

Fiber Laser Training - ENSIS/VENTIS/REGIUS (4ie AMNC)			
Date/Day	Time(H)	Topic	Contents
1st Day	9:00 ~ 9:15		Introduction and Facility orientation
	9:15 ~ 10:45	Machine	Machine explanation,
		Accessories	Explanation & Purpose of Accessories, Chiller, Dust collector, Purge unit , EZ Unit.
			Air supply unit
	Break Time (15 min)		
	11:00 ~ 12:15	Laser Safety rules	Measures for preventing laser beam hazards
			Handling of optical parts
		Heath and Machine Safety	Inhale of Cutting gases, Medical devices failure, High voltage, Eye examination
		Machine Specification	Cutting Speed, Axis Speed, Retract of all axis, Options etc.
	12:15 ~ 13:00	Laser Basics	Brief info. on generation of Laser and Metal cutting Process
		Material Explanation	Material types of Mild steel, Stainless steel, Aluminum, Copper, Brass and Titanium.
		Assist Gas types and effects	Types of assist gas and its effect on cutting quality.
	Lunch Time		
	14:00 ~ 15:00	Machine Ready & Adjustment	Machine start ON and 4ie Control panel buttons explanation Lens and protection glass cleaning, nozzle inspection and Centering
	15:00 ~ 15:30	Sample Cutting	Sample cutting of Oxygen, Nitrogen and Air
	Break Time (15 min)		
	15:45 ~ 16:30	Practice and Review	Practice of Lens cleaning, Nozzle Centering
16:30 ~ 17:15	Sample Cutting and machine shutdown		
17:15 ~	Q & A		
2nd Day	9:00-9:15	Review	Review on previous day training
	9:00 ~ 10:00	Machine Ready	Repeat Make machine Ready procedure Lens Cleaning, Protection glass cleaning
			190 lens , I-cas, I-optics
	10:00 ~ 10:45	Types of lenses	Eco cut nozzles, clean cut and WACS nozzle
	Break Time (15 min)		
	11:00 ~ 12 :15	4ie Control Panel	AMNC 4ie controller explanation, Utility Screen explanation, nozzle change , Focus Adjustment, HS sensing,
	12:15 ~ 13:00	Dimension correction	Dimension correction by Adjust offset
	13:00 ~ 14:00	Lunch Time	
	14:00 ~ 14:30	LST operation	Sheet Loading, Exchange of shuttle table in Auto and manual mode
	14:30 ~ 15:00	Cutting types	Clean cut, Oxygen cut and Air cut.
	15 : 00 ~ 15:30	Cutting Practice	Cutting Practice
	Break Time (15 min)		
	15:45 ~ 16:30	Sample Cutting	Sample cutting demonstration and Accuracy check
16:30 ~ 17:15		Cutting Practice of various material with program modification. Part Base Point, Home Base Point, Multiple Part,etc	
-17:15	Q & A		
3rd Day	9:00-9:15	Review	Review on previous day training
	9:00 ~ 9:30	Machine Ready	Repeat Make machine Ready procedure Lens Cleaning, nozzle centering practise
			Cutting condition files
	9: 30 ~ 11:00	Cut condition files	Cutting condition files explanation for Oxygen, Nitrogen and Air cutting etc.
	Break Time (15 min)		
	11 :15 ~ 13:00	Various cuttings	Eco cut, Clean cut, WACS cut, Oil shot and Flash Cut
	13:00 ~ 14:00	Lunch Time	
	14:00 ~ 15:30	AMNC-3i Control Panel	Programme Schedule
			Switch panel
			Current Position Panel
			Nozzle loading and Registration
			nozzle changer unit (Option)
			Break Time (15 min)
15:45 ~ 16:50	Cutting Parameter	Cutting parameter explanation and its adjustment	
~17:15		Cutting trials Practice by changing Focus, Gas pressure and Speed	
Q & A			
4th Day	9:00 ~ 9:30	Review	Repeat Make machine Ready procedure
	9:30 ~ 10:45	AMNC-3i / 4i Menu Function	Resume, Reprocessheet and Retry
	Break Time (15 min)		
	11:00~ 12:00	M and G codes	M codes and G codes explanation with cutting trails
	12:00~ 13:00		
	13:00 ~ 14:00	Lunch Time	
	14:00 ~ 15:30	Machine Periodic maintenance.	Periodic Maintenance
	Break Time (15 min)		
	15:45 ~ 17:15	Review, Laser Test and training feedback	
		Test Paper Checking and Certificate Distribution	