



## **FLY SHEET # QA4 – 105**

### **PED – PRESSURE EQUIPMENT DIRECTIVE SPECIAL REQUIREMENTS**

*This attachment was prepared to help you become familiar with the Special Requirements of the Pressure Equipment Directive 97/23/EC. Please read the information contained in the following pages before proceeding with the job.*

**ANY CHANGES MADE TO SECTIONS 1.0 THRU 3.1.11 SUBSEQUENT TO REV.D  
REQUIRE REVIEW AND APPROVAL BY THE NOTIFIED BODY.**

*This information fly sheet is to be furnished with every purchase order and manufacturing traveler. Its main purposed is to alert suppliers, operators, inspectors, and test technicians of the Special Quality Requirements of the Pressure Equipment Directive.*

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## CHANGE RECORD

REV LTR	REV DATE	PAGE AFF'D	PARA AFF'D	Approved By	DESCRIPTION OF CHANGE
A	9-30-2002	2, 6-9	Fig. 1 Fig. 2	JR 9-30-02	Added Part Numbers and Source Codes
B	5-23-2003	4, 5, 7-10	3.1.2, 3.1.3, Fig. 1 Fig. 2	JR 5-23-03	Misc. changes & updated part numbers and source codes.
C	1-7-2005	Misc.	2.1 2.3 2.5 3.0.4 3.1.2.1 3.1.4 3.1.5 Fig. 1 Fig. 2	JR 1-07-05	Misc. changes & updated part numbers and source codes.
D	08-18-2006	Misc.	1.0, 3.1.2, 3.1.4, 3.1.11, Fig. 1, Fig. 2.	AQ 8-18-06	Misc. changes & updated part numbers and source codes.

## Section I: PED Program Description

- 1.0 The Pressure Equipment Directive 97/23/EC (PED) provides a legal structure whereby pressure equipment can be manufactured and sold throughout the European community without having to go through a local approval regime in every member state. The means by which this is achieved is to ensure common standards of safety in all pressure equipment sold within the European Economic Area (EEA).
- 1.1 The Directive applies to the design, manufacture and conformity assessment of pressure equipment and assemblies with a maximum allowable pressure greater than 0.5 bar gauge or 7.25 psig.
- 1.2 The requirements of this flysheet shall be followed in order to comply with the regulatory requirements for pressure equipment destined for service in the European Community.

## Section II: General Requirements

- 2.0 As you proceed to fabricate, assemble, inspect, and test PED hardware, please observe the following instructions:
  - 2.1 Read work instructions and carefully follow each step. Do not deviate from the work instructions provided. If you have difficulty following the instructions provided, contact your Supervisor or your Whittaker Controls Buyer/Planner immediately.
  - 2.2 Use only those fixtures and tooling approved for the job, as listed in the work instructions. Do not make any changes to the assembly instructions.
  - 2.3 Do not make any changes to the test instructions or to the test set-up required and use only the latest revision drawings / procedures.
  - 2.4 Suppliers processing PED hardware for Non-Destructive Examination, Welding, & Materials Testing must use only approved sources in Figure 1. Figure 2 lists the company names and addresses for the respective codes listed in Figure 1.
  - 2.5 **ALL PART NUMBERS LISTED IN FIGURE 1 APPLY TO THEIR RESPECTIVE SUFFIX DASH NUMBERS.** This means that any part with a suffix number or letter with the basic part number listed, shall also comply with this fly sheet requirement specified on the work order or purchase order.

- 2.6 The pressure assembly shall be permanently stamped by the inspection activity to indicate conformance to the requirements of this document and associated documents in this data package. A pressure acceptance stamp must also be permanently affixed to the assembly indicating satisfactory completion of the pressure test requirements of the ATP and/or Drawing.

### **Section III: Sub-tier Supplier Control, PED**

#### **3.0 General Sub-tier Supplier Requirements:**

- 3.0.1 Suppliers of machined parts must have a self-audit on file, or surveyed by Whittaker Controls prior to purchase order placement.
- 3.0.2 The Supplier must be informed of the PED requirements as outlined in QAP 24.
- 3.0.3 Suppliers shall only use the approved special process sources specified for the PED, for the part numbers listed in Figure 1 for Welding and Non-Destructive Examination (NDE).
- 3.0.4 Suppliers performing machining operations to the items listed in Figure 1 shall be approved by Whittaker Controls and shall only fabricate items using Whittaker Controls supplied materials or from ISO9001:2000 approved sources accredited and registered in the European Community. Approved material sources are listed in Figure 2.
- 3.0.5 Welding shall only be performed by a PED approved welder and NDE/NDT shall only be performed by a PED approved NDE LAB or by an approved A2LA Laboratory.

#### **3.1 Specific Sub-tier Supplier Requirements:**

- 3.1.1 SUPPLIER INSPECTION SYSTEM – The supplier shall maintain an Inspection System that will insure that adequate quality control is maintained throughout all phases of this purchase order.
- 3.1.2 RAW MATERIAL USED IN PURCHASED PARTS (Casting Foundries) –

Chemical and Physical Test Results of Raw materials used in casting of parts listed in Figure 1 shall be provided in the data package submitted to Whittaker Controls at time of delivery. Permission shall be granted to Whittaker Controls to perform any surveillance and witnessing of such tests, if requested. Materials used for the pressure containing components listed herein require Casting Suppliers to comply with one of the following requirements.

1. Casting Suppliers delivering detailed parts listed in Figure 1 shall be approved by a Notified Body or ISO 9000 certified by an organization accredited and registered in the European Community.
- 3.1.2.1 Physical and Chemical tests may require validation performed by Whittaker Controls Receiving Inspection through an A2LA Laboratory or by the Notified Body, **supplier shall submit 2 cast bars with each lot.** These records shall be traceable to an identifying number for each order of parts processed.
- 3.1.2.2 Suppliers providing castings are required to also comply with the requirements in QEI 10-59 – Control of Castings. This requirement is mandatory for all cast parts listed in Figure 1.
- 3.1.3 PERMANENT JOINING (WELDING) – Suppliers performing welding on any pressure vessels shall be approved by a notified body or qualified through Whittaker Controls, Inc. by a Notified Body per QEI 10-66 PED Welding Qualification. Whittaker Controls, Inc. approved welders are list in Figure 1.
- 3.1.4 NON-DESTRUCTIVE EXAMINATION (NDE / NDT) – Only Laboratories listed in Figure 1 are allowed to perform non-destructive examination / testing in this purchase order, unless PED approved by a Notified Body or certified by the American Association for Laboratory Accreditation (A2LA).

*Additional: When NDE/NDT testing criteria is not specified in the drawing for ASTM A351, the casting criteria will be specified in the purchase order. Sampling schedules for supplementary requirements S5 & S6 per ASTM A351 shall be performed in accordance with the sampling requirements per SAE-AMS-2175, Class 3, and Grade C.*
- 3.1.5 OTHER SPECIAL PROCESSES – All other special processes other than welding and NDE shall be performed to written procedures in accordance with drawing requirements. For the purpose of this contract, the term “special process” shall be considered any process metallurgical – heat-treating, plating, coating, and surface treating, etc. Special processes not listed in Figure 1 shall be selected from Whittaker Controls Approved Processing Vendors Book APV QA1-102 or by an approved National Aerospace Defense Contractor Accreditation Program (NADCAP) processor.
- 3.1.6 CONFIGURATION CONTROL – Purchase Documents shall contain product part number, description, and revision to assure communication of current configuration (Reference QAP 5).
- 3.1.7 REJECTED MATERIAL RESUBMISSION – All items rejected by Whittaker Controls and subsequently resubmitted by the supplier shall be adequately identified on the shipping document. Reference shall be made to the Whittaker Controls Material Rejection Report, and evidence shall be presented that will identify the parts and/or material as being either reworked to print, or replaced with new parts. If the item was reworked, a description of the rework operations performed shall be included.

3.1.8 PRODUCT ASSURANCE FACILITIES AND ORGANIZATION – Either a change of the location of supplier’s facility or the point of manufacture, or a change of supplier’s management responsibility and/or its organizational structure may negate all previous qualifications, approvals, and certifications. The buyer therefore must be notified in writing prior to a supplier implementing changes of this nature.

3.1.9 TRACEABILITY & REQUIRED DOCUMENTATION – Articles supplied against this purchase order must be traceable to inspection, routing, test data and special processing records. These records are to be maintained at the supplier’s facility for Whittaker’s on-site review or delivery to Whittaker upon request.

Material Certificates per EN 10204, 3.1.B or 3.1.C are required with delivery of hardware.
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3.1.10 PURCHASED PRODUCT WITH CE MARKING – Purchase orders shall state the requirements that define the PED Category of the items to be delivered. Certification of the base materials shall be provided with the parts supplied to Whittaker Controls. The supplied parts shall be verified upon receipt and that the delivery complies with the purchase order, including material that is supplied by a distributor to include the manufacturer’s material certification.

3.1.11 RECORD RETENTION – The supplier shall retain all manufacturing, special processing, routers, material and inspection reports, etc. for 10 years.

Part Number	Description	Assembly Where Used		
C324900	Flow Body Assy	C327335	C327405	C329175
C324901	Flow Body Assy	C327335 C327345	C327775 C327785 C327795	C327805 C327825 C329175
C324902	Casting – Flow Body	N/A		
C324907	Flange, Inlet	N/A		
C325029	Flow Body Assy	C327755	C423105	
C325037	Flange, Casting 2”	C325198 C327395 C327405	C327755 C327765 C327815	C423105 C423675
C325038	Flange, Casting 3”	C325199 C327335 C327345	C327735 C327775 C327785	C327795 C327825 C329175
C325039	Casting – Flow Body	C325048 C325460 C327395 C327405 C327335 C327345	C327735 C327755 C327765 C327785 C327795 C327805	C327815 C327825 C329175 C423105 C423675
C325048	Flow Body Assy	C327395 C327405 C327755	C327765 C327785 C327815	C327825 C423105 C4236755
C325198	Flange, Assy 2”	C327395 C327405 C327755	C327765 C327815	C423105 C423675
C325548	Casting – Flow Body	C325549	C327895	
C325549	Casting – Flow Body	C327895		
C325559	Casting – Flow Body	C325560	C327895	C422485
C325560	Valve Body Assy 2”	C327895	C422485	
C325561	Bonnet Assy	C327895	C422485	
C325562	Valve Body Casting 1½”	C325567 C327835	C421305 C421315	C422855
C325567	Valve Body Assy 1½”	C327835	C421305	C422855 C423315
C331569	Valve Body Casting 1½”	C325567 C327835	C421305 C421315	422855
C325570	Casting - Bonnet	C325999 C325561	C327835 C327895	C422485 C421305 C422855
C325721	Valve Body Casting 1-1/2”	C329355	C325722 C327935	C423505
C325722	Valve Body Assembly	C327935		

Part Number	Description	Assembly Where Used		
C325790	Valve Body Casting 2"	C325791 C327355 C327845	C329305 C329635	C423505
C325791	Valve Body Assembly	C325791 C327355 C327845	C329305 C329635	C423505
C325890	Casting - Body	C325891 C325900 C325990	C326480 C326821 C329635	C422845 C329465
C325891	Body Assembly	C325891 C325900 C325990	C326480 C326821 C329635	C422845 C329465
C325897	Casting - Bonnet	C325987 C325990 C326819 C327335	C327878 C327711 C329465 C329005	C329635 C421135 C422845
C325987	Bonnet, Hogout	C325990 C327335 C327711	C329005 C329465 C329635	C421135 C422845
C325990	Valve Assembly	C329005	C329465	
C325999	Bonnet Assy	C327835	C421305	C421315 C422855
C326480	Valve Assembly	C329635		
C326507	Valve Body Casting 3"	C326521 C326801	C329765 C329925 C329948	C422185 C422335
C326521	Valve Body 3"	C326801	C329765	C329925
C326522	Bonnet	C326801	C327438	C329765 C329925
C326747	Valve Body Casting 2"	C326819 C329570 C329635	C329738 C421135 C421725	C421735 C422845
C326748	Valve Body 2"	C326819	C327711	C329635 C421135
C326801	Valve Assembly, 3"	C329765	C329925	
C326819	Valve Assembly	C329635	C422845	
C326821	Body, Modified	C326480	C329635	
C327438	Bonnet & Sleeve Assy	C326801	C329765	C329925
C327878	Bonnet, Hogout	C329819	C329635	C422815
C329274-96	Flange	C329275		
C329274-97	Boss	C329275		
C329274-99 SFM	Pipe	C329275		
C329274-98	Ring	C329275		

Part Number	Description	Assembly Where Used		
C329450	Casting - Body	C329451	C421745	
C329498	Bonnet, Machined	C329925		
C329570	Body, Casting 2"	C329738	C421725	C421735 C421739
C329628	Body	C421895		
C329687	Valve Assy, 3"	C421895		
C329717	Bonnet 3"	C421895		
C329782	Ball Valve Assy	C421745		
C329818	Modified Valve Assembly	C421935		
C329860	Body Assy 8" "Globe"	C421935		
C329902	Valve Body Casting 2"	C329907	C422175 C422335	C422355 C422965
C329907	Body, Machined 2"	C422175	C422355	C422965
C329908	Bonnet 2"	C422175	C422355	C422965
C329947	Bonnet 3"	C422185		
C329948	Control Valve, 6"	C422185		
C329959	Bonnet Adapter	C422335		
C329979	Body, Casting - 4"	C330398	C422335	C422635
C330001	Body, Casting 3"	C326801 C329925	C330002 C330542	C422415
C330002	Valve Body, 3"	C422415		
C330398	Body, Machined 4"	C422635		
C330400	Bonnet Assy 4"	C422635		
C330542	Valve Body 3"	C326801	C329925	
C330801	Body Casting 6"	C330802	C422205	
C331169	Valve Body Casting 2"	C325791 C327355	C327845 C329305	C329635 C423505
C331559	Flange, Casting 2"	C325198 C327395 C327405	C327755 C327765 C327815	C423105 C423675
C331560	Flange, Casting 3"	C325199 C327335 C327345	C327735 C327775 C327785	C327795 C327825 C329175
C331561	Casting – Flow Body	C325048 C325460 C327395 C327405 C327335 C327795	C327345 C327735 C327755 C327765 C327785 C327805	C327815 C327825 C329175 C423105 C423675

Part Number	Description	Assembly Where Used		
C331568	Valve Body Assy 2"	C327895	C422485	
C331572	Valve Body Casting 2"	C326819 C329570 C329635	C329738 C421135 C421725	C421735 C422845
C332279	Bolts	Obtain inquiry information "Multi-level Where Used" from JDE. Notify Whittaker Controls Buyer/Planner for information.		
C332327	Bolts	Obtain inquiry information "Multi-level Where Used" from JDE. Notify Whittaker Controls Buyer/Planner for information.		

**TABLE 1**

<b>Foundries &amp; Material Suppliers – ISO 9001:2000 or PED approved by Notified Body(s)</b>		
<b>American Foundry Group</b> 14602 S. Grant Street, Bixby, OK 612 S. 45 <sup>th</sup> Street East, Muskogee, OK	<b>On-Site Certified Welding (PED)</b> 844 E. Harvard Place Ontario, CA 91762 909-395-0506	<b>Tycon Alloy Industries (Shenzhen) Co. Ltd.</b> Danzhutou Village Industrial Zone Buji, Longgang District, Shenzhen Peoples Republic of China
<b>Avesta Polarit (Sweden, UK, USA)</b> 3043 Crenshaw Parkway Richburg, South Carolina 29729	<b>OutoKumpu Stainless, Inc.</b> (Bar Products) 3043 Crenshaw Parkway Richburg, South Carolina 29729	<b>Waukesha Foundry (*)</b> 1300 Lincoln Ave. Waukesha, WI 53186
<b>Fry Steel Company</b> 13325 Molette Street Santa Fe Springs, California 90670	<b>OutoKumpu Stainless, Inc.</b> (Stainless steel – Plate) 549 W. State Road Richburg, South Carolina 29729	<b>Whittaker Controls, Inc.</b> 12838 Saticoy Street North Hollywood, CA 91605 818-765-8160
<b>Lodi Iron Works, Inc. ***NON – ISO approved***</b> <i>(All supplied hardware shall be PED or A2LA Lab approved NDT &amp; material testing, otherwise shall be validated 100% upon receipt per heat lot – Notify Whittaker QA).</i> 820 S. Sacramento Street Lodi, CA 95241 209-368-5395		
<b>Approved Laboratories - A2LA Accredited</b>		
<b>Atlas Testing Laboratories</b> 6929 E. Slauson Ave. Los Angeles, CA 90040 323-722-8810	<b>STORK Materials Testing &amp; Insp.</b> 15062 Bolsa Chica Street Huntington Beach, CA 92649 714-892-8159	
<b>Dickson Testing Company</b> 11126 Palmer Ave. South Gate, CA 90280 562-862-8378	<b>STORK Materials Testing &amp; Insp.</b> 18100 S. Wilmington Ave. Rancho Dominguez, CA 90220 310-632-8500	
<b>Inactive Suppliers – History Only</b>		
<b>Dameron Alloy Foundries</b> 927 South Santa Fe Avenue - Box 8000 Compton, CA 90224 - USA Tel: 800-421-1985 Tel: 310-631-5165 Fax: 310-631-5001	<b>Grede Foundries</b> 9898 W. Bluemound Rd. Milwaukee, WI 53226 414-256-9366	
<b>Duhig Co.</b> 5071 Telegraph Road Los Angeles, CA 90022	<b>KEOKUK Steel Castings Company</b> 3972 Main Street Keokuk, IA 52632 319-524-2661	

**TABLE 2**