

**Glass Processing Technology**  
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**Lecture - 56**  
**Quality Testing**

Now, we are going to understand the standard operating procedure what we follow at dispatch.

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STANDARD OPERATING SYSTEM			
DOC NO-FUSO-BW/DS/03		REV NO-4.0	DATE -01.01.2017
DEPARTMENT	DISPATCH	MACHINE	SAFE TRANSIT
SNO	PROCESS	PICTORIAL VIEW	
1	PERSONAL PROTECTIVE EQUIPMENT: Gloves are mandatory to protect personnel from injuring their hands, while handling the glass. Gloves also ensure that no finger marks appear on the coated side of glass. If finger marks are left on the glass, they will leave an imprint. Arm guards are mandatory as glass may cut and injure the forearm.		
2	Safety shoes must be worn by all the loading personnel.		
VEHICLE INSPECTION:			

So, we need to understand the PPEs, what are all required at the time of loading, what are the safety shoe that we need to wear at the time of loading. We need to understand the vehicle, we need to understand the parking, we need to have the tyre stoppers, so that there is we are avoiding the moment of the trolley, movement of the truck you can see at the stoppers.


Next, L bracketing systems to be used should be covered with the rubber and foam pads, rubber pads should always be used, keep bottom of the glass on rubber pads avoiding glass on the iron bars or any steel structure. You can see in the figures the glass is resting on the rubber pads, jumbo glass loading to be done with the zip cranes to avoid human injuries. You can see here with the help of zip cranes, the jumbo glass are getting lifted and for a higher thickness glasses, for higher thickness glasses always use more interlinks. If required you can even go for a thermocol packing, so that there is you are






maintaining a proper gap between the glasses. You can see here in the figure the glasses are getting covered with packed with thermocol interliving. Next glasses to have uniform stacking and the stacking should be at 3 to 7 degree angle and we should make sure that the edges of the glass are always protected with the cartons and between the glasses, we should always use a cork inter living or rubber separator or a thermocol.

We should make sure that there is a stabilization of the glass and the vehicle, load uniform sizes and equal amount of load both sides of the truck using wood with rubber separator. Next we need to understand the balancing of the truck. We should not load, we should not keep on loading on the one side of the truck and leave in the other. They should be always a uniform balancing of the loading inside the truck. We should always, we should also see that how we are packing and tying the glasses and the vehicle. So, we should use ratchet belt or nylon rope or cotton rope, so that there is no movement of the glasses and the glasses are staged at L angle. Next one is make sure we need to make sure that during the rainy season, the glasses are covered with the tarpaulin. Now we are going to see the quality checks what we do at dispatch.


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## Dispatch



1	<b>VEHICLE INSPECTION:</b> Check the Condition of the Truck ( body of the frame, etc, Driver license, Pollution Under Control Certificate )	
2	<b>PARKING :</b> Before loading into Truck, make sure that truck have parked in Gear Position with parking brake.	
3	<b>TYRE STOPPERS:</b> Ensure Stopper is placed beneath the Tyres to prevent the movement of Truck	
4	<b>"L" BRACKET SETTING :</b> L Bracket should be covered with Rubber Foam Pads	
5	<b>RUBBER PADS:</b> Keep bottom of the glass on Rubber pads, Avoid keeping glass on the iron bars or any steel structure.	

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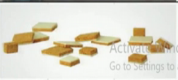
So, when a vehicle arrives, we need to see first vehicle inspection. We need to check the condition of the truck, body of the frame, FC due, driver license, pollution under control certificates, all these things in order to have a smooth delivery to the customer. Next we need to ensure the parking; before loading into the truck make sure that the truck have

parked in gear position with the parking brake. Tyre stoppers, ensure stoppers is placed beneath the tyres to prevent the moment of the truck. L bracket setting, L bracket should be covered with rubber foam pads. Rubber pads, keep bottom of the glass on rubber pads, avoid keeping the glass on iron bars or any steel structure.


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## Dispatch



6	<p><b>JUMBO GLASS LOADING WITH ZIP CRANE:</b> Use Vacuum Loader if necessary for Jumbo Glass safe loading into vehicle. Make sure the vacuum cups are silicone free and perfectly clean. Spirit or a glass cleaner can be used to clean the suckers. Which we can avoid vacuum cup marks on glasses. Ensure that the vacuum chucks are functioning well and are holding the glass properly.</p>	
7	<p><b>HIGHER THICKNESS SEPARATORS:</b> Before Jumbo Panel or thicker glasses loading: use thermocol or Higher thickness separators</p>	
8	<p><b>GLASS UNIFORM STACKING:</b> Always store glass vertically at a 3 to 7 degree angle.</p>	
9	<p><b>EDGE PROTECTION:</b> Do not place the coating in contact with rough surfaces or hard objects. Coated Faces should be facing inside</p>	
10	<p><b>CORK SEPARATOR:</b> Use mild sticky Cork pads at edge of glass, which will be provided glass to glass contact, to minimize the abrasion free.</p>	

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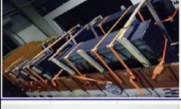



When you are doing a jumbo glass loading with zip cane, use vacuum zip loader if necessary for jumbo glass safe loading into the vehicle, make sure the vacuums cups are silicon free perfectly clean. Spirit or glass clearer can be used to clean the suckers which we can avoid vacuum cup marks on the glass. Ensure that the vacuum chucks are functioning well and are holding the glass properly.

For higher thickness glass, higher thickness separators for jumbo panels or thicker glasses loading use thermocol or higher thick separators, use as interliving to maintain a proper gap between the glass to glass. Glass uniform stacking, always store the glass vertically at 3 to 7 degree angle. Edge protection, place the coating in contact with a rough surface or hard objects. Edge protection, do not place the coating in contact with the rough surfaces or hard objects. Coated face should be facing inside always. Cork separators use mild sticky cork pads at edges of the glass which will be provided the glass to glass contact, to minimize the abrasion free.

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## Dispatch

11	<b>STABILIZATION:</b> Load uniform Sizes and equal amount of load both side of the Truck ( Using Wood with Rubber separator )	
12	<b>BALANCING TRUCK:</b> Do balance loading, do not overload all the glasses at one side, Do partial load either left hand side or right hand side.	
13	<b>SAFE / SECURING TYING:</b> Use ratchet belt or Nylon Rope or Cotton rope for tying ,ensure edges are covered with packing materials("L" Type Carton Board, Rubber pads, Bubble Packing).	
14	<b>RAIN WATER PROTECTION</b> Use Tarpaulin if necessary (during Raining seasons)	

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Stabilization, load uniform sizes and equal amount of load both the sides of the truck, using wood with rubber separators. Balancing truck, do balance loading, do not over load all the glasses at one side. Do partial load, either left hand side or right hand side. Safe secure tiring, use ratchet belt or nylon rope or cotton rope for tying, ensuring edges are covered with the packing material, L type cotton board, cotton board or rubber pads, bubble packing; rain water protection, use tarpaulin if necessary during rainy seasons.

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## Final Inspection Report

<b>FUSO</b>		<b>FINAL INSPECTION REPORT</b>				DOCU. NO.	FUSO-N/F/QA/03
						REV. NO.	1.0
DATE:		LOCATION:				DATE	04.01.2017
SL. NO.	PARTY NAME		DESTINATION	PROJECT	PO NO.	PO DATE	TIME
<b>CUSTOMER DETAILS</b>							
ORDER DETAILS	W.O. NO.	ORDER QTY	DISPATCHED QTY	INVOICE NO.	DATE	TRANSPORTER	VEHICLE NO.
<b>DESCRIPTION</b>							
ANNEALED	SCRATCHES	CHIFFLES	BACK SEQUEST	GRINDING	DRAWING	SEES	QC TESTED
TOUGHENED	SCRATCHES	CHIFFLES	COATING	FIN HOLE	DRAWING	SEES	QC TESTED
LAMINATED	SCRATCHES	CHIFFLES	BUBBLES	TRIMMING	DRAWING	SEES	QC TESTED
DOUBLE GLAZING	SCRATCHES	CHIFFLES	CLEANING	PRIMARY SEALANT	SECONDARY SEALANT	SEES	QC TESTED
OPEN PACKED DISPATCH	PAPER SEPARATOR	BUTTON	LOADING (BUT HEADS TO SEAL/GLOSS)	BELT/ROPE	POLYTHENE COVERED	BACK SUPPORT	BREAK / CHOCKING WOOD
CRATE PACKED DISPATCH	PAPER SEPARATOR	BUTTON	NAILING	BELT/ROPE	POLYTHENE COVERED	WOOD STABILIZATION	BREAK / CHOCKING WOOD
TRUCK CONDITION	HALF BODY / FULL BODY	WOOD/IRON FLOOR	CAPACITY (TONNES)	FLOOR CONDITION	TARPAULIN	PATRA / ANGLE	VERTICAL / HORIZONTAL AL STRAPPING
LOADING CONDITION	VERY GOOD	GOOD	FAIR	BAD	FRUITS TARED	QTY VERIFIED	QC TESTED
REMARKS/COMMENTS :-					TEST CERTIFICATE ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO		
SECURITY NAME				INSPECTED BY :-		SIGN	
SUPERVISED BY				APPROVED BY :-		SIGN	

And, whatever we have discussed so far, we are incorporating in our final inspection report. It says first the customer name, the order details, the destination, the project name, the dispatch quantity, the work order quantity, transporter, vehicle number, the description of the material whether it is a annealed glass or toughened glass or a laminated glass or double glazing unit, whether the glass is having any scratches or chipping or back support is properly provided coating, any coating defect is there, pin holes are there, glass or glasses as per drawing, sizes are verified. You create a double glazing unit, primary sealants, secondary sealing, all these are checked in the final inspection.

Next we checked the condition whether it is, next we will be checking the packing system, open packet dispatch or a crate packing dispatch. We are also ensuring what is the separator we are using, whether it is a button separator or paper separator, how the loading pattern is happened that is from bigger to smaller, what type of cushioning is given to glass. How we are going to tie the glass belt or rope, polythene is covered or not, back support is given or not, wood stabilization is given or not, all these we are ensuring at the time of packing.

As we have discussed we are even recording the truck condition whether it is a half body or full body, wood flooring or iron flooring, capacity in tonnage floor condition, tarpaulin angle, vertical and horizontal strapping. And, as per the observer whether the loading is very good or good or fair, bad, photos whether you have taken or not, quantity is verified as per the invoice is QC is tested, all we are incorporating in the final inspection report.

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Now, this is the final dispatch area where we are going to [FL]. Now, this is the final inspection, the glasses which are ready are getting loaded into the vehicle [FL]. So, if you see they are placing L angle L racks L angles, so that the position or the slanting of the glass is at 3 to 7 degree centigrade and in between the glasses, they are keeping a separate interliving. They are giving bottom as well as side support with the help of (Refer Time: 09:21) boards [FL]. Always we need to make sure that was the bigger panels are loaded, then the smaller panels are loaded and we need to maintain the balance of the glasses. We need to see the floor condition of the vehicle also and always we need to have the balancing of the vehicle.

So, once at first we need to once the glass are loaded on left, then we should load on the right, then again left, again right. We need to maintain the balance of the vehicle [FL] [FL]. This is that also you take inside vehicle you go, you can see all the glasses are stacked as per the dimensions and as per the sizes and in between the glasses, you can able to find the separator which acts as inter living. And, you can see they are applying these cardboards to protect the edges of the glass and you can see this and this thing also, the bottom support also they are giving you with rubber cushioning.

Thank you.