



6 Ersatzteile - Spare parts BF16 Vario

6.1 Fräskopf - Milling head

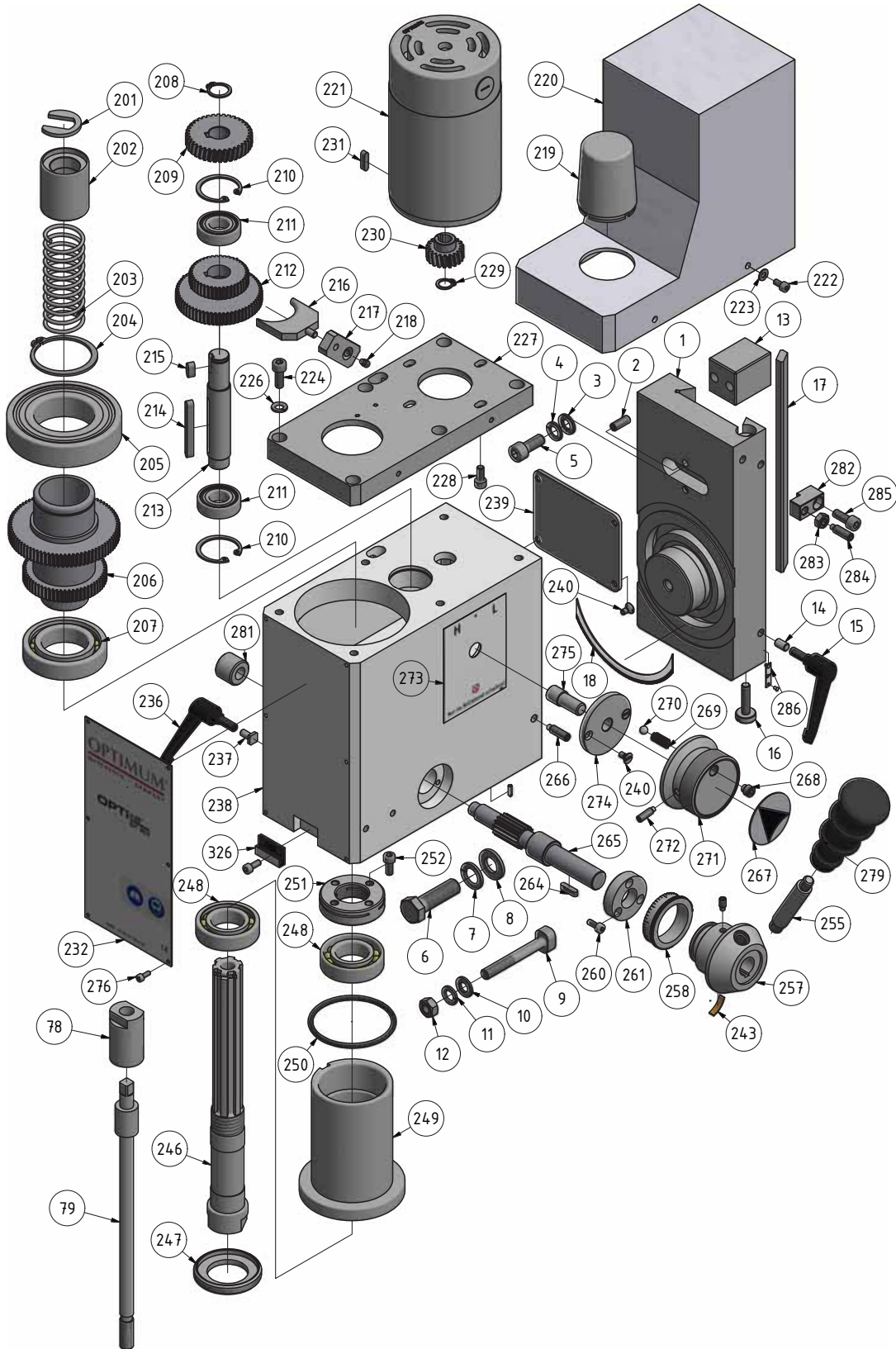


Abb.6-1: Fräskopf - Milling head

6.2 Säule - Column

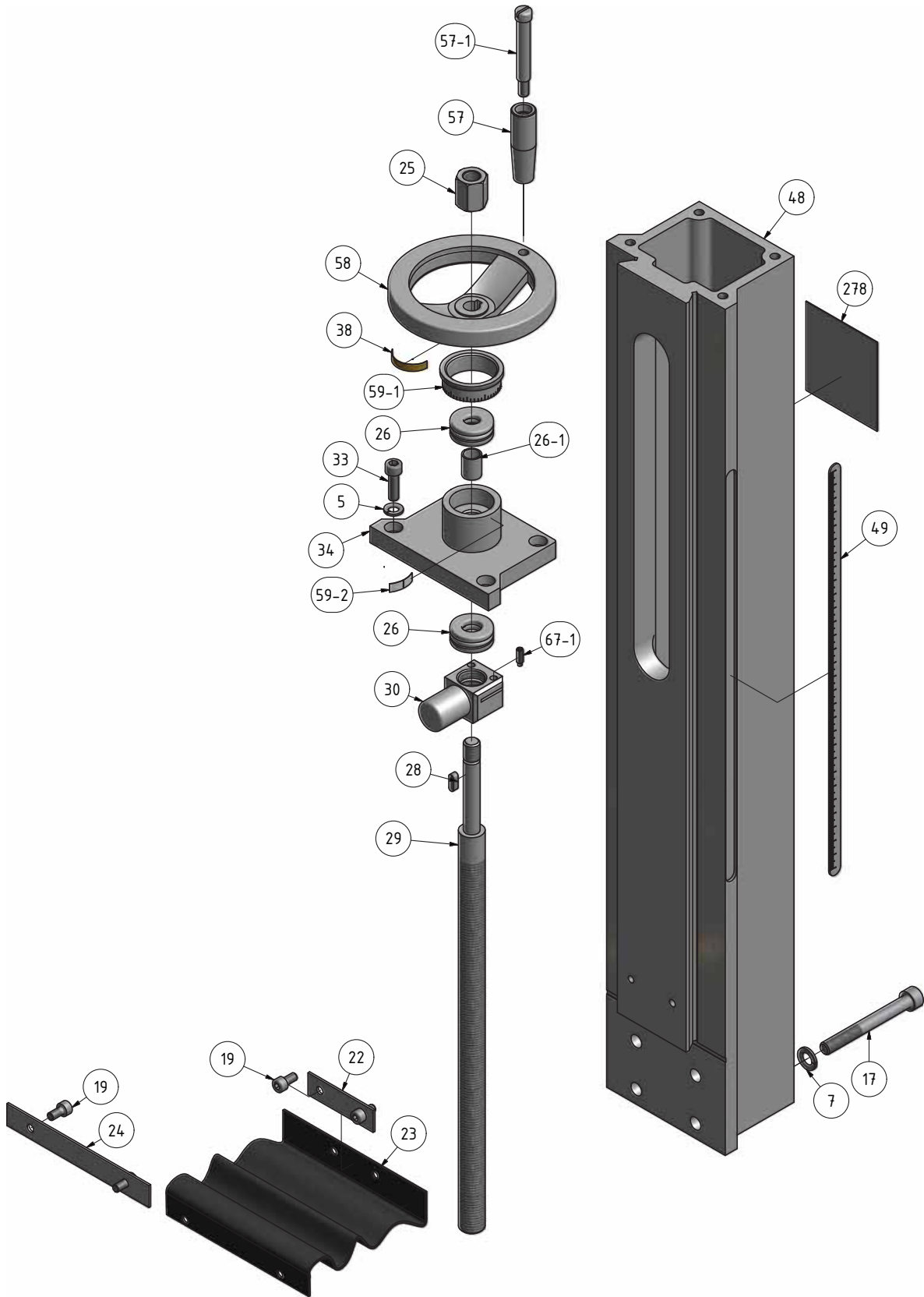


Abb.6-2: Säule - Column



6.3 Kreuztisch - Cross table

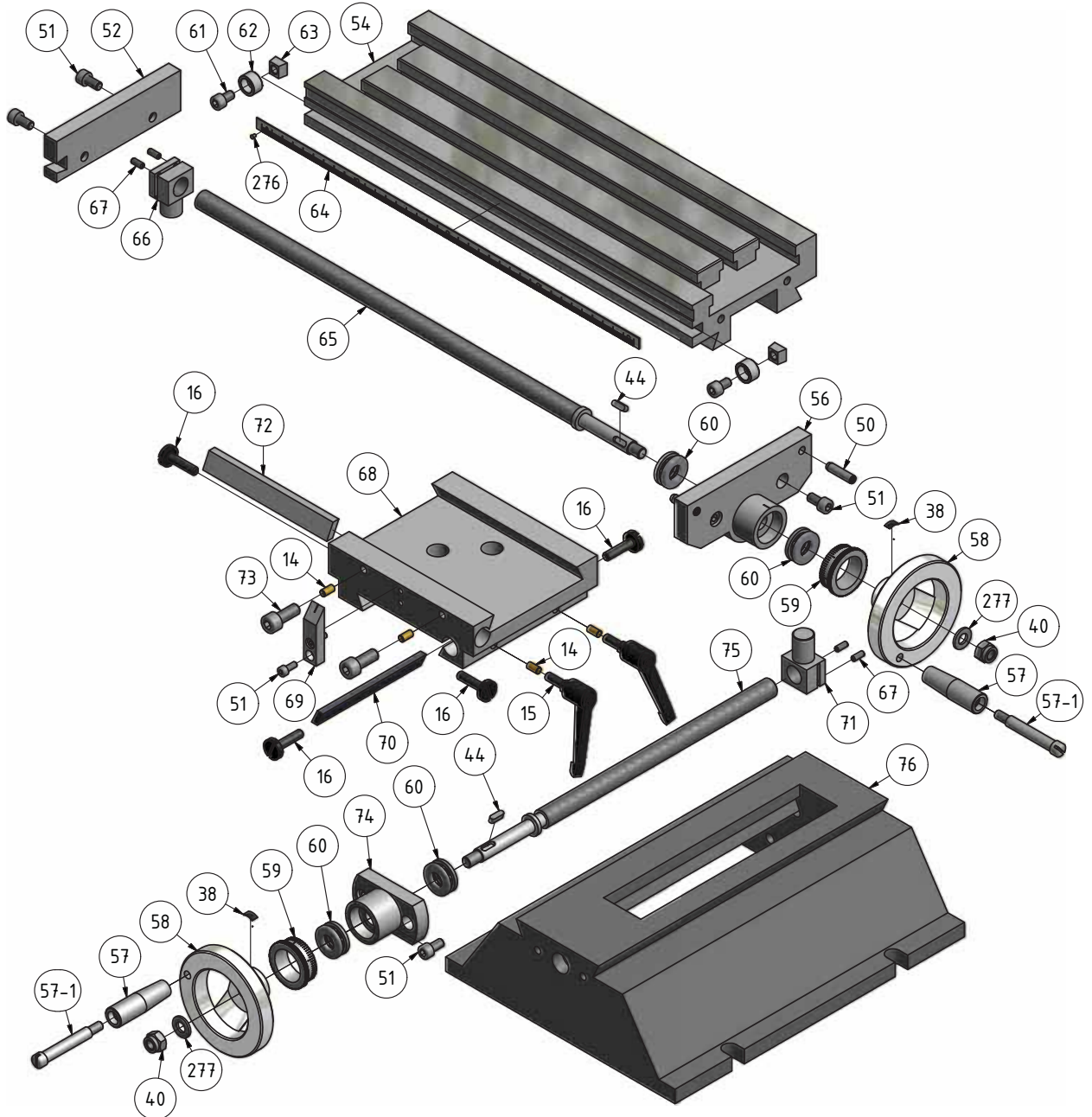


Abb.6-3: Kreuztisch - Cross table



6.4 Fräsfutterschutz - Milling chuck protection

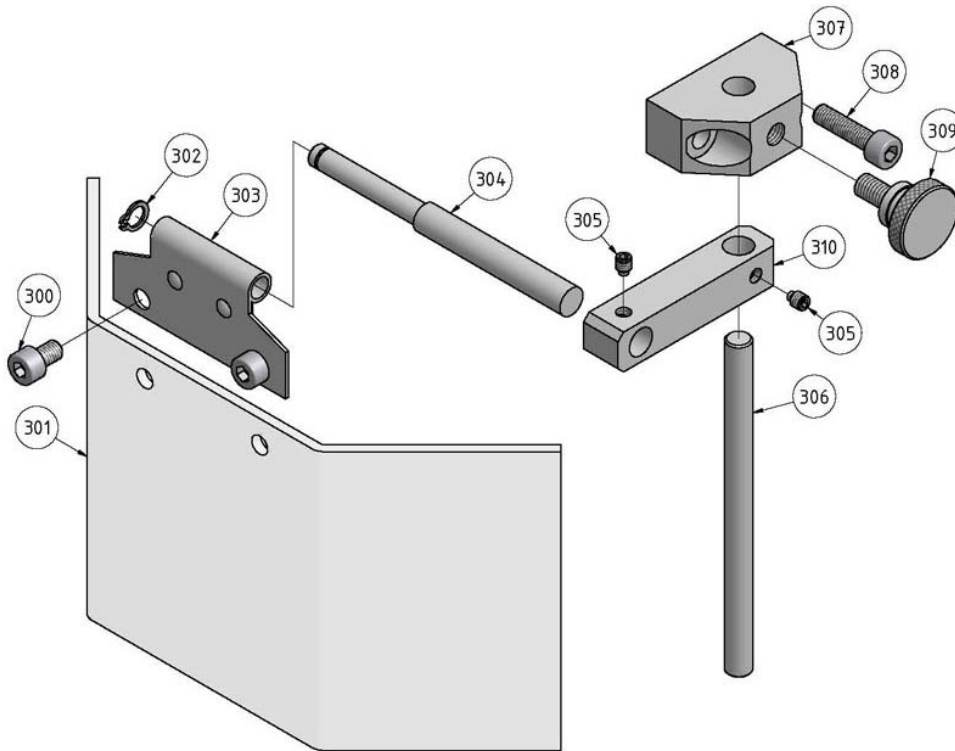


Abb.6-4: Fräsfutterschutz - Milling chuck protection

6.5 Fräsfutterschutz - Milling chuck protection

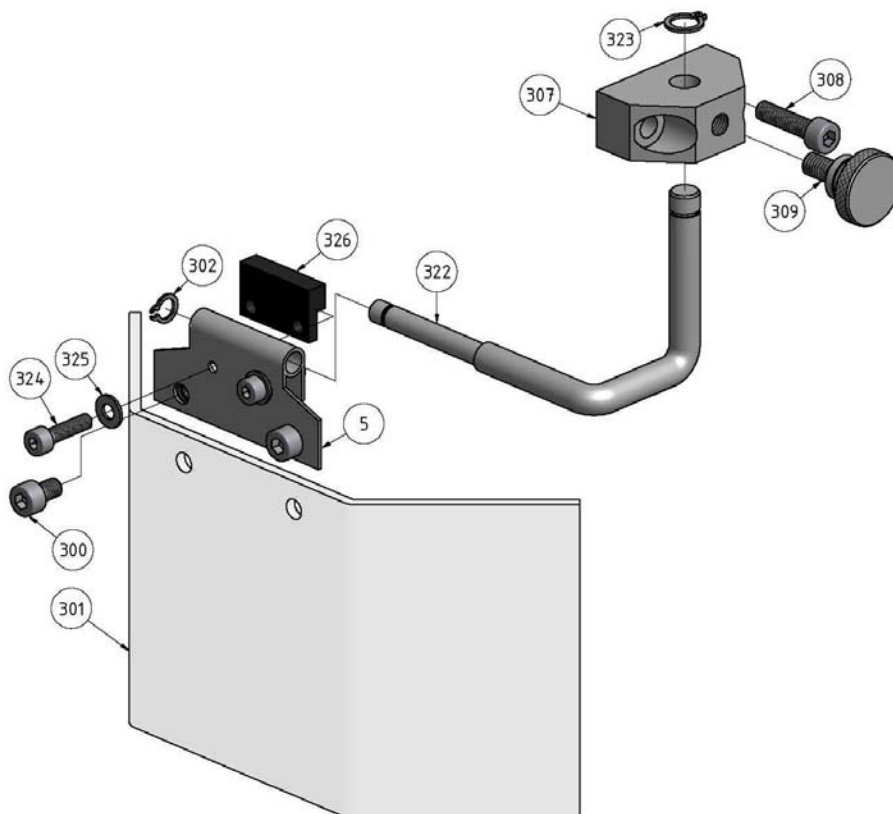


Abb.6-5: Fräsfutterschutz - Milling chuck protection



6.6 Schaltkasten - Switch box

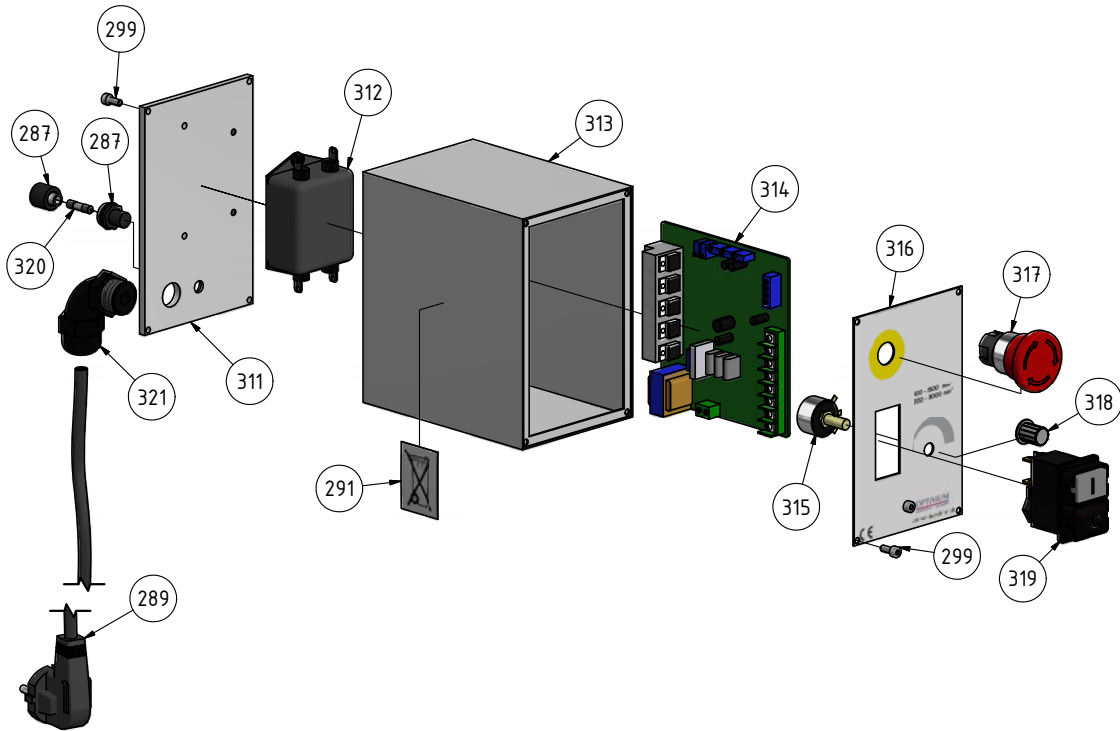


Abb.6-6: Schaltkasten - Switch box



6.7 Maschinenschilder - Machine labels

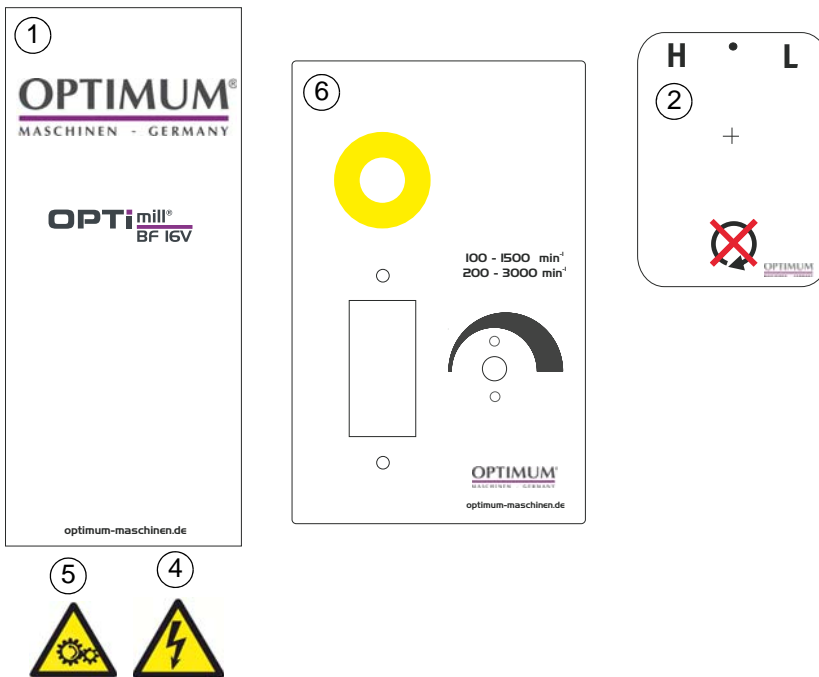


Abb. 6-7: Maschinenschilder - Machine labels

| Maschinenschilder - Machine labels | | | | |
|------------------------------------|---------------------|------------------|----------|---------------|
| Pos. | Bezeichnung | Designation | Menge | Artikelnummer |
| | | | Quantity | Article no. |
| 1 | Frontschild | Front label | 1 | 03338116L01 |
| 2 | Getriebschild | Gear box label | 1 | 03338116L02 |
| 3 | Maschinenlabel | Machine label | 1 | 03338116L03 |
| 4 | Sicherheitsschild | Safety label | 1 | 03338116L04 |
| 5 | Sicherheitsschild | Safety label | 1 | 03338116L05 |
| 6 | Schild Schaltkasten | Switch box label | 1 | 03338116L06 |

| Ersatzteilliste- Spare parts list - BF16 Vario | | | | | |
|--|------------------------|----------------------|-------|--------|---------------|
| Pos. | Bezeichnung | Designation | Menge | Grösse | Artikelnummer |
| | | | Qty. | Size | Item no. |
| 1 | Drehlagerbock | Connect board | 1 | | 0333811601 |
| 2 | Stiftschraube | Locking screw | 2 | M6x16 | |
| 3 | Unterlegscheibe | Washer | 2 | | 0333811603 |
| 4 | Federscheibe | Spring washer | 6 | 8 | |
| 5 | Innensechskantschraube | Hexagon socket screw | 2 | M8x25 | |
| 6 | Schraube | Screw | 1 | M12x40 | |
| 7 | Federscheibe | Spring washer | 5 | 12 | |
| 8 | Unterlegscheibe | Washer | 1 | 12 | |
| 9 | Schraube | Screw | 1 | | 0333811609 |
| 10 | Unterlegscheibe | Washer | 1 | 10 | |
| 11 | Federscheibe | Spring washer | 1 | 10 | |
| 12 | Mutter | Nut | 1 | M10 | |
| 13 | Führungsstück | Guide piece | 1 | | 0333811613 |
| 14 | Messingstift | Brass pin | 5 | | 0333811614 |
| 15 | Klemmhebel | Clamping lever | 3 | DM6x16 | 0333811615 |
| 16 | Schlitzkopfschraube | Slotted haed screw | 1 | | 0333811616 |
| 17 | Leiste | Gib | 1 | | 0333811617 |
| 18 | Winkelskala | Angle scale | 1 | | 0333811618 |
| 19 | Innensechskantschraube | Hexagon socket screw | 12 | M5x10 | |
| 20 | Faltenbalg | Bellows | 1 | | 0333811620 |
| 21 | Mutter | Nut | 2 | M5 | |
| 22 | Halterung Faltenbalg | Fixing of bellows | 1 | | 0333811622 |
| 23 | Gummi - Späneabdeckung | Rubber chip cover | 1 | | 0333811623 |



Ersatzteilliste- Spare parts list - BF16 Vario

| Pos. | Bezeichnung | Designation | Menge | Grösse | Artikelnummer |
|------|--------------------------|-----------------------|-------|----------------|---------------|
| | | | Qty. | Size | Item no. |
| 24 | Leiste | Gib | 1 | | 0333811624 |
| 25 | Mutter | Nut | 2 | M16x1.5 | |
| 26 | Lager | Bearing | 2 | 51200 | 04051200 |
| 26-1 | Buchse | Bushing | 1 | | 03338116261 |
| 27 | Kegelzahnrad | Tapered toothed wheel | 1 | | 0333811627 |
| 28 | Passfeder | Feather key | 2 | 4x16 | 0333811628 |
| 29 | Spindel Z-Achse | Spindle Z-axis | 1 | | 0333811629 |
| 30 | Spindelmutter Z-Achse | Spindle nut Z-axis | 1 | | 0333811630 |
| 31 | Unterlegscheibe | Washer | 4 | 5 | |
| 32 | Abdeckkappe | Cover cap | 1 | | 0333811632 |
| 33 | Innensechskantschraube | Hexagon socket screw | 4 | M8x20 | |
| 34 | Abdeckplatte Säule | Cover plate column | 1 | | 0333811634 |
| 35 | Lagerabdeckung | Bearing cover | 1 | | 0333811635 |
| 36 | Innensechskantschraube | Hexagon socket screw | 7 | M5x12 | |
| 37 | Skalenring | Scale ring | 1 | | 0333811637 |
| 38 | Federstück | Spring piece | 4 | | 0333811638 |
| 39 | Handrad | Handwheel | 1 | | 0333811639 |
| 40 | Kontermutter | Counternut | 4 | | 0333811640 |
| 44 | Passfeder | Key | 2 | 4x12 | 0333811644 |
| 48 | Säule | Column | 1 | | 0333811645 |
| 49 | Skala Z-Achse | Scale Z-axis | 1 | | 0333811649 |
| 50 | Kegelstift | Tapered pin | 1 | A5x25 | 0333811650 |
| 51 | Innensechskantschraube | Hexagon socket screw | 12 | M6x16 | |
| 52 | Lagerbock X-Achse | Bearing block x-axis | 1 | | 0333811652 |
| 53 | Dichtung | Seal | 2 | | 0333811653 |
| 54 | Frästisch | Milling table | 1 | | 0333811654 |
| 56 | Lagerbock X-Achse | Bearing block x-axis | 1 | | 0333811656 |
| 57 | Griff | Handle | 3 | M8x63 | 0333811657 |
| 57-1 | Schraube | Screw | 1 | | 03338116571 |
| 58 | Handrad | Handwheel | 3 | | 0333811658 |
| 59 | Skalenring | Scale ring | 3 | | 0333811659 |
| 59-1 | Skalenring | Scale ring | 1 | | 03338116591 |
| 59-2 | Skala | Scale | 1 | | 03338116592 |
| 60 | Lager | Bearing | 5 | 51100 | 04051100 |
| 61 | Innensechskantschraube | Hexagon socket screw | 2 | M6x10 | |
| 62 | Hülse | Bushing | 2 | | 0333811662 |
| 63 | Nutenstein | Sliding block | 1 | | 0333811663 |
| 64 | Skala X-Achse | Scale X-axis | 1 | | 0333811664 |
| 65 | Spindel X-Achse | Spindle X-axis | 1 | | 0333811665 |
| 66 | Spindelmutter X-Achse | Spindle nut X-axis | 1 | | 0333811666 |
| 67 | Innensechskantschraube | Hexagon socket screw | 4 | M4x20 | |
| 67-1 | Gewindestift | Grub screw | 2 | ISO 4028/M4x12 | |
| 68 | Kreuztischführung | Guide cross table | 1 | | 0333811668 |
| 69 | Anschlag Endlage X-Achse | Limit stop x-axis | 1 | | 0333811669 |
| 70 | Leiste | Gib | 1 | | 0333811670 |
| 71 | Spindelmutter Y-Achse | Spindle nut Y-axis | 1 | | 0333811671 |
| 72 | Leiste | Gib | 1 | | 0333811672 |
| 73 | Innensechskantschraube | Hexagon socket screw | 2 | M6x25 | |
| 74 | Lagerbock | Bearing block | 1 | | 0333811674 |
| 75 | Spindel Y-Achse | Spindle Y-axis | 1 | | 0333811675 |
| 76 | Maschinenfuss | Machine base | 1 | | 0333811676 |
| 77 | Innensechskantschraube | Hexagon socket screw | 4 | M12x90 | |
| 78 | Buchse | Bushing | 1 | | 0333811678 |
| 79 | Anzugsstange | Screw rod | 1 | | 0333811679 |
| 201 | Positionsscheibe | Position disc | 1 | | 03338116201 |
| 202 | Buchse | Bushing | 1 | | 03338116202 |
| 203 | Zugfeder | Tension spring | 1 | 2.5x28x110-3 | 03338116203 |
| 204 | Sicherungsgring | Circlip | 1 | 45 | 03338116204 |
| 205 | Kugellager | Ball bearing | 1 | 6209-2RZ | 0406209.2R |
| 206 | Zahnrad | Gear | 1 | Z60/Z80 | 03338116206 |
| 207 | Kugellager | Ball bearing | 1 | 7007AC | 0407007.2R |
| 208 | Sicherungsgring | Circlip | 1 | 15 | 03338116208 |
| 209 | Zahnrad | Gear | 1 | (Z46) | 03338116209 |
| 210 | Sicherungsgring | Circlip | 2 | 32 | 03338116210 |
| 211 | Kugellager | Ball bearing | 2 | 6002-2RZ | 0406002.2R |
| 212 | Zahnrad | Gear | 1 | (Z42/Z62) | 03338116212 |
| 213 | Antriebswelle | Shaft | 1 | | 03338116213 |
| 214 | Passfeder | Key | 1 | 5x50 | 03338116214 |



Ersatzteilliste- Spare parts list - BF16 Vario

| Pos. | Bezeichnung | Designation | Menge | Grösse | Artikelnummer |
|------|--|--|-------|----------------|---------------|
| | | | Qty. | Size | Item no. |
| 215 | Passfeder | Key | 1 | C5x12 | 03338116215 |
| 216 | Schaltgabel | Gearshift fork | 1 | | 03338116216 |
| 217 | Arm Schaltgabel | Arm gearshift fork | 1 | | 03338116217 |
| 218 | Schraube | Screw | 1 | M5x8 | |
| 219 | Abdeckkappe | Cap cover | 1 | | 03338116219 |
| 220 | Motorhaube | Motor cover | 1 | | 03338116220 |
| 221 | Motor | Motor | 1 | | 03338116221 |
| 222 | Innensechskantschraube | Hexagon socket screw | 6 | M4x8 | |
| 223 | Unterlegscheibe | Washer | 6 | 4 | |
| 224 | Innensechskantschraube | Hexagon socket screw | 6 | M6x14 | |
| 226 | Unterlegscheibe | Washer | 6 | 6 | |
| 227 | Fräskopf Gehäusedeckel | Milling head casing cover | 1 | | 03338116227 |
| 228 | Innensechskantschraube | Hexagon socket screw | 6 | M5x12 | |
| 229 | C-Sicherungsgring | C-Circlip | 1 | 10 | 03338116229 |
| 230 | Zahnrad | Gear | 1 | (Z25) | 03338116230 |
| 231 | Passfeder | Key | 1 | C4x16 | 03338116231 |
| 236 | Klemmhebel | Clamping lever | 1 | DM8x20 | 03338116236 |
| 237 | Messingstift | Brass pin | 1 | | 03338116237 |
| 238 | Gehäuse Fräskopf | Housing milling head | 1 | | 03338116238 |
| 239 | Abdeckung | Cover | 1 | | 03338116239 |
| 240 | Senkkopfschraube | countersunk head screw | 6 | M4x8 | |
| 243 | Federstück | Spring piece | 2 | | 03338116243 |
| 246 | Spindel | Spindle | 1 | | 03338116246 |
| 247 | Spindelmutter | Spindle nut | 1 | | 03338116247 |
| 248 | Kugellager | Ball bearing | 2 | 32005 | 04032005 |
| 249 | Pinole | Pinole | 1 | | 03338116249 |
| 250 | O-ring | O-ring | 1 | 58x2.65 | 03338116250 |
| 251 | Klemmmutter | Clamping nut | 1 | | 03338116251 |
| 252 | Innensechskantschraube | Hexagon socket screw | 1 | DIN 4762/M5x12 | |
| 255 | Griffhebel | Handle lever | 1 | | 03338116255 |
| 257 | Nabe | Hub | 1 | | 03338116257 |
| 258 | Skalenring | Scale ring | 1 | | 03338116258 |
| 260 | Innensechskantschraube | Hexagon socket screw | 3 | M4x10 | |
| 261 | Abdeckscheibe | Cover pane | 1 | | 03338116261 |
| 264 | Passfeder | Key | 1 | 4x12 | 03338116264 |
| 265 | Schaftritzel | Pinion shaft | 1 | | 03338116265 |
| 266 | Stiftschraube | Locking screw | 1 | M6x20 | |
| 267 | Indikator | Indicator | 1 | | 03338116267 |
| 268 | Stiftschraube | Locking screw | 1 | M8x8 | |
| 269 | Feder | Spring | 1 | 0.8x5x25-3 | 03338116269 |
| 270 | Stahlkugel | Steel bal | 1 | 6.5 | 03338116270 |
| 271 | Wahldrehschalter | Rotary selector | 1 | 12x50 | 03338116271 |
| 272 | Stiftschraube | Locking screw | 1 | M5x16 | |
| 274 | Aufnahmescheibe | Retainer disc | 1 | | 03338116274 |
| 275 | Schaltwelle | Shaft | 1 | | 03338116275 |
| 276 | Niet | Rivet | 4 | | |
| 277 | Scheibe | Washer | 2 | DIN 125/8 | |
| 279 | Schaltknopf | Knob | 1 | | 03338116278 |
| 280 | Gewindestift | Grub screw | 2 | DIN4028/M5x10 | |
| 281 | Buchse | Bushing | 1 | | 03338116281 |
| 282 | Führungsstück | Guide piece | 1 | | 03338116282 |
| 283 | Sechskantmutter | Hexagon nut | 2 | ISO 4032/ M6 | |
| 284 | Gewindestift | Grub screw | 2 | ISO 4028/M6x20 | |
| 285 | Innensechskantschraube | Hexagon socket screw | 2 | DIN 4762/M6x16 | |
| 286 | Skala | Scale | 1 | | 03338116286 |
| 287 | Gehäuse Sicherung kpl. | Housing fuse cpl. | 2 | | 03338116287 |
| 288 | Sicherung | Fuse | 2 | | 03338120F1 |
| 289 | Anschlusskabel | Conesting cable | 1 | | 03338116289 |
| 290 | Abdeckung | Cover | 1 | | 03338116290 |
| 292 | Gehäuse Schaltkasten | Housing switch cabinet | 1 | | 03338116292 |
| 293 | Steuerkarte | Control board | 1 | | 03338120Q1.6 |
| 294 | Netzfilter | Line filter | 1 | | 03338116294 |
| 295 | Potentiometer | Potentiometer | 1 | | 03338120R1.5 |
| 296 | Label Schaltkasten | label switch cabinet | 1 | | 03338116296 |
| 297 | Drehknopf | Knob | 1 | | 03338420301 |
| 298 | Ein-Aus-Schalter mit NOT-Halt Funktion | On-Off switch with EMERGENCY STOP function | 1 | | 0320299 |
| 299 | Innensechskantschraube | Hexagon socket screw | 12 | DIN 4762/M4x10 | |
| 300 | Innensechskantschraube | Hexagon socket screw | 2 | DIN 4762/M5x8 | |



Ersatzteilliste- Spare parts list - BF16 Vario

| Pos. | Bezeichnung | Designation | Menge | Grösse | Artikelnummer |
|------|------------------------|-------------------------------|-------|----------------|----------------|
| | | | Qty. | Size | Item no. |
| 301 | Fräsfutterschutz | Milling chuck protection | 1 | | 03338116301 |
| 302 | Sicherungsring | Retaining ring | 1 | DIN 471/6 | |
| 303 | Bügel | Bracket | 1 | | 03338116303 |
| 304 | Welle | Shaft | 1 | | 03338116304 |
| 305 | Gewindestift | Grub screw | 2 | ISO 4028/M4x5 | |
| 306 | Stange | Rod | 1 | | 03338116306 |
| 307 | Halter | Holder | 1 | | 03338116307 |
| 308 | Innensechskantschraube | Hexagon socket screw | 2 | DIN 4762/M5x20 | |
| 309 | Stellschraube | Locking screw | 1 | | 03338116309 |
| 310 | Führungsstück | Guide piece | 1 | | 03338116310 |
| | Fräsfutterschutz kpl. | Milling chuck protection cpl. | 1 | | 03338116301cpl |
| | Zubehör kpl. | Accessory box cpl. | 1 | | 0333811600 |

Ersatzteilliste Fräsfutterschutz, Schaltkasten Baujahr ab 2011- Spare parts list milling chuck protection, switch box year of construction 2011

| | | | | | |
|-----|------------------------|-----------------------|---|---------|--------------|
| 311 | Platte | Plate | 1 | | 03338116311 |
| 312 | Netzfilter | Line filter | 1 | | 03338116312 |
| 313 | Gehäuse | Housing | 1 | | 03338116313 |
| 314 | Steuerplatine | Control board | 1 | | 03338116314 |
| 315 | Potentiometer | Potentiometer | 1 | 4K7 | 03338120R1.5 |
| 317 | NOT-Halt Schalter | Emergency stop button | 1 | | 03338120S1.2 |
| 318 | Knopf | Knob | 1 | | 03338120301 |
| 319 | Ein-Aus-Schalter | On-Off switch | 1 | KJD-17B | 0342025108 |
| 320 | Feinsicherung | Fuse | 1 | 10A | 03338116320 |
| 321 | Zugentlastung | Cord grip | 1 | | 03338116321 |
| 322 | Bügel | Bracket | 1 | | 03338116322 |
| 323 | Sicherungsring | Retaining ring | 1 | | 03338116323 |
| 324 | Innensechskantschraube | Hexagon socket screw | 2 | | 03338116324 |
| 325 | Scheibe | Washer | 2 | | 03338116325 |
| 326 | Reedkontakt Kpl. | Reedkontakt cpl. | 1 | | 0302024192 |

6.8 Schaltplan - Wiring diagram

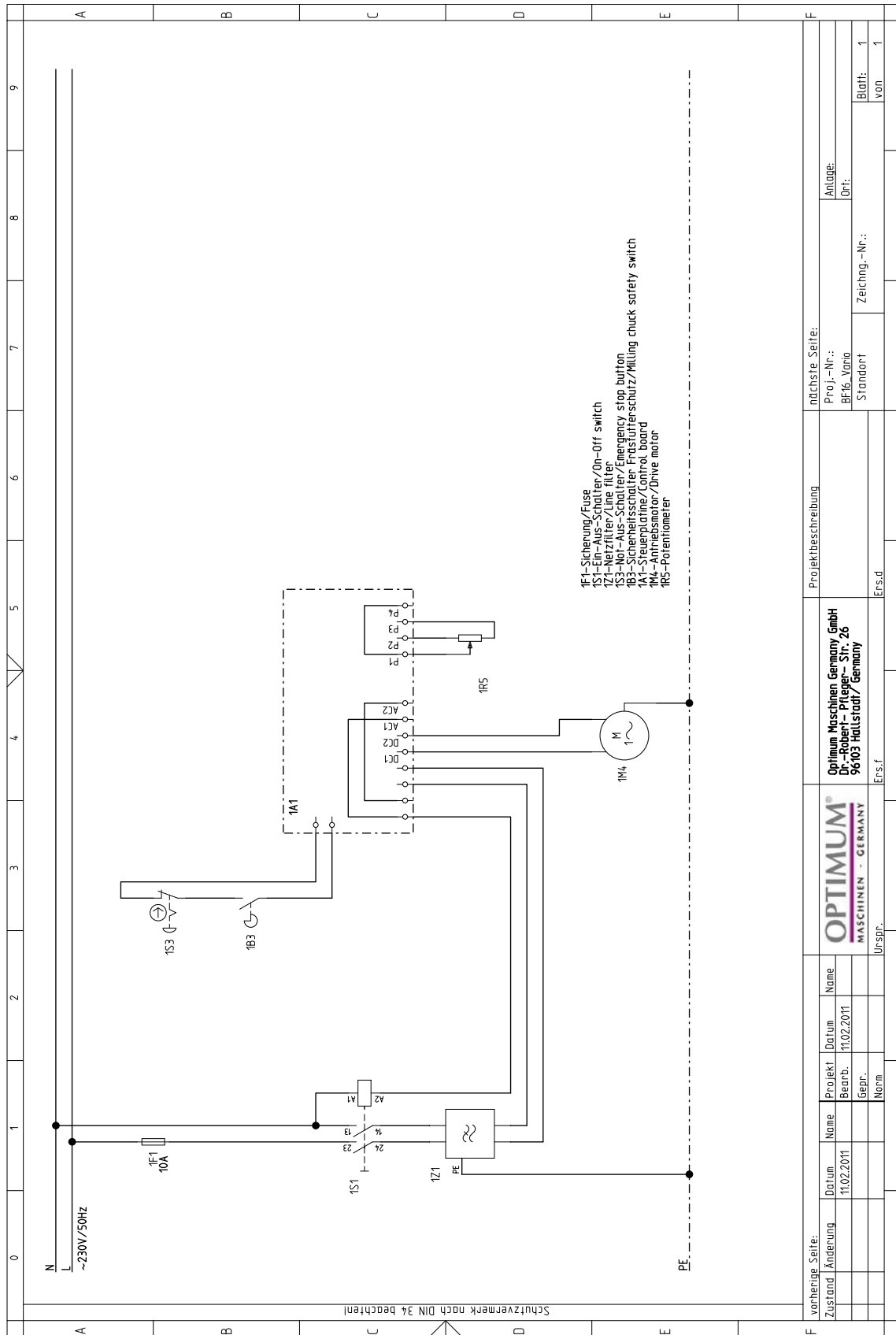


Abb.6-8: Schaltplan - Wiring diagram