
# TruDisk

Technical data

TRUMPF

| | TruDisk 1000 | TruDisk 2000 | TruDisk 3001 |
|---|---|---|---|
| **LASER PARAMETERS** | | | |
| LASER POWER ON THE WORKPIECE | 1000 W | 2000 W | 3000 W |
| TYPICAL POWER CONSTANCY AT RATED POWER | - | - | - |
| TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 0.5 % | ± 0.5 % | ± 0.5 % |
| MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 1 % | ± 1 % | ± 1 % |
| CONTINUOUSLY ADJUSTABLE POWER RANGE | 60 W - 1000 W with active power regulation | 60 W - 2000 W with active power regulation | 80 W - 3000 W with active power regulation |
| BEAM QUALITY AT THE INPUT COUPLING IN THE LLK | 2 mm ▪ mrad | 2 mm ▪ mrad | 4 mm ▪ mrad |
| NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK | 0.1 | 0.1 | 0.1 |
| WAVELENGTH | 1030 nm | 1030 nm | 1030 nm |
| MINIMUM LASER LIGHT CABLE DIAMETER | 50 µm | 50 µm | 100 µm |
| TYP. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| MAX. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| **STRUCTURAL DESIGN** | | | |
| WIDTH | 1175 mm | 1175 mm | 1175 mm |
| HEIGHT | 1430 mm | 1430 mm | 1430 mm |
| DEPTH | 725 mm | 725 mm | 725 mm |
| MAXIMUM NUMBER OF LASER LIGHT CABLES | 2 | 2 | 2 |
| MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE | 4 | 4 | 4 |
| **INSTALLATION** | | | |
| PROTECTION CLASS | IP54 | IP54 | IP54 |
| AMBIENT TEMPERATURE | 10 °C - 50 °C | 10 °C - 50 °C | 10 °C - 50 °C |

| | TruDisk 3001 P | TruDisk 3002 | TruDisk 3006 |
|---|---|---|---|
| **LASER PARAMETERS** | | | |
| LASER POWER ON THE WORKPIECE | 3000 W | 3000 W | 3000 W |
| TYPICAL POWER CONSTANCY AT RATED POWER | - | - | ± 1 % with active power regulation |
| TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | | ± 0.5 % | |

| | TruDisk 3001 P | TruDisk 3002 | TruDisk 3006 |
|---|---|---|---|
| MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | | ± 1 % | |
| CONTINUOUSLY ADJUSTABLE POWER RANGE | - | 80 W - 3000 W with active power regulation | 80 W - 3000 W with active power regulation |
| BEAM QUALITY AT THE INPUT COUPLING IN THE LLK | 4 mm ▪ mrad | 8 mm ▪ mrad | 25 mm ▪ mrad |
| NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK | 0.1 | 0.1 | 0.1 |
| WAVELENGTH | 1030 nm | 1030 nm | 1030 nm |
| MINIMUM LASER LIGHT CABLE DIAMETER | 100 µm | 200 µm | 600 µm |
| TYP. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | ± 1 % | | |
| MAX. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | ± 2 % | | |
| **STRUCTURAL DESIGN** | | | |
| WIDTH | 1175 mm | 1175 mm | 1175 mm |
| HEIGHT | 1430 mm | 1430 mm | 1430 mm |
| DEPTH | 725 mm | 725 mm | 725 mm |
| MAXIMUM NUMBER OF LASER LIGHT CABLES | 1 | 2 | 2 |
| MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE | - | 4 | 4 |
| **INSTALLATION** | | | |
| PROTECTION CLASS | IP54 | IP54 | IP54 |
| AMBIENT TEMPERATURE | 10 °C - 45 °C | 10 °C - 50 °C | 10 °C - 50 °C |

| | TruDisk 4000 | TruDisk 4001 | TruDisk 4001 P |
|---|---|---|---|
| **LASER PARAMETERS** | | | |
| LASER POWER ON THE WORKPIECE | 4000 W | 4000 W | 4000 W |
| TYPICAL POWER CONSTANCY AT RATED POWER | - | - | - |
| TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 0.5 % | ± 0.5 % | ± 1 % |
| MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 1 % | ± 1 % | ± 2 % |
| CONTINUOUSLY ADJUSTABLE POWER RANGE | 80 W - 4000 W with active power regulation | 80 W - 4000 W with active power regulation | - |
| BEAM QUALITY AT THE INPUT COUPLING IN THE LLK | 2 mm ▪ mrad | 4 mm ▪ mrad | 4 mm ▪ mrad |
| NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK | 0.1 | 0.1 | 0.1 |

| | TruDisk 4000 | TruDisk 4001 | TruDisk 4001 P |
|---|---|---|---|
| WAVELENGTH | 1030 nm | 1030 nm | 1030 nm |
| MINIMUM LASER LIGHT CABLE DIAMETER | 50 µm | 100 µm | 100 µm |
| TYP. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| MAX. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| **STRUCTURAL DESIGN** | | | |
| WIDTH | 1175 mm | 1175 mm | 1175 mm |
| HEIGHT | 1430 mm | 1430 mm | 1430 mm |
| DEPTH | 725 mm | 725 mm | 725 mm |
| MAXIMUM NUMBER OF LASER LIGHT CABLES | 2 | 2 | 1 |
| MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE | 4 | 4 | - |
| **INSTALLATION** | | | |
| PROTECTION CLASS | IP54 | IP54 | IP54 |
| AMBIENT TEMPERATURE | 10 °C - 50 °C | 10 °C - 50 °C | 10 °C - 45 °C |

| | TruDisk 4002 | TruDisk 4006 | TruDisk 5000 |
|---|---|---|---|
| **LASER PARAMETERS** | | | |
| LASER POWER ON THE WORKPIECE | 4000 W | 4000 W | 5000 W |
| TYPICAL POWER CONSTANCY AT RATED POWER | ± 1 % with active power regulation | ± 1 % with active power regulation | - |
| TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | | | ± 0.5 % |
| MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | | | ± 1 % |
| CONTINUOUSLY ADJUSTABLE POWER RANGE | 80 W - 4000 W with active power regulation | 80 W - 4000 W with active power regulation | 100 W - 5000 W with active power regulation |
| BEAM QUALITY AT THE INPUT COUPLING IN THE LLK | 8 mm ▪ mrad | 25 mm ▪ mrad | 2 mm ▪ mrad |
| NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK | 0.1 | 0.1 | 0.1 |
| WAVELENGTH | 1030 nm | 1030 nm | 1030 nm |
| MINIMUM LASER LIGHT CABLE DIAMETER | 200 µm | 600 µm | 50 µm |
| TYP. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |

| | TruDisk 4002 | TruDisk 4006 | TruDisk 5000 |
|---|---|---|---|
| MAX. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| **STRUCTURAL DESIGN** | | | |
| WIDTH | 1175 mm | 1175 mm | 1175 mm |
| HEIGHT | 1430 mm | 1430 mm | 1430 mm |
| DEPTH | 725 mm | 725 mm | 725 mm |
| MAXIMUM NUMBER OF LASER LIGHT CABLES | 2 | 2 | 2 |
| MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE | 4 | 4 | 4 |
| **INSTALLATION** | | | |
| PROTECTION CLASS | IP54 | IP54 | IP54 |
| AMBIENT TEMPERATURE | 10 °C - 50 °C | 10 °C - 50 °C | 10 °C - 50 °C |

| | TruDisk 5001 | TruDisk 5002 | TruDisk 5006 |
|---|---|---|---|
| **LASER PARAMETERS** | | | |
| LASER POWER ON THE WORKPIECE | 5000 W | 5000 W | 5000 W |
| TYPICAL POWER CONSTANCY AT RATED POWER | - | - | - |
| TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 0.5 % | ± 0.5 % | ± 0.5 % |
| MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 1 % | ± 1 % | ± 1 % |
| CONTINUOUSLY ADJUSTABLE POWER RANGE | 120 W - 5000 W with active power regulation | 120 W - 5000 W with active power regulation | 120 W - 5000 W with active power regulation |
| BEAM QUALITY AT THE INPUT COUPLING IN THE LLK | 4 mm ▪ mrad | 8 mm ▪ mrad | 25 mm ▪ mrad |
| NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK | 0.1 | 0.1 | 0.1 |
| WAVELENGTH | 1030 nm | 1030 nm | 1030 nm |
| MINIMUM LASER LIGHT CABLE DIAMETER | 100 µm | 200 µm | 600 µm |
| TYP. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| MAX. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| **STRUCTURAL DESIGN** | | | |
| WIDTH | 1175 mm | 1175 mm | 1175 mm |
| HEIGHT | 1430 mm | 1430 mm | 1430 mm |
| DEPTH | 725 mm | 725 mm | 725 mm |

| | TruDisk 5001 | TruDisk 5002 | TruDisk 5006 |
|---|---|---|---|
| MAXIMUM NUMBER OF LASER LIGHT CABLES | 2 | 2 | 2 |
| MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE | 4 | 4 | 4 |
| **INSTALLATION** | | | |
| PROTECTION CLASS | IP54 | IP54 | IP54 |
| AMBIENT TEMPERATURE | 10 °C - 50 °C | 10 °C - 50 °C | 10 °C - 50 °C |

| | TruDisk 6000 | TruDisk 6001 | TruDisk 6001 P |
|---|---|---|---|
| **LASER PARAMETERS** | | | |
| LASER POWER ON THE WORKPIECE | 6000 W | 6000 W | 6000 W |
| TYPICAL POWER CONSTANCY AT RATED POWER | - | - | - |
| TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 0.5 % | ± 0.5 % | ± 1 % |
| MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 1 % | ± 1 % | ± 2 % |
| CONTINUOUSLY ADJUSTABLE POWER RANGE | 120 W - 6000 W with active power regulation | 120 W - 6000 W with active power regulation | - |
| BEAM QUALITY AT THE INPUT COUPLING IN THE LLK | 2 mm ▪ mrad | 4 mm ▪ mrad | 4 mm ▪ mrad |
| NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK | 0.1 | 0.1 | 0.1 |
| WAVELENGTH | 1030 nm | 1030 nm | 1030 nm |
| MINIMUM LASER LIGHT CABLE DIAMETER | 50 µm | 100 µm | 100 µm |
| TYP. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| MAX. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| **STRUCTURAL DESIGN** | | | |
| WIDTH | 1620 mm | 1175 mm | 1175 mm |
| HEIGHT | 1475 mm | 1430 mm | 1430 mm |
| DEPTH | 920 mm | 725 mm | 725 mm |
| MAXIMUM NUMBER OF LASER LIGHT CABLES | 2 | 2 | 1 |
| MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE | - | 4 | - |
| **INSTALLATION** | | | |
| PROTECTION CLASS | IP54 | IP54 | IP54 |
| AMBIENT TEMPERATURE | 10 °C - 50 °C | 10 °C - 50 °C | 10 °C - 45 °C |

| | TruDisk 6002 | TruDisk 6006 | TruDisk 8000 |
|---|---|---|---|
| **LASER PARAMETERS** | | | |
| LASER POWER ON THE WORKPIECE | 6000 W | 6000 W | 8000 W |
| TYPICAL POWER CONSTANCY AT RATED POWER | - | - | - |
| TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 0.5 % | ± 0.5 % | ± 0.5 % |
| MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 1 % | ± 1 % | ± 1 % |
| CONTINUOUSLY ADJUSTABLE POWER RANGE | 120 W - 6000 W with active power regulation | 120 W - 6000 W with active power regulation | 160 W - 8000 W with active power regulation |
| BEAM QUALITY AT THE INPUT COUPLING IN THE LLK | 8 mm ▪ mrad | 25 mm ▪ mrad | 2 mm ▪ mrad |
| NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK | 0.1 | 0.1 | 0.1 |
| WAVELENGTH | 1030 nm | 1030 nm | 1030 nm |
| MINIMUM LASER LIGHT CABLE DIAMETER | 200 µm | 600 µm | 50 µm |
| TYP. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| MAX. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| **STRUCTURAL DESIGN** | | | |
| WIDTH | 1175 mm | 1175 mm | 1620 mm |
| HEIGHT | 1430 mm | 1430 mm | 1475 mm |
| DEPTH | 725 mm | 725 mm | 920 mm |
| MAXIMUM NUMBER OF LASER LIGHT CABLES | 2 | 2 | 2 |
| MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE | 4 | 4 | - |
| **INSTALLATION** | | | |
| PROTECTION CLASS | IP54 | IP54 | IP54 |
| AMBIENT TEMPERATURE | 10 °C - 50 °C | 10 °C - 50 °C | 10 °C - 50 °C |

| | TruDisk 8001 | TruDisk 10001 | TruDisk 12001 |
|---|---|---|---|
| **LASER PARAMETERS** | | | |
| LASER POWER ON THE WORKPIECE | 8000 W | 10000 W | 12000 W |
| TYPICAL POWER CONSTANCY AT RATED POWER | - | ± 1 % with active power regulation | - |
| TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 0.5 % | ± 0.5 % | ± 0.5 % |

| | TruDisk 8001 | TruDisk 10001 | TruDisk 12001 |
|---|---|---|---|
| MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | ± 1 % | | ± 1 % |
| CONTINUOUSLY ADJUSTABLE POWER RANGE | 160 W with active power regulation | 200 W - 10000 W with active power regulation | 240 W - 12000 W with active power regulation |
| BEAM QUALITY AT THE INPUT COUPLING IN THE LLK | 4 mm ▪ mrad | 4 mm ▪ mrad | 4 mm ▪ mrad |
| NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK | 0.1 | 0.1 | 0.1 |
| WAVELENGTH | 1030 nm | 1030 nm | 1030 nm |
| MINIMUM LASER LIGHT CABLE DIAMETER | 100 µm | 100 µm | 100 µm |
| TYP. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| MAX. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | | |
| **STRUCTURAL DESIGN** | | | |
| WIDTH | 1175 mm | 1620 mm | 1620 mm |
| HEIGHT | 1430 mm | 1475 mm | 1475 mm |
| DEPTH | 725 mm | 920 mm | 920 mm |
| MAXIMUM NUMBER OF LASER LIGHT CABLES | 2 | 2 | 2 |
| MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE | 4 | - | - |
| **INSTALLATION** | | | |
| PROTECTION CLASS | IP54 | IP54 | IP54 |
| AMBIENT TEMPERATURE | 10 °C - 50 °C | 10 °C - 50 °C | 10 °C - 50 °C |

| | TruDisk 16002 | TruDisk 16003 |
|---|---|---|
| **LASER PARAMETERS** | | |
| LASER POWER ON THE WORKPIECE | 16000 W | 16000 W |
| TYPICAL POWER CONSTANCY AT RATED POWER | ± 1 % with active power regulation | ± 1 % with active power regulation |
| TYPICAL POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | | - |
| MAXIMUM POWER CONSTANCY AT RATED POWER OVER 8 HOURS AT CONSTANT AMBIENT TEMPERATURE | | - |
| CONTINUOUSLY ADJUSTABLE POWER RANGE | 320 W - 16000 W | 320 W - 16000 W |
| BEAM QUALITY AT THE INPUT COUPLING IN THE LLK | 8 mm ▪ mrad | 12 mm ▪ mrad |
| NUMERICAL APERTURE ON THE OUTPUT COUPLING AFTER LLK | 0.1 | 0.1 |

| | TruDisk 16002 | TruDisk 16003 |
|---|---|---|
| WAVELENGTH | 1030 nm | 1030 nm |
| MINIMUM LASER LIGHT CABLE DIAMETER | 200 µm | 300 µm |
| TYP. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | |
| MAX. LEISTUNGSKONSTANZ BEI NENNLEISTUNG ÜBER 8 STD. BEI KONSTANTER UMGEBUNGSTEMPERATUR | | |
| **STRUCTURAL DESIGN** | | |
| WIDTH | 2800 mm | 2800 mm |
| HEIGHT | 1550 mm | 1550 mm |
| DEPTH | 1400 mm | 1400 mm |
| MAXIMUM NUMBER OF LASER LIGHT CABLES | 6 | 6 |
| MAXIMUM NUMBER OF LASER LIGHT CABLES FOR EXTENDED DEVICE SIZE | - | - |
| **INSTALLATION** | | |
| PROTECTION CLASS | IP54 | IP54 |
| AMBIENT TEMPERATURE | 10 °C - 50 °C | 10 °C - 50 °C |