



MR4S Spare Parts and Modification Instruction

Proof of Change MR4S Spare Parts:

| | | | |
|-------------|---|---------------|----------------|
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| Date | Text of the Amendment | Author | Release |

Proof of Change MR4S Modification Instruction:

| | | | |
|-------------|---|---------------|----------------|
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Inhalt

| | | |
|----------|--|-----------|
| 1 | MR4S Spare Parts | 3 |
| 1.1 | Introduction Spare Parts MR4S..... | 3 |
| 1.2 | Front Plate and Front Panel | 4 |
| 1.3 | Front Plate, Front Panel and Metal Wiper | 6 |
| 1.4 | Front Plate, Front Panel and Additional Wiper | 8 |
| 1.5 | Front Plate, Front Panel, Additional Wiper and Metal Wiper | 10 |
| 1.6 | Front Plate, Front Panel and Lubrication Plate..... | 12 |
| 1.7 | Front Plate, Front Panel, Lubrication Plate and Metal Wiper..... | 14 |
| 1.8 | Front Plate, Front Panel, Lubrication Plate and Additional Wiper..... | 16 |
| 1.9 | Front Plate, Front Panel, Lubrication Plate, Additional Wiper and Metal Wiper..... | 18 |
| 1.10 | Change of Spare Parts..... | 20 |
| 1.10.1 | Change of Cross Wiper | 21 |
| 2 | MR4S Modification Instruction | 22 |
| 2.1 | Mounting of Accessories | 22 |
| 2.2 | Modification from Standard to Separate Lubricant Distribution | 23 |
| 2.3 | Modification of the Lubrication Connections..... | 24 |
| 2.3.1 | Standard Lubricant Distribution | 25 |
| 2.3.2 | Separate Lubricant Distribution | 25 |



1 MR4S Spare Parts

1.1 Introduction Spare Parts MR4S

This chapter gives an overview of all MR4S spare parts. These are related to the added accessories.

Combinations of accessories:

front plate (STP)+ front panel (FRB)

- + metal wiper (ASM)
- + additional wiper (ZCV)
- + additional wiper (ZCV) + metal wiper (ASM)
- + lubrication plate (SPL)
- + lubrication plate (SPL) + metal wiper (ASM)
- + lubrication plate (SPL) + additional wiper (ZCV)
- + lubrication plate (SPL) + additional wiper (ZCV) + metal wiper (ASM)

Spare Parts are the front plate, the front panel, all accessories and the corresponding screws.

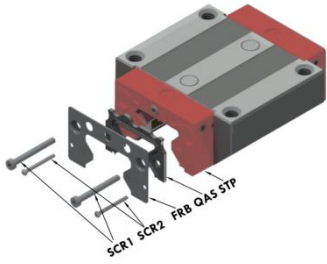
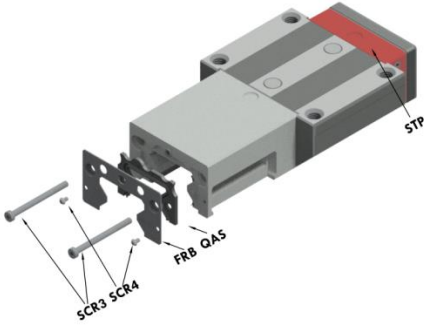
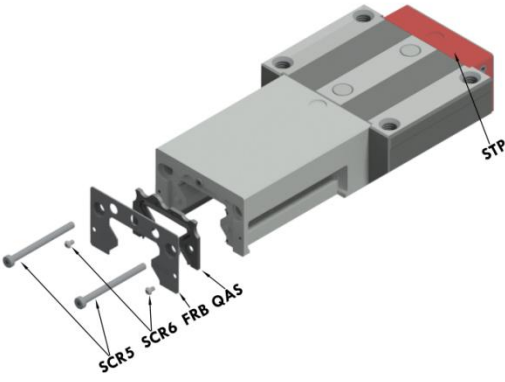
In the following subchapters the spare parts of MR 4S were listed, related to the added accessories. The graphics in the sections show exemplary a carriage of type A. By way of illustration, the accessories are added to the front and back side of the carriage. It is also possible to use different combinations of accessories at both sides of the carriage.

In general, all accessories can be used for standard-carriages, carriages with AMSA3B/AMSD3B and carriages with AMSABS 3B.

In addition, the changing of MR4S spare parts is listed.



1.2 Front Plate and Front Panel

| MR4S carriage | MR4S carriage with AMSA 3B/AMSD 3B | MR4S carriage with AMSABS 3B |
|--|--|--|
|  |  |  |
| <ul style="list-style-type: none"> ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate * ▪ SCR1: upper screw ▪ SCR2: lower screw | <ul style="list-style-type: none"> ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate * ▪ SCR3: upper screw ▪ SCR4: lower screw | <ul style="list-style-type: none"> ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate * ▪ SCR5: upper screw ▪ SCR6: lower screw |
| <p>* Version depending on the desired lubrication option and the type of carriage (STP - X):</p> <ul style="list-style-type: none"> ▪ X: Z (standard lubrication); ST (separate lubrication), S98 (separate lubrication with lube port possibility S98) | | |



| Spare Part | 25 | 30 | 35 | 45 | 55 | 65 |
|----------------|---|---|--|--|--|--|
| STP-Z | 580 106 510 | 580 106 856 | 580 106 072 | 580 106 480 | 580 106 076 | 580 106 765 |
| STP-ST | 580 106 511 | 580 106 857 | 580 106 073 | 580 106 481 | 580 106 077 | 580 106 766 |
| STP-S98 | 580 106 870 | 580 106 871 | 580 106 872 | 580 106 873 | 580 106 874 | 580 106 875 |
| FRB | 580 105 817 | 580 106 596 | 580 105 421 | 580 105 691 | 580 105 425 | 580 106 045 |
| QAS | 580 105 819 | 580 106 598 | 580 105 126 | 580 105 703 | 580 105 125 | 580 106 047 |
| SCR1 | 580 100 349 (Schraube SCR-M4X16 Polyfleck DIN 7984) | 580 100 409 (Schraube SCR-M4x20 Polyfleck DIN 7984) | 580 100 409 (Schraube SCR- M4x20 Polyfleck DIN 7984) | 580 100 450 (Schraube SCR-M5x25- Polyfleck DIN 7984) | 580 100 491 (Schraube SCR-M6x25 Polyfleck DIN ISO7984) | 580 100 508 (Schraube SCR-M6x30 Polyfleck DIN 7984) |
| SCR2 | 580 106 289 (Schraube SCR-M2x18 ISO 7380-1 Torx) | 580 106 852 (Schraube SCR-M2x22 ISO 7380-1 Torx) | 580 106 286 (Schraube SCR- M2,5x23 ISO7380-1 Torx) | 580 106 292 (Schraube SCR-M3x25 ISO7380 Torx T10) | 580 106 294 (Schraube SCR-M3x28 ISO7380-1 Torx) | 580 106 296 (Schraube SCR-M3x32 ISO7380-1 Torx) |
| SCR3 | 580 105 567 (Schraube SCR-M4x23 Polyfleck DIN ISO7984) | | 580 100 432 (Schraube SCR- M4X25 Polyfleck DIN 7984) | 580 106 713 (Schraube SCR-M5x20- Polyfleck DIN 7984) | 580 106 714 (Schraube SCR-M6x20 Polyfleck DIN ISO7984) | 580 100 491 (Schraube SCR-M6x25 Polyfleck DIN ISO7984) |
| SCR4 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | | 580 106 194 (Schraube SCR- M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |
| SCR5 | 580 105 577 (Schraube SCR-M4x42 DIN ISO7984) | | 580 100 575 (Schraube SCR- M4X45 POLYFLECK DIN 7984) | 580 100 576 (Schraube SCR-M5X40 Polyfleck DIN 7984) | 580 100 555 (Schraube SCR-M6x40 Polyfleck DIN 7984) | 580 105 579 (Schraube SCR-M6x48 DIN ISO7984) |
| SCR6 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | | 580 106 194 (Schraube SCR- M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |



1.3 Front Plate, Front Panel and Metal Wiper

| MR4S carriage with metal wiper (ASM) | MR4S carriage with AMSA 3B/AMSD 3B and metal wiper (ASM) | MR4S carriage with AMSABS 3B and metal wiper (ASM) |
|---|---|---|
| | | |
| <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR1: upper screw ▪ SCR2: lower screw | <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR3: upper screw ▪ SCR4: lower screw | <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR5: upper screw ▪ SCR6: lower screw |
| <p>* In case of AMS-rail, the metal wiper ASM-A must be used.</p> <p>** Version depending on the desired lubrication option and the type of carriage (STP - X):</p> <ul style="list-style-type: none"> ▪ X: Z (standard lubrication); ST (separate lubrication), S98 (separate lubrication with lube port possibility S98) | | |



| Spare Part | 25 | 30 | 35 | 45 | 55 | 65 |
|----------------|--|---|---|---|--|--|
| STP-Z | 580 106 510 | 580 106 856 | 580 106 072 | 580 106 480 | 580 106 076 | 580 106 765 |
| STP-ST | 580 106 511 | 580 106 857 | 580 106 073 | 580 106 481 | 580 106 077 | 580 106 766 |
| STP-S98 | 580 106 870 | 580 106 871 | 580 106 872 | 580 106 873 | 580 106 874 | 580 106 875 |
| FRB | 580 105 817 | - | 580 105 421 | 580 105 691 | 580 105 425 | 580 106 045 |
| ASM | 580 102 619 | - | 580 102 620 | 580 102 621 | 580 102 622 | 580 102 623 |
| ASM-A | | 580 106 596 | 580 104 030 | 580 103 596 | 580 103 458 | 580 104 004 |
| QAS | 580 105 819 | 580 106 650 | 580 105 126 | 580 105 703 | 580 105 125 | 580 106 047 |
| SCR1 | 580 100 409 (Schraube SCR-M4x20 Polyfleck DIN 7984) | - | 580 100 432 (Schraube SCR-M4X25 Polyfleck DIN 7984) | 580 100 473 (Schraube SCR-M5x30 Polyfleck DIN 7984) | 580 100 540 (Schraube SCR- M6x35 Polyfleck DIN ISO7984) | 580 100 540 (Schraube SCR- M6x35 Polyfleck DIN ISO7984) |
| SCR2 | 580 106 289 (Schraube SCR-M2x18 ISO 7380-1 Torx) | 580 106 598 | 580 106 286 (Schraube SCR- M2,5x23 ISO7380-1 Torx) | 580 106 293 (Schraube SCR-M3x26 ISO7380-1 Torx) | 580 106 295 (Schraube SCR- M3x30 ISO7380 Torx T10) | 580 106 297 (Schraube SCR- M3x33 ISO7380- 1 Torx) |
| SCR3 | 580 105 567 (Schraube SCR-M4x23 Polyfleck DIN ISO7984) | 580 100 409 (Schraube SCR-M4x20 Polyfleck DIN 7984) | 580 100 427 (Schraube SCR-M4x30 Polyfleck DIN 7984) | 580 100 450 (Schraube SCR-M5x25- Polyfleck DIN 7984) | 580 100 491 (Schraube SCR- M6x25 Polyfleck DIN ISO7984) | 580 100 508 (Schraube SCR- M6x30 Polyfleck DIN 7984) |
| SCR4 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | 580 106 852 (Schraube SCR-M2x22 ISO 7380-1 Torx) | 580 106 283 (Schraube SCR-M2,5x5 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR- M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR- M3x5 ISO7380 Torx T10) |
| SCR5 | 580 100 575 (Schraube SCR-M4X45 POLYFLECK DIN 7984) | | 580 100 394 (Schraube SCR-M4X50 DIN 7984 8.8) | 580 100 577 (Schraube SCR-M5X45 Polyfl. DIN 7984 8.8) | 580 100 579 (Schraube SCR- M6X45 Polyfleck DIN 7984) | 580 100 581 (Schraube SCR- M6X55 Polyfleck DIN 7984) |
| SCR6 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | | 580 106 283 (Schraube SCR-M2,5x5 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR- M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR- M3x5 ISO7380 Torx T10) |



1.4 Front Plate, Front Panel and Additional Wiper

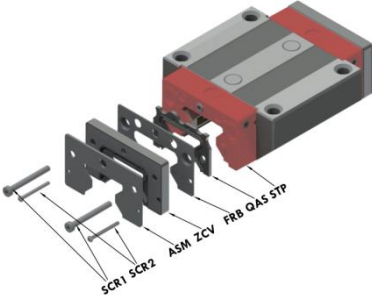
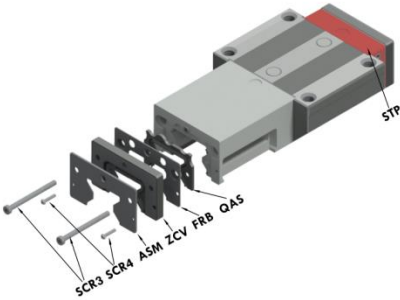
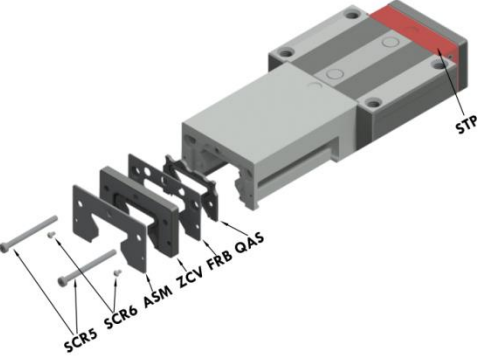
| MR4S carriage with additional wiper (ZCV) | MR4S carriage with AMSA 3B/AMSD 3B and additional wiper (ZCV) | MR4S carriage with AMSABS 3B and additional wiper (ZCV) |
|--|---|---|
| | | |
| <ul style="list-style-type: none"> ▪ ZCV: additional wiper ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate * ▪ SCR1: upper screw ▪ SCR2: lower screw | <ul style="list-style-type: none"> ▪ ZCV: additional wiper ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate * ▪ SCR3: upper screw ▪ SCR4: lower screw | <ul style="list-style-type: none"> ▪ ZCV: additional wiper ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate * ▪ SCR5: upper screw ▪ SCR6: lower screw |
| <p>* Version depending on the desired lubrication option and the type of carriage (STP - X):</p> <ul style="list-style-type: none"> ▪ X: Z (standard lubrication); ST (separate lubrication), S98 (separate lubrication with lube port possibility S98) | | |



| Spare Part | 25 | 30 | 35 | 45 | 55 | 65 |
|----------------|---|---|---|---|---|--|
| STP-Z | 580 106 510 | 580 106 856 | 580 106 072 | 580 106 480 | 580 106 076 | 580 106 765 |
| STP-ST | 580 106 511 | 580 106 857 | 580 106 073 | 580 106 481 | 580 106 077 | 580 106 766 |
| STP-S98 | 580 106 870 | 580 106 871 | 580 106 872 | 580 106 873 | 580 106 874 | 580 106 875 |
| FRB | 580 105 817 | - | 580 105 421 | 580 105 691 | 580 105 425 | 580 106 045 |
| ZCV | 580 104 277 | - | 580 104 278 | 580 104 279 | 580 104 280 | 580 104 281 |
| QAS | 580 105 819 | 580 106 596 | 580 105 126 | 580 105 703 | 580 105 125 | 580 106 047 |
| SCR1 | 580 100 432 (Schraube SCR-M4X25 Polyfleck DIN 7984) | 580 106 647 | 580 100 427 (Schraube SCR- M4x30 Polyfleck DIN 7984) | 580 100 469 (Schraube SCR- M5x35-Polyfleck DIN 7984) | 580 100 555 (Schraube SCR- M6x40 Polyfleck DIN 7984) | 580 100 579 (Schraube SCR- M6X45 Polyfleck DIN 7984) |
| SCR2 | 580 106 290 (Schraube SCR-M2x25 ISO7380-1 Torx) | 580 106 598 | 580 106 291 (Schraube SCR- M2,5x30 ISO7380-1 Torx) | 580 106 296 (Schraube SCR- M3x32 ISO7380- 1 Torx) | 580 106 298 (Schraube SCR- M3x35 ISO7380 Torx T10) | 580 106 300 (Schraube SCR- M3x38 ISO7380- 1 Torx) |
| SCR3 | 580 100 427 (Schraube SCR-M4x30 Polyfleck DIN 7984) | 580 100 427 (Schraube SCR-M4x30 Polyfleck DIN 7984) | 580 100 573 (Schraube SCR- M4X35 Polyfleck DIN 7984) | 580 100 473 (Schraube SCR- M5x30 Polyfleck DIN 7984) | 580 100 508 (Schraube SCR- M6x30 Polyfleck DIN 7984) | 580 100 540 (Schraube SCR- M6x35 Polyfleck DIN ISO7984) |
| SCR4 | 580 106 281 (Schraube SCR-M2x10 ISO7380 Torx T6) | 580 106 253 (Schraube SCR-M2x28 ISO 7380-1 Torx) | 580 106 284 (Schraube SCR- M2,5x10 ISO7380 Torx T8) | 580 106 288 (Schraube SCR- M3x12 ISO7380 Torx T10) | 580 106 287 (Schraube SCR- M3x10 ISO7380 Torx T10) | 580 106 287 (Schraube SCR- M3x10 ISO7380 Torx T10) |
| SCR5 | 580 100 394 (Schraube SCR-M4X50 DIN 7984 8.8) | | 580 106 345 (Schraube SCR- M4X55 DIN 7984 A2) | 580 100 578 (Schraube SCR- M5X50 Polyfl. DIN 7984 8.8) | 580 100 580 (Schraube SCR- M6X50 DIN 7984 ISO 4762) | 580 100 582 (Schraube SCR- M6X60 verzinkt DIN 7984) |
| SCR6 | 580 106 281 (Schraube SCR-M2x10 ISO7380 Torx T6) | | 580 106 284 (Schraube SCR- M2,5x10 ISO7380 Torx T8) | 580 106 288 (Schraube SCR- M3x12 ISO7380 Torx T10) | 580 106 287 (Schraube SCR- M3x10 ISO7380 Torx T10) | 580 106 287 (Schraube SCR- M3x10 ISO7380 Torx T10) |



1.5 Front Plate, Front Panel, Additional Wiper and Metal Wiper

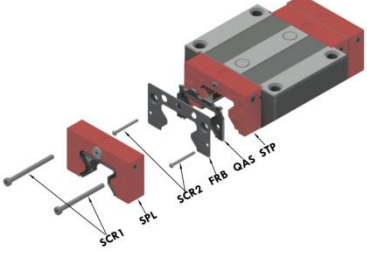
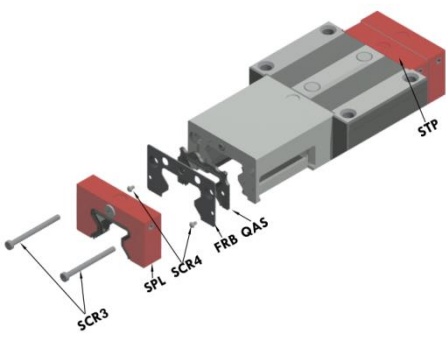
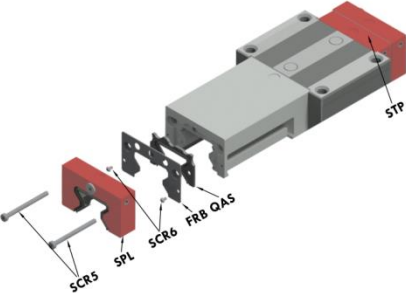
| MR4S carriage with, additional wiper (ZCV) and metal wiper (ASM) | MR4S carriage with AMSA 3B/AMSD 3B and additional wiper (ZCV) and metal wiper (ASM) | MR4S carriage with AMSABS 3B and additional wiper (ZCV) and metal wiper (ASM) |
|--|--|--|
|  |  |  |
| <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ ZCV: additional wiper ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR1: upper screw ▪ SCR2: lower screw | <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ ZCV: additional wiper ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR3: upper screw ▪ SCR4: lower screw | <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ ZCV: additional wiper ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR5: upper screw ▪ SCR6: lower screw |
| <p>* In case of AMS-rail, the metal wiper ASM-A must be used.</p> <p>* Version depending on the desired lubrication option and the type of carriage (STP - X):</p> <ul style="list-style-type: none"> ▪ X: Z (standard lubrication); ST (separate lubrication), S98 (separate lubrication with lube port possibility S98) | | |



| Spare Part | 25 | 30 | 35 | 45 | 55 | 65 |
|----------------|---|---|--|---|---|--|
| STP-Z | 580 106 510 | 580 106 856 | 580 106 072 | 580 106 480 | 580 106 076 | 580 106 765 |
| STP-ST | 580 106 511 | 580 106 857 | 580 106 073 | 580 106 481 | 580 106 077 | 580 106 766 |
| STP-S98 | 580 106 870 | 580 106 871 | 580 106 872 | 580 106 873 | 580 106 874 | 580 106 875 |
| FRB | 580 105 817 | - | 580 105 421 | 580 105 691 | 580 105 425 | 580 106 045 |
| ZCV | 580 104 277 | - | 580 104 278 | 580 104 279 | 580 104 280 | 580 104 281 |
| ASM | 580 102 619 | 580 106 596 | 580 102 620 | 580 102 621 | 580 102 622 | 580 102 623 |
| ASM-A | | 580 106 647 | 580 104 030 | 580 103 596 | 580 103 458 | 580 104 004 |
| QAS | 580 105 819 | 580 106 650 | 580 105 126 | 580 105 703 | 580 105 125 | 580 106 047 |
| SCR1 | 580 100 427 (Schraube SCR-M4x30 Polyfleck DIN 7984) | - | 580 105 568 (Schraube SCR-M4x32 Polyfleck DIN ISO7984) | 580 100 469 (Schraube SCR- M5x35-Polyfleck DIN 7984) | 580 100 555 (Schraube SCR-M6x40 Polyfleck DIN 7984) | 580 100 579 (Schraube SCR- M6X45 Polyfleck DIN 7984) |
| SCR2 | 580 106 290 (Schraube SCR-M2x25 ISO7380-1 Torx) | 580 106 598 | 580 106 291 (Schraube SCR- M2,5x30 ISO7380-1 Torx) | 580 106 297 (Schraube SCR- M3x33 ISO7380- 1 Torx) | 580 106 299 (Schraube SCR-M3x37 ISO7380-1 Torx) | 580 106 301 (Schraube SCR- M3x40 ISO7380 Torx T10) |
| SCR3 | 580 100 573 (Schraube SCR-M4X35 Polyfleck DIN 7984) | 580 100 427 (Schraube SCR-M4x30 Polyfleck DIN 7984) | 580 100 573 (Schraube SCR-M4X35 Polyfleck DIN 7984) | 580 100 473 (Schraube SCR- M5x30 Polyfleck DIN 7984) | 580 100 508 (Schraube SCR-M6x30 Polyfleck DIN 7984) | 580 100 540 (Schraube SCR- M6x35 Polyfleck DIN ISO7984) |
| SCR4 | 580 106 282 (Schraube SCR-M2x12 ISO7380 Torx T6) | 580 106 253 (Schraube SCR-M2x28 ISO 7380-1 Torx) | 580 106 285 (Schraube SCR- M2,5x12 ISO7380 Torx T8) | 580 106 288 (Schraube SCR- M3x12 ISO7380 Torx T10) | 580 106 288 (Schraube SCR-M3x12 ISO7380 Torx T10) | 580 106 288 (Schraube SCR- M3x12 ISO7380 Torx T10) |
| SCR5 | 580 106 345 (Schraube SCR-M4X55 DIN 7984 A2) | | 580 106 345 (Schraube SCR-M4X55 DIN 7984 A2) | 580 100 578 (Schraube SCR- M5X50 Polyfl. DIN 7984 8.8) | 580 100 580 (Schraube SCR-M6X50 DIN 7984 ISO 4762) | 580 100 582 (Schraube SCR- M6X60 verzinkt DIN 7984) |
| SCR6 | 580 106 282 (Schraube SCR-M2x12 ISO7380 Torx T6) | | 580 106 285 (Schraube SCR- M2,5x12 ISO7380 Torx T8) | 580 106 288 (Schraube SCR- M3x12 ISO7380 Torx T10) | 580 106 288 (Schraube SCR-M3x12 ISO7380 Torx T10) | 580 106 288 (Schraube SCR- M3x12 ISO7380 Torx T10) |



1.6 Front Plate, Front Panel and Lubrication Plate

| MR4S carriage with lubrication plate (SPL) | MR4S carriage with AMSA 3B/AMSD 3B and lubrication plate (SPL) | MR4S carriage with AMSABS 3B and lubrication plate (SPL) |
|--|--|--|
|  |  |  |
| <ul style="list-style-type: none"> ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate * ▪ SCR1: upper screw ▪ SCR2: lower screw | <ul style="list-style-type: none"> ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate * ▪ SCR3: upper screw ▪ SCR4: lower screw | <ul style="list-style-type: none"> ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate * ▪ SCR5: upper screw ▪ SCR6: lower screw |
| <p>* Version depending on the desired lubrication option and the type of carriage (STP - X):</p> <ul style="list-style-type: none"> ▪ X: Z (standard lubrication); ST (separate lubrication), S98 (separate lubrication with lube port possibility S98) | | |



| Spare Part | 25 | 35 | 45 | 55 | 65 |
|----------------|---|--|--|---|---|
| STP-Z | 580 106 510 | 580 106 072 | 580 106 480 | 580 106 076 | 580 106 765 |
| STP-ST | 580 106 511 | 580 106 073 | 580 106 481 | 580 106 077 | 580 106 766 |
| STP-S98 | 580 106 870 | 580 106 872 | 580 106 873 | 580 106 874 | 580 106 875 |
| FRB | 580 105 817 | 580 105 421 | 580 105 691 | 580 105 425 | 580 106 045 |
| SPL | 580 090 076 | 580 090 146 | 580 090 180 | 580 090 227 | 580 090 270 |
| QAS | 580 105 819 | 580 105 126 | 580 105 703 | 580 105 125 | 580 106 047 |
| SCR1 | 580 100 427 (Schraube SCR-M4x30 Polyfleck DIN 7984) | 580 105 576 (Schraube SCR-M4x37 Polyfleck DIN ISO7984) | 580 100 577 (Schraube SCR- M5X45 Polyfl. DIN 7984 8.8) | 580 100 580 (Schraube SCR- M6X50 DIN 7984 ISO 4762) | 580 100 581 (Schraube SCR-M6X55 Polyfleck DIN 7984) |
| SCR2 | 580 106 289 (Schraube SCR-M2x18 ISO 7380-1 Torx) | 580 106 286 (Schraube SCR-M2,5x23 ISO7380-1 Torx) | 580 106 292 (Schraube SCR- M3x25 ISO7380 Torx T10) | 580 106 294 (Schraube SCR- M3x28 ISO7380-1 Torx) | 580 106 296 (Schraube SCR-M3x32 ISO7380-1 Torx) |
| SCR3 | 580 100 573 (Schraube SCR-M4X35 Polyfleck DIN 7984) | 580 100 574 (Schraube SCR-M4x40 Polyfleck DIN 7984) | 580 100 576 (Schraube SCR- M5X40 Polyfleck DIN 7984) | 580 100 555 (Schraube SCR- M6x40 Polyfleck DIN 7984) | 580 100 580 (Schraube SCR-M6X50 DIN 7984 ISO 4762) |
| SCR4 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | 580 106 194 (Schraube SCR-M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR- M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR- M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |
| SCR5 | 580 106 345 (Schraube SCR-M4X55 DIN 7984 A2) | 580 106 347 (Schraube SCR-M4x65 DIN ISO7984) | 580 100 481 (Schraube SCR- M5x60 Poly- FI.DIN 7984 8.8) | 580 100 582 (Schraube SCR- M6X60 verzinkt DIN 7984) | 580 106 349 (Schraube SCR-M6X75 DIN 7984 A2) |
| SCR6 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | 580 106 194 (Schraube SCR-M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR- M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR- M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |



1.7 Front Plate, Front Panel, Lubrication Plate and Metal Wiper

| MR4S carriage with lubrication plate (SPL) and metal wiper (ASM) | MR4S carriage with AMSA 3B/AMSD 3B and lubrication plate (SPL) and metal wiper (ASM) | MR4S carriage with AMSABS 3B and lubrication plate (SPL) and metal wiper (ASM) |
|---|---|---|
| | | |
| <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR1: upper screw ▪ SCR2: lower screw | <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR3: upper screw ▪ SCR4: lower screw | <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR5: upper screw ▪ SCR6: lower screw |
| <p>* In case of AMS-rail, the metal wiper ASM-A must be used.</p> <p>** Version depending on the desired lubrication option and the type of carriage (STP - X):</p> <ul style="list-style-type: none"> ▪ X: Z (standard lubrication); ST (separate lubrication), S98 (separate lubrication with lube port possibility S98) | | |



| Spare Part | 25 | 35 | 45 | 55 | 65 |
|----------------|---|--|--|--|--|
| STP-Z | 580 106 510 | 580 106 072 | 580 106 480 | 580 106 076 | 580 106 765 |
| STP-ST | 580 106 511 | 580 106 073 | 580 106 481 | 580 106 077 | 580 106 766 |
| STP-S98 | 580 106 870 | 580 106 872 | 580 106 873 | 580 106 874 | 580 106 875 |
| FRB | 580 105 817 | 580 105 421 | 580 105 691 | 580 105 425 | 580 106 045 |
| SPL | 580 090 076 | 580 090 146 | 580 090 180 | 580 090 227 | 580 090 270 |
| ASM | 580 102 619 | 580 102 620 | 580 102 621 | 580 102 622 | 580 102 623 |
| ASM-A | | 580 104 030 | 580 103 596 | 580 103 458 | 580 104 004 |
| QAS | 580 105 819 | 580 105 126 | 580 105 703 | 580 105 125 | 580 106 047 |
| SCR1 | 580 105 568 (Schraube SCR-M4x32 Polyfleck DIN ISO7984) | 580 105 577 (Schraube SCR-M4x42 DIN ISO7984) | 580 100 578 (Schraube SCR-M5X50 Polyfl. DIN 7984 8.8) | 580 100 581 (Schraube SCR-M6X55 Polyfleck DIN 7984) | 580 100 583 (Schraube SCR-M6X65 Polyfleck DIN 7984) |
| SCR2 | 580 106 289 (Schraube SCR-M2x18 ISO 7380-1 Torx) | 580 106 286 (Schraube SCR-M2,5x23 ISO7380-1 Torx) | 580 106 292 (Schraube SCR-M3x25 ISO7380 Torx T10) | 580 106 294 (Schraube SCR-M3x28 ISO7380-1 Torx) | 580 106 296 (Schraube SCR-M3x32 ISO7380-1 Torx) |
| SCR3 | 580 100 574 (Schraube SCR-M4x40 Polyfleck DIN 7984) | 580 100 575 (Schraube SCR-M4X45 POLYFLECK DIN 7984) | 580 100 577 (Schraube SCR-M5X45 Polyfl. DIN 7984 8.8) | 580 100 579 (Schraube SCR-M6X45 Polyfleck DIN 7984) | 580 100 581 (Schraube SCR-M6X55 Polyfleck DIN 7984) |
| SCR4 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | 580 106 194 (Schraube SCR-M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |
| SCR5 | 580 106 346 (Schraube SCR-M4X60 DIN 7984 A2) | 580 106 347 (Schraube SCR-M4x65 DIN ISO7984) | 580 106 350 (Schraube SCR-M5x65 DIN 7984 A2) | 580 100 583 (Schraube SCR-M6X65 Polyfleck DIN 7984) | 580 106 352 (Schraube SCR-M6X80 DIN 7984 verzinkt) |
| SCR6 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | 580 106 194 (Schraube SCR-M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |



1.8 Front Plate, Front Panel, Lubrication Plate and Additional Wiper

| MR4S carriage with lubrication plate (SPL) and additional wiper (ZCV) | MR4S carriage with AMSA 3B/AMSD 3B and lubrication plate (SPL) and additional wiper (ZCV) | MR4S carriage with AMSABS 3B and lubrication plate (SPL) and additional wiper (ZCV) |
|--|--|--|
| | | |
| <ul style="list-style-type: none"> ▪ ZCV: additional wiper ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR1: upper screw ▪ SCR2: lower screw | <ul style="list-style-type: none"> ▪ ZCV: additional wiper ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR3: upper screw ▪ SCR4: lower screw | <ul style="list-style-type: none"> ▪ ZCV: additional wiper ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR5: upper screw ▪ SCR6: lower screw |
| <p>* Version depending on the desired lubrication option and the type of carriage (STP - X):</p> <ul style="list-style-type: none"> ▪ X: Z (standard lubrication); ST (separate lubrication), S98 (separate lubrication with lube port possibility S98) | | |



| Spare Part | 25 | 35 | 45 | 55 | 65 |
|----------------|--|--|--|---|---|
| STP-Z | 580 106 510 | 580 106 072 | 580 106 480 | 580 106 076 | 580 106 765 |
| STP-ST | 580 106 511 | 580 106 073 | 580 106 481 | 580 106 077 | 580 106 766 |
| STP-S98 | 580 106 870 | 580 106 872 | 580 106 873 | 580 106 874 | 580 106 875 |
| FRB | 580 105 817 | 580 105 421 | 580 105 691 | 580 105 425 | 580 106 045 |
| SPL | 580 090 076 | 580 090 146 | 580 090 180 | 580 090 227 | 580 090 270 |
| ZCV | 580 104 277 | 580 104 278 | 580 104 279 | 580 104 280 | 580 104 281 |
| QAS | 580 105 819 | 580 105 126 | 580 105 703 | 580 105 125 | 580 106 047 |
| SCR1 | 580 100 574 (Schraube SCR-M4x40 Polyfleck DIN 7984) | 580 105 578 (Schraube SCR-M4x48 DIN ISO7984) | 584 101 364 (Schraube SCR-M5X55 DIN Polyfleck 7984) | 580 100 582 (Schraube SCR-M6X60 verzinkt DIN 7984) | 580 100 565 (Schraube SCR-M6X70 DIN 7984 verzinkt) |
| SCR2 | 580 106 289 (Schraube SCR-M2x18 ISO 7380-1 Torx) | 580 106 286 (Schraube SCR-M2,5x23 ISO7380-1 Torx) | 580 106 292 (Schraube SCR-M3x25 ISO7380 Torx T10) | 580 106 294 (Schraube SCR-M3x28 ISO7380-1 Torx) | 580 106 296 (Schraube SCR-M3x32 ISO7380-1 Torx) |
| SCR3 | 580 100 575 (Schraube SCR-M4X45 POLYFLECK DIN 7984) | 580 106 345 (Schraube SCR-M4X55 DIN 7984 A2) | 580 100 578 (Schraube SCR-M5X50 Polyfl. DIN 7984 8.8) | 580 100 580 (Schraube SCR-M6X50 DIN 7984 ISO 4762) | 580 100 582 (Schraube SCR-M6X60 verzinkt DIN 7984) |
| SCR4 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | 580 106 194 (Schraube SCR-M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |
| SCR5 | 580 106 347 (Schraube SCR-M4x65 DIN ISO7984) | 580 106 712 (Schraube SCR-M4x75 DIN ISO7984) | 580 102 957 (Schraube SCR-M5X70 DIN 7984 A2) | 580 100 565 (Schraube SCR-M6X70 DIN 7984 verzinkt) | 580 106 353 (Schraube SCR-M6X85 DIN 7984 A2) |
| SCR6 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | 580 106 194 (Schraube SCR-M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |



1.9 Front Plate, Front Panel, Lubrication Plate, Additional Wiper and Metal Wiper

| MR4S carriage with lubrication plate (SPL), additional wiper (ZCV) and metal wiper (ASM) | MR4S carriage with AMSA 3B/AMSD 3B and lubrication plate (SPL), additional wiper (ZCV) and metal wiper (ASM) | MR4S carriage with AMSABS 3B and lubrication plate (SPL), additional wiper (ZCV) and metal wiper (ASM) |
|--|--|--|
| | | |
| <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ ZCV: additional wiper ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR1: upper screw ▪ SCR2: lower screw | <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ ZCV: additional wiper ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR3: upper screw ▪ SCR4: lower screw | <ul style="list-style-type: none"> ▪ ASM: metal wiper * ▪ ZCV: additional wiper ▪ SPL: lubrication plate ▪ FRB: front panel ▪ QAS: cross wiper ▪ STP: front plate ** ▪ SCR5: upper screw ▪ SCR6: lower screw |

* In case of AMS-rail, the metal wiper ASM-A must be used.

** Version depending on the desired lubrication option and the type of carriage (**STP - X**):

- **X: Z** (standard lubrication); **ST** (separate lubrication), **S98** (separate lubrication with lube port possibility **S98**)



| Spare Part | 25 | 35 | 45 | 55 | 65 |
|----------------|--|--|--|--|---|
| STP-Z | 580 106 510 | 580 106 072 | 580 106 480 | 580 106 076 | 580 106 765 |
| STP-ST | 580 106 511 | 580 106 073 | 580 106 481 | 580 106 077 | 580 106 766 |
| STP-S98 | 580 106 870 | 580 106 872 | 580 106 873 | 580 106 874 | 580 106 875 |
| FRB | 580 105 817 | 580 105 421 | 580 105 691 | 580 105 425 | 580 106 045 |
| SPL | 580 090 076 | 580 090 146 | 580 090 180 | 580 090 227 | 580 090 270 |
| ZCV | 580 104 277 | 580 104 278 | 580 104 279 | 580 104 280 | 580 104 281 |
| ASM | 580 102 619 | 580 102 620 | 580 102 621 | 580 102 622 | 580 102 623 |
| ASM-A | | 580 104 030 | 580 103 596 | 580 103 458 | 580 104 004 |
| QAS | 580 105 819 | 580 105 126 | 580 105 703 | 580 105 125 | 580 106 047 |
| SCR1 | 580 100 574 (Schraube SCR-M4x40 Polyfleck DIN 7984) | 580 105 578 (Schraube SCR-M4x48 DIN ISO7984) | 584 101 364 (Schraube SCR-M5X55 DIN Polyfleck 7984) | 580 100 582 (Schraube SCR-M6X60 verzinkt DIN 7984) | 580 100 565 (Schraube SCR-M6X70 DIN 7984 verzinkt) |
| SCR2 | 580 106 289 (Schraube SCR-M2x18 ISO 7380-1 Torx) | 580 106 286 (Schraube SCR-M2,5x23 ISO7380-1 Torx) | 580 106 292 (Schraube SCR-M3x25 ISO7380 Torx T10) | 580 106 294 (Schraube SCR-M3x28 ISO7380-1 Torx) | 580 106 296 (Schraube SCR-M3x32 ISO7380-1 Torx) |
| SCR3 | 580 100 575 (Schraube SCR-M4X45 POLYFLECK DIN 7984) | 580 106 345 (Schraube SCR-M4X55 DIN 7984 A2) | 580 100 578 (Schraube SCR-M5X50 Polyfl. DIN 7984 8.8) | 580 100 581 (Schraube SCR-M6X55 Polyfleck DIN 7984) | 580 100 582 (Schraube SCR-M6X60 verzinkt DIN 7984) |
| SCR4 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | 580 106 194 (Schraube SCR-M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |
| SCR5 | 580 106 347 (Schraube SCR-M4x65 DIN ISO7984) | 580 106 712 (Schraube SCR-M4x75 DIN ISO7984) | 580 102 957 (Schraube SCR-M5X70 DIN 7984 A2) | 580 106 349 (Schraube SCR-M6X75 DIN 7984 A2) | 580 106 353 (Schraube SCR-M6X85 DIN 7984 A2) |
| SCR6 | 580 106 193 (Schraube SCR-M2x5 ISO7380 Torx T6) | 580 106 194 (Schraube SCR-M2,5x4 ISO7380 Torx T8) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) | 580 106 195 (Schraube SCR-M3x5 ISO7380 Torx T10) |



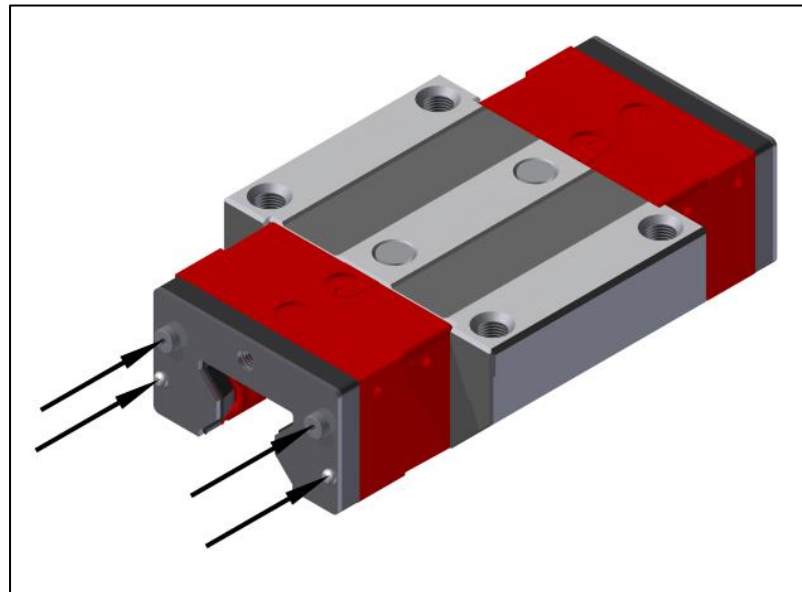
1.10 Change of Spare Parts

Spare Parts:

- front plate(STP)
- cross wiper(QAS)
- front panel (FRB)
- lubrication plate (SPL)
- additional wiper (ZCV)
- metal wiper (ASM)
- screws

Screws with screw lock have to be used.

For changing the spare parts, the upper and lower screws have to be removed (see figure). Screws are also defined as spare parts.



In the following step, components which are in front of the damaged spare part, must be removed. Then the damaged part could be changed.

When using an ASM metal wiper, the gap between the ASM and the rail profile must be adjusted. The gap should be as equal as possible.

After changing the spare part, the carriage can be reassembled.

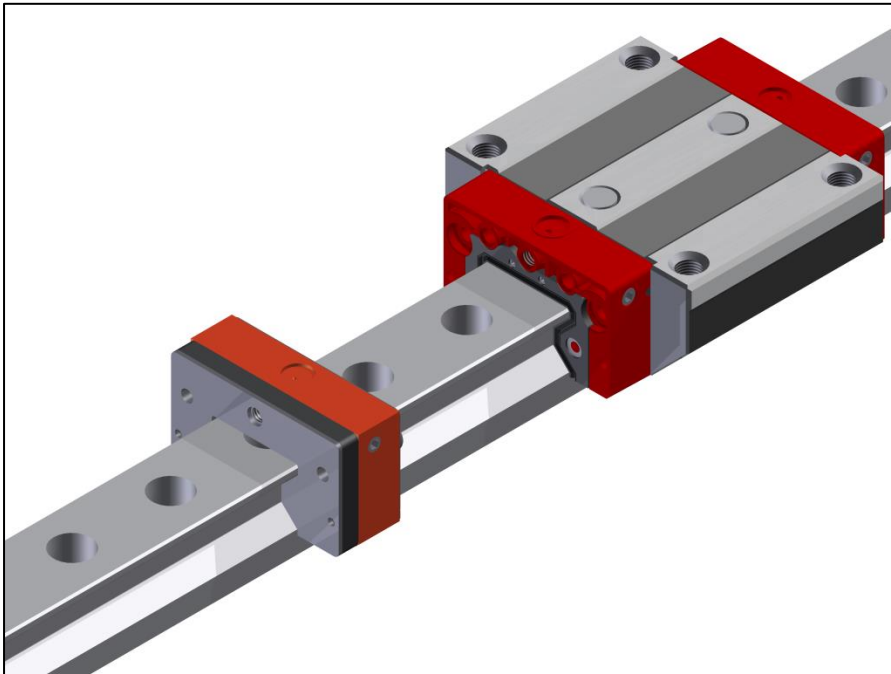


1.10.1 Change of Cross Wiper

The QAS and the ZCV have to be controlled and changed if needed.

Steps to change the QAS:

1. Carriage can be left on the rail
2. Remove the lower and upper screws (If an SPL is added, you can only remove the upper screws. The lower screws can be removed after the SPL is disassembled.)
3. Remove accessories and the front panel (can be left on the rail; see figure)



4. Remove cross wiper from the front plate and putting it over the rail
5. Put the new cross wiper over the rail and press it into the front plate (pay attention to the rotation lock)
6. Put on the accessories and the face plate
7. Tighten the screws



2 MR4S Modification Instruction

In this modification instruction, the permissible modifications of the product "MR4S" will be named and described. If one or both front plates of the carriage will be disassembled, the modification should take place on a assembly rail.

Following modifications are permissible:

- fitting of accessories
- modification of Lubrication (standard lubricant distribution /separate lubricant distribution)
- modification of lubrication connections

2.1 Mounting of Accessories

Following accessories can be added to the MR4S - carriage:

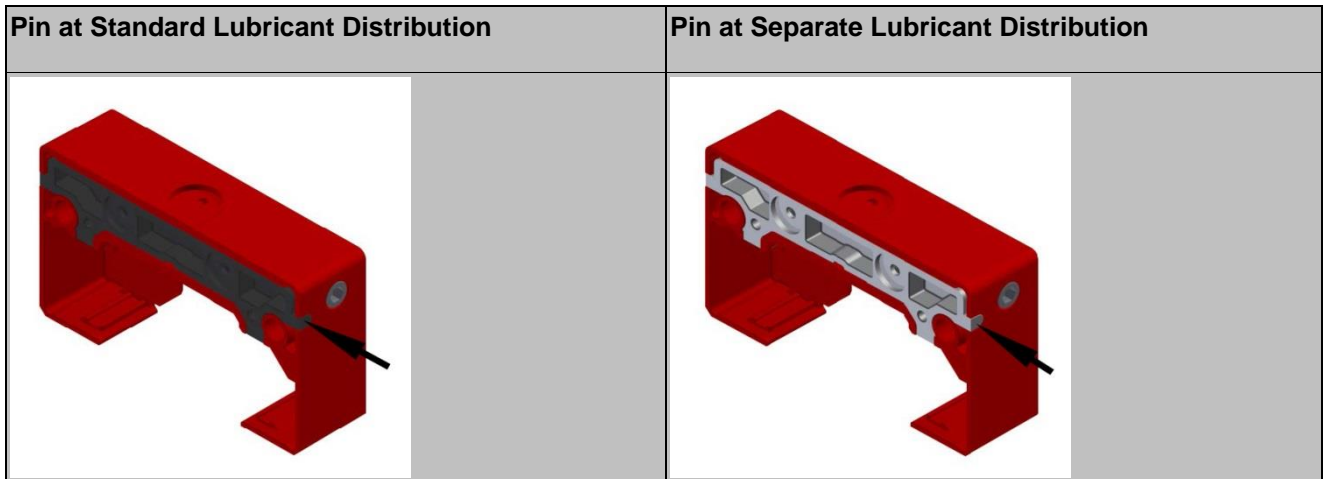
- additional wiper ZCV
- lubrication plate SPL
- metal wiper ASM

Related to the added accessories, different screws will be needed.



2.2 Modification from Standard to Separate Lubricant Distribution

The complete STP contains a red housing and a gray or black Inlet (characterized with a black or grey pin; see figure). Both parts are inextricable bonded. For changing the lubricant distribution from standard to separate, the complete front plate has to be changed. By default, the carriges are delivered with two identic front plates (both with black or both with grey inlet).



1. Disassemble face plate for standard lubricant distribution (face plate with black pin)
2. Assemble face plate for separate lubricant distribution (face plate with grey pin)
 - Delivery state: all lubrication connections are closed with grub screws (S99).
3. Remove grub screws for desired lubrication option: S32/S42
 - Both S32 or S42 ports of the front plates have to be lubricated, in other case the carriage will be damaged
 - At separate lubricant distribution the lubrication connection in front central may not be used!
4. Assemble lubrication nipple in opened lubrication connection

More explanation of the steps 3 and 4 you can find in the following chapter "Modification of the Lubrication Connections".

The Modification of the separate to standard lubricant distribution is possible in the same way.



2.3 Modification of the Lubrication Connections

The following figure shows the lubrication connections for standard and separate lubrication distribution:

| Lubrication Options Standard Lubricant Distribution | Lubrication Options Separate Lubricant Distribution |
|--|--|
| | |

Only the following modifications of the lubrication options are allowed. Other lubrication options were only made at the Schneeberger GmbH.



2.3.1 Standard Lubricant Distribution

The initial state of the following modifications is S99, that means that all lubricant connections are closed with grub screws. Following modifications are permissible for standard lubricant distribution and within the standard lubrication options:

| Lubrication Option | Standard Lubricant Distribution |
|------------------------|--|
| S10/S20 | <ol style="list-style-type: none"> 1. remove grub screw center front 2. screw in desired lubricating nipple |
| S12/S13/S22/S23 | <ol style="list-style-type: none"> 1. remove grub screw from the side of the STP 2. screw in desired lubricating nipple |
| S11/S21 | <ol style="list-style-type: none"> 1. push the carriage on an assembly rail 2. remove front plate from carriage 3. drill the connection center top under consideration of the work directive 4. insert O-ring (6,75x1,78; exception MR4S 65: 6,5x2) 5. assemble front plate |

2.3.2 Separate Lubricant Distribution

The initial state of the following modifications is a carriage with standard lubricant distribution and the lubrication option S99, which means that all lubricant connections are closed with grub screws. In the first step, one or both front plates (STP) have to be changed to front plates for separate lubricant distribution (chapter "Modification from Standard Lubricant Distribution to Separate Lubricant Distribution"). The initial state of these front plates for separate lubricant distribution is S31 or rather S41. The lubricant connections are closed with grub screws.

Following modifications are permissible for separate lubricant distribution and within the standard lubrication options:

| Lubrication Option | Separate Lubricant Distribution |
|--------------------|---|
| S32/S42 | <ol style="list-style-type: none"> 1. remove grub screw from the side of the STP 2. screw in desired lubricating nipple |