

Application Matrix

2D Scan Systems		SCANcube®				intellcube®		SCANgine®		hurrySCAN® hurrySCAN® II			intelliSCAN®		hurrySCAN®			intelliSCAN®			intelliDRILL®			powerSCAN			palmSCAN®
Entrance aperture [mm]		7	8.5	10	14	10	14	10	14	7	10	14	10	14	20	25	30	20	25	30	20	30	33	50	70	6	
Max. laser power [W]	Nd:YAG@1064 nm	100	150	150	250	150	250	150	250	100	150	250	150	250	4000	4000	4000	4000	4000	4000	4000	4000	5000	-	-	60	
	CO ₂	50	75	100	200	100	200	100	200	50	100	200	100	200	750	1000	1500	750	1000	1500	750	1500	3000	5000	5000	25	
Writing speed [cps]⁽¹⁾	good quality	900	900	640	410	800	460	300	220	1100	800	500	1150	500	320	260	220	340	260	220	-	-	-	-	-		
	high quality	600	600	400	280	500	320	200	140	800	500	340	800	340	210	170	150	230	170	150	-	-	-	-	-		
Laser Materials Processing	Marking			●			●		●		●		●		●					●							
	Welding								●						●					●					●		
	Coding			●			●				●		●														
	Remote welding														●					●					●		
	Cutting														●					●					●		
	Drilling								●		●		●		●					●		●			●		
	Scribing, deep-engraving								●		●		●		●					●							
	Soldering														●					●							
	Trimming			●			●		●		●		●		●					●							
	Texturing								●		●		●		●					●					●		
	Structuring								●		●		●		●					●							
	Perforating			●			●		●		●		●		●					●		●			●		
	Heat treatment														●					●					●		
	Processing of curved surfaces																										
Micro-machining									●		●		●		●					●		●					
Rapid Manufacturing	Stereolithography								●		●		●														
	Laser sintering														●					●					●		
	Rapid tooling														●					●					●		
	Laser engraving						●		●		●		●		●					●							
Processing-on-the-fly				●			●				●		●		●					●					●		
Inspection, identification				●			●		●		●		●		●					●							
Large field scanning															●										●		
Precision display systems									●		●		●														
Material sorting									●		●		●														
Product individualizing				●			●				●		●												●		
Medical Systems	Biomedical systems								●		●		●														
	Ophthalmology								●		●		●														
	Dermatology																								●		
Science and Research				●			●		●		●		●		●					●		●			●		

⁽¹⁾ characters per second with single-stroke characters of 1 mm height, f = 160 mm F-Theta objective (f = 163 mm F-Theta objective for hurrySCAN 20/25/30 and intelliSCAN® 20/25/30)

Application Matrix

3D Scan Systems		intelliSCAN® with varioSCAN _{de} 20i	Scan Head with varioSCAN 20	intelliSCAN® 20/25/30 with varioSCAN _{de} 40i ⁽¹⁾	hurrySCAN® 20/25/30 with varioSCAN 40	intelliWELD®	powerSCAN 33 with varioSCAN 40	powerSCAN 50 with varioSCAN 60	powerSCAN 70 with varioSCAN 80
Entrance aperture [mm]		max. 8	max. 8	max. 16	max. 16	30 (FC)	max. 16	max. 16	max. 16
Max. laser power [W]	Nd:YAG@1064 nm	200	200	4000/4000/4000	4000/4000/4000	8000	4000	4000	-
	CO ₂	200	200	750/1000/1500	750/1000/1500	-	2000	2000	2000
Typical processing speed [rad/s]		20	8	20	5	-	3	2.5	1.5
Typical positioning speed [rad/s]		35	18	20	9	100% in 10 ms	9	9	9
Laser Materials Processing	Marking	●	●	●	●				
	Welding			●	●	●	●	●	●
	Coding	●	●						
	Remote welding			●	●	●	●	●	●
	Cutting			●	●		●	●	●
	Drilling	●	●	●	●		●	●	●
	Scribing, deep-engraving	●	●	●	●				
	Soldering	●	●	●	●				
	Trimming								
	Texturing	●	●	●	●		●	●	●
	Structuring	●	●	●	●				
	Perforating	●	●	●	●		●	●	●
	Heat treatment	●	●	●	●		●	●	●
	Processing of curved surfaces	●	●	●	●	●	●	●	●
Micro-machining		●	●	●	●				
Rapid Manufacturing	Stereolithography	●	●						
	Laser sintering	●	●	●	●		●		
	Rapid tooling	●	●	●	●		●		
	Laser engraving	●	●	●	●				
Processing-on-the-fly		●		●	●		●	●	●
Inspection, identification				●	●				
Large field scanning				●	●		●	●	●
Precision display systems									
Material sorting									
Product individualizing		●	●				●		
Medical Systems	Biomedical systems								
	Ophthalmology	●		●					
	Dermatology								
Science and Research		●	●	●	●		●	●	●

⁽¹⁾ preliminary specifications