

Internal QAP/ Inspection Stages For Shop			UESL/ShopQAP/Drums [S D, DWLG & W D]			
STEAM DRUM/ WATER DRUM						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection [Plate,St.Pipe,Connections]	Sizes,Stencling, Stamping,H.No,P.No, Materal Grade, Visual Inspection	Offer	Check	Check	Review
2	Shells Plates Marking Inspection	Length,Width, Diagonal,Hard Punching,Stamp	Offer	Check	.....	Review
3	Rolling Shell	Identification,ID, OD,Ovality, Template, ©, Length, "V" Prep., Gap, Overlapping, Balance Mat.	Offer	Check	.....	Review
4	Shells L S S/up with CP& TP & Circularity	Identification,Length,"V" Preparation, Gap,Overlapping	Offer	Check	Check	Review
5	Liquid Penetrant Test Long Seam Jts	Red Indication	Offer	Check	.....	Review
6	Necking - Weid Joint	Length,Width,ID, Template "V"preparation, Weldgap	Offer	Check	Check	Review
7	Liquid Penetrant Test man Hole Ring Jts	Red Indication	Offer	Check	.....	Review
8	Drum D/End Nozzle & Necking Hole marking	© & Orientation, Dimension	Offer	Check	.....	Review
9	*For S D DWLG Nozzle Hole marking	© & Orientation, Dimension	Offer	Check	.....	Review
10	Drum Cir.seem s/up	Orientaion,Length,"V" Preparation, Gap, Overlapping	Offer	Check	Check	Review
11	D/End Nozzle& Necking S/up	Orientaion,Ht & Pitch,"V" Preparation, Gap,Overlapping	Offer	Check	Check	Review
12	*For S D DWLG Nozzle S/up	Orientaion,Ht & Pitch,"V" Preparation, Gap,	Offer	Check	Check	Review
13	Liquid Penetrant Test Circ. Seam Jts	Red Indication	Offer	Check	.....	Review
14	Drum D/End Taper cutting	Shell Thk,Taper Cutting Details	Offer	Check	.....	Review
15	D/End to Shell S/up	Orientation,Water Level,C/s Length,V prep.,Gap,Overlapping, Door Inserting	Offer	Check	Check	Review
16	Liquid Penetrant Test D/End to Shell Jts	Red Indication	Offer	Check	.....	Review
17	Drum Nozzle Hole Marking	© & Orientation,Water Level,Dimension [Degree,Pitch]	Offer	Check	.....	Review
18	Drum Nozzle Hole S/Up	Orientaion,Ht & Pitch,"V" Preparation, Gap,Overlapping	Offer	Check	Check	Review

19	Liquid Penetrant Test Nozzles Jts...[If Applicable]	Red Indication	Offer	Check	.....	Review
20	Drum Internal/ External Part Attachments Marking	© & Orientation,Dimension [Degree,Pitch]	Check	Review	.....	Review
21	Drum Internal/ External Part Attachments S/up	As Per Drg	Offer	Check	.....	Review
22	* For Steam Drum Feed Water connec. Reducer to Pipe S/up	Pipe length ,Weld Gap,Vpreparation	Offer	Check	Check	Review
23	* For Steam Chemical Dosing Connection Reducer to Pipe S/up	Pipe length ,Weld Gap,Vpreparation	Offer	Check	Check	Review
24	Drum Saddle Pad Attachments Marking	© & Orientation,Dimension [Degree,Pitch]	Check	Review	.....	Review
25	Drum Saddle Pad Attachments S/Up	Pad size,THK,Dimension,Weld Preparation	Offer	Check	.....	Review
26	X-Ray[R T]	As Per Std/ Code	Offer	Check	Review	Review
27	Stamping	As Per Std/ Code	Check	Review	.....	Review
28	Drum Inspection Before S R	All connections,Pressure/Non Pressure Parts attachments, RT, Visual Inspection.[welding/Finishing], T P	Check/ Offer	Check	Check	Review
29	Drum Finishing Before Hydro Test	Visual Inspection Welding & Finishing,RT Reports,SR Reports	Check/ Offer	Check	Review	Review
30	Drum Hydra Test	Hydra Test Pressure,Leakages,Expansion	Check/ Offer	Check	Check	Check
31	Drill Holes Marking	© & Orientation,Water Level,Dimension [Degree,Pitch], Daigonals	Offer	Check	.....	Review
32	Drill Holes Inspection	Legaments, Go/ NoGo Gauging, Groove, Finishing	Offer	Check	Check	Review
33	Saddle Support S/up on Drum	Ht ,Pitch,Circumference ©	Offer	Check	.....	Review
34	Final Inspection [*For S D with DWLG]	Length,Pitch,Hts. & Visual Inspection	Offer	Check	Check	Review
35	Rub-Off	As Per Std/ Code	Check	Review	Review	Review
36	Painting/ Ready For Dispatch	Appearance/ Colour Coding/ EP/Capping	Check/ Offer	Review	.....	Review

[*]- Marked points extra for S.D. only.

Ganesh Ahire (QAC)

Client/Consultant/TPI

Internal QAP/ Inspection Stages For Shop				UESL/ShopQAP/Eco. Headers		
Economiser Header- Inlet/ Outlet						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection- [Header Pipe, Tube, Plate, St.Pipe, Connections]	Sizes, Stenciling, Stamping, H.No, P.No, Material Grade, Visual Inspection	Offer	Check	Check	Review
2	Hole Marking on Header Pipe	Orientation, Length, Pitch, Hole Dia	Offer	Check	.....	Review
3	End plate to Insp. Stub to End Cap S/up	Weld Preparation, Length, Gap, Overlapping	Offer	Check	Check	Review
4	Inspection Header Pipe Ready Before S/up	Deburring, Stub Hole Finishing, Pipe Inside Cleaning	Check/ Offer	Check	.....	Review
5	Nozzle & End Plate to Header S/up	Pitch, Length, Height, Weld Prep., Gap, ID/ OD Maching	Offer	Check	Check	Review
6	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
7	Stamping	As Per Std/Code	Offer	Check	.....	Review
8	Inspection Before S R	All attachments, RT, Strightness, Visual Inspection. [Welding/Finishing].	Check/ Offer	Check	Check	Review
9	Hydro-Test	Hydra Test Pressure, Leakages	Check/ Offer	Check	Check	Check
10	Cutting Marking/ Water Removing	As per Drg/ To be dried	Check/ Offer	Check	.....	Review
11	Final Inspection	Length, Height, Pitch, Strightness	Offer	Check	Check	Review
12	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check/ Offer	Review	.....	Review
13	Rub-Off	As Per Std/ Code	Check/ Offer	Review	Review	Review
<div> <div>Ganesh Ahire (QAC)</div> <div>Client/Consultant/TPI</div> </div>						

Internal QAP/ Inspection Stages For Shop			UESL/ShopQAP/Eco coil- Casing			
Economiser Coil/ Casing						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection	Sizes,Stencling, Stamping, H.No,P.No, Material Grade, Visual Inspection	Offer	Check	Check	Review
2	Layout Marking Inspection	Orientation,Length,Width, Diagonal, Loops,Pitch,Bend Radiums	Offer	Check	.....	Review
3	Bend Sample	Ovality,Thinning, Visual Inspection	Offer	Check	Check	Review
4	Weld S/up Inspection on layout	"V" preparation,Weld gap, Length,Overlapping	Offer	Check	Check	Review
5	Normalising [If Applicable]	As Per Std/ Code	Offer	Check	Review	Review
6	Flat support Fitting - Marking Layout Inspection	Orientation,Length,Width, Diagonal, Pitch,Details	Offer	Check	.....	Review
7	Flat support Fitting S/up Inspection on Layout	Orientation,Length,Width, Diagonal, Pitch,Details	Offer	Check	.....	Review
8	Ecomiser Casing Assly Part Wise Manufacturing	Plate size, Marking,S/up & Finishing	Offer	Check	.....	Review
9	Ecomiser Casing Assly Part Wise Inspection	Dimensions,Strightness, Visual Inspection	Offer	Check	.....	Review
10	Coil Finishing/ Cleaning	Grinding/ Welding Fill-up/ Strightness	Check/ Offer	Check	.....	Review
12	Eco Header to Eco.Coil S/Up	Length,Width,Weld Prepartion	Offer	Check	Check	Review
11	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
13	Stamping	As Per Std/Code	Check/ Offer	Review	.....	Review
14	Inspection Before SR	All attachements, RT, Strightness, Visual Inspection.[welding/Finishing].	Check/ Offer	Check	Check	Review
15	Ecomiser Casing Assly- Hydro Test	Hydra Test Preasure ,Leakages	Check/ Offer	Check	Check	Check
16	Cutting Marking/ Water Removing	As per Drg/ To be dried	Check	Review	.....	Review
17	Final Inspection	Dimensions, Visual Inspection	Offer	Check	Check	Review
18	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/ Capping	Check	Review	.....	Review
19	Rub-Off	As Per Std/ Code	Check	Review	Review	Review
Ganesh Ahire (QAC)						
Client/Consultant/TPI						

Internal QAP/ Inspection Stages For Shop				UESL/ShopQAP/Panel Headers		
Water Wall Panel Header.....[For Side , Front,Rear W Wall Panel]						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection- [Header Pipe, Tube, Plate, St.Pipe, Connections]	Sizes,Stencling, Stamping, H.No,P.No, Materal Grade, Visual Inspection	Offer	Check	Check	Review
2	Header Pipe to pipe ButtJts.S/up ....[If Applicable]	Weld Preparation, Length, Gap, Overlapping	Offer	Check	Check	Review
3	Hole Marking on Header Pipe	Orientation, Lengthh, Pitch, Hole Dia	Offer	Check	.....	Review
4	End plate to Inspection Stub to End Cap S/up	Weld Preparation, Length, Gap, Overlapping	Offer	Check	Check	Review
5	Inspection Header Pipe Ready Before S/up	Deburring, Stub Hole Finishing, Pipe Inside Cleaning	Check/ Offer	Check	.....	Review
6	End plate,Tube Stub, Connection to Header Pipe	Pitch, Length, Height, Weld Prep., Gap, ID/ OD Maching	Offer	Check	Check	Review
7	Support Parts S/up	Orientation, Lengthh, Pitch, Hights.	Offer	Check	.....	Review
8	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
9	Final Inspection Ready Before Lifting	Strightness, Weld Penetration, Finishing	Check/ Offer	Check	.....	Review
Ganesh Ahire (QAC)			Client/Consultant/TPI			

Internal QAP/ Inspection Stages For Shop			UESL/ShopQAP/SideWWP			
LH/ RH Side Water Wall Panel						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection [Tube,Plate,St.Pipe,Connections]	Sizes,Stencling, Stamping, H.No,P.No, Materal Grade, Visual Inspection	Offer	Check	Check	Review
2	Panel Tube layout Marking Inspection	Orientation,Length,Width, Diagonal,Pitch,Bend Radious	Offer	Check	.....	Review
3	Bend Sample	Ovality,Thinning, Visual Inspection	Offer	Check	Check	Review
4	Panel (Door Tube) Tube bending Inspection after bending on lay out	Length,Offset,Radious	Offer	Check	Check	Review
5	Header to Header Assly& Insp. Before Lifting/ Panel S/up	Orientation,Length,Strightness	Offer	Check	.....	Review
6	Panel Tube to Haeder S/up	Orientation, Length, Width,Diagonal, Diamensions	Offer	Check	Check	Review
7	Tube to Fin [Flat] Welding..... [Pema-M/c Auto Welding]	Pitch, Bore, Strightness,Visual Inspection	Check	Review	.....	Review
8	HDR to Tube & Tube to Tube S/up Inspection	Length,width,Diagonal,Pitch	Offer	Check	Check	Review
9	Flat S/up	Length, Width, Diagonal, Strightness	Offer	Check	.....	Review
10	Visual Inspection - 1st side Before Reversing	Length ,Width ,Diagonal	Check	Check	.....	Review
11	Cutting Marking Check	Cutting Marking	Check/ Offer	Check	.....	Review
12	Angle cleats and filler plates [Shop Attachements] S/up	As Per Drg	Offer	Check	.....	Review
13	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
14	Stamping	As Per Std/Code	Offer	Check	.....	Review
15	Inspection Before S R	All attachements, RT, Strightness, Visual Inspection.[Welding/Finishing]	Check	Check	Check	Review
16	Inspection Before Hydro	Length,width,Diagonal,Pitch	Check	Check	Review	Review
17	Hydro Test	Hydra Test Preasure, Leakages	Check/ Offer	Check	Check	Check
18	Cutting Marking/ Water Removing	As per Drg/ To be dried	Check	Check	.....	Review
19	Final Inspection Before Painting	Length ,Width ,Diagonal,End Prep.,Visual Inspection	Offer	Check	Check	Review
20	Rub-Off	As Per Std/ Code	Offer	Check	Review	Review
21	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check/ Offer	Check	.....	Review
Ganesh Ahire (QAC)						
Client/Consultant/TPI						

Internal QAP/ Inspection Stages For Shop				UESL/ShopQAP/FWWP		
Front Water Wall Panel						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection [Tube,Plate,St.Pipe,Connections]	Sizes,Stencling, Stamping, H.No,P.No, Materal Grade, Visual Inspection	Offer	Check	Check	Review
2	Panel Tube layout Marking Inspection	Orientation,Length,Width, Diagonal,Pitch,Bend Radiums	Offer	Check	.....	Review
3	Bend Sample	Ovality,Thinning, Visual Inspection	Offer	Check	Check	Review
4	Panel (Door Tube) Tube bending Inspection after bending on lay out	Length,Offset,Radiums	Offer	Check	Check	Review
5	Header to Header Assly& Insp. Before Lifting/ Panel S/up	Orientation,Length,Strightness	Offer	Check	.....	Review
6	Tube to Fin [Flat] Welding..... [Pema-M/c Auto Welding]	Pitch, Bore, Strightness,Visual Inspection	Check	Review	.....	Review
7	Panel Tube to Haeder S/up	Orientation, Length, Width,Diagonal, Diamensions	Offer	Check	Check	Review
8	HDR to Tube & Tube to Tube S/up Inspection	Length,width,Diagonal,Pitch	Offer	Check	Check	Review
9	Flat S/up	Length, Width, Diagonal, Strightness	Offer	Check	.....	Review
10	Visual Inspection - 1st side Before Reversing	Length ,Width ,Diagonal	Check/ Offer	Check	.....	Review
11	Cutting line check	Cutting Marking	Check/ Offer	Check	.....	Review
12	Angle cleats and filler plates S/up	As Per Drg	Offer	Check	.....	Review
13	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
14	Stamping	As Per Std/Code	Offer	Check	.....	Review
15	Inspection Before S R	All attachements, RT , Strightness, Visual Inspection.[welding/Finishing].	Check/ Offer	Check	Check	Review
16	Inspection Before Hydro	Length,width,Diagonal,Pitch	Check/ Offer	Check	Review	Review
17	Hydro Test	Hydra Test Preasure, Leakages	Check/ Offer	Check	Check	Check
18	Cutting Marking/ Water Removing	As per Drg/ To be dried	Check	Review	.....	Review
19	Final Inspection Before Painting	Length ,Width ,Diagonal,End Prep.,Visual Inspection	Offer	Check	Check	Review
20	Rub-Off	As Per Std/ Code	Offer	Check	Review	Review
21	Front Arc/ Roof Tube Layout inspection	Orientation,Length,Width, Diagonal,Pitch,Bend Radiums	Check	Check	.....	Review
22	Front Arc/ Roof tube Final Inspection on layout after bending	As Per Drg	Check	Check	Check	Review
23	Final Inspection	Dimensions, Visual Inspection	offer	check	Check	Review
24	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/ Capping	Check/ Offer	Check	.....	Review
<div> <div>Ganesh Ahire (OAC)</div> <div>Client/Consultant/TPI</div> </div>						

Internal QAP/ Inspection Stages For Shop			UESL/ShopQAP/RWWP			
Rear Water Wall Panel						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection [Tube,Plate,St.Pipe,Connections]	Sizes,Stencling, Stamping, H.No,P.No, Material Grade, Visual Inspection	Offer	Check	Check	Review
2	Panel Tube layout Marking Inspection	Orientation,Length,Width, Diagonal,Pitch,Bend Radiums	Offer	Check	.....	Review
3	Bend Sample	Ovality,Thinning, Visual Inspection	Offer	Check	Check	Review
4	Panel Tube to Tube Weld S/up On Layout	"V" preparation,Weld gap, Length,Overlapping	Offer	Check	Check	Review
5	Header to Header Assly& Insp. Before Lifting/ Panel S/up	Orientation,Length,Strightness	Offer	Check	.....	Review
6	Tube to Fin [Flat] Welding..... [Pema-M/c Auto Welding]	Pitch, Bore, Strightness,Visual Inspection	Check	Review	.....	Review
7	Panel Tube to Haeder S/up	Orientation, Length, Width,Diagonal, Diamensions	Offer	Check	Check	Review
8	Flat S/up	Length, Width, Diagonal, Strightness	Offer	Check	.....	Review
9	Door Tube S/Up	"V" preparation,Weld gap, Length,Overlapping	Offer	Check	Check	Review
10	Visual Inspection - 1st side Before Reversing	Length ,Width ,Diagonal	Check/ Offer	Check	.....	Review
11	Center Flat cutting Marking	Orientation, Pitch, Width	Check/ Offer	Review	.....	Review
12	Top Part[Loose Tubes] on Layout Inspection	Orientation,Length,Width,Bend Radiums	Offer	Check	Check	Review
13	Sealing Plate S/up	Orientation,Length ,Width	Offer	Check	.....	Review
14	Nose pipe & Angle Cleat plate S/up	Orientation,Length,Width	Offer	Check	.....	Review
15	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
16	Stamping	As Per Std/Code	Offer	Check	.....	Review
17	Inspection Before S R	All attachements, RT, Strightness, Visual	Check/ Offer	Check	Check	Review
18	Visual Inspection Before Hydro Test	Porosities,Finishing, Dimension	Check/ Offer	Check	.....	Review
19	Hydro Test	Hydra Test Preasure, Leakages	Check/ Offer	Check	Check	Check
20	Cutting Marking/ Water Removing	As per Drg/ To be dried	Check	Review	.....	Review
21	Top Part[Loose Tubes] Layout Marking Inspection	Orientation,Length,Width, Diagonal,Bend Radiums	Offer	Check	.....	Review
22	Final Inspection Before Painting of Panel & Top Part on Layout	Length ,Width ,Diagonal,End Prep.,Visual Inspection	Offer	Check	Check	Review
23	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check	Review	.....	Review
24	Rub-Off	As Per Std/ Code	Check	Review	Review	Review
Ganesh Ahire (QAC)						
Client/Consultant/TPI						

Internal QAP/ Inspection Stages For Shop				UESL/ShopQAP/S H Coils		
Primary/ Secondary SH Coil						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection	Sizes, Stenciling, Stamping, H.No, P.No, Material Grade, Visual Inspection	Offer	Check	Check	Review
2	Layout Marking Inspection	Orientation, Length, Width, Diagonal, Loops, Pitch, Bend Radius	Offer	Check	.....	Review
3	Bend Sample	Ovality, Thinning, Visual Inspection	Offer	Check	Check	Review
4	Weld S/up Inspection on layout	"V" preparation, Weld gap, Length, Overlapping	Offer	Check	Check	Review
5	Normalising [If Applicable]	As Per Std/ Code	Offer	Check	Review	Review
6	Lug/ Flat support/ Pad Fitting S/up Marking on Layout	Orientation, Length, Width, Diagonal, Pitch, Details	Check	Review	.....	Review
7	Lug/ Flat support/ Pad Fitting S/up Inspection on Layout	Orientation, Length, Width, Diagonal, Pitch, Details	Offer	Check	.....	Review
8	Coil Finishing/ Cleaning	Grinding/ Welding Fill-up/ Strightness	Check/ Offer	Check	.....	Review
9	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
10	Hydro Test	Hydra Test Pressure, Leakages	Check/ Offer	Check	Check	Check
11	Stamping	As Per Std/Code	Check/ Offer	Review	.....	Review
12	Cutting Marking/ Water Removing	As per Drg/ To be dried	Check/ Offer	Check	.....	Review
13	Final Inspection	Dimensions, Visual Inspection	Offer	Check	Check	Review
14	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check/ Offer	Check	.....	Review
<div> <div>Ganesh Ahire (QAC)</div> <div>Client/Consultant/TPI</div> </div>						

Internal QAP/ Inspection Stages For Shop				UESL/ShopQAP/ S.H.& Inbed Headers		
Inbed & Super Heaters Headers [Regular & Double Dekar Hdr]						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection- [Header Pipe, Tube, Plate, St.Pipe, Connections]	Sizes, Stenciling, Stamping, H.No, P.No, Material Grade, Visual Inspection	Offer	Check	Check	Review
2	Pipe to Pipe S/up	As per Drg	Offer	Check	Check	Review
3	Hole Marking on Header Pipe	Orientation, Length, Pitch, Hole Dia	Offer	Check	.....	Review
4	End plate to Insp. Stub to End Cap S/up	Weld Preparation, Length, Gap, Overlapping	Offer	Check	Check	Review
5	Inspection Header Pipe Ready Before S/up	Deburring, Stub Hole Finishing, Pipe Inside Cleaning	Check/ Offer	Check	.....	Review
6	Nozzle & End Plate to Header S/up	Pitch, Length, Height, Weld Prep., Gap, ID/ OD Maching	Offer	Check	Check	Review
7	Brought Out Items to Pipe S/Up	Orientation, Weld Prep., Length, Gap, Overlapping	Offer	Check	Check	Review
8	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
9	Stamping	As Per Std/Code	Offer	Check	.....	Review
10	Inspection Before S R	All attachments, RT, Strightness, Visual Inspection. [Welding/Finishing].	Check/ Offer	Check	Check	Review
11	Hydro-Test	Hydra Test Pressure, Leakages	Check/ Offer	Check	Check	Check
12	Cutting Marking/ Water Removing	As per Drg/ To be dried	Check/ Offer	Check	.....	Review
13	Final Inspection	Length, Height, Pitch, Strightness	Offer	Check	Check	Review
14	Rub-Off	As Per Std/ Code	Offer	Check	Review	Review
15	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check/ Offer	Check	.....	Review
<div> <div>Ganesh Ahire (QAC)</div> <div>Client/Consultant/TPI</div> </div>						

Internal QAP/ Inspection Stages For Shop			UESL/ShopQAP/Riser & D Comer			
Riser/ Down Comer						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection	Sizes,Stencling, Stamping, H.No,P.No, Materal Grade, Visual Inspection	Offer	Check	Check	Review
2	Layout Marking Inspection	Orientation,Length,Width, Diagonal, Loops,Pitch,Bend Radiious	Offer	Check	.....	Review
3	Bend Sample	Ovality,Thinning, Visual Inspection	Offer	Check	Check	Review
4	Weld S/up Inspection on layout	"V" preparation,Weld gap, Length,Overlapping	Offer	Check	Check	Review
5	D.C Hdrs Nozzles Hole Marking	Orientation, Lengthh, Pitch, Hole Dia	Offer	Check	.....	Review
6	Inspection Header Pipe Ready Before S/up	Deburring, Stub Hole Finishing, Pipe Inside Cleaning	Check/ Offer	Check	.....	Review
7	D.C Hdrs Nozzle S/up	Weld Prep., Length, Gap, Overlapping	Offer	Check	Check	Review
8	Brought Out Items to Pipe S/Up	Orientation,Weld Prep., Length, Gap, Overlapping	Offer	Check	Check	Review
9	End Ring/ Plates to Pipe S/Up	Weld Prep., Length, Gap, Overlapping	Offer	Check	Check	Review
10	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
11	Stamping	As Per Std/Code	Check	Review	.....	Review
12	Inspection Before S R	All attachements, RT, Strightness,Visual Inspection. [Welding/ Finishing].	Check/ Offer	Check	Check	Review
13	Hydro-Test	Hydra Test Preasure, Leakages	Check/ Offer	Check	Check	Check
14	Cutting Marking/ Water Removing	As per Drg/ To be dried	Offer	Check	.....	Review
15	Final Inspection	Length,Height,Pitch, Strightness	Offer	Check	Check	Review
16	Rub-Off	As Per Std/ Code	Offer	Check	Review	Review
17	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check	Check	.....	Review
Ganesh Ahire (QAC)			Client/Consultant/TPI			

Internal QAP/ Inspection Stages For Shop				UESL/ShopQAP/Conv Hdr		
Convention Top & Bottam Header						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection [Tube,Plate,St.Pipe,Connections]	Sizes,Stencling, Stamping, H.No,P.No, Materal Grade, Visual Inspection	Offer	Check	Check	Review
2	Tube layout Marking Inspection	Orientation,Length,Width, Diagonal,Pitch,Bend Radiums	Offer	Check	.....	Review
3	Bend Sample	Ovality,Thinning, Visual Inspection	Offer	Check	Check	Review
4	Tube bending Inspection after bending on lay out	Length,Offset,Radiums	Offer	Check	.....	Review
5	Header Pipe to pipe ButtJts S/up. .....[If Applicable]	Weld Preparation, Length, Gap, Overlapping	Offer	Check	Check	Review
6	Hole Marking on Header Pipe	Orientation, Lengthh, Pitch, Hole Dia	Offer	Check	.....	Review
7	End plate to Inspection Stub to End Cap S/up	Weld Preparation, Length, Gap, Overlapping	Offer	Check	Check	Review
8	Inspection Header Pipe Ready Before S/up	Deburring, Stub Hole Finishing, Pipe Inside Cleaning	Check/ Offer	Check	.....	Review
9	End plate,Tube Stub, Connection to Header Pipe	Pitch, Length, Height, Weld Prep., Gap, ID/ OD Maching	Offer	Check	Check	Review
10	Final Inspection Ready Before Lifting	Strightness, Weld Penetration, Finishing	Check/ Offer	Check	.....	Review
11	Convection Hdr to Tube S/up	As Per Drg	Offer	Check	Check	Review
12	Flat S/up	Length, Width, Diagonal, Strightness	Offer	Check	.....	Review
13	Support Parts S/up	Orientation, Lengthh, Pitch, Hights.	Offer	Check	.....	Review
14	X-Ray [RT]	As Per Std/ Code	Offer	Check	Review	Review
15	Stamping	As Per Std/Code	Offer	Check	.....	Review
16	Inspection Before S R	All attachements, RT, Strightness, Visual Inspection.[welding/Finishing].	Check/ Offer	Check	Check	Review
17	Visual Inspection Before Hydro Test	Porosities,Finishing, Dimension	Check/ Offer	Check	.....	Review
18	Hydro Test	Hydra Test Preasure, Leakages	Check/ Offer	Check	Check	Check
19	Final Inspection	Length ,Width ,Diagonal,E P.,Visual Inspection	Offer	Check	Check	Review
20	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check	Review	.....	Review
21	Rub-Off	As Per Std/ Code	Check	Review	Review	Review
<div> <div>Ganesh Ahire (QAC)</div> <div>Client/Consultant/TPI</div> </div>						

Internal QAP/ Inspection Stages For Shop				UESL/ShopQAP/Inbed Coil & BBT		
Inbed Coil						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection	Sizes,Stencling,H.No,P.No, Materal Grade, Visual Inspection	Offer	Check	Check	Review
2	Layout Marking Inspection	Orientation,Length,Width, Diagonal, Loops,Pitch,Bend Radiums	Offer	Check	.....	Review
3	Bend Sample	Ovality,Thinning, Visual Inspection	Offer	Check	Check	Review
4	Spacer Plate S/up	As Per Drg.	Offer	Check	.....	Review
5	Studing Marking Inspection	As Per Drg.	Offer	Check	.....	Review
6	Inspection of 1st Studed Coil	As Per Drg.	Offer	Check	.....	Review
7	Final Insp.on Layout	As Per Drg.	Offer	Check	Check	Review
8	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check/ Offer	Check	.....	Review
9	Stamping	As Per Std/ Code	Offer	Check	Review	Review
Boiler Bank Tubes						
S.No	Stages	Specifications	Prod. Team	QAC	IBR	Client
1	Materials Inspection	Sizes,Stencling,H.No,P.No, Materal Grade, Visual Inspection	Offer	Check	Check	Review
2	Layout Marking Inspection	Orientation,Length,Width, Diagonal, Loops,Pitch,Bend Radiums	Offer	Check	.....	Review
3	Bend Sample	Ovality,Thinning, Visual Inspection	Offer	Check	Check	Review
4	Final Insp.on Layout	As Per Drg.	Offer	Check	Check	Review
5	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check/ Offer	Check	.....	Review
6	Stamping	As Per Std/ Code	Offer	Check	Review	Review
Ganesh Ahire (QAC)			Client/Consultant/TPI			

Internal QAP/ Inspection Stages For Shop			UESL/ShopQAP/Structure [Non Pressure Parts]		
Structure.....[Non Pressure Parts]					
S.No	Stages	Specifications	Prod. Team	QAC	Client
1	Materials Inspection [Plate,St.Pipe,Connections, Channels,Angles,Beams]	TC Review & Visual Inspection	Check	Review	Review
2	Marking Inspection	Length,Width, Diagonal,Hard Punching,Stamp	Offer	Check	Review
3	Bending/ Rolling	Identification,ID, OD,Ovality, Template, ©, Length, "V" Prep., Gap, Overlapping, Balance Mat.	Offer	Check	Review
4	Weld S/Up	Identification,Length,"V" Preparation, Gap,Overlapping	Offer	Check	Review
5	Liquid Penetrant Test [If Applicable]	Red Indication	Offer	Check	Review
6	Part Attachments Marking	© & Orientation,Dimension [Degree,Pitch]	Offer	Check	Review
7	Part Attachments S/ Up	Identification,Length,"V" Preparation, Gap,Overlapping	Offer	Check	Review
8	Stamping, Marking for Site Alingment	As Per Std/ Code	Check	Review	Review
9	Finishing Before Painting	Visual Inspection Welding & Finishing	Check/ Offer	Check	Review
10	Final Inspection	Length,Pitch,Hts. & Visual Inspection, Strightness	Offer	Check	Review
11	Painting/ Ready For Dispatch	Apperance/ Colour Coding/ EP/Capping	Check/ Offer	Review	Review
Ganesh Ahire (QAC)					
Client/Consultant/TPI					

