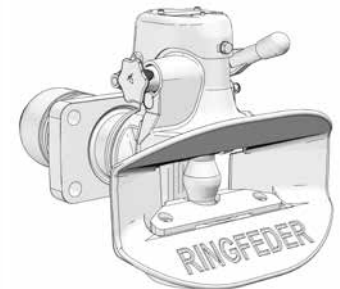
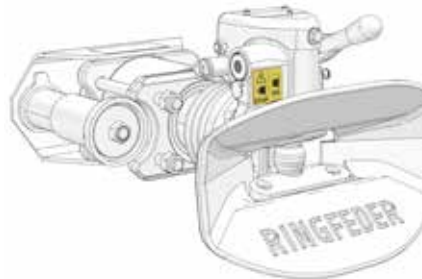




RINGFEDER® 86G/110, 4040, 4045, 80/G3-G5, 5050





Installation



Operation



Maintenance

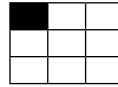
40 mm automatic drawbar couplings suitable for connection with drawbar eyes 40 according to DIN 74054, ISO 8755 and equal drawbar eyes of class S in accordance with the directive 94/20 EC or ECE 55 R-01 as well as 50 mm drawbar couplings suitable for connection with drawbar eyes 50 in accordance with DIN 74053, ISO 1102 or D 50 to comply with 94/20 EC or ECE 55 R-01.

These automatic drawbar couplings are to be used exclusively to connect with vehicles, trucks and trailers equipped with the appropriate drawbar eyes.

When fitting (or replacing) the trailer couplings, always attend to the relevant statutory regulations and particular information from the vehicle manufacturers. When replacing the trailer couplings all component parts of the trailer couplings comprised in the delivery have to be exchanged. Fitting of the trailer couplings on the vehicle has to be made in compliance with the requirements laid down in appendix VII of the directive 94/20 EC and ECE 55 R-01, respectively. Installation and maintenance works have to be carried out carefully and professionally.

When it comes to the four fastening screws and nuts, always attend to the screws and nuts qualities given by the vehicle manufacturers that may possibly deviate from the present specifications.

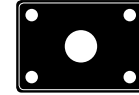
Page 28-29



Tables (please refer to p. 30)



Coupling (40 or 50 mm)



Flange design (e1 x e2)



Screw



Washer



Nut



Type Approval



Castellated nut



Wrench size



Tightening torque

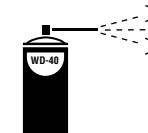
Page 30 - 43

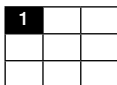





Coupling open

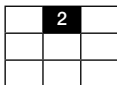
Coupling closed
and secured




Sight check

Attention: Risk of
injury – jammed
fingers.One-hand
operationTwo-hand
operationLubricant
WD-40Interval:
once per month


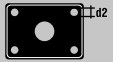







 40 mm	94/20 EEC			D (kN)	Dc (kN)	S (kg)	V (kN)	 e1 x e2 (mm)
	ECE 55 R-01	94/20 EEC	ECE 55 R-01					
86G/110	S	e1 00 – 0427	-	66	35	500	15,5	83 x 56
4040/G135	S	e11 00 – 6290	E11 55 R-01–6290	85	70	700/1000	28,2/25	120 x 55
4040/G145	S	e11 00 – 6291	E11 55 R-01–6291	100	92	1000	38	140 x 80
4040/G150	S	e11 00 – 6292	E11 55 R-01–6292	137	92	1000	40	160 x 100
4045/G145	S	e11 00 – 6293	E11 55 R-01–6293	100	-	-	-	140 x 80
4045/G150	S	e11 00 – 6294	E11 55 R-01–6294	137	-	-	-	160 x 100






 50 mm	94/20 EEC			D (kN)	Dc (kN)	S (kg)	V (kN)	 e1 x e2 (mm)
	ECE 55 R-01	94/20 EEC	ECE 55 R-01					
80/G3	C50 - 3	e1 00 – 0441	-	70	50	650	18	120 x 55
80/G4	C50 - 4	e1 00 – 0348	-	100	70	900	25	140 x 80
80/G5	C50 - 5	e1 00 – 0292	-	130	90	1000	35	160 x 100
5050	C50 - X	e11 00 - 6289	E11 55 R-01–6289	200	135	1000	75	160 x 100
				200	135	2000	63	
				200	135	2500	50	
				200	170	1000	60	

		3

 e1 x e2 (mm)	 Ø d2 (mm)		 ISO 7089	 ISO 7042	 Nm (± 5%)	 mm
83 x 56	10,5	M 10 (≥ 8.8)	≥ 200 HV	≥ 8	47	17 (16)
120 x 55	15	M 14 (≥ 8.8)	≥ 200 HV	≥ 8	130	22
140 x 80	17	M 16 (≥ 8.8)	≥ 200 HV	≥ 8	200	24
160 x 100	21	M 20 (≥ 8.8)	≥ 200 HV	≥ 8	390	30

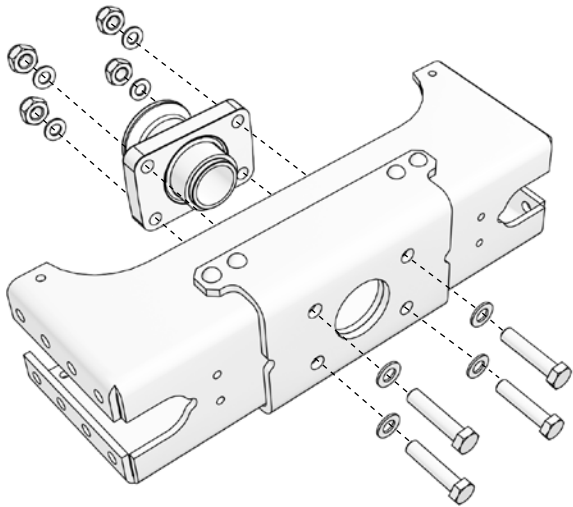
4		

	 Nm	 mm
M 30	≥ 250	46
M 36 x 3	≥ 350	55
M 45 x 3	≥ 500	70



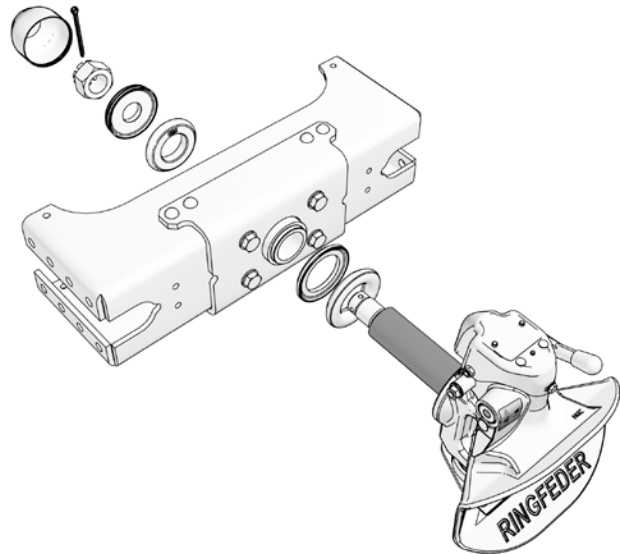
A1

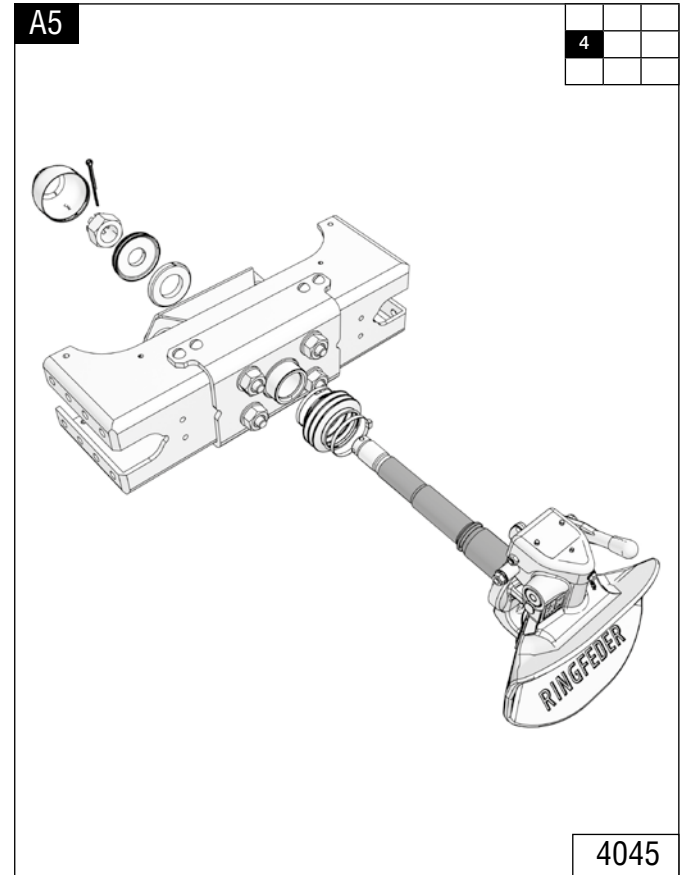
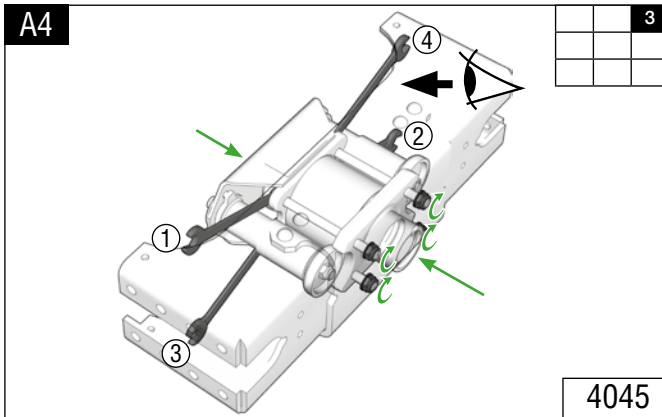
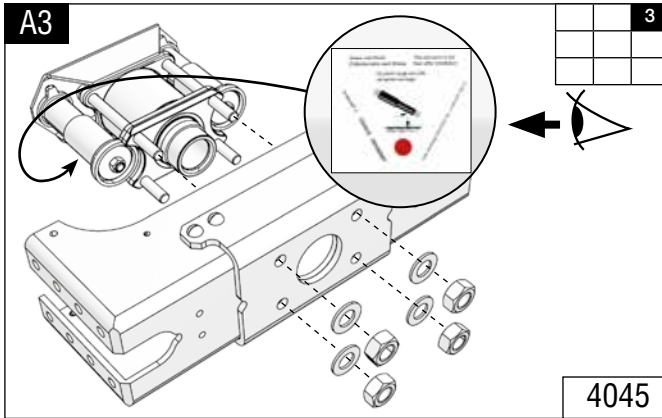
		3



A2

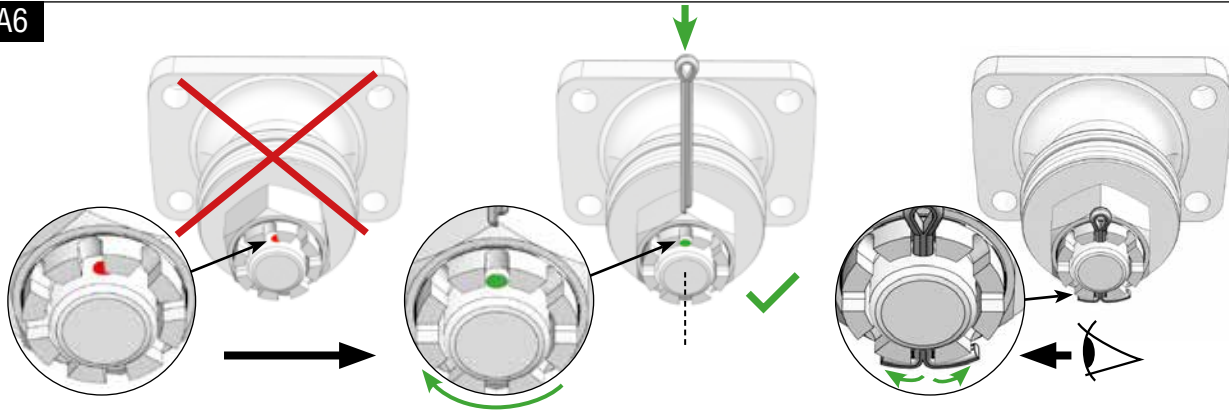
		4



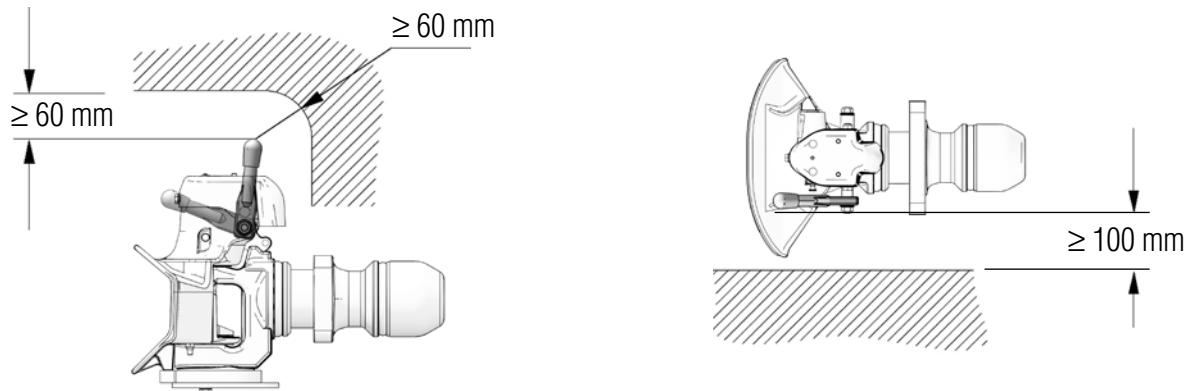




A6

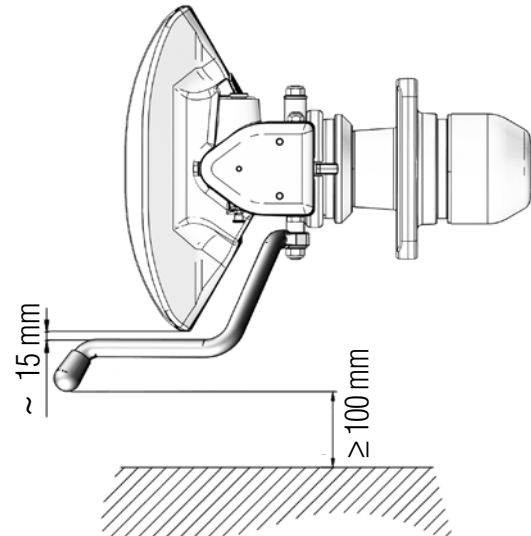
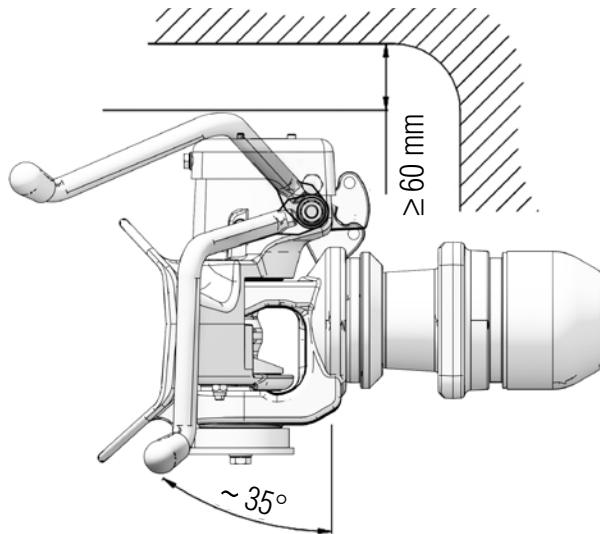


A7



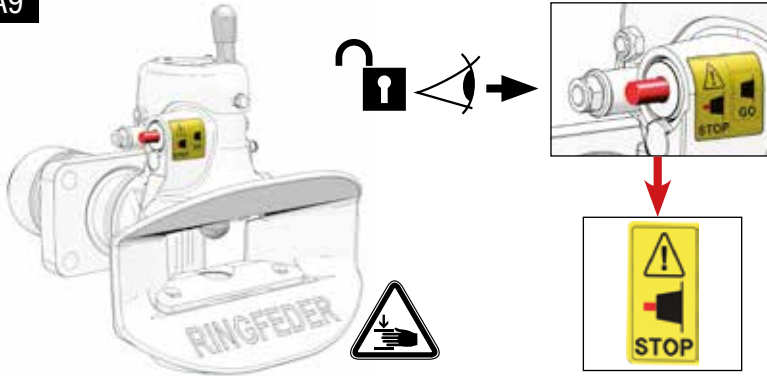


A8





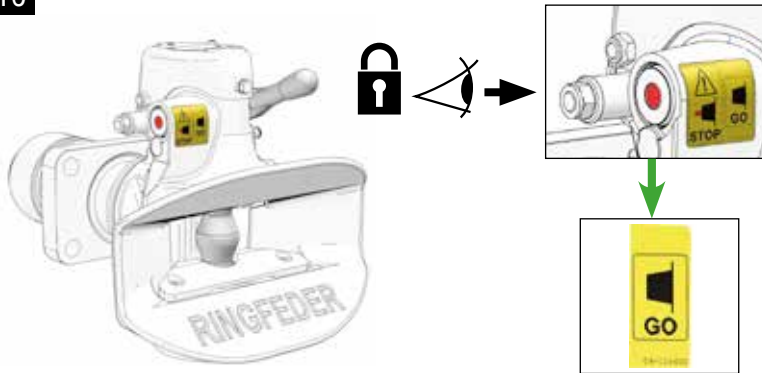
A9



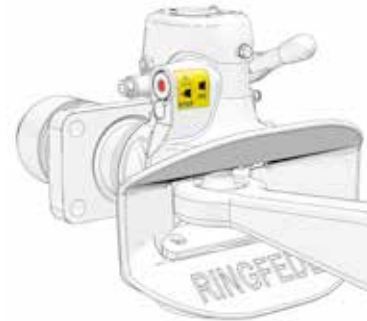
4040, 4045, 5050



A10



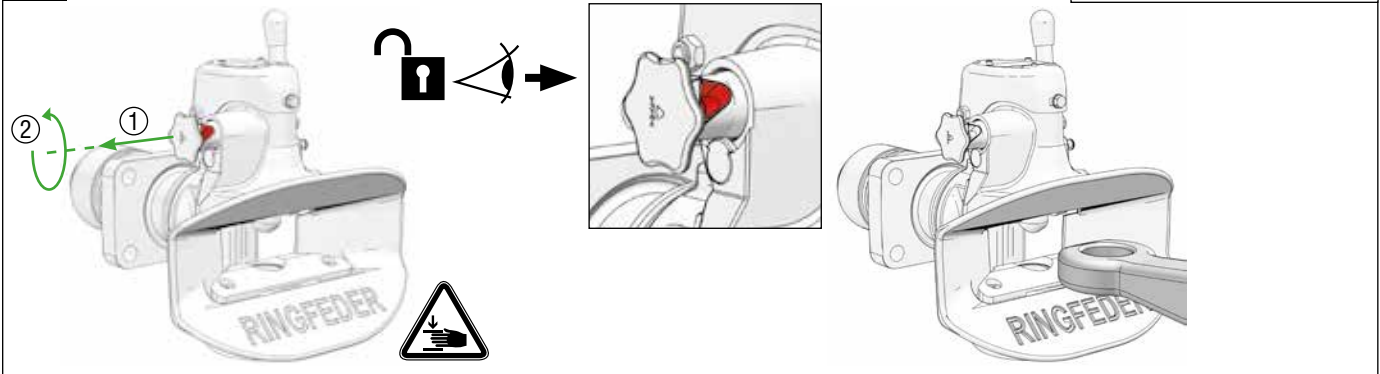
4040, 4045, 5050





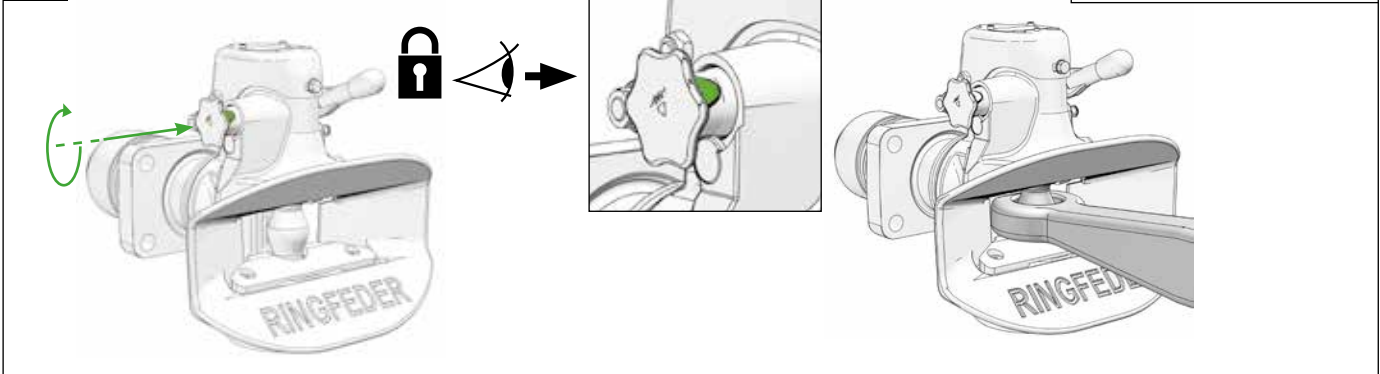
A11

86/G 110, 80/G3 - G5



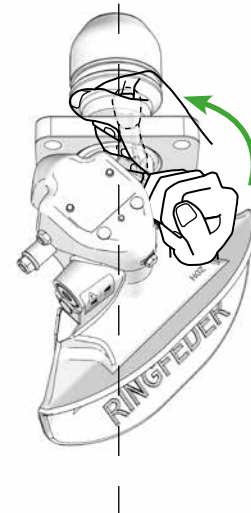
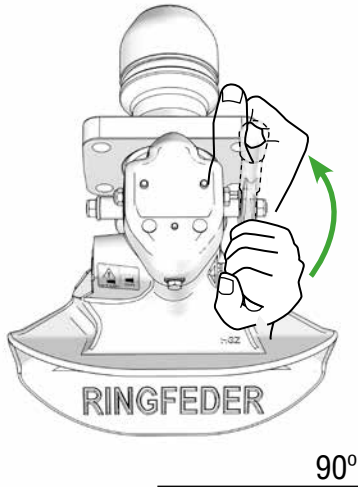
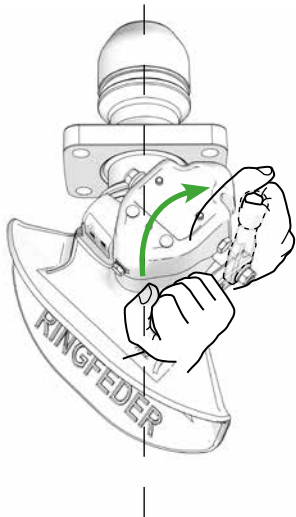
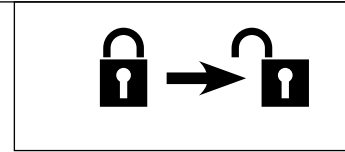
A12

86/G 110, 80/G3 - G5





B1





B2 4040, 4045, 5050

STOP

GO

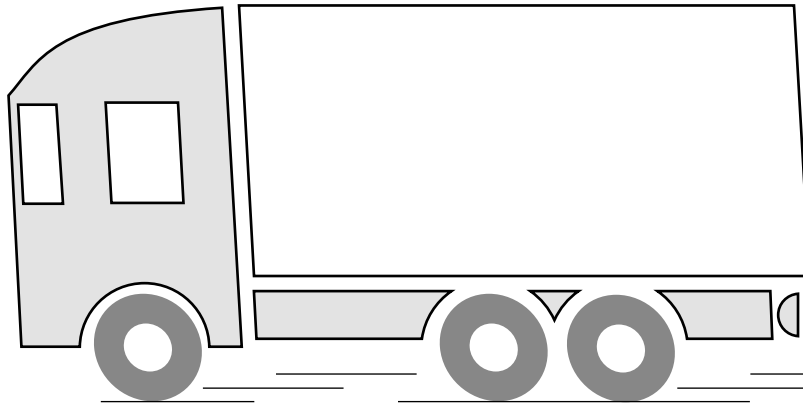
B3 86/G 110, 80/G3 - G5

STOP

GO



B4





C1

$40 \text{ mm} \geq 36,5 \text{ mm}$
 $50 \text{ mm} \geq 46,5 \text{ mm}$

$\frac{1}{30}$

RINGFEDER

C2

$\leq 4 \text{ mm}$
 $5050 \leq 5 \text{ mm}$

$\frac{1}{30}$

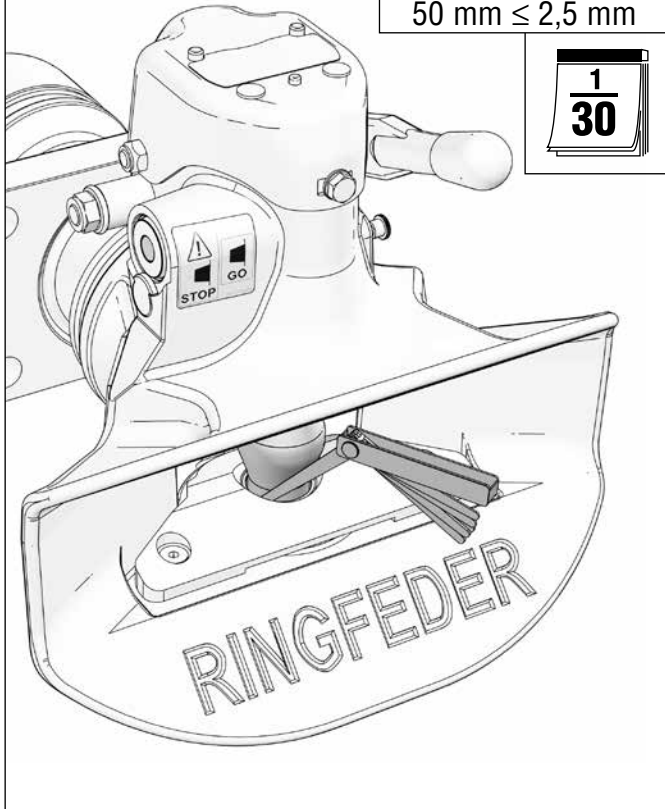
$\leq 4 / 5 \text{ mm}$

RINGFEDER



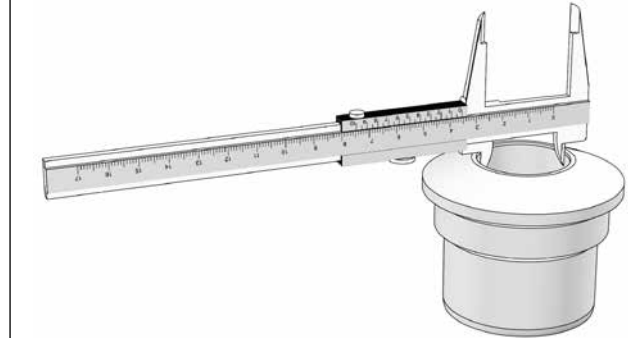
C3

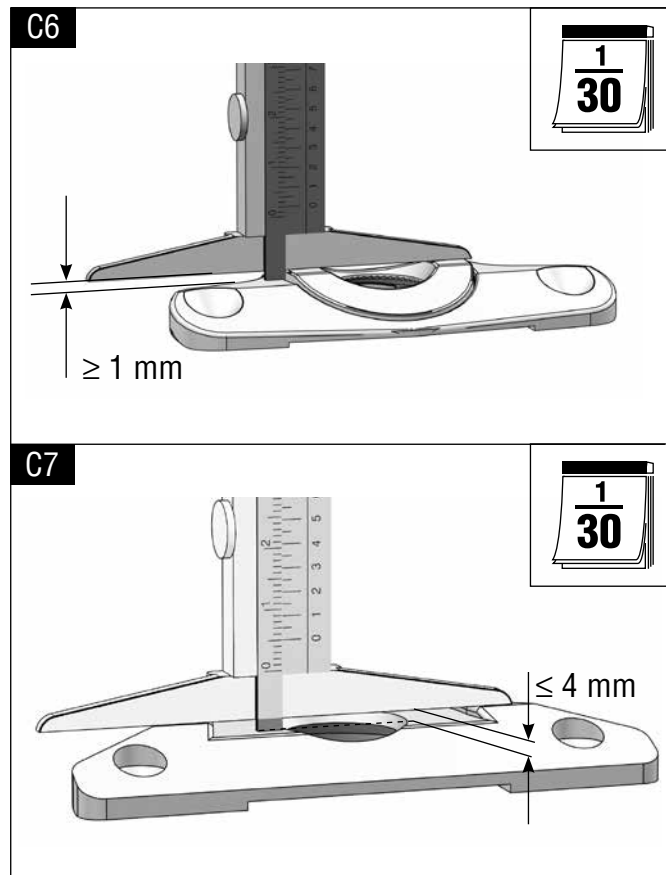
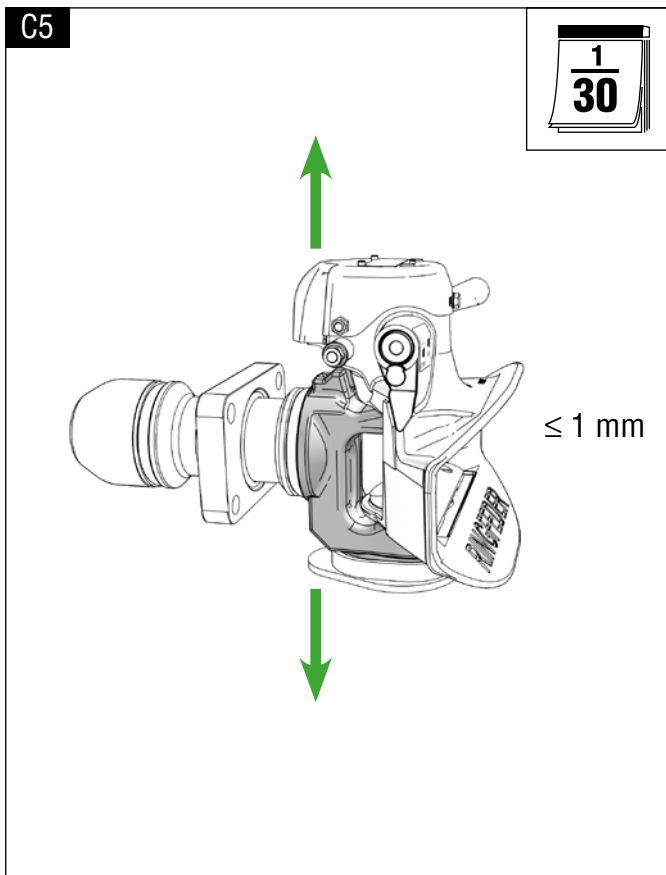
$40 \text{ mm} \leq 2,5 \text{ mm}$
 $50 \text{ mm} \leq 2,5 \text{ mm}$



C4

$40 \text{ mm} \leq 31,5 \text{ mm}$
 $50 \text{ mm} \leq 36,5 \text{ mm}$

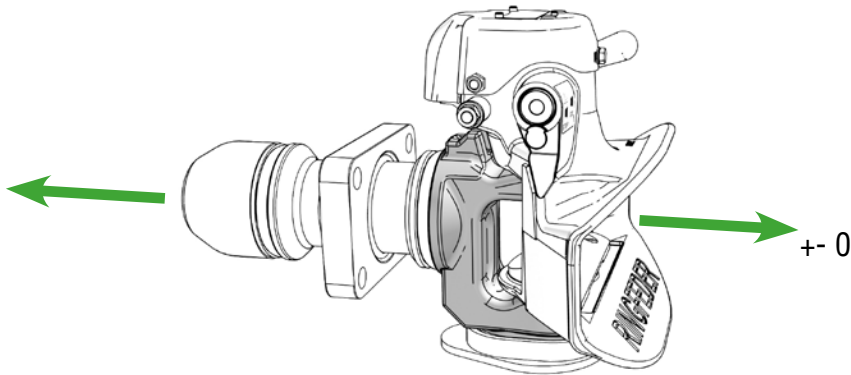






C8

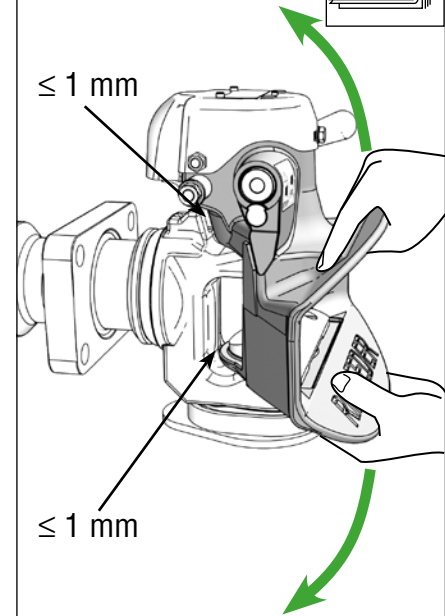
1
30



+ - 0

C9

1
30

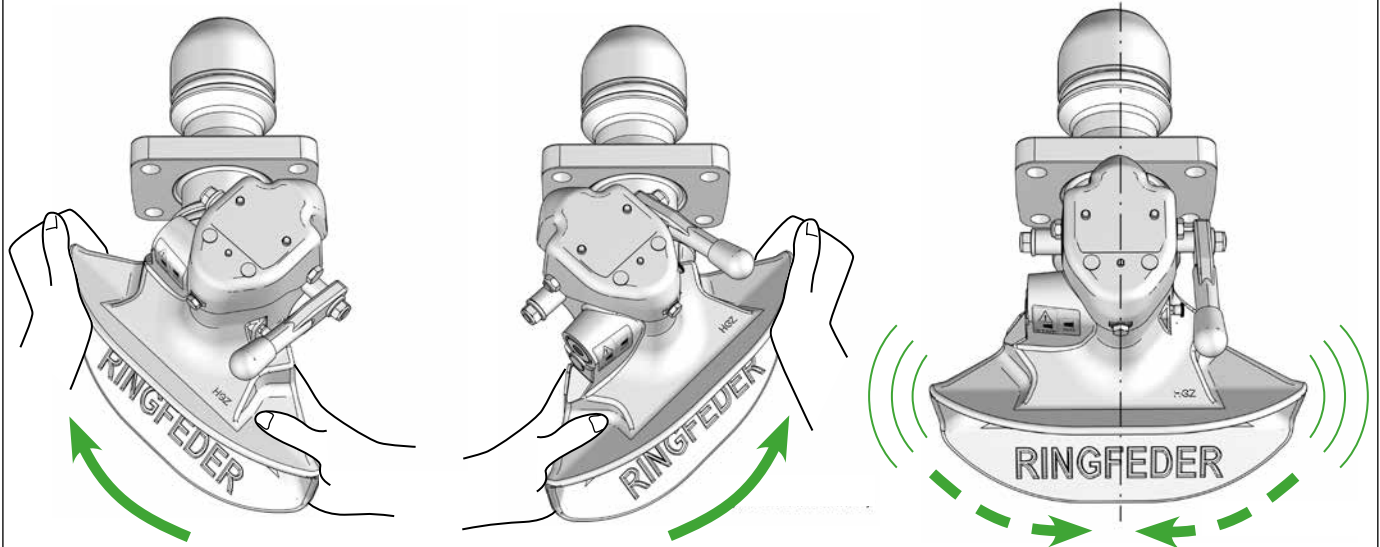


≤ 1 mm

≤ 1 mm

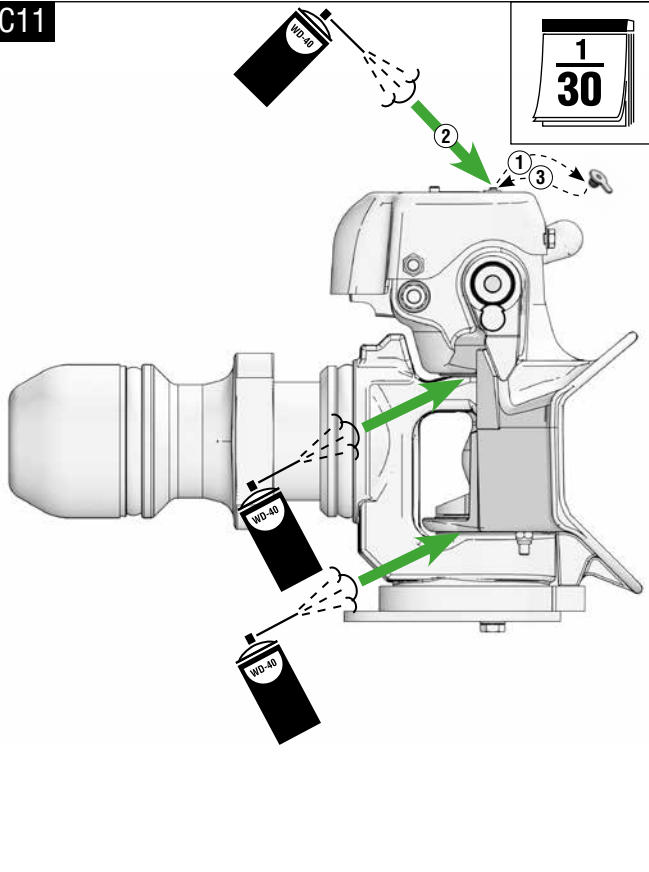


C10

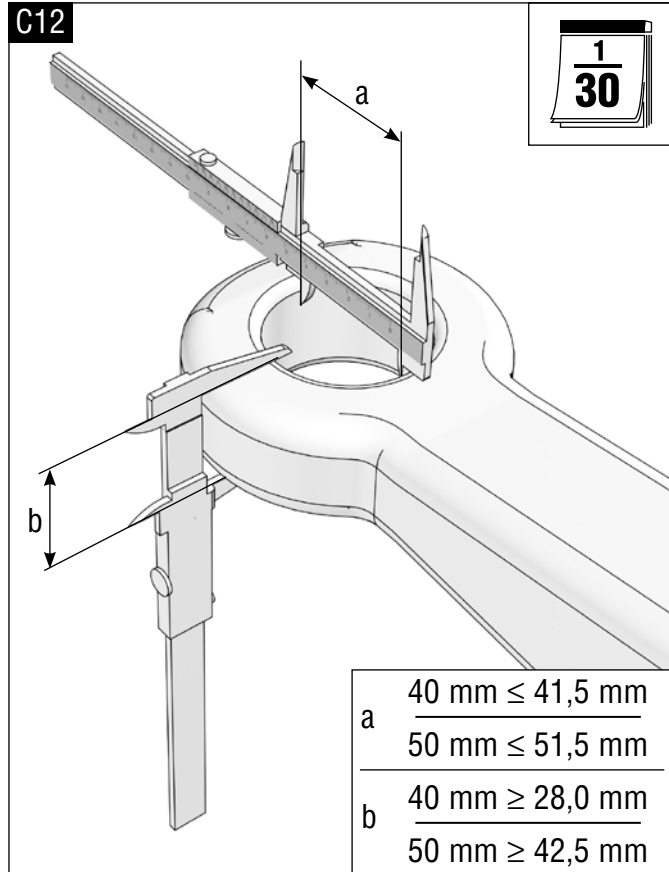




C11



C12







Produced in a certified company DIN EN ISO 9001:2008, ISO TS 16949:2007, DIN EN ISO 14001:2004

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