GDO Reference Checks

Overview

- Based on a request for additional background of GDO's past projects, a list of customers was requested from for the purpose of seeking out references
- Contact Details for 9 Customers was provided, with an additional Irish based customer specified as part of a follow-up request
- Reference Request to each company consisted of a series of 13 questions, as well as a scoring system to attempt to best quantify the success of GDO's previous endeavours

Question:	Healthcare Company	Sprayer Assembly	Stent Manufact -ure	Medical Device	Pharma Company	Power / Automotive Manufacturer	Breast Implants	Aerosol Assembly
Summary of Project that GDO completed:	An inspection device, specially built for our requirements. In summary we are satisfied with GDO (Rating 8).	Assembly machines 2x processing & Assembly type 1x High Volume Assembly (224/min)	Inspection station	Injection Moulding for disposable medical devices	Re-Build existing line while adding specified improvemen ts	Several dynamic test machines dynamic test machines for belts. Maintain belts at a constant torque.	Dipping Mandrel manufacturer New project to be completed for inspection & packaging	15 years with 11 machines built by GDO (inc.4 machines in NL & 2 in China Very young intelligent company Built machines in a small space (60 parts per minute)
Duration of Project (years):	1 year	40 weeks original plan (52 to 56 weeks now)	about 7 years,	Between 12 & 14 months (problem at the FAT phase with Sub- Vendor)	4/5 months (normally would have been 8/9 months) Delivered in Jan 2013 Incentivised program in place	4 Months per machine approximately to manufacture. We have purchased 2 types of machines, a low torque and a high torque. The machines were purchased in 2000, 2004, 2005, 2006 (2 Off) and 2008.	Packaging & Inspection Just started (URS submitted) 3 weeks Due start of April	7 months for the last line – PCD Assembly line with (Delivery Date was THE Delivery Date) ON TIME

Question:	Healthcare Company	Sprayer Assembly	Stent Manufactur e	Medical Device	Pharma Company	Power / Automotive Manufacturer	Breast Implants	Aerosol Assembly
GDO Quotation Cost Rating	8	7	6 Difficult to estimate because of complexity	Very good pricing – but not cheap (3 requests for quotation were sought & GDO proved best on balance)	8 Very competitive, but detailed quotation was in place with the previous supplier & the budget was already in place	9. Purchasing dept. is based in Germany, & requires 3 companies to quote so GDO must have presented a good quotation.	8 Competitive	8 Not cheap, maybe a little more expensive that Italian equivalent
Project Planning – Delivery of Project as per agreement	4	5	but this is a completely new developmen t with new technology, it's hard to estimate a timeline in such a case	5 Monitor closely the timelines with GDO 4 or 5 times Customer reps would have visited GDO –	8 High rating. Additional work was also taken on board by GDO without impacting their existing timelines Tracker in place to allow for external customer viewing	10. All machines were delivered on time.	7 Don't know yet, unaware	8 Experience is that main delays are driven by the customer & not by GDO

Question:	Healthcare Company	Sprayer Assembl y	Stent Manufactur e	Medical Device	Pharma Company	Power / Automotive Manufacturer	Breast Implants	Aerosol Assembly
Communica -tion during Project:	3 GDO provides a customer internet portal. This wasn't "fed" very well.	6-7	6, sometimes very poor reaction, sometimes very good, collaboration for a long period of time	8 Very motivated – they can be easily called	8 UP to standard – always get a response, even when they don't have a ready answer – timeline for when it would be closed	8. Sent updates on the manufacture of the machine (including pictures of construction)	8 Detailed quick feedback	8 One dedicated contact person with GDO. Very clear, easy as company is Dutch based. Main issue with communicati on is the distance. In the beginning, need to visit more often
Close-out of Actions:	8	7	1 Project not finished yet, we expect SAT within the next 4-6 weeks	6-7 (related to the high voltage controls with sub-vendor – close-out was facilitated by main company themselves)	8 Some actions still open (critical items complete, non- critical still being closed)	10 No issue getting spare parts either	8	8 Vacuum testing on last machine. More time needed to test system (Customers fault)

Question:	Healthcare Company	Sprayer Assembly	Stent Manufactur e	Medical Device	Pharma Company	Power / Automotive Manufacturer	Breast Implants	Aerosol Assembly
Support provided:	8	8	8 Support for installation of the machine was quiet good	8-9 Friendly/ motivated Some expertise required with the voltage control GDO are Experts in camera control	9 Re-negotiate with GDO required to meet the commissioning of the machine Issues with the first batches – GDO's Automation Expert on standby basis & onsite for first runs	Few emails sent requesting support in learning about the machine – excellent response from GDO	8	8 Excellent support – they will stay until it is okay
Innovation of Process:	8	9	9, mostly very innovative solutions	8-9 Not a very big company, but very innovative	8 for engineering / 6-7 for chemical expertise Very good at engineering/ did not challenge their chemical or production skills But the impression is that GDO are strong mechanically.	Innovative mechanical design was developed by GDO incorporating weights as opposed to electronic means of measuring the tension/speed. Solution was cheaper & more reliable	8 Anecdotally – they have state of the art technology Inspection machine for tablets	9 Perfect – the reason they were chosen. They found a really "out of the box" solution to a moulding machine issue.

Question:	Healthcare Company	Sprayer Assembly	Stent Manufactur e	Medical Device	Pharma Company	Power / Automotive Manufacturer	Breast Implants	Aerosol Assembly
Technical Experience & Expertise:	8	9	10 very good expertise	9 Cameras (lower rating for other items) Very high experience of camera control Also good with part handling May need coaching with new technologies	for engineering Very skilled from an inspection point of view Chemical expertise was not as strong. External Software consultant was hired by GDO (possibly for a specialised solution to a legacy equipment)	9 Pretty good	8/9	8/9 Excellent mechanically
Quality of Solution:	8 We are working the GDO inspection system in a three shift production without any problem since 2011	9	8 mostly very good quality, some purchased parts died to early	6-7 Wiring (tubing) finish is not fantastic – makes it difficult for maintenance It was specified to GDO initially, but only discovered during FAT	8 Design part was very good – but limited in scope due to cryogenic unit being outsourced.	9 Change of bearings only – otherwise maintenance is very low	8/9 Very high quality w.r.t. the mandrel manufactur e	8 Each part of the machine is nicely coated with excellent finish SYK welcome to tour machine

Question:	Healthcare Company	Sprayer Assembly	Stent Manufact- ure	Medical Device	Pharma Company	Power / Automotive Manufacturer	Breast Implants	Aerosol Assembly
Detail & Clarity in Reports/ Manuals/ Quotations from GDO	6	6-7 for quotations 5 for progress reports	7 mostly OK but some Manuals/ Reports not in German language, as ordered	7 Detail was good	8 Quality was OK – specified based on the delivery of the previous	8 Machine Drawings included in the manuals	8	8 Depends on what the request is. Preference is for two-line/5 min updates
Would you recommend GDO as an automation project vendor?	Yes (8 when the purchaser is able to "push" GDO, 5 if not)	When it gets complex, yes For small scale, not sure it's their strength	Yes, because of there Technical Experience and there innovative solutions	Yes They need to learn to control & manage timelines, but would definitely recommend them as an automation partner	Yes GDO are "not afraid" to step into the project even with risk involved — consistency in dealing with people — good character, did not change post contract signing	Very difficult to answer this as our project was not automation but as a company they seem quite professional.	Yes – initiating a project with GDO Email to g Dippel for information	Yes – For sure/always. Has history with Chinese & Italian toolmakers, but GDO far exceed these companies
Would you work with GDO again on a similar project?	Yes, GDO has the people & experience for delivering very good solution. In our case the project management was the big issue.	Yes definitely on the assembly line	Yes, same answer, very good Technology, nobody else has a similar good solution	Definite Yes	Yes Very good at building, engineering & implementation, as well as working at vendors	Yes as we have purchased 6 machines in the past.	Yes – I assume so. New project being started, but no reason not to go with GDO again.	Yes - definitive

Conclusion

- Overall, the feedback from GDO was positive across customers from various industries.
- Technically GDO were rating highly particularly with respect to the innovative solutions that they generated.
- Communication & project planning were the areas where most customers felt there was room for improvement.
- On balance, all customers spoken to, recommended GDO & would work with them again