

Plant	Equipment No.	Description
P&G Home Products Pvt Ltd, Hyderabad.	1788/01 (Baroda Eq & Vessels make)	Vertical Air Receiver
Area	P&G Reference No.	Process Fluid/End Use
F & HC (utility)	HYPV-01	Compressed Air
Design Code	Capacity	Position
ASME Sec VIII Div. 1	10 m3	Vertical
Year of Manufacturing(Mfr)	Insulated	Date of Inspection
2013 (rerated on 2015)	No	15.12.2020

Section I - DESIGN DATA

	Shell side	Top Dish
Design Pressure	10 bar	10 bar
MAWP	10 Bar(g)	10 Bar(g)
Design Temperature (max)	45 ° C(max) / 10 ° C(min)	45 ° C(max) / 10 ° C(min)
Rerated on 2015 :	MAWP 10bar(g) at 65 ° C	
MDMT	10 ° C	10 ° C
Hydro Test Pressure	13 bar (g)	13 bar (g)
Corrosion Allowance	1mm	1 mm

Section II- DETAILS OF MATERIAL OF CONSTRUCTION

	Shell	Top Dish	Bottom Dish
Material of Construction	SA516 Gr.70	SA516 Gr.70	SA516 Gr.70
Design Thickness (mm)	12 mm	14 mm	14 mm
Previous Thickness (mm)	Not known	Not known	Not known
Actual Thickness (mm)	12.3 mm	14.2mm	14.2mm
Min req'd Thickness (mm)	11mm	13 mm	13 mm
Corrosion Rate (mm/Year)	0		
Year of Thickness Measurement	2020		
Acceptance Standard	API 510 Tenth Edition, May 2014 & ASME Sec. VIII Div. 1 Edition 2019& P&G Reference Standard: PVP 8115 (No:CBA4007 , Dt:17-Jan-02), PVP 8114 (No. CBA 4006, Dt:13-Mar-14)& IS 2825		
Field Test & Inspection as per CBA	Inspection on	External Inspection	Internal Inspection
	Shell	Every 2 Years	Every 2 Years
	Left & Right Dish	Every 2 years	Every 2 Years

P&G Pressure Vessel User
Hyderabad Plant
TUV INDIA PVT LTD
(TUV NORD Group)

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Section III - DETAILS OF INSPECTION (HYPV-01)

Internal Inspection	internal inspection not possible due to vessel is in service , Hence Manhole not opened.					
External Inspection	Visual inspection conducted & found all around vessel surface is painted & in good condition. No surface imperfections observed / No corrosion spots observed. Weld joints visually inspected on painted surface & found no surface defects. Thickness verified at various locations on vessel (CML) & recorded below.					
Thickness recorded on 2020	Location	Shell			Top Dish	Bottom Dish
	1	12.3			14.2	14.2
	2	12.3			14.4	14.3
	3	12.3			14.3	14.2
	4	12.4			14.4	14.4
	5	12.4				
	6	12.3				
	7	12.3				
	8	12.3				
	9	12.3				
	10	12.5				
	11	12.3				
	12	12.4				

Section IV – Conclusion

Based on the above inspection findings, the above vessel can be operated safely in specified operating conditions mentioned in Section-I of this report subject periodic inspection as specified in Section-II of this report.

P& G Home products Pvt Ltd (EndUser)	TUV INDIA PVT LTD (TUV Nord Group)
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Section V – Remaining Life Calculation (HYPV-01)

$\text{Corrosion rate (LT)} = \frac{t_{\text{initial}} - t_{\text{actual}}}{\text{time between } t_{\text{initial}} \text{ and } t_{\text{actual}} \text{ (years)}}$
<p>t initial : not known t actual 12.3 time between t initial & t actual : Years Long term Corrosion Rate (LT) = 0</p>
$\text{Corrosion rate (ST)} = \frac{t_{\text{previous}} - t_{\text{actual}}}{\text{time between } t_{\text{previous}} \text{ and } t_{\text{actual}} \text{ (years)}}$
<p>t initial : not known t actual 12.3 time between t initial & t actual : Years Short term Corrosion Rate (ST) = 0</p>
$\text{Remaining life} = \frac{t_{\text{actual}} - t_{\text{required}}}{\text{corrosion rate}}$
<p>t actual 12.3 t required -11 Corrosion rate – refer above</p>
<p>Note : Note : Design thickness is not reduced , hence remaining life extended for further 2 years by maintaining Mfr recommended operating pressures & temperatures & periodic inspections</p>

P & G Home products Pvt Ltd (EndUser)	TUV INDIA PVT LTD (TUV Nord Group)
	

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HYPV 01 –Reference Photos

Eqpt Visual	Eqpt Visual
	
	

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15/12/20



INSPECTION REPORT

Report No:
TUV/8118475772/P&G/HYD/
F&HC/SL-16



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VERIFICATION

