

# Aluminium roller guide GDL-FD double rails GDL-FE single rails

Operating Instructions

*ORIGA SYSTEM PLUS*

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



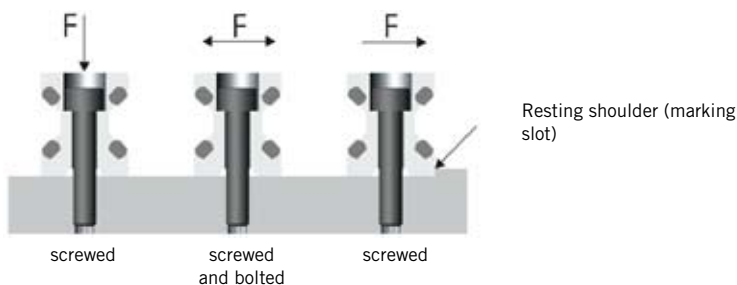
ENGINEERING YOUR SUCCESS.

## Index

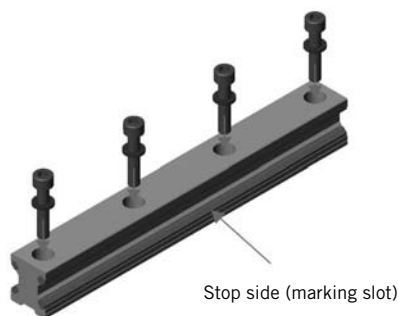
1	Double rail assembly	3
2	Single rail assembly	3
3	Coupled double / single rails	4
4	Mount screw cover	5
5	Setting the cassette	5
6	Roller shoe assembly	6
7	Stripper assembly	6
8	Dismantle stripper	7
9	Lubrication	7
10	Assembly of multi-lane arrangements	7

## 1 Double rail assembly

Depending on the type of loading and application the double rails should rest in grooves or against a shoulder and be secured with screws (if necessary bolted). The stop side of the rail is identified by a marking slot.

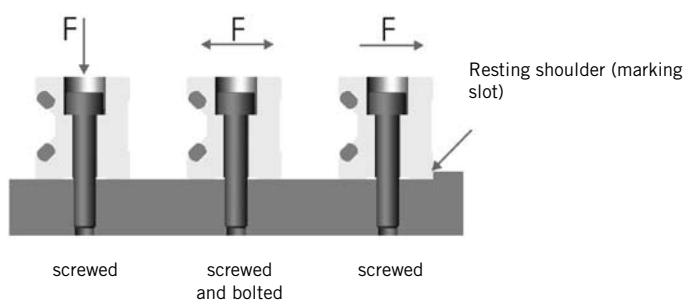


- Remove the cassette from the guide rail (mark layout as necessary).
- Check the resting surfaces of the rail and connection construction for soiling and damage.
- Rest the guide rail against the shoulder (take the stop side into account).
- Apply the screws loosely and check linearity (max. 0.5 mm/m tolerance).
- Now screw the rail starting from the centre and working outwards at alternate sides. Please observe the appropriate tightening torque (see table 1: tightening torques).
- As the final step run over the stroke section with the cassette. Ensure that the fixed side of the cassette is located at the stop side of the rails (marking slot). If even running is assured you may continue with the further assembly stages.



## 2 Single rail assembly

Depending on the type of loading and application the single rails should rest in grooves or against a shoulder and be secured with screws (if necessary bolted).



### Mounting of the first rail (fixed side)

- Check the resting surfaces of the rail and connection construction for soiling and damage.
- Rest the guide rail against the shoulder (take the stop side into account).
- Apply the screws loosely and check linearity and parallelism of the rails (max. sum check error < 0.1 mm/m).
- Now screw the rail starting from the centre and working outwards at alternate sides. Please observe the appropriate tightening torque (see table 1: tightening torques).

# Aluminium roller guide

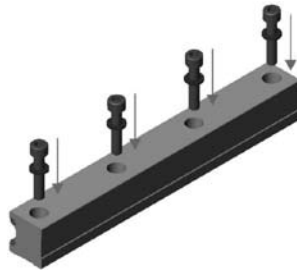


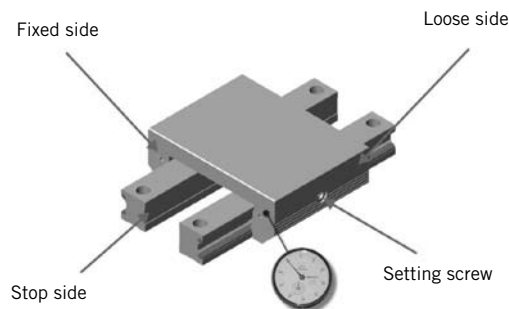
Table 1 : tightening torques in [Nm] for DIN 912 securing screws with DIN 433 washers

Screw size quality 8.8	M3	M4	M5	M6	M8	M10	M12
Tightening torque	1,1	2,5	5,0	8,5	21,0	41,0	71,0

## Mounting the second rail (loose side)

- Now position the second rail, align it and apply the screws loosely.
- Now align the second rail exactly parallel to the first rail thus subsequently assuring uniform slide resistance.
- Following the parallelism check the guiding rails may be tightly screwed, starting from the centre.
- Now run the trolley onto the guide rails and set the correct initial stress (see chapter 5) via the setting screw).
- Now run the cassette over the stroke section. If even running is assured you may continue with the further assembly stages.

## Single rail



## 3 Coupled double / single rails

- Check the resting and support surfaces for soiling and damage.
- Loosely connect the rails. Assure the correct sequence of production numbers! (e.g. A-1/1 - 2/2 - E) The marking slot must be located continuously on the same side!



### Attention

**Coupled rails are especially harmonized. Indiscriminated coupling is not possible.**

- Align the entire guide section without gaps and apply the screws loosely.
- Then align the transition points exactly. To do so use two approx. 200 mm long metal auxiliary cylinders. (See table 2 for diameter : „ cylinder diameter“)
- Insert the cylinders at the separating point in the guide and tighten both with the aid of a screw clamp.
- Finally screw the rails as described in chapter 1 and 2 „Mounting double or single rails“.

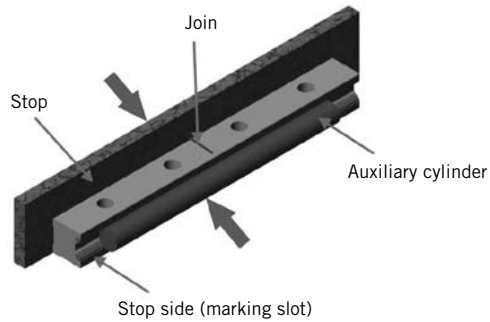
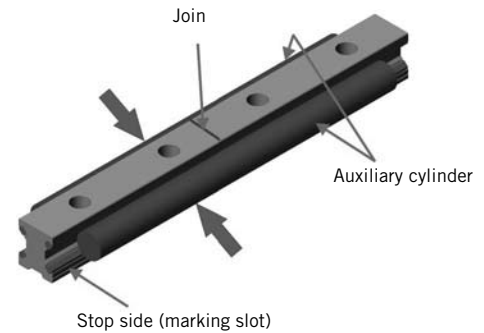
**Single rail****Double rail**

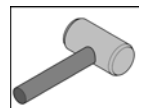
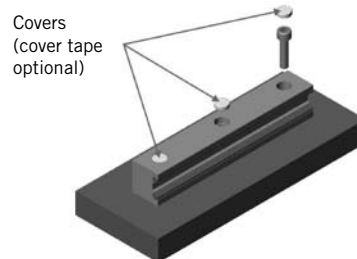
Table 2: cylinder diameter

Rail size	12	15	20	25	35	45
Ø Auxiliary cylinder	11	11	14	16	27	35

**4 Mount screw cover**

Please use the supplied covers to avoid damage to the cassette stripper.

- Insert the covers in the appropriate bore holes.
- Position a suitable plastic panel on top and hammer the covers evenly into the rail.

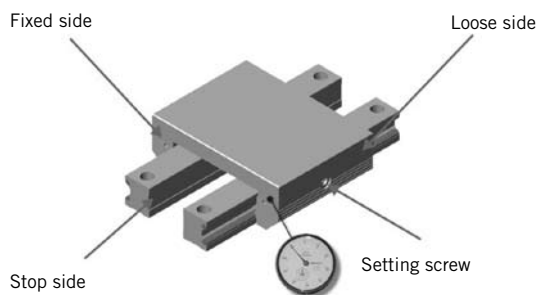
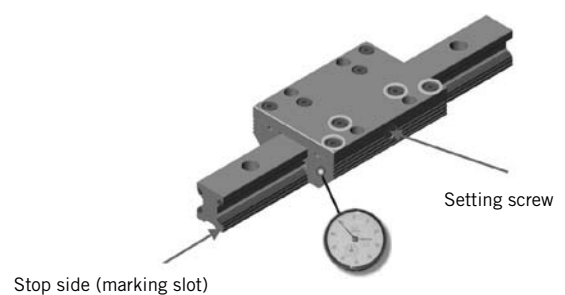


- Remove the ridge.

**5 Setting the cassette**

Ex works mounted cassettes are set without any play. Once cassettes or trolleys have been set once they should not be replaced at will. Slack cassettes must be adjusted to the respective rail.

- Loosen the four securing screws (yellow) at the setting side and set them in again loosely.
- Now set the required slide resistance. The slide resistance (initial stressing) may be set by turning the setting screw (red).
- Retighten the four screws (yellow) and check the slide resistance you have set with the aid of a spring balance. Please also observe table 3: „Guidelines for slide resistances“.

**Single rail****Double rail**

- Repeat steps 1 to 3 until the required slide resistance is set.

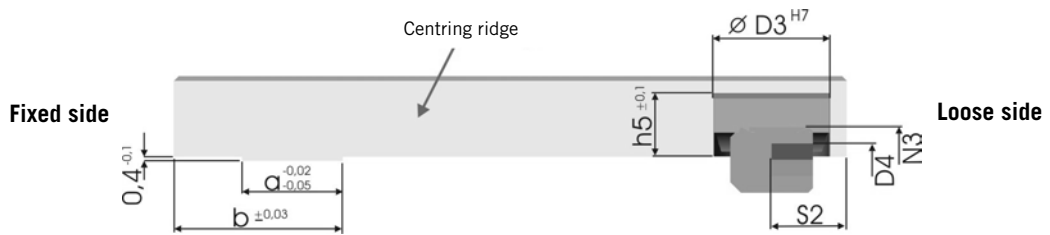
# Aluminium roller guide

Table 3: guidelines for slide resistances in Newton [N] (without stripper)

Size	12		15		20		25		35		45	
Series	min	max	min	max	min	max	min	max	min	max	min	max
Standard	0.2	0.4	0.5	2.0	1.0	2.5	1.5	3.0	2.0	4.0	2.5	5.0
Low-Cost	0.2	0.4	1.0	0,5	0.5	1.5	0.5	2.0	1.0	2.5	2.0	4.0
Rustproof	0.5	1.0	0.5	2.0	1.0	2.5	1.5	3.0	3.0	9.0	3.5	10.5

## 6 Roller shoe assembly

The roller shoes feature a centring groove at the fixed side to assure improved securing. Please therefore furnish the connection plate with a corresponding centre ridge.



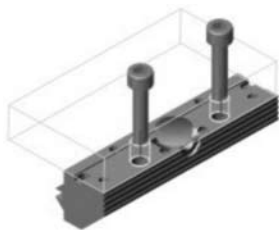
Dimensions for threaded piece and countersunk boring in mm					
Size	D3	D4	h5	N3	S2
12	8	3	4	M4	4,9
15	10	4	5	M6	5,9
20	10	4	5	M6	5,9
25/35/45	14	6	7	M8	8,9

Dimensions for centring ridge in mm						
Size	12	15	20	25	35	45
a	4,5	5,0	7,5	10,5	12,5	15,5
b	9,6	12,6	16,1	17,6	26,1	31,1

### Roller shoe assembly

Once the customer's plate is finished you may mount the roller shoe. Together with the roller shoes the customer plate forms the trolley.

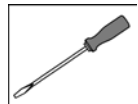
- Check the resting surfaces of the roller shoe and customer plate for soiling and damage.
- Apply the roller shoe to the customer plate from below and screw to the two parts together from above.



**Please mind the fixed and loose sides!**

## 7 Stripper assembly

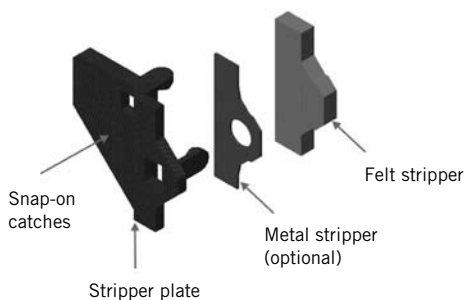
- If this has not already been done so at the factory, impregnate the felt stripper with oil.
- Insert the felt stripper in the stripper plate so that the plate lock may be guided through the slot in the felt stripper (first insert the metal stripper if featured).
- Now clip the thus pre-assembled stripper to the front of the roller shoe via the catches.
- **Please ensure that you do not damage the stripper !**



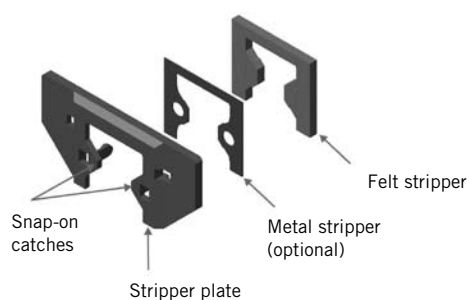


At the latest after covering 6000 km the felt stripper should be replaced.

#### Single rail



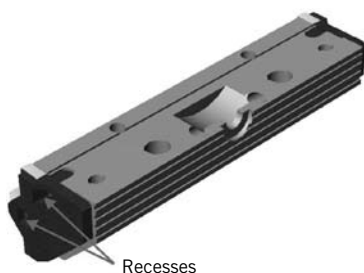
#### Double rail



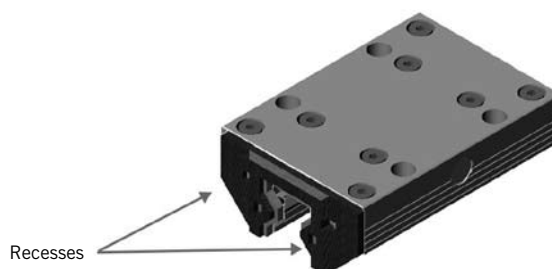
## 8 Dismantle stripper

- Remove the cassette or trolley from the rail.
- With one hand insert a screwdriver into one of the recesses on the stripper and thus release the snap-on catch.
- With the other hand, hold the side that has just been unlatched and repeat the process for the other recesses.
- You may now remove the stripper.

#### Single rail (roller shoe)



#### Double rail (cassette)

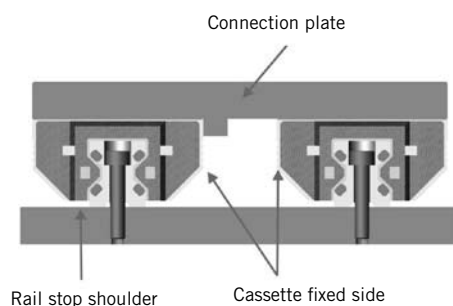


## 9 Lubrication

On aluminium roller guides the cassettes and roller shoes are lubricated for the extent of their useful lives. In special implementation cases the standard version is available with a relubrication feature (central lubrication). Lubricating nipples are attached at the front for this purpose. Lubrication is ex works using Shell Retinax LX2 lithium soap grease.

## 10 Assembly of multi-lane arrangements

- Mount both cassettes on the connection plate.
- Mount the first rail (guide rail) as described in chapter 1.
- Now position the second rail, align it roughly and apply the screws loosely.
- Push the trolley (cassettes with connection plate) onto the rails.
- In order to align the second rail exactly parallel, now run the trolley along the rails. Secure the screws just behind the trolley by the appropriate tightening torque, (max. deviance of parallelism 0.1 mm/m).



# Sales Offices Worldwide

**AE – United Arabien Emirates**

Dubai  
Tel: +971 4 8875600  
parker.me@parker.com

**AR – Argentina**, Buenos Aires  
Tel: +54 3327 44 4129**AT – Austria**, Wiener Neustadt  
Tel: +43 (0)2622 23501-0  
parker.austria@parker.com**AT – Austria**, Wiener Neustadt  
(Europa Oriental)  
Tel: +43 (0)2622 23501 970  
parker.easteurope@parker.com**AT – Austria**, Wiener Neustadt  
Parker Origa Pneumatik GmbH  
Tel: +43 2622 26071-269  
info-hoat-sales.pn@parker-origa.com**AU – Australia**, Castle Hill  
Tel: +61 (0)2-9634 7777**AZ – Azerbaijan**, Baku  
Tel: +994 50 2233 458  
parker.azerbaijan@parker.com**BE/LX – Belgium**, Nivelles  
Tel: +32 (0)67 280 900  
parker.belgium@parker.com**BR – Brazil**, Cachoeirinha RS  
Tel: +55 51 3470 9144**BY – Belarus**, Minsk  
Tel: +375 17 209 9399  
parker.belarus@parker.com**CA – Canada**, Milton, Ontario  
Tel: +1 905 693 3000**CH – Swiss**, Etoy  
Tel: +41 (0) 21 821 02 30  
parker.switzerland@parker.com**CH – Swiss**, Otelfingen  
Parker Origa AG  
Tel: +41 44 846 6860  
info-hoch-sales@parker-origa.com**CN – China**, Shanghai  
Tel: +86 21 5031 2525**CZ – Czechia**, Klecany  
Tel: +420 284 083 111  
parker.czechrepublic@parker.com**DE – Germany**, Kaarst  
Tel: +49 (0)2131 4016 0  
parker.germany@parker.com**DK – Denmark**, Ballerup  
Tel: +45 43 56 04 00  
parker.denmark@parker.com**ES – Spain**, Madrid  
Tel: +34 902 33 00 01  
parker.spain@parker.com**FI – Finland**, Vantaa  
Tel: +358 (0)20 753 2500  
parker.finland@parker.com**FR – France**  
Tel: +33 (0)4 50 25 80 25  
parker.france@parker.com**FR – France**, Courtaboeuf Cedex  
Parker Origa SAS  
Tel: +33 1 69 29 22 00  
info-hofr-sales@parker-origa.com**GR – Greece**, Atenas  
Tel: +30 210 933 6450  
parker.greece@parker.com**HK – Hong Kong**  
Tel: +852 2428 8008**HU – Hungary**, Budapest  
Tel: +36 1 220 4155  
parker.hungary@parker.com**IE – Ireland**, Dublin  
Tel: +353 (0)1 466 6370  
parker.ireland@parker.com**IN – India**, Mumbai  
Tel: +91 22 6513 7081-85**IT – Italy**, Corsico (MI)  
Tel: +39 02 45 19 21  
parker.italy@parker.com**IT – Italy**, Pioltello (MI)  
Parker Origa SRL  
Tel: +39 02 92 16 65 53  
info-hoit-sales@parker-origa.com**JP – Japan**, Fujisawa  
Tel: +(81) 4 6635 3050**KR – Korea**, Seúl  
Tel: +82 2 559 0400**KZ – Kazakhstan**, Almaty  
Tel: +7 7272 505 800  
parker.easteurope@parker.com**LV – Latvia**, Riga  
Tel: +371 6 745 2601  
parker.latvia@parker.com**MX – Mexico**, Apodaca  
Tel: +52 81 8156 6000**MY – Malaysia**, Subang Jaya  
Tel: +60 3 5638 1476**MY – Malaysia**, Penang  
Parker Origa Sdn Bhd  
Tel: +60 4 508 10 11  
info-hosg-sales@parker-origa.com**NL – Netherlands**, Oldenzaal  
Tel: +31 (0)541 585 000  
parker.nl@parker.com**NL – Netherlands**, SL Moerdijk  
Parker Origa B.V.  
Tel: +31 168 356 600  
info-honl-sales@parker-origa.com**NO – Norway**, Ski  
Tel: +47 64 91 10 00  
parker.norway@parker.com**NO – Norway**, Drammen  
Parker Origa AS  
Tel: +47 3 288 08 40  
info-hose-sales@parker-origa.com**NZ – New Zealand**  
Mt Wellington  
Tel: +64 9 574 1744**PL – Poland**, Varsovia  
Tel: +48 (0)22 573 24 00  
parker.poland@parker.com**PT – Portugal**, Leca da Palmeira  
Tel: +351 22 999 7360  
parker.portugal@parker.com**RO – Romania**, Bucarest  
Tel: +40 21 252 1382  
parker.romania@parker.com**RU – Russia**, Moscow  
Tel: +7 495 645-2156  
parker.russia@parker.com**SE – Sweden**, Spånga  
Tel: +46 (0)8 59 79 50 00  
parker.sweden@parker.com**SE – Sweden**, Kungsör  
Parker Origa AB  
Tel: +46 227 411 00  
info-hose-sales@parker-origa.com**SG – Singapor**  
Tel: +65 6887 6300**SG – Singapor**  
Parker Origa PTE Ltd.  
Tel: +65 6483 2959  
info-hose-sales@parker-origa.com**SK – Slovakia**, Banská Bystrica  
Tel: +421 484 162 252  
parker.slovakia@parker.com**SI – Slovenia**, Novo Mesto  
Tel: +386 7 337 6650  
parker.slovenia@parker.com**TH – Thailand**, Bangkok  
Tel: +662 717 8140**TR – Turkey**, Istanbul  
Tel: +90 216 4997081  
parker.turkey@parker.com**TW – Taiwan**, Taipei  
Tel: +886 2 2298 8987**UA – Ukraine**, Kiev  
Tel: +380 44 494 2731  
parker.ukraine@parker.com**UK – United Kingdom**, Gloucester  
Parker Origa Ltd.  
Tel: +44 8700 600655  
info-hogb-sales@parker-origa.com**UK – United Kingdom**, Warwick  
Tel: +44 (0)1926 317 878  
parker.uk@parker.com**US – United States of America**,  
Cleveland  
Tel: +1 216 896 3000**US – United States of America**  
Parker Origa Corporation  
Tel: +1 630 871 830-0  
info-hous-sales@parker-origa.com**VE – Venezuela**, Caracas  
Tel: +58 212 238 5422**ZA – South Africa**,  
Kempton Park  
Tel: +27 (0)11 961 0700  
parker.southafrica@parker.com