



Programmable focusing optics

Technical data

PFO 14**PFO 20****PFO 33-2****LASER PARAMETERS**

WAVELENGTH	-	-	-
POWER	up to 2000 W (cw)	up to 2000 W (cw)	up to 8000 W (cw)
NUMERICAL APERTURE	typ. 0.11 / max. 0.12	typ. 0.11 / max. 0.12	typ. 0.11 / max. 0.12
LASER LIGHT CABLE TYPE	LLK-D, LLK-B, LLK-A	LLK-D, LLK-B, LLK-A	LLK-D, LLK-B

OPTICS CONFIGURATION ²

COLLIMATION	35 / 56 mm	35 / 56 / 80 / 90 / 100 mm	60 / 90 / 140 / 150 / 200 / 300 mm
FOCAL LENGTH	100 / 160 / 163 / 254 / 330 / 420 mm	90 / 100 / 135 / 160 / 163 / 200 / 254 / 264 / 280 / 330 / 395 / 420 / 560 / 740 mm	160 / 255 / 265 / 345 / 450 / 600 / 900 mm
Z STROKE FOR FOCAL LENGTH OF LENS	-	-	-
FIELD SIZE (ELLIPSE Y X X) FOR FOCAL LENGTH OF LENS	f100: 47 mm x 18 mm f160: 110 mm x 75 mm f163: 110 mm x 70 mm f254: 170 mm x 120 mm f330: 220 mm x 178 mm f420: 286 mm x 230 mm	f264: 180 mm (examples for TruDisk IR/TruFiber/TruMicro)	-
FIELD SIZE (ELLIPSE Y X X) FOR FOCAL LENGTH OF LENS FOR TRUDISK/TRUMICRO			f160: 56 mm x 34 mm f255: 180 mm x 104 mm f345: 240 mm x 140 mm f450: 320 mm x 190 mm f600: 376 mm x 230 mm f900: 520 mm x 310 mm
FIELD SIZE (ELLIPSE Y X X) FOR FOCAL LENGTH OF LENS FOR TRUFIBER (FD34)			f265: 140 mm x 102 mm f345: 208 mm x 152 mm f450: 288 mm x 190 mm f600: 374 mm x 240 mm
FIELD SIZE (ELLIPSE Y X X) FOR FOCAL LENGTH OF LENS FOR HIGHBRIGHTNESS LENSES			f265: 152 mm x 108 mm f345: 140 mm x 102 mm f450: 288 mm x 190 mm f600: 374 mm x 240 mm

STRUCTURAL DESIGN

DIMENSIONS (W X H X D)	278 mm x 391 mm x 202 mm (configuration example with fc56 and f160)	278 mm x 296 mm x 202 mm (configuration example with fc90 and f264)	379 mm x 421 mm x 202 mm (Example configuration with fc150 and f450)
WEIGHT	15 kg	15 kg	25 kg

COMPATIBILITY

AVAILABLE LASERS	TruDiode, TruDisk, TruMicro	TruDiode, TruDisk, TruFiber, TruMicro, TruPulse	TruDisk, TruFiber, TruMicro, TruPulse
AVAILABLE SENSOR SYSTEM	-	VisionLine, CalibrationLine, temperature control for plastic welding and curing	VisionLine, CalibrationLine

OPTIONS

AVAILABLE OPTIONS	Crossjet, camera monitoring	Crossjet, sensor interface, lighting	Crossjet, MVE nozzle, smoke bell, sensor interface, lighting
AVAILABLE SOFTWARE OPTIONS	TruTops PFO, PFO Smart Teach App	TruTops PFO, PFO Smart Teach App	TruTops PFO, PFO Smart Teach App

PFO 1D**PFO 3D****LASER PARAMETERS**

WAVELENGTH	-	-
POWER	up to 80000 W (cw)	up to 8000 W (cw)

PFO 1D**PFO 3D**

NUMERICAL APERTURE	typ. 0.11 / max. 0.12	typ. 0.11 / max. 0.12
LASER LIGHT CABLE TYPE	LLK-D, LLK-B	LLK-D

OPTICS CONFIGURATION ²

COLLIMATION	150 mm	138 mm
FOCAL LENGTH	150 / 200 / 300 mm	255 / 345 / 450 / 600 / 900 mm
Z STROKE FOR FOCAL LENGTH OF LENS	-	f255: ± 22 mm f345: ± 40 mm f450: ± 70 mm f600: ± 100 mm f900: ± 220 mm
FIELD SIZE (ELLIPSE Y X X) FOR FOCAL LENGTH OF LENS	-	f255: 174 mm x 102 mm (z=0) f345: 240 mm x 140 mm (z=0) f450: 320 mm x 190 mm (z=0) f600: 376 mm x 230 mm (z=0) f900: 525 mm x 340 mm (z=0)
FIELD SIZE (ELLIPSE Y X X) FOR FOCAL LENGTH OF LENS FOR TRUDISK/TRUMICRO		
FIELD SIZE (ELLIPSE Y X X) FOR FOCAL LENGTH OF LENS FOR TRUFIBER (FD34)		
FIELD SIZE (ELLIPSE Y X X) FOR FOCAL LENGTH OF LENS FOR HIGHBRIGHTNESS LENSES		

STRUCTURAL DESIGN

DIMENSIONS (W X H X D)	227 mm x 562 mm x 229 mm	412 mm x 266 mm x 366 mm
WEIGHT	12.5 kg	35 kg

COMPATIBILITY

AVAILABLE LASERS	TruDiode, TruDisk	TruDisk
AVAILABLE SENSOR SYSTEM	-	VisionLine, CalibrationLine, SeamLine Remote, OCT seam position control

OPTIONS

AVAILABLE OPTIONS	Crossjet, MVE nozzle, shielding gas supply, camera monitoring, sensor interface, lighting, cartridge module, protective glass monitoring unit	I-PFO, crossjet, MVE nozzle, smoke bell, lighting version
AVAILABLE SOFTWARE OPTIONS	-	TruTops I-PFO and TruTops PFO, PFO Smart Teach App

Footnotes

1 — Other wavelengths are available on request.

2 — Other optics configurations are available on request.