Inspection Checklist

Always use together with OEM Instruction Manual!

Customer : _____

Contact person : _____

Location : _____

Plasma systém : _____

Cutting table : _____

Additional info : _____

Date : _____

Comment to check points :

P - Performed
NP - Not present in system
! - Important Inspection
* 1 bar = 14,504 psi (pound-force per sq. Inch) and conversely 1 psi = 0,069 bar
** 1 gallon (US) = 3,785 l and conversely 1 l = 0,264 gallons (US)

Torch main body

!	☐ P ☐ NP	**1**	Inspect and eventually change the water tube (in case of HPR or HSD torches)
!	☐ P ☐ NP	**2**	Inspect & clean anode current contact ring (in case of HPR torches)
!	☐ P ☐ NP	**3**	Inspect & clean threads on torch front end
!	☐ P ☐ NP	**4**	Inspect torch o-rings (application a thin film of silicone to each o-ring)
!	☐ P ☐ NP	**5**	Inspect torch head-to-torch QD connections (in case of two-piece torches)

Consumables

!	☐ P ☐ NP	**6**	Inspect use of correct part numbers according to proper operation data for cutting material and its thiskness
!	☐ P ☐ NP	**7**	Visually inspect each component (electrode, nozzle, swirl ring, etc.) before installing due to the eventual damage (during transport, after disassembling from the torch, etc.)
!	☐ P ☐ NP	**8**	Inspect application a thin film of silicone to each o-ring located on consumables
!	☐ P ☐ NP	**9**	Inspect the proper installation of parts (according to OEM or TMT instructions)

Gas flows

☐ P	☐ NP	**10**		Visually inspect plumbing from gas supply
☐ P	☐ NP		A	Oxygen
☐ P	☐ NP		B	Nitrogen
☐ P	☐ NP		C	Nitrogen-Hydrogen F5
☐ P	☐ NP		D	Argon-Hydrogen H35
☐ P	☐ NP		E	Compressed air
☐ P	☐ NP		F	Inspect compressed air treatment
☐ P	☐ NP		Fa	State of air filter
☐ P	☐ NP		Fb	State of oil separator
☐ P	☐ NP		Fc	State of air dryer

Gas flows - cont.

☐ P	☐ NP	**11**		Perform gas leak test
☐ P	☐ NP		A	*Oxygen pressure drop at _____ psi in 10 minutes (_____ bar)
☐ P	☐ NP		B	*Nitrogen pressure drop at _____ psi in 10 minutes (_____ bar)
☐ P	☐ NP	**12**		Visually inspect for hose restrictions
☐ P	☐ NP		A	gas supply to Gas console
☐ P	☐ NP		B	Gas console to Off-valve
☐ P	☐ NP		C	Off-valve (usualy located on the cutting table bridge) to torch body
☐ P	☐ NP		D	Hoses in power track

Gas console

! ☐ P	☐ NP	**13**		Inspect setting of Cutting Current - SET AMPS (according to proper operation data)
! ☐ P	☐ NP	**14**		Inspect selection of Plasma Gas (according to proper operation data)
! ☐ P	☐ NP	**15**		Inspect selection of Shield Gas (according to proper operation data)
! ☐ P	☐ NP	**16**		Inspect Settting of Plasma & Shield Gas PREFLOW (according to proper operation data)
! ☐ P	☐ NP	**17**		Inspect Settting of Plasma & Shield Gas CUTFLOW (according to proper operation data)
! ☐ P	☐ NP	**18**		Perform coolant flow test (in case of HPR system - on the gas console)
			A	**Coolant flow checked at _____ gallons per minute (_____ l/min)

CNC control unit of the cutting table

! ☐ P ☐ NP	**19**	Verify setting of correct kind of material & correct thickness of material
! ☐ P ☐ NP	**20**	Verify setting of proper Arc Voltage (according to proper operation Data)
! ☐ P ☐ NP	**21**	Verify setting of proper Torch-to-Work Distance (according to proper operation Data)
! ☐ P ☐ NP	**22**	Verify setting of proper Cutting Speed (according to proper operation Data)
! ☐ P ☐ NP	**23**	Verify setting of proper Initial Pierce Height (according to proper operation Data)
! ☐ P ☐ NP	**24**	Verify setting of proper Pierce Delay Time (according to proper operation Data)
! ☐ P ☐ NP	**25**	Visually inspect proper function of THC unit (Torch Height Control) in process of cutting

Cutting table

! ☐ P ☐ NP	**26**	Inspect a state & setting of the Initial Height Sensors or IHS wire connection
! ☐ P ☐ NP	**27**	Inspect alignment of the torch at right angles to the workpiece
! ☐ P ☐ NP	**28**	Inspect a state of the rails and drive system
☐ P ☐ NP	**29**	Inspect proper function of the activating the zones of the down draft system (pneumatically controlled with movement of the cutting table bridge)
! ☐ P ☐ NP	**30**	Inspect a state of the ribs bearing material and pollution of the cutting table zones

Cooling system

! ☐ P ☐ NP	**31**	Verify proper coolant level in the tank
! ☐ P ☐ NP	**32**	Visually inspect a state of Coolant (color, contamination, conductivity)
! ☐ P ☐ NP	**33**	Inspect filter element (if possible)
! ☐ P ☐ NP	**34**	Perform coolant flow test (in case of HPR system - on the Gas Console) A **Coolant flow checked at _____ gallons per minute (_____ l/min)
! ☐ P ☐ NP	**35**	Visually inspect a traces of corrosion on the surface of used Consumables & Torch Body (in case of liquid cooled torches)

Additional water supply - if used

☐ P ☐ NP	**36**	Inspect proper function of Water Injection system
☐ P ☐ NP	**37**	Inspect proper function of Water Shroud system

Power supply

☐ P	☐ NP	**38**	Visually inspect a state of the Power Source and verify cooling fans are working properly
☐ P	☐ NP	**39**	Visually inspect wiring harnesses

System grounding

☐ P	☐ NP	**40**	Inspect for proper system component grounding connection
☐ P	☐ NP	**41**	Inspect and perform connection of cutting table to workpiece (+) lead (if needed)

General comments and recommendations:

Inspection performed by :

Date :