy Potassium bicarbonate Potassium permanganate _ Sodium cyanic _ Sodium hydrochloride Acid salt _ Basic salt Neutral salt



FlexMcve. Stainless Series

TECHNICAL DATA AND CALCULATIONS

Chains

G[n]l¢f	;]_r[f JIG	Jifs[gc^_ J;	Boab'^_hmons Jifs_rbsf_h_ B>J?	Nb_lgijf[mmd] ?f[mmig_l NJ?	; fog dıog ; F
? þ› [Ö458Ĝ ÚÑ é Úē Ö}ā ௹ Ö} ĜÚ ĺę§ Ö ἁay					
Acetone	1	1	4	3	1
Benzene	1	1	4	3	1
Butyl alcohol	2	2	2	-	1
Carbon disulphide	1	1	3	-	1
Chloroform	1	1	4	-	-
Ethyl acetate	1	1	2	-	1
Ethyl alcohol	1	1	1	-	1
Heptane	2	2	2	-	-
Methyl alcohol	1	1	1	-	2
Methyl ethyl ketone	1	1	4	4	2
Nitrobenzene	2	2	3	-	1
Phenol	3	3	2	-	1
1 [āā§āy					
Carbon dioxide	3	1	1	-	1
Carbon monoxide	2	1	1	-	1
Chlorine	2	4	3	-	1
Hydrogen sulphide	3	1	2	-	1
Sulphur dioxide	2	3	2	-	1
? Ċçþāy					
Beer	1	2	2	-	1
Fruit juices	1	2	3	-	2
Gasoline	1	2	2	-	1
Milk	1	1	2	-	1
Oil	1	1	2	-	1
Vinegar	1	2	3	-	1
Villogal		-	Ŭ		

Note: the table above is valid for temperature range up to 60°C and it is to be considered as guideline only. Furthermore, precautions should be taken when using cleaning agents. If you are in doubt on the material to withstand your special environment, you should go for chemical testing or contact our local distributor.

Static Electricity

The standard plastic materials used for conveyors have low electrical conductivity so static electricity can build up in the conveyor. When a conveyor is running under normal environment (20°C and humidity 60%) without load, the static electricity build up should be around the following figures:

Above the drive unit	1800-2500V
Idler end	400-500V
Above the wheel bend	400-500V
Above the straight section	250-350V

With the introduction of anti-static material for slide rail and chain, it shall meet the requirement for electronic industry.



FlexMove Stainless Series

FlexMove® Stainless Steel Conveyors are best for:

- Part Handling
- Tight Spaces
- Buffering
- Elevation Changes
- Accumulation
- Long Lengths
- Complex Configurations

Loads & Speeds

· Loads up to 65 kg/m (44 lbs/ft)

• Speeds: up to 58 mpm (190 fpm)

- Caustic & Corrosive Environments
- Curves, Jogs, Inclines, Declines

Sizes & Measurements

- Widths: 65 mm, 85 mm, 105 mm, 180 mm and 260 mm
- Lengths: up to 30 m (98 ft)

Plastic Chain Types

- Standard: Low Friction & Friction Top Inserts
- Specialty
 - Conductive
 - Cleated
 - Hardened Steel Top
 - Roller Top
 - Magnet Top
 - And Many More



Flat



Cleated



Friction Top

Roller Top

Modules



Drive Tail



Curves from 15° to 180°



A REAL PROPERTY OF THE PARTY OF

Inclines/Declines from 5° to 90°

Guiding

• Fully Adjustable

Support Stands

 Horizontal & Adjustable Angle Supports also available

• Tripod Supports

- Adjustable Width/Height
- Twin Rail
- Overhead Guide





Industrial & Automation Conveyors









Engineered Solutions



Sanitary Conveyors









Parts



Service





Online Configurator

Warranty

Transforming Conveyor Automation

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