参考图纸/文献 Ref. Drawing/Document	
图纸/文献号 Drawing/Document No.	名称 Title

总体设计说明(1)
GENERAL DESIGN DESCRIPTION(1)

1.总则(GENERAL)

1.1 预焙阳极是铝电解生产过程中的主要耗材之一，是铝电解槽的重要组成部分。它将直流电导入电解槽并参与化学反应，伴随着铝电解过程进行，阳极连续不断消耗。本项目预焙阳极设计产能为164kt/a。

1.1 PREBAKED ANODE IS ONE OF THE MAIN CONSUMABLES IN ALUMINUM REDUCTION PROCESS. AND ANODE ASSEMBLY IS AN INTEGRAL PART OF A REDUCTION POT. THE ANODE CARRIES DIRECT CURRENT INTO THE REDUCTION POTS AND IS CONSUMED DURING THE ELECTROCHEMICAL REACTION. THE DESIGN CAPACITY OF THE PREBAKED ANODES IS 164kt/a.

1.2 高温煤沥青是预焙阳极生产的主要原材料之一，作为黏结剂供生阳极配料使用。在设备选择上考虑固体沥青和液体沥青都可进厂使用。固体沥青采用袋装方式进厂，通过汽车运输到固体沥青袋装库存贮；液体沥青通过专用罐车运输到厂内，卸入沥青熔化槽内。

1.2 HIGH SOFTENING POINT COAL TAR PITCH IS ONE OF THE MAIN RAW MATERIALS, AND USED AS THE BONDING AGENT IN THE GREEN ANODE BATCHING SECTION. THE EQUIPMENT SELECTION COULD SUIT FOR BOTH SOLID PITCH AND LIQUID PITCH. SOLID PITCH WILL BE TRANSPORTED TO THE PLANT IN BAGS BY TRUCKS, AND STORED IN THE PITCH STORAGE; LIQUID PITCH WILL BE TRANSPORTED TO THE PLANT BY SPECIL TANK TRUCKS, AND UNLOADED TO THE PITCH MELTING TANK.

1.3 本子项包括袋装固体沥青仓库、固体沥青转运和破碎设施、沥青熔化设施、液体沥青输送系统、液体沥青储罐等。袋装固体沥青仓库的贮量为2个月，液体沥青储罐贮量满足生阳极连续生产7天的沥青用量。

1.3 THIS SUBITEM INCLUDE BAGGED SOLID PITCH STORAGE, SOLID PITCH TRANSPORTATION AND CRUSHE FACILITY, PITCH MELTING FACILITY, LIQUID PITCH TRANSPORT SYSTEM, LIQUID PITCH STORAGE TANKS. THE BAGGED SOLID PITCH STORAGE WILL BE DESIGNED FOR 2 MONTHS PRODUCTION. THE CAPACITY OF THE LIQUID PITCH STORAGE TANK SHALL BE ENOUGH FOR 7 DAYS' CONTINUOUS PRODUCTION OF GREEN ANODE PLANT.

1.4 本子项固体沥青熔化以及液体沥青保温介质为热煤油，根据用热性质不同，分为两类：加热用热煤油温度为290℃，保温用热煤油温度为220℃。

1.4 THE HTM FOR SOLID PITCH MELTING AND HOLDING FOR LIQUID PITCH IS HTM OIL. THERE ARE TWO TYPES OF HTM OIL FOR DIFFRENT HEATING TYPES. 290℃ HTM IS REQUIRED FOR HEATING PURPOSES AND 220℃ HTM FOR HOLDING.

1.5 本套设计图纸为炭素工艺详细设计图纸，其余各专业设计图见相关专业图纸。建筑专业图纸见DG0505DE-DR-6011AR，结构专业图纸见DG0505DE-DR-6011ST,电力专业图纸见DG0505DE-DR-6011PS,自控专业图纸见DG0505DE-DR-6011AU，给排水专业图纸见DG0505DE-DR-6011SW，通风专业图纸见DG0505DE-DR-6011HV。

1.5 THIS DRAWING IS DETAIL ENGINEERING DRAWING OF CARBON PROCESS. FOR OTHER DRAWINGS, SEE EACH SPECIALTY DRAWING: FOR ARCHITECTURE DRWAING, SEE DG0505DE-DR-6011AR; FOR STRUCTURE DRAWING, SEE DG0505DE-DR-6011ST; FOR POWER DRAWING, SEE DG0505DE-DR-6011PS; FOR AUTOMATION DRAWING, SEE DG0505DE-DR-6011AU; FOR WATER S&D DRAWING, SEE DG0505DE-DR-6011SW; FOR HVAC DRAWING, SEE DG0505DE-DR-6011HV.

1.6 沥青贮存及沥青熔化车间的设计、节能、安全、环保标准如表1-1所示。设计按照最新的标准与规范进行，并且根据行业进步等执行更高的标准要求。

1.6 THE DESIGN, ENERGY SAVING, SAFETY AND ENVIRONMENTAL PROTECTION STANDARDS OF PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY ARE LISTED IN TABLE 1-1. THE DESIGN SHALL BE CARRIED OUT AS PER THE LATEST STANDARDS AND CODES AND THE HIGHER STANDARD REQUIREMENTS SHALL PREVAIL AS THE INDUSTRY ADVANCES.

表1-1: 主要标准、规范

TABLE 1-1: MAIN STANDARDS AND CODES

序号 NO.	标准名称 STANDARD NAME	标准号 STANDARD NO.
1	炭素厂工艺设计规范 "DESIGN CODE FOR CARBON PLANT"	GB 50765-2012
2	炭素生产安全卫生规程 "SAFETY AND HEALTH CODES FOR CARBON AND GRAPHITE PRODUCTION"	GB 15600-2008
3	铝工业污染物排放标准 "EMISSION STANDARD OF POLLUTANTS FOR ALUMINUM INDUSTRY"	GB/T 25465-2010

1.7 建设单位、项目总承包商、施工单位及建成投产后的生产运营单位等任何与本工程相关的单位或个人如需变更或调整技术参数、材料要求，须经设计单位审批后方可实施。

1.7 UNLESS OTHERWISE APPROVED BY THE DESIGN INSTITUTE, ANY CHANGES TO OR ADJUSTMENT OF THE TECHNICAL PARAMETERS, MATERIAL REQUIREMENTS BY ANY ORGANIZATIONS OR INDIVIDUALS RELATED TO THE PROJECT, SUCH AS THE OWNER, THE EPC CONTRACTOR, THE CONSTRUCTION COMPANY OR THE COMPANY OPERATING THE SMELTER AFTER THE CONSTRUCTION IS COMPLETED ARE PROHIBITED.

1.8 图中未注尺寸单位为毫米(mm)。

1.8 UNLESS OTHERWISE SPECIFIED ON THE DRAWING, ALL DIMENSIONS ARE IN MILLIMETERS (mm).

2 材料

2 MATERIALS

2.1 钢材采用GB/T 700-2006(ISO630: 1995)《碳素结构钢》中规定的Q235B钢材；并应具有抗拉强度，伸长率，屈服点，冷弯试验和硫、磷的极限含量的合格保证；对焊接结构还应具有碳含量的合格保证。

2.1 Q235B STEEL STIPULATED IN "CARBON STRUCTURAL STEELS" GB/T 700-2006(ISO630: 1995) SHALL BE UTILIZED. AND THE STEEL SHALL BE GUARANTEED TO SATISFY THE REQUIRED TENSILE STRENGTH, ELONGATION, YIELD POINT, COLD BENDING TESTS AND LIMITS OF SULFUR AND PHOSPHORUS CONTENTS; FOR WELDED STRUCTURES, THE CARBON CONTENT OF WELDED STEEL STRUCTURES SHALL ALSO BE GUARANTEED.

2.2 钢材应具有钢厂出具的质量证明书或检验报告，当采用其他钢材替代设计选用的材料时，须经设计单位同意。

2.2 THE STEEL SHALL HAVE QUALITY CERTIFICATES OR TEST REPORTS ISSUED BY THE STEEL MILL. PRIOR APPROVAL MUST BE OBTAINED FROM THE DESIGN INSTITUTE FOR ANY SUBSTITUTE OF THE STEEL SELECTED IN THE DESIGN.

2.3 钢部件所用的钢材应具有抗拉强度、伸长率、屈服强度(或屈服点)和硫、磷含量、碳含量保证；并均应具有冷弯试验的合格保证。

2.3 THE STEEL OF PARTS SHALL BE GUARANTEED TO SATISFY THE REQUIRED TENSILE STRENGTH, ELONGATION, YIELD STRENGTH (YIELD POINT), CONTENTS OF SULFUR AND PHOSPHORUS; IT SHALL ALSO BE GUARANTEED TO HAVE PASSED THE COLD BENDING TEST.

2.4 不同牌号钢之间的焊接，其焊接材料按低牌号钢采用。

2.4 FOR THE WELDING BETWEEN STEEL OF DIFFERENT GRADES, THE WELDING MATERIALS SHALL BE SELECTED ACCORDING TO THE STEEL OF THE LOWER GRADE.

3 制作及安装

3 FABRICATION AND INSTALLATION

3.1 总体要求

3.1 GENERAL REQUIREMENTS

制作安装应按照非标部件图与各安装图要求完成。

FABRICATION AND INSTALLATION SHOULD FOLLOW THE TECHNICAL REQUIREMENTS OF THE NON-STANDARD PARTS DRAWING AND THE INSTALLATION DIAGRAMS.

3.2 各施工单位在制作、安装前必须认真熟悉设计图纸、设计说明以及技术要求和规定。

3.2 ALL CONSTRUCTION COMPANIES MUST GET FAMILIARIZED WITH THE DESIGN DRAWINGS, DESIGN DESCRIPTIONS AND TECHNICAL REQUIREMENTS AND STIPULATIONS PRIOR TO ANY FABRICATION AND INSTALLATION.

4 钢部件表及涂装

4 COATING OF STEEL PARTS

4.1 所有钢部件表面在出厂前应至少涂一道防锈底漆。面漆涂装时间及颜色要求由施工单位与业主协商决定，但要与底漆相匹配。

4.1 ALL STEEL PARTS MUST BE PROVIDED WITH AT LEAST ONE COAT OF EX-FACTORY ANTI-RUST PRIMER. THE PAINTING TIME AND COLOR OF FINISH COAT ARE SUBJECT TO THE AGREEMENT BETWEEN THE CONSTRUCTION COMPANY AND THE OWNER AND SHALL MATCH THE PRIMER.

5 液体沥青、热煤和压缩空气管路(LIQUID PITCH, HTM & COMPRESSED AIR PIPELINE)

5.1 液体沥青、热煤和压缩空气管路执行的标准如表5-1所示。设计按照最新的标准与规范进行，并且根据行业进步等执行更高的标准要求。

5.1 REFERENCED STANDARDS OF LIQUID PITCH, HTM & COMPRESSED AIR PIPELINE ARE LISTED IN TABLE 5-1. THE DESIGN SHALL BE CARRIED OUT AS PER THE LATEST STANDARDS AND CODES AND THE HIGHER STANDARD REQUIREMENTS SHALL PREVAIL AS THE INDUSTRY ADVANCES.

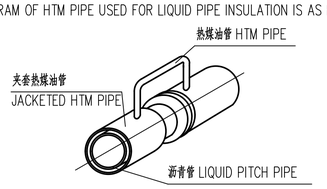
表5-1: 主要标准、规范

TABLE 5-1: MAIN STANDARDS AND CODES

序号 NO.	标准名称 STANDARD NAME	标准号 STANDARD NO.
1	压缩空气站设计规范 "CODE FOR DESIGN OF COMPRESSED AIR STATION"	GB 50029-2014 DG0505DE-EM-000000-0020-C1
2	锅炉安全技术监察规程 "BOILER SAFETY TECHNICAL SUPERVISION ADMINISTRATION REGULATION"	TSG G0001-2012 DG0505DE-EM-000000-0020-C1
3	有机热载体炉 "ORGANIC HEAT TRANSFER MATERIAL HEATERS"	GB/T 17410-2008 DG0505DE-EM-000000-0020-C1
4	工业金属管道设计规范 "DESIGN CODE FOR INDUSTRIAL METALLIC PIPING"	GB 50316-2000 (2008 EDITION) DG0505DE-EM-000000-0020-C1
5	化工设备、管道外防腐设计规范 "DESIGN CODE FOR EXTERNAL CORROSION PROTECTION OF CHEMICAL EQUIPMENT AND PIPING"	HG/T 20679-2014 DG0505DE-EM-000000-0020-C1
6	工业设备及管道绝热工程设计规范 "DESIGN CODE FOR INSULATION ENGINEERING OF INDUSTRIAL EQUIPMENT AND PIPE"	GB50264-2013 DG0505DE-EM-000000-0020-C1
7	工业管道的基本识别色、识别符号和安全标识 "BASIC IDENTIFICATION COLORS AND CODE INDICATIONS AND SAFETY SIGN FOR INDUSTRIAL PIPELINES"	GB 7231-2003 DG0505DE-EM-000000-0020-C1

5.2 液体沥青管路保温用热煤油管联接方式见以下示意图.

5.2 CONNECTION DIAGRAM OF HTM PIPE USED FOR LIQUID PIPE INSULATION IS AS FOLLOW.



5.3 管道保温

5.3 PIPE INSULATION

沥青、热煤油管道保温层选用复合硅酸盐制品，主要性能参数如表5-2所示。

THE INSULATION LAYER OF PITCH AND HEAT TRANSFER OIL PIPELINES SHALL BE MADE OF COMPOSITE SILICATE PRODUCT, AND THE MAIN PERFORMANCE PARAMETERS ARE LISTED IN TABLE 5-2.

表5-2: 复合硅酸盐制品主要性能参数

TABLE 5-2: MAIN PERFORMANCE PARAMETERS OF COMPOSITE SILICATE PRODUCT

序号 NO.	名称 NAME	耐火等级 FIRE RESISTANCE RATING	密度(kg/m³) DENSITY (kg/m³)	导热系数(W/m·℃) THERMAL CONDUCTIVITY (W/m·℃)
1	复合硅酸盐制品 COMPOSITE SILICATE PRODUCT	不燃类A级 NON-COMBUSTIBLE, GRADE A	<200	T=300℃ λ=0.038

5.3 沥青、热煤油管道保温厚度如表5-3所示：

5.3 THE INSULATION THICKNESSES OF PITCH AND HTM OIL PIPELINES ARE LISTED IN TABLE 5-3.

表5-3：沥青、热煤油管道保温厚度

TABLE 5-3: INSULATION THICKNESS OF PITCH AND HTM OIL PIPELINES

序号 NO.	名称 NAME	规格 SPECIFICATION												
1	公称直径(DN) NOMINAL DIAMETER (DN)	DN25	DN32	DN40	DN50	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400
2	保温厚度(mm) INSULATION THICKNESS (mm)	70	70	80	80	90	90	90	100	100	100	100	100	100

5.4 保护层选用0.5mm热镀锌钢板，材质为Q235B，技术要求应符合《连续热镀锌钢板及钢带》GB/T 2518-2008的规定。

5.4 THE PROTECTIVE COVER IS MADE OF HOT-DIP ZINC-COATED STEEL SHEET WITH A THICKNESS OF 0.5mm, USING GRADE Q235B STEEL, AND THE TECHNICAL REQUIREMENTS SHALL COMPLAY WITH "CONTINUOUSLY HOT-DIP ZINC-COATED STEEL SHEET AND STRIP" (GB/T 2518-2008).

5.5 每层保温制品至少采用双股镀锌铁丝捆扎，保温外径DW≤300mm时，镀锌铁丝直径为1.2mm，保温外径DW>300mm时，镀锌铁丝直径为1.6mm。

5.5 EACH LAYER OF INSULATION PRODUCT SHALL BE BUNDLED BY AT LEAST TWO STRANDS OF GALVANIZED IRON WIRES. IF THE OUTER DIAMETER OF INSULATING LAYER IS NOT GREATER THAN 300mm, THE DIAMETER OF GALVANIZED IRON WIRE SHALL BE 1.2mm, OTHERWISE THE DIAMETER OF GALVANIZED IRON WIRE SHALL BE 1.6mm.

5.6 沥青、热煤油管路保温材料用量及沥青管路热煤连接管分别见表5-4，表5-5，表5-6。表中将阀门和管件折算成直管段后统计的总量，备货时应考虑损耗修正，其中保温材料修正量为8%，热镀锌钢板修正量为15%;保温结构按图集《管道与设备绝热-保温》08R418-1 施工。

5.6 THE QUANTITIES OF THE INSULATION LAYER OF PITCH AND HEAT TRANSFER OIL PIPELINES, AND THE HTM PIPE FOR CONNECTING PITCH PIPELINES ARE LISTED IN TABLE 5-4, TABLE 5-5 AND TABLE 5-6.THE QUANTITY SHOWN IN THIS LIST IS TOTAL QUANTITY CALCULATED AFTER VALVES AND PIPE FITTINGS ARE CONVERTED INTO STRAIGHT PIPE. LOSS CORRECTION SHALL BE TAKEN INTO CONSIDERATION DURING ORDERING, WITH A 8% CORRECTION FOR INSULATING MATERIALS AND A 15% CORRECTION FOR HOT DIP GALVANIZED STEEL PLATES.INSULATION STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO STANDARD DRAWING "THERMAL INSULATION OF PIPES AND EQUIPMENT- THERMAL INSULATION" REF. 08R418-1.

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	26/12-20				

业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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设计单位(Engineering Institute): 东北大学 设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

制图 Drawn			
校对 Checked	刘希文 LIU XIWEN	刘希文	23/12-20
审核/审定 Approved	施德刚 SHI DEGANG	施德刚	22/12-20
制图 Drawn	洪泉 HONG QUAN	洪泉	21/12-20

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

总体设计说明 GENERAL DESIGN DESCRIPTION

工程编号 Proj. No.	DG0505
设计阶段 Phase	施工图 AD
专业 Specialty	炭素工艺 CP
图纸比例 Scale	
图号 Dwg. No.	DG0505AD-DR-6011CP-0020
Rev.	1
共 2 页 第 1 页 Page 1 of 2	

总体设计说明(2)
GENERAL DESIGN DESCRIPTION(2)

参考图纸/文献 Ref. Drawing/Document	
图纸/文献号 Drawing/Document No.	名称 Title

表5-4：沥青管保温材料表
TABLE 5-4: LIST OF PITCH PIPE INSULATING MATERIAL

序号 NO.	设备或管道编号 EQUIPMENT OR PIPELINE NAME	规格 SPECIFICATION	沥青温度 ℃ PITCH TEMPERATURE	热媒温度 ℃ HTM TEMPERATURE	管线长度 mm LENGTH OF PIPELINE	保温层 INSULATION LAYER			保护层 PROTECTIVE LAYER		
						材料 MATERIAL	厚度 THICKNESS mm	体积 VOLUME m^3	材料 MATERIAL	厚度 THICKNESS mm	面积 AREA m^2
1	6011-LP-101-DN125-2.5A1-J	D219x6/D140x5	180	220	4493	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	0.45	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	5.9
2	6011-LP-102-DN80-2.5A1-J	D140x5/D89x4	180	220	21749	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	1.41	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	21.85
3	6011-LP-103-DN80-2.5A1-J	D140x5/D89x4	180	220	406	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.03	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	0.4
4	6011-LP-104-DN80-2.5A1-J	D140x5/D89x4	180	220	406	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.03	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	0.4
5	6011-LP-105-DN80-2.5A1-J	D140x5/D89x4	180	220	5496	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.36	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	5.5
6	6011-LP-201-DN100-2.5A1-J	D168x5/D114x4	180	220	2372	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	0.20	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	2.74
7	6011-LP-202-DN100-2.5A1-J	D168x5/D114x4	180	220	963	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	0.08	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	1.12
8	6011-LP-203-DN100-2.5A1-J	D168x5/D114x4	180	220	13171	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	1.11	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	15.22
9	6011-LP-301-DN80-2.5A1-J	D140x5/D89x4	180	220	1003	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.06	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	1.0
10	6011-LP-401-DN100-2.5A1-J	D168x5/D114x4	180	220	2372	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	0.20	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	2.74
11	6011-LP-402-DN100-2.5A1-J	D168x5/D114x4	180	220	963	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	0.08	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	1.12
12	6011-LP-403-DN100-2.5A1-J	D168x5/D114x4	180	220	13171	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	1.11	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	15.22
13	6011-LP-501-DN80-2.5A1-J	D140x5/D89x4	180	220	1003	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.06	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	1.0
14	6011-LP-601-DN80-2.5A1-J	D140x5/D89x4	180	220	23649	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	1.54	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	23.76
15	6011-LP-602-DN80-2.5A1-J	D140x5/D89x4	180	220	1006	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.06	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	1.0
16	6011-LP-603-DN80-2.5A1-J	D140x5/D89x4	180	220	1006	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.06	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	1.0
17	6011-LP-604-DN80-2.5A1-J	D140x5/D89x4	180	220	3221	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.21	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	3.23
18	6011-LP-701-DN80-2.5A1-J	D140x5/D89x4	180	220	58809	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	3.82	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	59.09
							总计 TOTAL	10.87			141.27

表5-5：热媒管保温材料表
TABLE 5-5: LIST OF HTM PIPE INSULATING MATERIAL

序号 NO.	设备或管道编号 EQUIPMENT OR PIPELINE NAME	规格 SPECIFICATION	介质温度 ℃ MEDIUM TEMPERATURE	单位 UNIT	数量 QTY.	保温层 INSULATION LAYER			保护层 PROTECTIVE LAYER		
						材料 MATERIAL	厚度 THICKNESS mm	体积 VOLUME m^3	材料 MATERIAL	厚度 THICKNESS mm	面积 AREA m^2
1	6011-HOS-101-DN250-2.5A1-H	D273x7	290	m	17.4	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	2.04	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	30.90
2	6011-HOS-101-DN200-2.5A1-H	D219x6	290	m	10	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	1	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	15.48
3	6011-HOS-101-DN100-2.5A1-H	D114x4	290	m	55	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	3.08	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	58.08
4	6011-HOS-101-DN80-2.5A1-H	D89x4	290	m	2.7	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.138	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	2.66
5	6011-HOS-101-DN50-2.5A1-H	D60x3.5	290	m	7.0	复合硅酸制品 COMPOSITE SILICATE PRODUCT	80	0.237	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	5.54
6	6011-HOS-101-DN32-2.5A1-H	D42x3	290	m	9.5	复合硅酸制品 COMPOSITE SILICATE PRODUCT	70	0.228	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	6.04
7	6011-HOR-101-DN250-2.5A1-H	D273x7	275	m	15.9	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	1.86	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	28.24
8	6011-HOR-101-DN200-2.5A1-H	D219x6	275	m	13	复合硅酸制品 COMPOSITE SILICATE PRODUCT	100	1.3	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	20.12
9	6011-HOR-101-DN100-2.5A1-H	D114x4	275	m	50.5	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	2.83	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	53.33
10	6011-HOR-101-DN80-2.5A1-H	D89x4	275	m	7.8	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.398	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	7.68
11	6011-HOR-101-DN50-2.5A1-H	D60x3.5	275	m	9.0	复合硅酸制品 COMPOSITE SILICATE PRODUCT	80	0.306	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	7.13
12	6011-HOR-101-DN32-2.5A1-H	D42x3	275	m	5.9	复合硅酸制品 COMPOSITE SILICATE PRODUCT	70	0.142	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	3.75
13	6011-LOS-101-DN125-2.5A1-H	D140x5	220	m	15.7	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.989	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	18.28
14	6011-LOS-101-DN100-2.5A1-H	D114x4	220	m	27.6	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	1.546	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	29.15
15	6011-LOS-101-DN80-2.5A1-H	D89x4	220	m	29.3	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	1.494	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	28.83
16	6011-LOS-101-DN50-2.5A1-H	D60x3.5	220	m	4.7	复合硅酸制品 COMPOSITE SILICATE PRODUCT	80	0.16	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	3.72
17	6011-LOS-101-DN40-2.5A1-H	D48x3.5	220	m	5.9	复合硅酸制品 COMPOSITE SILICATE PRODUCT	80	0.183	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	4.46
18	6011-LOS-101-DN32-2.5A1-H	D42x3	220	m	4.5	复合硅酸制品 COMPOSITE SILICATE PRODUCT	70	0.108	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	2.86
19	6011-LOS-101-DN25-2.5A1-H	D34x3	220	m	59	复合硅酸制品 COMPOSITE SILICATE PRODUCT	70	1.298	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	37.52
20	6011-LOR-101-DN125-2.5A1-H	D140x5	205	m	14.7	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	0.926	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	17.11
21	6011-LOR-101-DN100-2.5A1-H	D114x4	205	m	26.8	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	1.501	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	28.30
22	6011-LOR-101-DN80-2.5A1-H	D89x4	205	m	28	复合硅酸制品 COMPOSITE SILICATE PRODUCT	90	1.428	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	27.55
23	6011-LOR-101-DN50-2.5A1-H	D60x3.5	205	m	5.2	复合硅酸制品 COMPOSITE SILICATE PRODUCT	80	0.177	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	4.12
24	6011-LOR-101-DN40-2.5A1-H	D48x3.5	205	m	6.0	复合硅酸制品 COMPOSITE SILICATE PRODUCT	80	0.186	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	4.54
25	6011-LOR-101-DN32-2.5A1-H	D42x3	205	m	3.3	复合硅酸制品 COMPOSITE SILICATE PRODUCT	70	0.079	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	2.10
26	6011-LOR-101-DN25-2.5A1-H	D34x3	205	m	48	复合硅酸制品 COMPOSITE SILICATE PRODUCT	70	0.142	热镀锌钢板 HOT DIP GALVANIZED STEEL SHEET	0.5	30.53
							总计 TOTAL	23.78			478.02

表5-6：沥青管路热媒连接管
TABLE 5-6: HTM PIPE FOR CONNECTING PITCH PIPE

序号 NO.	规格 SPECIFICATION	介质温度 ℃ MEDIUM TEMPERATURE	单位 UNIT	数量 QTY.
1	D34x3	220	m	100

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业主 [Owner]：伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商 (EPC Contractor)：中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

设计单位 (Engineering Institute)：东北大学设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
△1	26/12-20				

审核/审定 Approved			
校 对 Checked	刘希文 LIU XIWEN	刘希文	23/12-20
制 图 Drawn	施德刚 SHI DEGANG	施德刚	22/12-20
	洪 泉 HONG QUAN	洪泉	21/12-20

工程编号 Proj. No.	DG0505
设计阶段 Phase	施工图 AD
专 业 Specialty	总图工艺 CP
图纸比例 Scale	

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

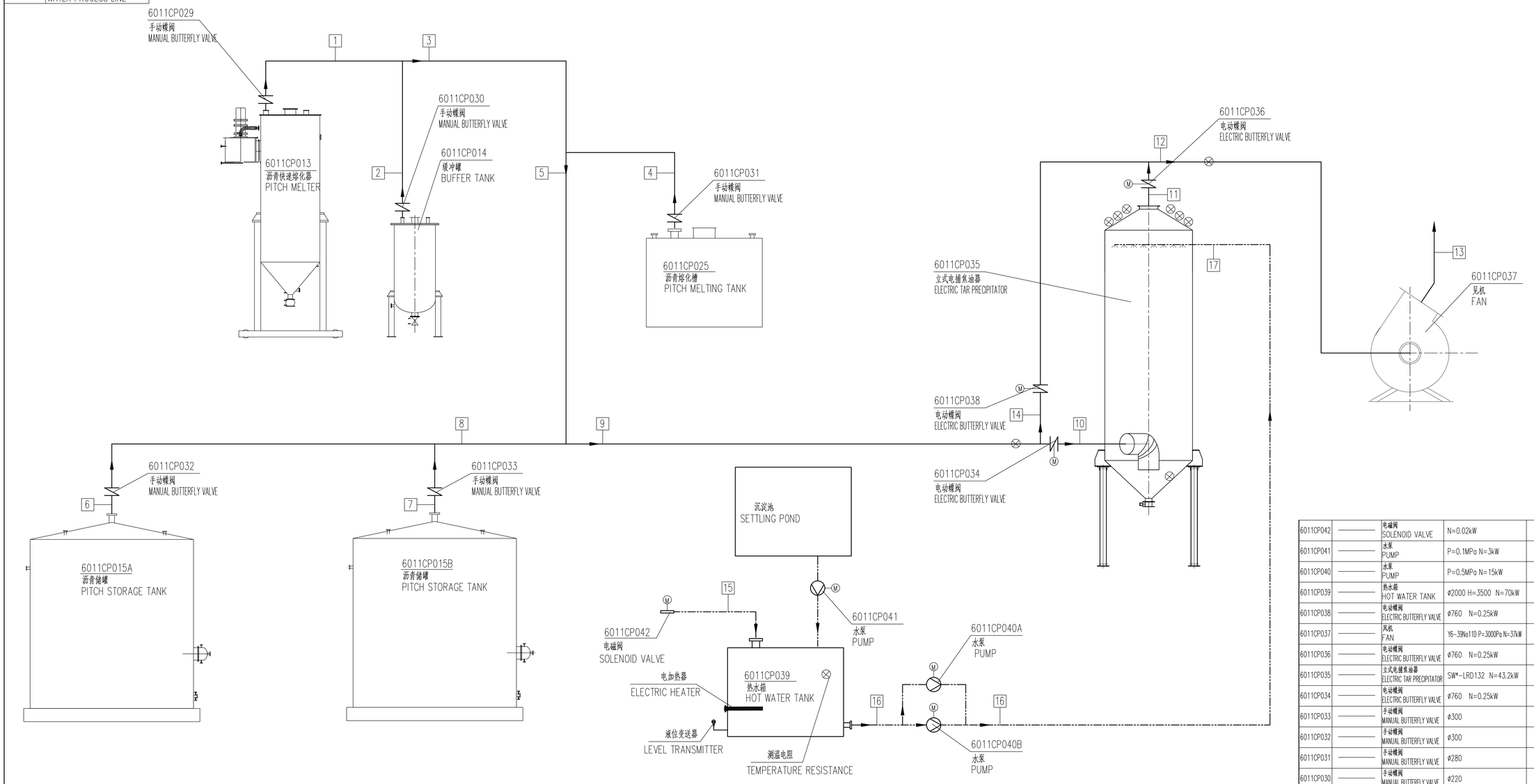
总体设计说明 GENERAL DESIGN DESCRIPTION

图 号 Dwg. No. DG0505AD-DR-6011CP-0020 △1 Rev.

共 2 页 第 2 页 Page 2 of 2

图例 LEGEND	名称 NAME
	手动蝶阀 MANUAL BUTTERFLY VALVE
Ⓜ	电动蝶阀 ELECTRIC BUTTERFLY VALVE
	热水泵 HOT WATER PUMP
	沥青烟气流程线 PITCH FUME PROCESS LINE
	水流程线 WATER PROCESS LINE

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0040	工艺流程图（2） PROCESS FLOW DIAGRAM （2）
DG0505AD-DR-6011CP-0070	▽±0.000平面图 ▽±0.000 PLAN



物流编号 STREAM NUMBER	单位 UNIT	1	2	3	4	5	6	7	8	9	10	11	12		13		14	15	16	17
物料 MEDIUM		沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	沥青烟气 PITCH FUME	水 WATER	水 WATER	水 WATER
物料状态(固体、液体、气体) PHASE (S, L, G)		气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	气体 G	液体 L	液体 L	液体 L
流量 FLOW RATE	t/h																			
	m^3/h	9520	1900	11420	3170	14590	3965	3965	7930	22520	22520	21480	21480	22000	20440	21480	22520	40	50	45
	Nm^3/h	6000	1200	7200	2000	9200	2500	2500	5000	14200	14200	14200	14200	14200	14200	14200	14200			
运行压力 OPERATING PRESSURE	MPa	-1.5×10^{-3}	-1.5×10^{-3}	-1.5×10^{-3}	-1.5×10^{-3}	-1.5×10^{-3}	-1.5×10^{-3}	-1.5×10^{-3}	-1.5×10^{-3}	-1.5×10^{-3}	-1.5×10^{-3}	-1.9×10^{-3}	-1.9×10^{-3}	-1.5×10^{-3}	-1.9×10^{-3}	0.5×10^{-3}	-1.5×10^{-3}	0.4	0.5	0.2
运行温度 OPERATING TEMPERATURE	℃	160	160	160	160	160	160	160	160	160	160	140	140	150	120	140	160	环境温度 AMB.	80	80
备注 REMARK													正常运行 NORMAL OPERATION	事故 EMERGENCY	正常运行 NORMAL OPERATION	事故 EMERGENCY		间断运行 INTERMITTENT	检修用 FOR MAINTENANCE	检修用 FOR MAINTENANCE

序号 No.	标准或图号 Code or Dwg.No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W.	总重 T.W. (Kg)	备注 Remarks
6011CP042	——	电磁阀 SOLENOID VALVE	N=0.02kW	1	——	——	——	
6011CP041	——	水泵 PUMP	P=0.1MPa N=3kW	1	——	——	——	
6011CP040	——	水泵 PUMP	P=0.5MPa N=15kW	2	——	——	——	
6011CP039	——	热水箱 HOT WATER TANK	ø2000 H=3500 N=70kW	1	——	——	——	
6011CP038	——	电动蝶阀 ELECTRIC BUTTERFLY VALVE	ø760 N=0.25kW	1	——	——	——	
6011CP037	——	风机 FAN	Y6-39No11D P=3000Pa N=37kW	1	——	——	——	风冷 AIR COOLING
6011CP036	——	电动蝶阀 ELECTRIC BUTTERFLY VALVE	ø760 N=0.25kW	1	——	——	——	
6011CP035	——	立式电捕焦油器 ELECTRIC TAR PRECIPITATOR	SW*-LRD132 N=43.2kW	1	——	——	——	
6011CP034	——	电动蝶阀 ELECTRIC BUTTERFLY VALVE	ø760 N=0.25kW	1	——	——	——	
6011CP033	——	手动蝶阀 MANUAL BUTTERFLY VALVE	ø300	1	——	——	——	
6011CP032	——	手动蝶阀 MANUAL BUTTERFLY VALVE	ø300	1	——	——	——	
6011CP031	——	手动蝶阀 MANUAL BUTTERFLY VALVE	ø280	1	——	——	——	
6011CP030	——	手动蝶阀 MANUAL BUTTERFLY VALVE	ø220	1	——	——	——	
6011CP029	——	手动蝶阀 MANUAL BUTTERFLY VALVE	ø450	1	——	——	——	
6011CP025	——	沥青熔化槽 PITCH MELTING TANK	$45m^3$	1	——	——	——	
6011CP015	——	沥青储罐 PITCH STORAGE TANK	$280m^3$ ø=7000	2	——	——	——	
6011CP014	——	缓冲罐 BUFFER TANK	DN1200 $Q=3.5m^3$	1	——	——	16.38	
6011CP013	——	沥青快速熔化器 PITCH MELTER	Q=8t/h N=45kW	1	——	——	36900	

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	26/12-20	AS BUILT			

业主 (Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商 (EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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设计单位 (Engineering Institute): 东北大学 设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

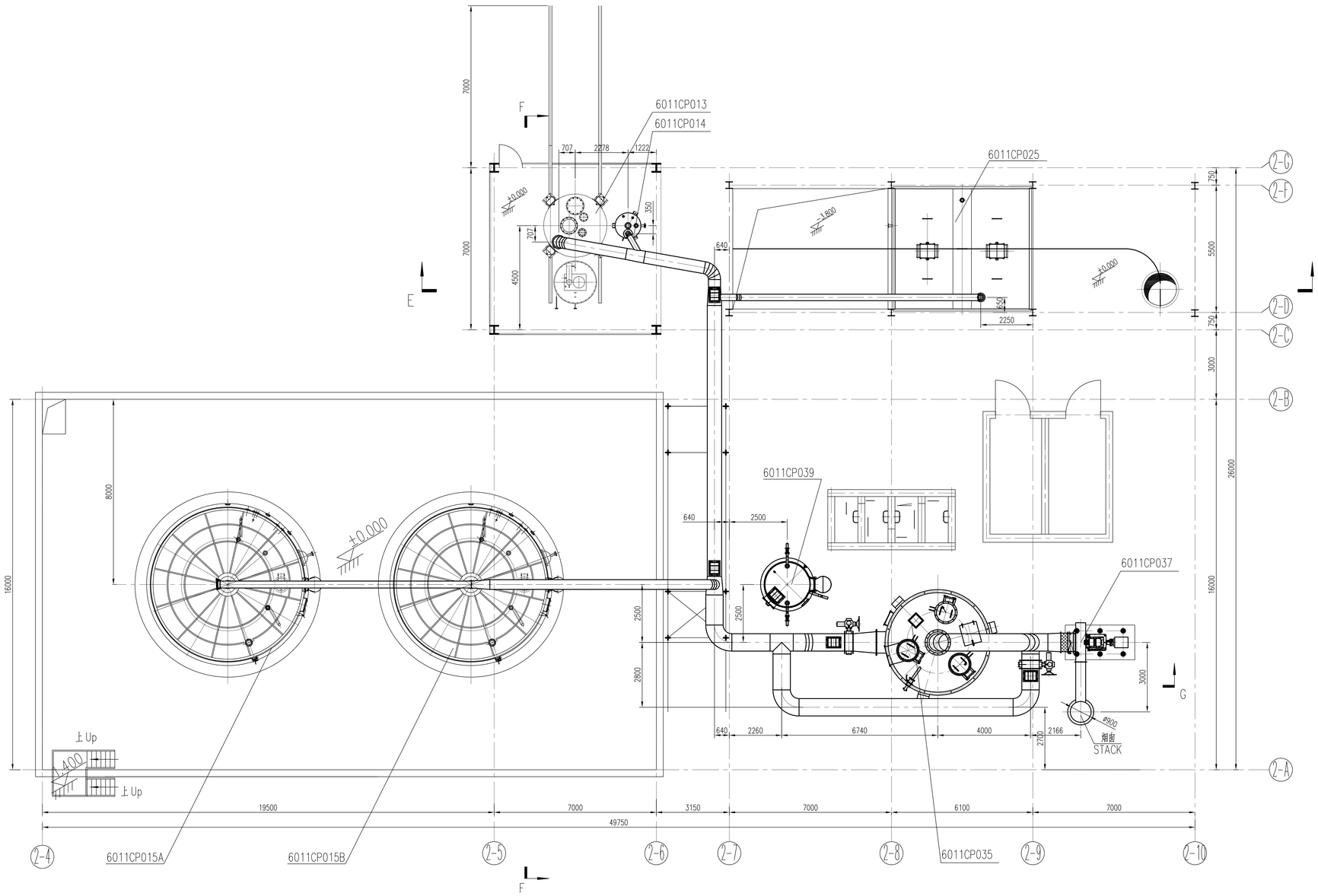
审核/审定 Approved			
校对 Checked	刘希文 LIU XIWEN	刘希文	23/12-20
制图 Drawn	施德用 SHI DEGANG	施德用	22/12-20
	洪泉 HONG QUAN	洪泉	21/12-20

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

沥青烟气净化系统流程图 PROCESS FLOW DIAGRAM OF PITCH FUME TREATMENT SYSTEM

工程编号 Proj. No.	DG0505
设计阶段 Phase	竣工图 AD
专业 Specialty	炭素工艺 CP
图纸比例 Scale	
图纸规格 Size	A1
图号 Dwg. No.	DG0505AD-DR-6011CP-0050
版号 Rev.	1

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0050	沥青烟气净化系统流程图 PROCESS FLOW DIAGRAM OF PITCH FUME TREATMENT SYSTEM
DG0505AD-DR-6011CP-0070	▽ ±0.000平面图 ▽ ±0.000 PLAN
DG0505AD-DR-6011CP-0250	沥青烟气净化系统沥青烟管安装立面图(1) PITCH FUME PIPE ELEVATION INSTALLATION DIAGRAM OF PITCH FUME TREATMENT SYSTEM(1)
DG0505AD-DR-6011CP-0260	沥青烟气净化系统沥青烟管安装立面图(2) PITCH FUME PIPE ELEVATION INSTALLATION DIAGRAM OF PITCH FUME TREATMENT SYSTEM(2)



说明：

1、本套沥青烟气净化系统烟气管路与净化设备由设备厂家一起供货，管路具体制作方式见厂家图纸。安装方式、安装使用的材料本图不做统计和明确表示，由设备厂家自备。

2、设备到现场后，应实测实物对比厂家提供的设备图纸尺寸，无误后方可进行安装，如发现尺寸不符应根据实际尺寸适当调整，设计院不再出设计变更图纸。

NOTES:

1.THE FUME PIPES AND THE FUME TREATMENT EQUIPMENT OF THIS PITCH FUME TREATMENT SYSTEM ARE SUPPLIED IN PACKAGE BY THE MANUFACTURER. SEE THE DRAWINGS SUPPLIED BY THE MANUFACTURER FOR THE MANUFACTURE METHOD OF THE FUME PIPES.

2. AFTER THE EQUIPMENT'S ARRIVAL AT THE PROJECT SITE, FIRST CHECK THEIR ACTUAL DIMENSIONS WITH DRAWINGS PROVIDED BY THE MANUFACTURER. INSTALLATION CAN NOT BE STARTED UNTIL ALL DIMENSIONS ARE CHECKED CORRECT. IN CASE ANY DIMENSION IS FOUND INCORRECT, PROPER ADJUSTMENT SHALL BE GIVEN AS PER THE ACTUAL DIMENSION, AND THE DESIGN INSTITUTE WILL NOT ISSUE ANY DESIGN CHANGE DRAWING.

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	26/12-20	AS BUILT			

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总承包商 (EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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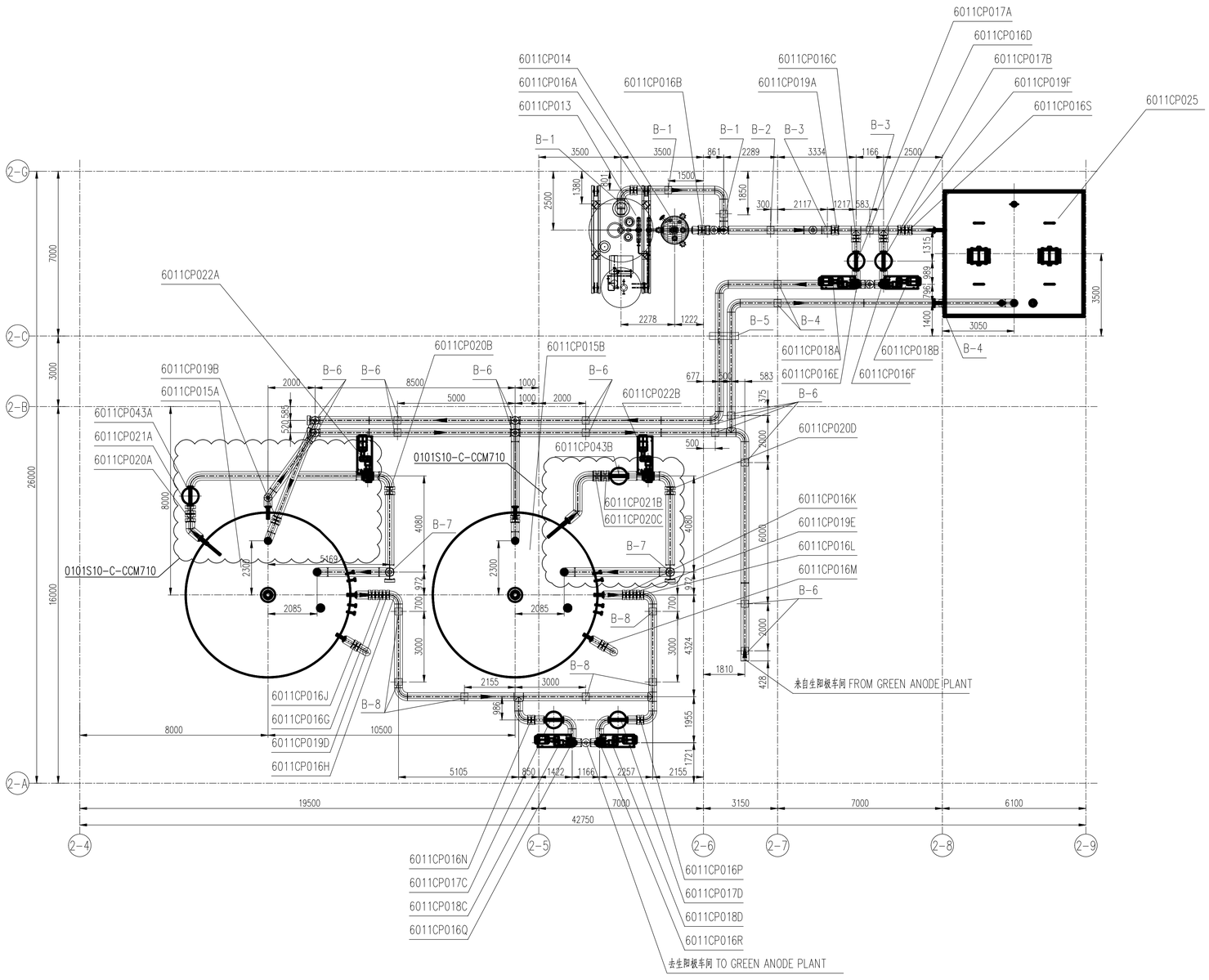
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	刘希文 LIU XIWEN	刘希文	23/12-20
校对 Checked	施德刚 SHI DEGANG	施德刚	22/12-20
制图 Drawn	洪泉 HONG QUAN	洪泉	21/12-20

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

沥青烟气净化系统沥青烟管安装图(A-7) PITCH FUME PIPE INSTALLATION DIAGRAM OF PITCH FUME TREATMENT SYSTEM(A-7)

工程编号 Proj. No.	DG0505
设计阶段 Phase	竣工图 AD
专业 Specialty	炭素工艺 CP
图纸比例 Scale	1: 100
图号 Dwg. No.	DG0505AD-DR-6011CP-0240
Rev.	1
图纸规格 Size	A1

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0040	工艺流程图(2) PROCESS FLOW DIAGRAM (2)
DG0505AD-DR-6011CP-0070	▽ ±0.000平面图 ▽ ±0.000 PLAN



总重: 7236.32 kg
TOTAL WEIGHT: 7236.32 kg

序号 No.	标准或图号 Code or Dwg.No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W.	总重 T.W. (kg)	备注 Remarks
8	DG0505AD-DR-6011CP-0270	沥青管件图(3) LIQUID PITCH PIPE FITTING(3)		1	——	——	16.20	
7	DG0505AD-DR-6011CP-0370	沥青管件图(2) LIQUID PITCH PIPE FITTING(2)		1	——	——	585.12	
6	DG0505AD-DR-6011CP-0360	沥青管轴测图(6) PITCH PIPELINE ISOMETRIC VIEW (6)		1	——	——	1635.01	
5	DG0505AD-DR-6011CP-0330	沥青管轴测图(5) PITCH PIPELINE ISOMETRIC VIEW (5)		1	——	——	891.14	
4	DG0505AD-DR-6011CP-0320	沥青管轴测图(4) PITCH PIPELINE ISOMETRIC VIEW (4)		2	——	749.24	1498.48	
3	DG0505AD-DR-6011CP-0310	沥青管轴测图(3) PITCH PIPELINE ISOMETRIC VIEW (3)		1	——	——	1616.16	
2	DG0505AD-DR-6011CP-0300	沥青管轴测图(2) PITCH PIPELINE ISOMETRIC VIEW (2)		1	——	——	755.17	
1	DG0505AD-DR-6011CP-0290	沥青管轴测图(1) PITCH PIPELINE ISOMETRIC VIEW (1)		1	——	——	239.04	
6011CP043	——	沥青过滤器 PITCH FILTER	DN100 P=1.6MPa	2	——	——	——	
6011CP025	——	沥青熔化槽 PITCH MELTING TANK	45m³	1	——	——	——	
6011CP022	——	沥青齿轮泵 PITCH GEAR PUMP	DN100 P=0.8MPa N=15kW	2	——	——	——	
6011CP021	——	气动沥青阀门 PNEUMATIC PITCH VALVE	DN100 P=1.6MPa	2	——	——	——	
6011CP020	——	手动沥青阀门 MANUAL PITCH VALVE	DN100 P=1.6MPa	4	——	——	——	
6011CP019	——	气动沥青阀门 PNEUMATIC PITCH VALVE	DN80 P=1.6MPa	6	——	——	——	
6011CP018	——	沥青齿轮泵 PITCH GEAR PUM P	DN80 P=0.8MPa N=11kW	4	——	——	——	
6011CP017	——	沥青过滤器 PITCH FILTER	DN80 P=1.6MPa	4	——	——	——	
6011CP016	——	手动沥青阀门 MANUAL PITCH VALVE	DN80 P=1.6MPa	17	——	——	——	
6011CP015	——	沥青储罐 PITCH TANK	280m³ ø=7000	2	——	——	——	
6011CP014	——	缓冲罐 BUFFER TANK	DN1200 Q=3.5m³	1	——	——	——	
6011CP013	——	沥青快速熔化器 PITCH MELTER	Q=8t/h	1	——	——	——	
6011CP012	——	皮带秤 BELT SCALE	DEL0615 Q=1-10t	1	——	——	——	

业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
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1	26/12-20	AS BUILT			

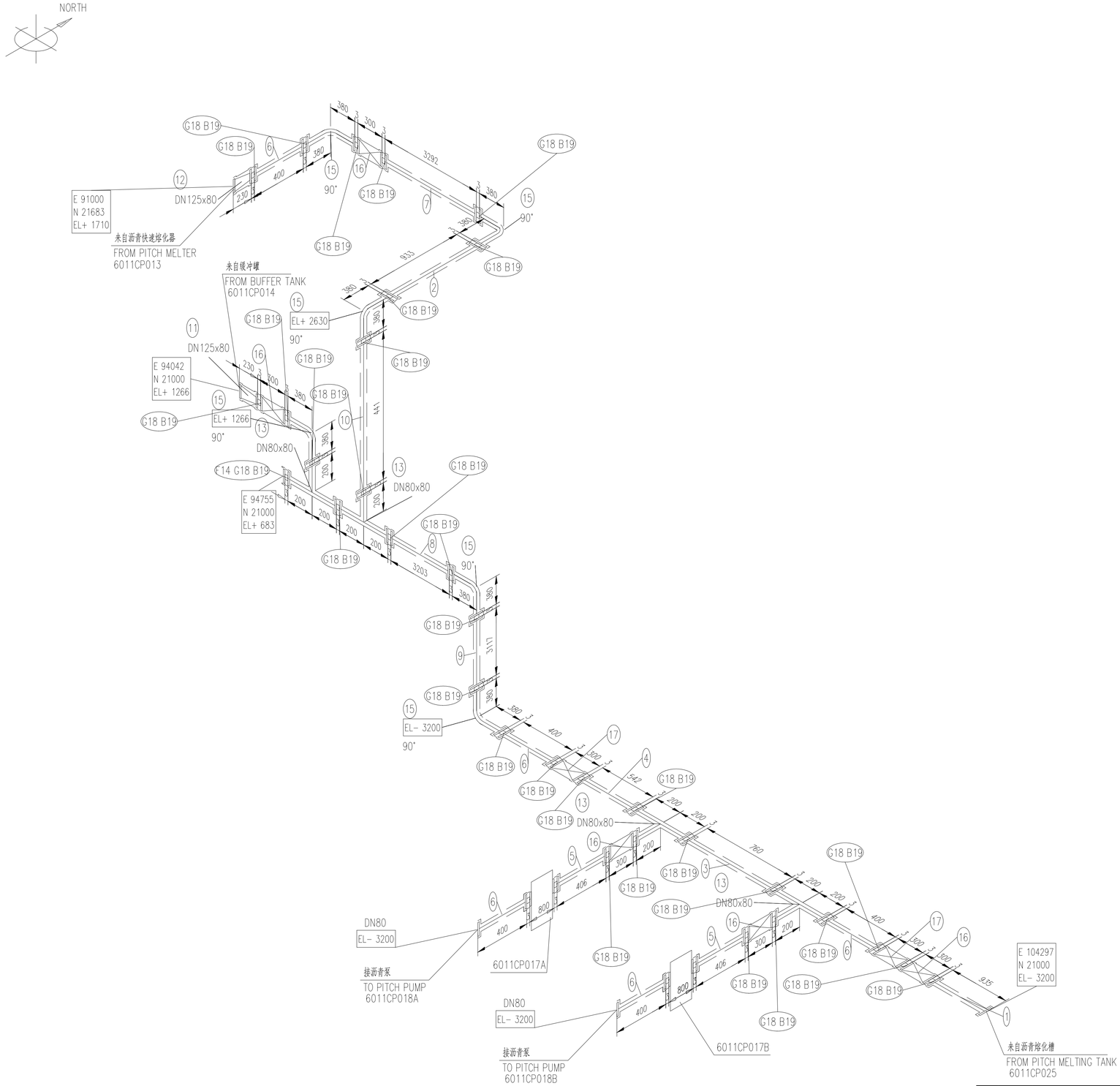
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设计单位(Engineering Institute): 东北大学设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

审核/审定 Approved			
	刘希文 LIU XIWEN	刘希文	23/12-20
校对 Checked	施德刚 SHI DEGANG	施德刚	22/12-20
制图 Drawn	洪泉 HONG QUAN	洪泉	21/12-20

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY	工程编号 Proj. No. DG0505
	设计阶段 Phase 竣工图 AD
沥青管路平面图(A-9) PITCH PIPELING ARRANGEMENT(A-9)	专业 Specialty 质量工艺 CP
	图纸比例 Scale 1:50
图号 Dwg. No. DG0505AD-DR-6011CP-0280 △1	图纸规格 Size A1

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0280	沥青管路平面图 PITCH PIPELINE ARRANGEMENT
DG0505AD-DR-6011CP-0350	沥青管件图(1) PITCH PIPE FITTING(1)



总重 TOTAL WEIGHT：755.17 kg

序号 No.	标准或图号 Code or Dwg. No.	名称 Description	规格及图号 Specification	数量 Qty.	材料 Grade	单重 U.W.	总重 T.W.	备注 Remarks
19	HG/T 20613-2009	CONTINUOUS THREAD STUD	M16×150	256	35CrMo	——	——	
18	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN80-PN25	32	——	——	——	
17	6011CP019	PNEUMATIC PITCH VALVE	DN80	2	——	——	——	
16	6011CP016	MANUAL PITCH VALVE	DN80	5	——	——	——	
15	D6865AD-DR-6011CP-0350	JACKETED PIPE BEND(1)	D140×5/D89×4	6	20	20.77	124.62	
14	GB/T 9123-2000	BLIND FLANGE	DN80-PN25 BL RF	1	20	——	5.53	
13	D6865AD-DR-6011CP-0350	JACKETED TEE (2)	D140x5/D89x4	4	20	24.47	97.88	
12	D6865AD-DR-6011CP-0350	REDUCER (1)	D140x5/D89x4	1	20	——	14.45	
11	D6865AD-DR-6011CP-0350	REDUCER (1)	D140x5/D89x4	1	20	——	14.45	
10	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=441	1	20	——	17.50	
9	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=3117	1	20	——	84.48	
8	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=3203	1	20	——	86.63	
7	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=3292	1	20	——	88.86	
6	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=400	5	20	16.47	82.35	
5	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=406	2	20	16.62	33.24	
4	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=542	1	20	——	20.03	
3	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=760	1	20	——	25.48	
2	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=933	1	20	——	29.81	
1	D6865AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=935	1	20	——	29.86	
19	HG/T 20613-2009	全螺纹螺柱	M16×150	256	35CrMo	——	——	
18	GB/T 4622.2-2008	缠绕式垫片	D1222 DN80-PN25	32	——	——	——	
17	6011CP016	气动沥青阀门	DN80	2	——	——	——	
16	6011CP019	手动沥青阀门	DN80	5	——	——	——	
15	D6865AD-DR-6011CP-0350	夹套弯头 (1)	D140×5/D89×4	6	20	20.77	124.62	
14	GB/T 9123-2000	法兰盖	DN80-PN25 BL RF	1	20	——	5.53	
13	D6865AD-DR-6011CP-0350	夹套三通 (2)	D140x5/D89x4	4	20	24.47	97.88	
12	D6865AD-DR-6011CP-0350	异径接头 (1)	D140x5/D89x4	1	20	——	14.45	
11	D6865AD-DR-6011CP-0350	异径接头 (1)	D140x5/D89x4	1	20	——	14.45	
10	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=441	1	20	——	17.50	
9	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=3117	1	20	——	84.48	
8	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=3203	1	20	——	86.63	
7	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=3292	1	20	——	88.86	
6	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=400	5	20	16.47	82.35	
5	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=406	2	20	16.62	33.24	
4	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=542	1	20	——	20.03	
3	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=760	1	20	——	25.48	
2	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=933	1	20	——	29.81	
1	D6865AD-DR-6011CP-0350	夹套直管 (1)	D140x5/D89x4 L=935	1	20	——	29.86	

注：1. 图中手动沥青阀和气动沥青阀方设备，不属于沥青管安装材料。
2. 图中与设备相连的沥青管法兰及紧固件由设备自带。

NOTES: 1. THE MANUAL PITCH VALVE AND THE PNEUMATIC PITCH VALVE ON THE DRAWING BELONG TO EQUIPMENT, AND ARE NOT INCLUDED IN THE PITCH PIPELINE INSTALLATION MATERIALS.
2. ON THE DRAWING, THE PITCH PIPELINE FLANGE CONNECTED TO THE EQUIPMENT AND THE FASTENING PARTS SHALL BE PACKAGED WITH THE EQUIPMENT.

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	26/12-20	AS BUILT			

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业主 (Owner)：伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商 (EPC Contractor)：中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

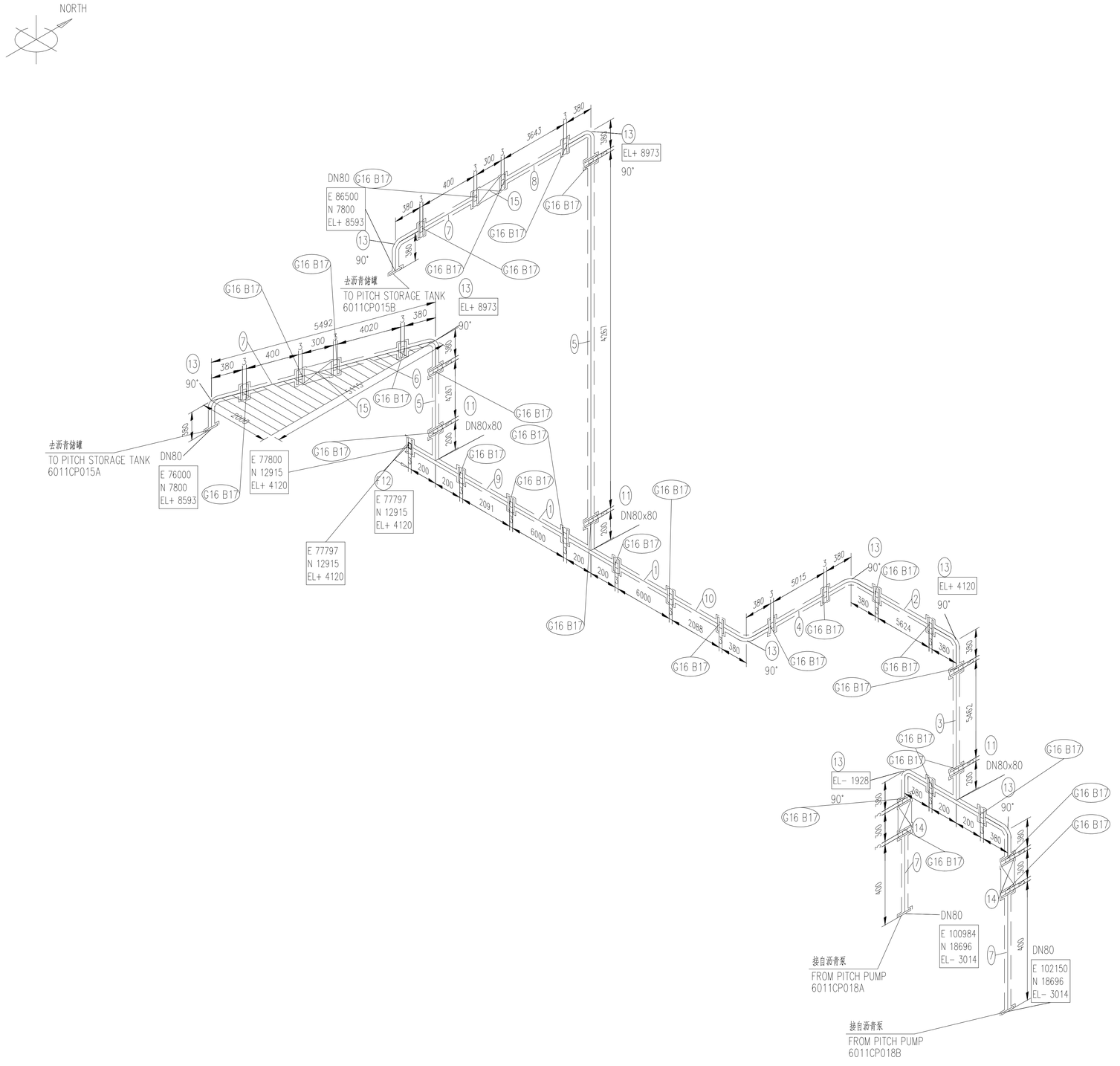
设计单位 (Engineering Institute)：东北大学设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

审核/审定 Approved				
校对 Checked	刘希文 LIU XIWEN	刘希文	23/12-20	
制图 Drawn	施德刚 SHI DEGANG	施德刚	22/12-20	
	洪泉 HONG QUAN	洪泉	21/12-20	

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

沥青管轴测图(2) PITCH PIPELINE ISOMETRIC VIEW (2)

工程编号 Proj. No.	DG0505
设计阶段 Phase	竣工图 AD
专业 Specialty	质量工艺 QP
图纸比例 Scale	
图纸规格 Size	A1
图号 Dwg. No.	DG0505AD-DR-6011CP-0300
Rev.	1



参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0280	沥青管路平面图 PITCH PIPELINE ARRANGEMENT
DG0505AD-DR-6011CP-0350	沥青管件图(1) PITCH PIPE FITTING(1)

总重 TOTAL WEIGHT: 1616.16kg

序号 No.	标准或图号 Code or Dwg. No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W. (kg)	总重 T.W. (kg)	备注 Remarks
17	HG/T 20613-2009	CONTINUOUS THREAD STUD	M16×150	240	35CrMo	——	——	
16	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN80-PN25	30	——	——	——	
15	6011CP019	PNEUMATIC PITCH VALVE	DN80	2	——	——	——	
14	6011CP016	MANUAL PITCH VALVE	DN80	2	——	——	——	
13	DG0505AD-DR-6011CP-0350	JACKETED PIPE BEND(1)	D140×5/D89×4	9	20	20.77	186.93	
12	GB/T 9123-2000	BLIND FLANGE	DN80-PN25 BL RF	1	20	——	5.53	
11	DG0505AD-DR-6011CP-0350	JACKETED TEE (2)	D140x5/D89x4	3	20	24.47	73.41	
10	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=2088	1	20	——	58.72	
9	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=2091	1	20	——	58.80	
8	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=3643	1	20	——	97.62	
7	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=400	4	20	16.47	65.88	
6	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=4020	1	20	——	107.08	
5	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=4267	2	20	113.26	226.52	
4	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=5015	1	20	——	131.99	
3	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=5462	1	20	——	143.17	
2	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=5624	1	20	——	147.23	
1	DG0505AD-DR-6011CP-0350	JACKETED PIPE (1)	D140x5/D89x4 L=6000	2	20	156.64	313.28	
17	HG/T 20613-2009	全螺纹螺柱	M16×150	240	35CrMo	——	——	
16	GB/T 4622.2-2008	缠绕式垫片	D1222 DN80-PN25	30	——	——	——	
15	6011CP019	气动沥青阀门	DN80	2	——	——	——	
14	6011CP016	手动沥青阀门	DN80	2	——	——	——	
13	DG0505AD-DR-6011CP-0350	夹套弯头(1)	D140×5/D89×4	9	20	20.77	186.93	
12	GB/T 9123-2000	法兰盖	DN80-PN25 BL RF	1	20	——	5.53	
11	DG0505AD-DR-6011CP-0350	夹套三通(2)	D140x5/D89x4	3	20	24.47	73.41	
10	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=2088	1	20	——	58.72	
9	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=2091	1	20	——	58.80	
8	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=3643	1	20	——	97.62	
7	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=400	4	20	16.47	65.88	
6	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=4020	1	20	——	107.08	
5	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=4267	2	20	113.26	226.52	
4	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=5015	1	20	——	131.99	
3	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=5462	1	20	——	143.17	
2	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=5624	1	20	——	147.23	
1	DG0505AD-DR-6011CP-0350	夹套直管(1)	D140x5/D89x4 L=6000	2	20	156.64	313.28	

注: 1.图中手动沥青阀和气动沥青阀为设备，不属于沥青管安装材料。
2.图中与设备相连的沥青管法兰及紧固件由设备自带。

NOTES: 1.THE MANUAL PITCH VALVE AND THE PNEUMATIC PITCH VALVE ON THE DRAWING BELONG TO EQUIPMENT, AND ARE NOT INCLUDED IN THE PITCH PIPELINE INSTALLATION MATERIALS.
2. ON THE DRAWING, THE PITCH PIPELINE FLANGE CONNECTED TO THE EQUIPMENT AND THE FASTENING PARTS SHALL BE PACKAGED WITH THE EQUIPMENT.

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	26/12-20	AS BUILT			

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业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商 (EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

设计单位 (Engineering Institute): 东北大学 设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

审核/审定 Approved			
校对 Checked	施得周 SHI DEGANG	施得周	22/12-20
制图 Drawn	洪泉 HONG QUAN	洪泉	21/12-20

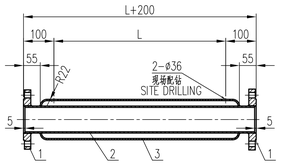
沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

沥青管轴测图(3) PITCH PIPELINE ISOMETRIC VIEW (3)

工程编号 Proj. No.	DG0505
设计阶段 Phase	竣工图 AD
专业 Specialty	质量工艺 CP
图纸比例 Scale	
图纸规格 Size	A1

图号 Dwg. No. DG0505AD-DR-6011CP-0310 Rev. 1

夹套直管(1)(D140×5/D89×4)
JACKETED PIPE(1)(D140×5/D89×4)

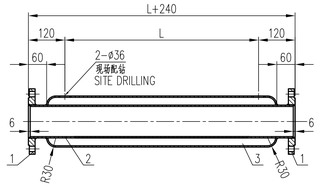


注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

序号 No.	标准或图号 Code or Dwg.No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W.	总重 T.W. 重量 Wt.(kg)	备注 Remarks
3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D89×4	1	20	——	——	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D140×5	1	20	——	——	
1	GB/T 9119-2010	法兰 FLANGE	DN80-PN25 PL RF	2	20	3.98	7.96	

夹套直管(2)(D168×5/D114×4)
JACKETED L PIPE(2)(D168×5/D114×4)

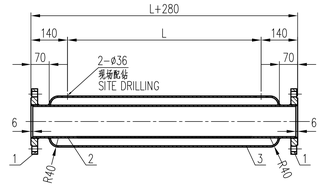


注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

序号 No.	标准或图号 Code or Dwg.No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W.	总重 T.W. 重量 Wt.(kg)	备注 Remarks
3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D168×5	1	20	——	——	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D114×4	1	20	——	——	
1	GB/T 9119-2010	法兰 FLANGE	DN100-PN25 PL RF	2	20	5.61	11.22	

夹套直管(3)(D219×6/D140×5)
JACKETED PIPE(3)(D219×6/D140×5)



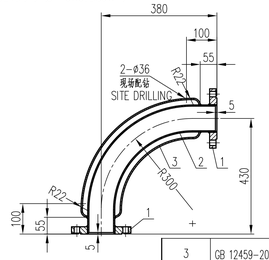
注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

序号 No.	标准或图号 Code or Dwg.No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W.	总重 T.W. 重量 Wt.(kg)	备注 Remarks
3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D219×6	1	20	——	——	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D140×5	1	20	——	——	
1	GB/T 9119-2010	法兰 FLANGE	DN125-PN25 PL RF	2	20	7.60	15.20	

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0040	工艺流程图(2) PROCESS FLOW DIAGRAM (2)

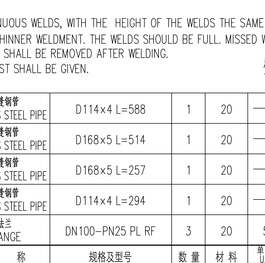
夹套弯头(5)(D140×5/D89×4)
JACKETED PIPE BEND(1) (D140×5/D89×4)



总重：20.77kg
TOTAL WEIGHT : 20.77kg

3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D140×5	1	20	——	7.78	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D89×4	1	20	——	5.03	
1	GB/T 9119-2010	法兰 FLANGE	DN80-PN25 PL RF	2	20	3.98	7.96	

夹套弯头(1)(D140×5/D89×4)
JACKETED PIPE BEND(1) (D140×5/D89×4)



注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

总重：20.77kg
TOTAL WEIGHT : 20.77kg

3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D140×5	1	20	——	7.78	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D89×4	1	20	——	5.03	
1	GB/T 9119-2010	法兰 FLANGE	DN80-PN25 PL RF	2	20	3.98	7.96	

夹套弯头(2)(D168×5/D114×4)
JACKETED PIPE BEND(2) (D168×5/D114×4)



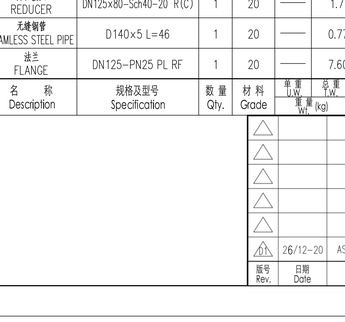
注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

总重：32.36kg
TOTAL WEIGHT : 32.36kg

3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D168×5	1	20	——	12.42	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D114×4	1	20	——	8.72	
1	GB/T 9119-2010	法兰 FLANGE	DN100-PN25 PL RF	2	20	5.61	11.22	

夹套弯头(3)(D219×6/D140×5)
JACKETED PIPE BEND(3) (D219×6/D140×5)



注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

总重：53.72kg
TOTAL WEIGHT : 53.72kg

3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D219×6	1	20	——	24.08	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D140×5	1	20	——	14.44	
1	GB/T 9119-2010	法兰 FLANGE	DN125-PN25 PL RF	2	20	7.60	15.20	

夹套弯头(4)(D168×5/D114×4)
JACKETED PIPE BEND(4) (D168×5/D114×4)



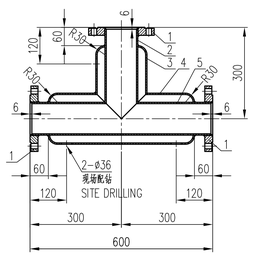
注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

总重：36.36kg
TOTAL WEIGHT : 36.36kg

3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D168×5	1	20	——	16.33	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D114×4	1	20	——	8.83	
1	GB/T 9119-2010	法兰 FLANGE	DN100-PN25 PL RF	2	20	5.61	11.22	

夹套三通(1)(D168×5/D114×4)
JACKETED TEE(1) (D168×5/D114×4)



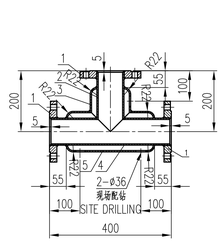
注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

总重：43.39kg
TOTAL WEIGHT : 43.39kg

5	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D114×4 L=588	1	20	——	6.38	
4	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D168×5 L=514	1	20	——	11.33	
3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D168×5 L=257	1	20	——	5.66	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D114×4 L=294	1	20	——	3.19	
1	GB/T 9119-2010	法兰 FLANGE	DN100-PN25 PL RF	3	20	5.61	16.83	

夹套三通(2)(D140×5/D89×4)
JACKETED TEE(2) (D140×5/D89×4)



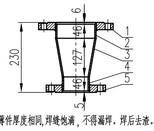
注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

总重：24.47kg
TOTAL WEIGHT : 24.47kg

5	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D140×5 L=300	1	20	——	5.00	
4	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D89×4 L=390	1	20	——	3.27	
3	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D140×5 L=158	1	20	——	2.63	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D89×4 L=195	1	20	——	1.63	
1	GB/T 9119-2010	法兰 FLANGE	DN80-PN25 PL RF	3	20	3.98	11.94	

异径接头(1)(D140×5/D89×4)
REDUCER(1) (D140×5/D89×4)



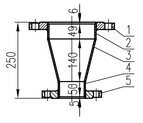
注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

NOTES: 1. ALL WELDS ARE CONTINUOUS WELDS, WITH THE HEIGHT OF THE WELDS THE SAME AS THE THICKNESS OF THE THINNER WELDMENT. THE WELDS SHOULD BE FULL. MISSED WELDING IS PROHIBITED. THE SLAG SHALL BE REMOVED AFTER WELDING.
2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

总重：14.45kg
TOTAL WEIGHT : 14.45kg

5	GB/T 9119-2010	法兰 FLANGE	DN80-PN25 PL RF	1	20	——	3.98	
4	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D89×4 L=46	1	20	——	0.39	
3	GB 12459-2005	异径接头 REDUCER	DN125×80-Sch40-20 R(C)	1	20	——	1.71	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D140×5 L=46	1	20	——	0.77	
1	GB/T 9119-2010	法兰 FLANGE	DN125-PN25 PL RF	1	20	——	7.60	

异径接头(2)(D168×5/D114×4)
REDUCER(2) (D168×5/D114×4)



注：1 全部采用连续焊接，焊缝高度与两焊件的薄件厚度相同，焊缝饱满，不得漏焊。焊后去渣。
2 做1.6MPa水压试验。

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2. 1.6MPa HYDRAULIC TEST SHALL BE GIVEN.

总重：19.16kg
TOTAL WEIGHT : 19.16kg

5	GB/T 9119-2010	法兰 FLANGE	DN100-PN25 PL RF	1	20	——	5.61	
4	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D114×4 L=50	1	20	——	0.54	
3	GB 12459-2005	异径接头 REDUCER	DN150×100-Sch40-20 R(C)	1	20	——	2.35	
2	GB 12459-2005	无缝钢管 SEAMLESS STEEL PIPE	D168×5 L=49	1	20	——	1.08	
1	GB/T 9119-2010	法兰 FLANGE	DN150-PN25 PL RF	1	20	——	9.58	

序号 No.	标准或图号 Code or Dwg.No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W.	总重 T.W. 重量 Wt.(kg)	备注 Remarks

业主(Owner)：伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商(EPC Contractor)：中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

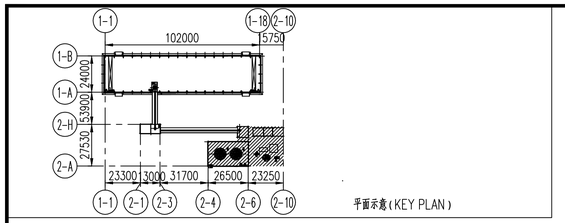
版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	26/12-20	AS BUILT			

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设计单位(Engineering Institute)：东北大学设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

审核/审定 Approved				
校对 Checked	刘希文 LIU XIWEN	刘希文	23/12-20	
制图 Drawn	施德刚 SHI DEGANG	施德刚	22/12-20	
	洪泉 HONG QUAN	洪泉	21/12-20	

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY	工程编号 Proj. No. DG0505
	设计阶段 Phase 竣工图 AD
沥青管件图(1) LIQUID PITCH PIPE FITTING(1)	专业 Specialty 装备工艺 CP
	图纸比例 Scale 1:10
图号 Dwg. No. DG0505AD-DR-6011CP-0350	Rev. 1 图纸规格 Size A1



平面示意(KEY PLAN)

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0070	±0.000平面 ±0.000 PLAN
DG0505AD-DR-6011CP-0060	热媒系统图 PROCESS FLOW DIAGRAM OF HEAT MEDIUM

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	27/12-20	AS BUILT			

业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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设计单位(Engineering Institute): 東北大學 设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

审核/审定 Approved			
秦学英 QIN XUESHEN	秦学英	26/12-20	
邱佳文 QIU JIAWEN	邱佳文	25/12-20	
校对 Checked			
陈 蓓 CHEN BEI	陈蓓	20/12-20	
制图 Drawn			

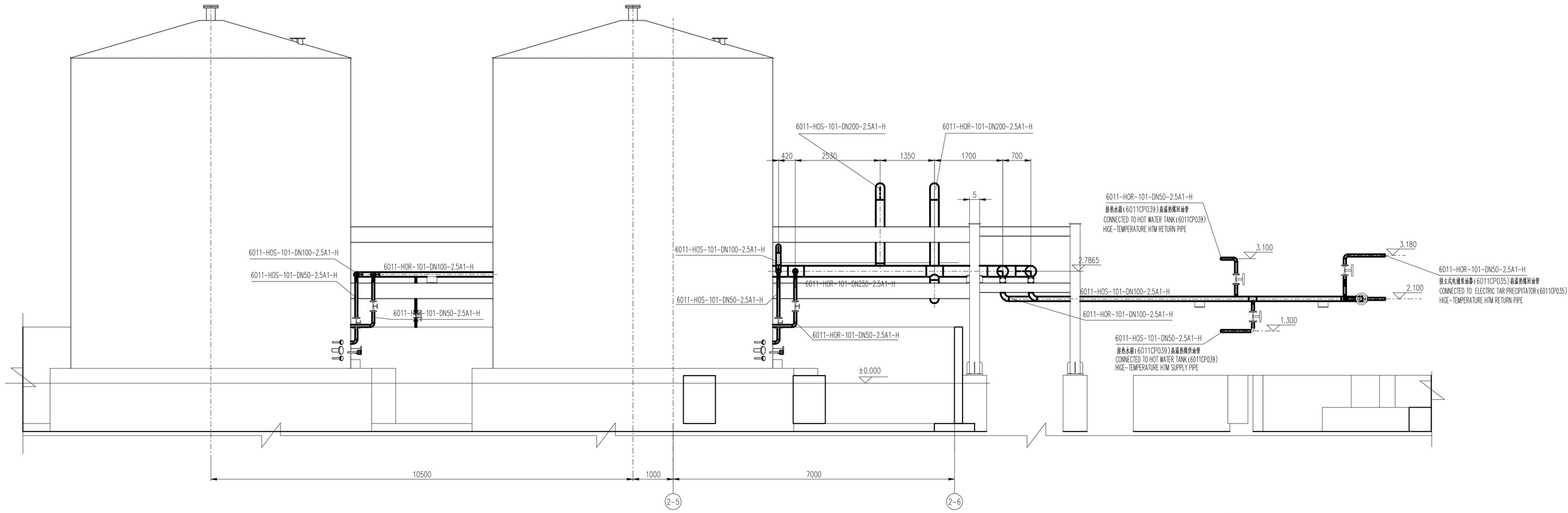
沥青贮存及沥青溶化
PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

高温热媒油管道平面布置图
HIGH TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT

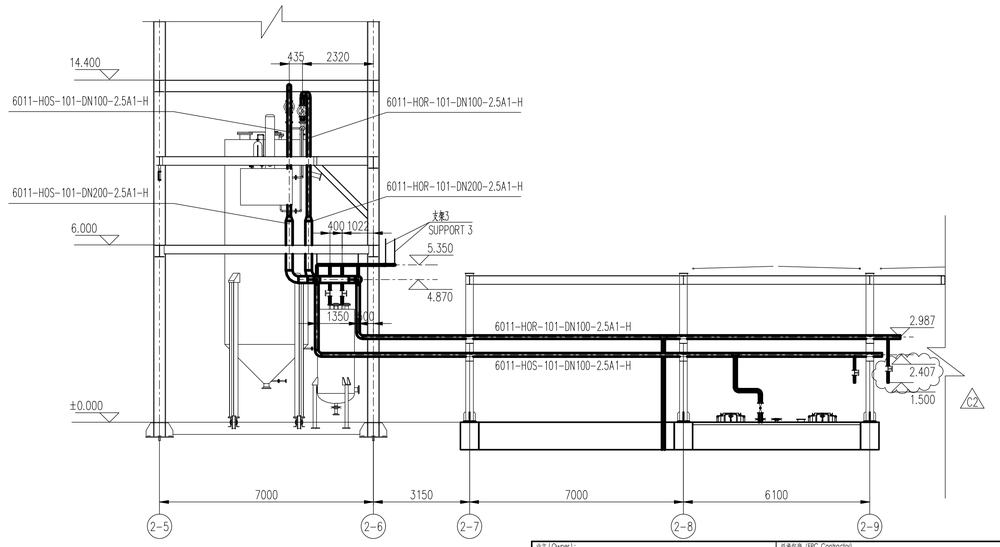
工程编号 Proj. NO.	DG0505
设计阶段 Phase	施工图 AD
专业 Specialty	反应工艺 CP
图纸比例 Scale	1:60
图号 Dwg. No.	DG0505AD-DR-6011CP-0380
版号 Rev.	1
图纸规格 Size	A1

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0060	热媒系统图 PROCESS FLOW DIAGRAM OF HEAT MEDIUM
DG0505AD-DR-6011CP-0380	高温热媒油管道平面布置图 HIGH TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT

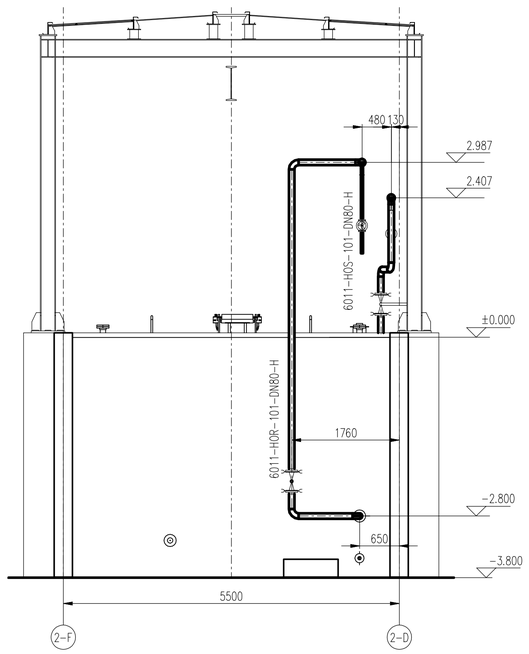
B-B剖面图
SECTION B-B



C-C剖面图
SECTION C-C



D-D剖面图
SECTION D-D



业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation	总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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设计单位(Engineering Institute): NEUI 东北大学 设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

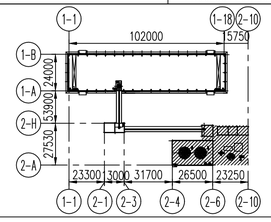
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1	27/12-20	AS BUILT			

审核/审定 Approved	秦学贤 QIN XUESHEN	秦学贤	26/12-20
校 对 Checked	邱佳文 QIU JIAWEN	邱佳文	25/12-20
制 图 Drawn	陈 春 CHEN BEI	陈春	20/12-20

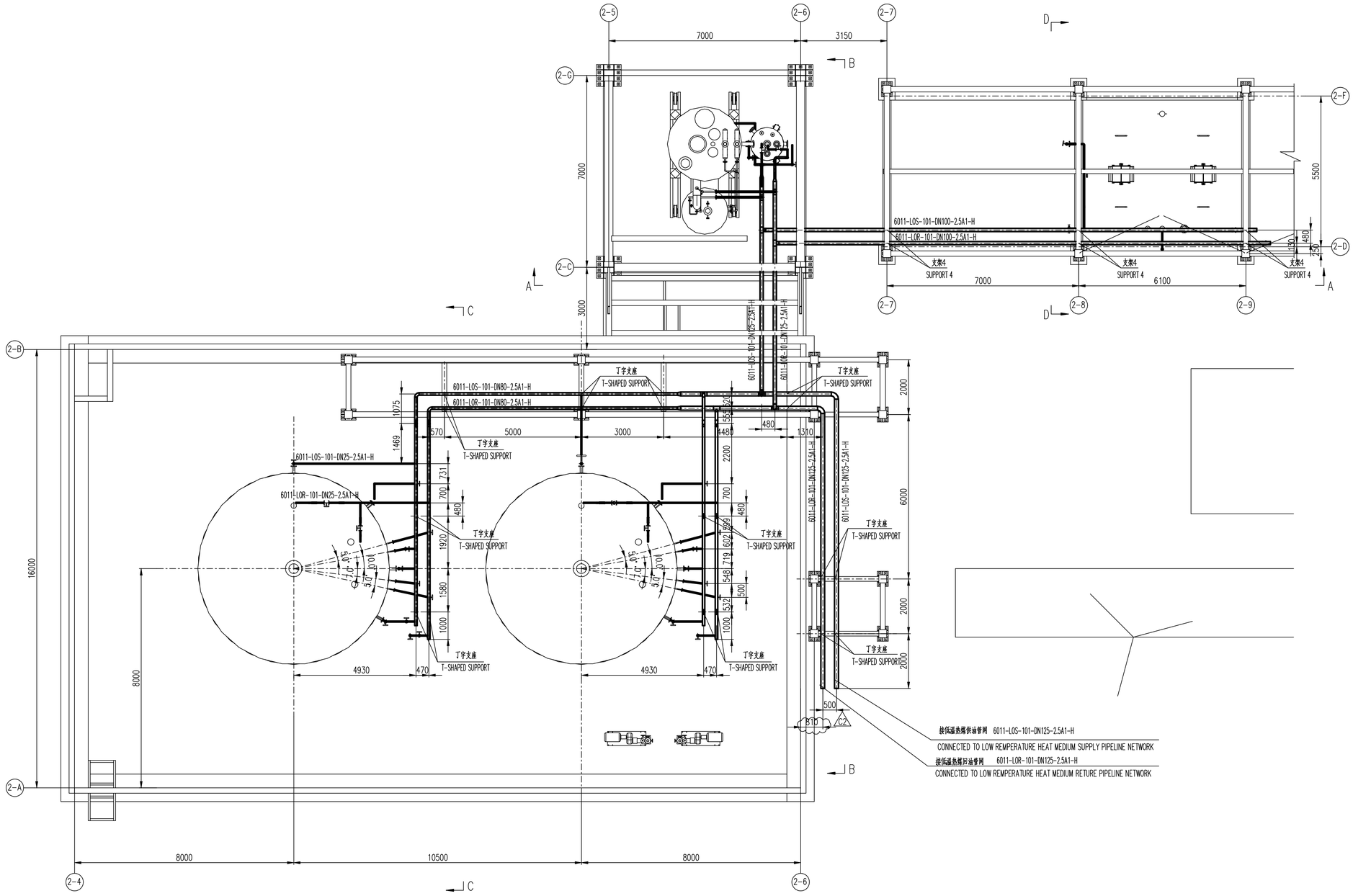
沥青卸存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY	工程编号 Proj. No. DG0505
	设计阶段 Phase 竣工图 AD
高温热媒油管道剖面布置图(2) HIGH TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(2)	专 业 Specialty 质量工艺 CP
图 号 Dwg. No. DG0505AD-DR-6011CP-0400	Rev. 1 图纸比例 Scale 图纸规格 Size A1

参考图纸/文献
Ref. Drawing/Documents

图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0070	±0.00平面图 ±0.000 PLAN
DG0505AD-DR-6011CP-0060	热媒系统图 PROCESS FLOW DIAGRAM OF HEAT MEDIUM



平面示意(KEY PLAN)



版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	27/12-20	AS BUILT			

业主[Owner]: 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商 (EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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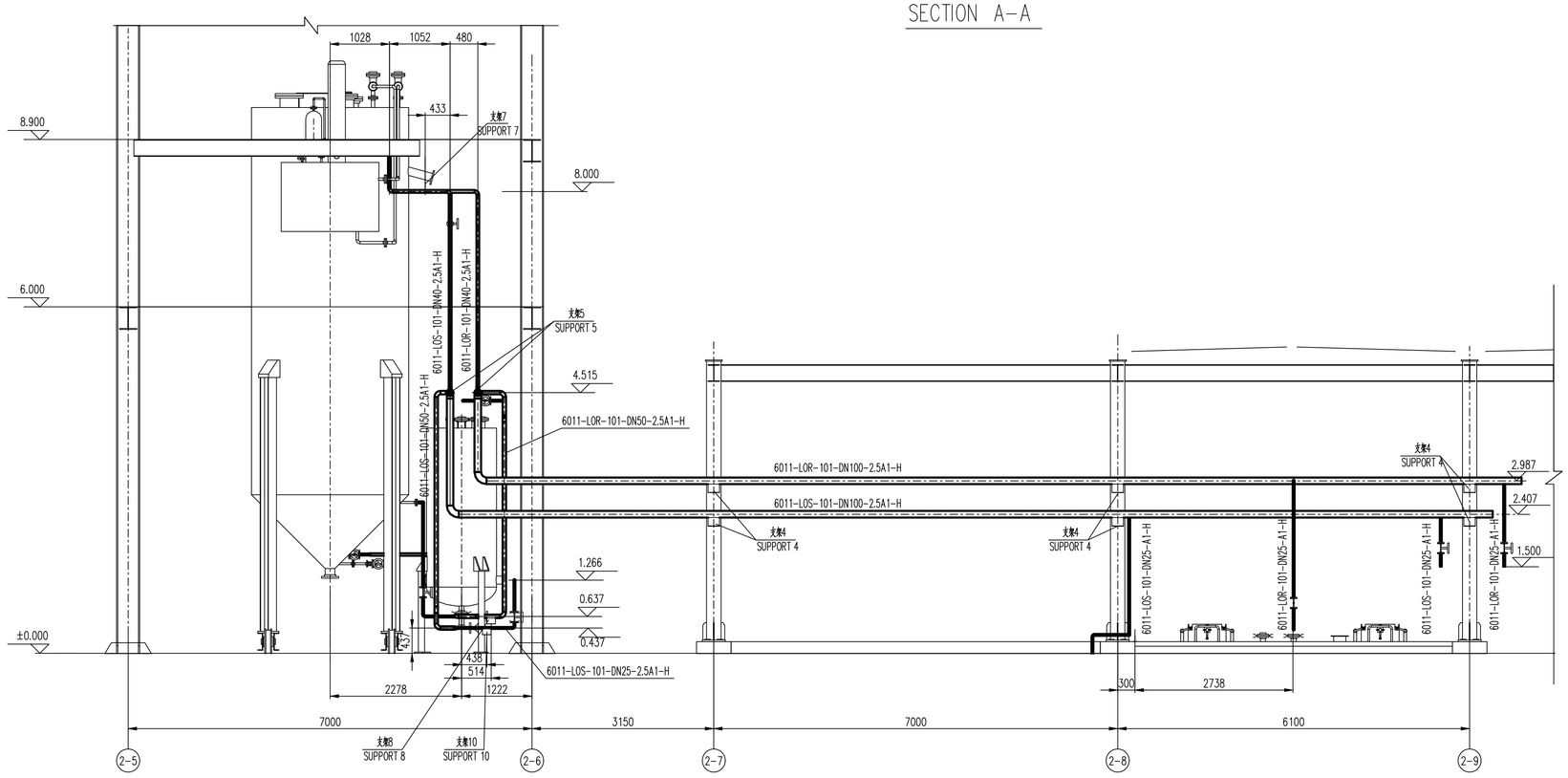
设计单位 (Engineering Institute): 东北大学 设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

审核/审定 Approved			
秦学泉 QIN XUESHEN	秦学泉	26/12-20	
校 对 Checked	邱佳文 QIU JIAWEN	邱佳文	25/12-20
制 图 Drawn	陈蓓 CHEN BEI	陈蓓	20/12-20

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY	
低温热媒油管道平面布置图(1) LOW TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT(1)	
工程编号 Proj. No.	DG0505
设计阶段 Phase	竣工图 AD
专 业 Specialty	质量工艺 CP
图纸比例 Scale	1:50
图 号 Dwg. No.	DG0505AD-DR-6011CP-0041
Rev.	1
图纸规格 Size	A1

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0060	热媒系统图 PROCESS FLOW DIAGRAM OF HEAT MEDIUM
DG0505AD-DR-6011CP-0410	低温热媒油管道平面布置图(1) LOW TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT(1)

A-A剖面图
SECTION A-A



业主 (Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation	总承包商 (EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.
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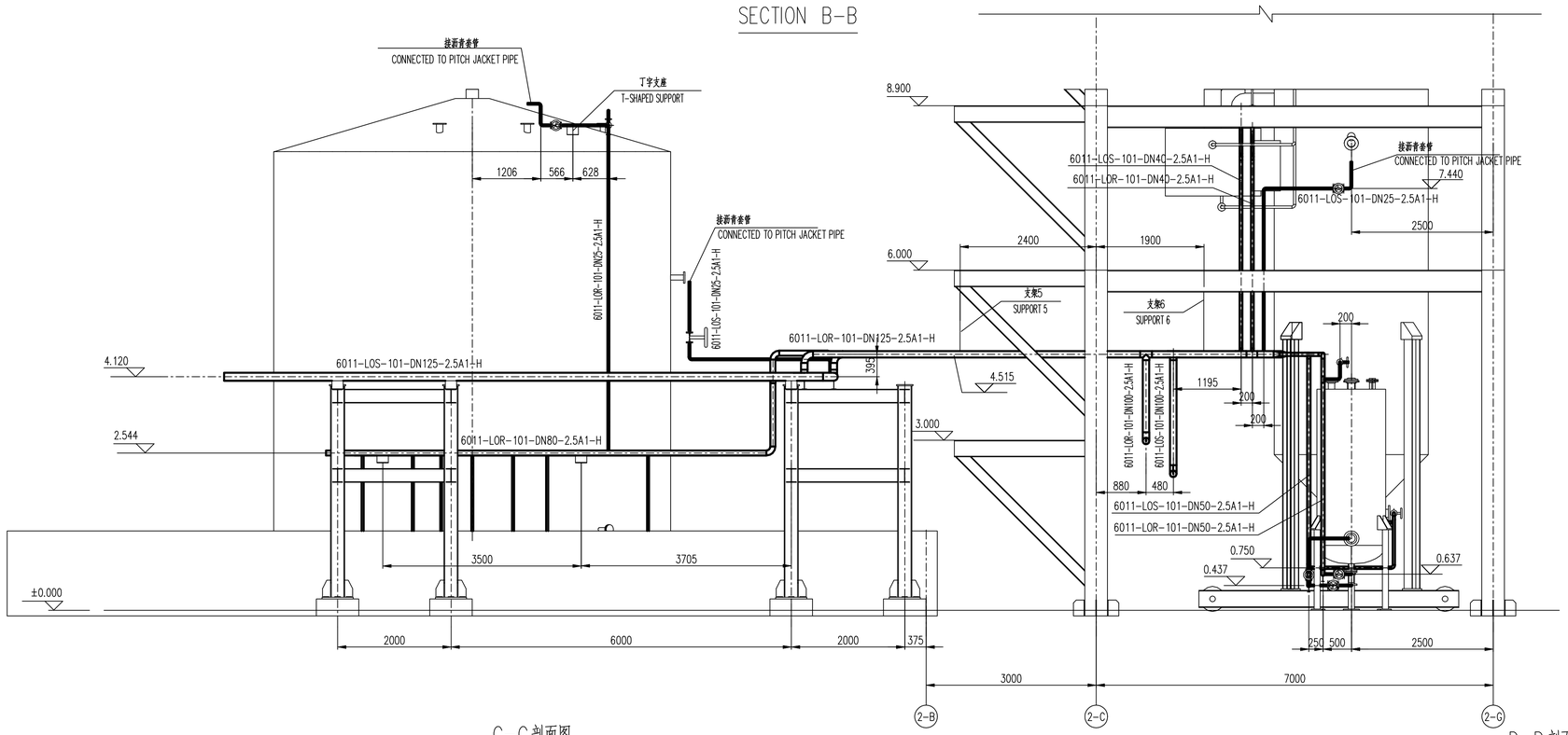
版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	27/12-20	AS BUILT			

审核/审定 Approved	秦学荣 QIN XUESHEN	秦学荣	26/12-20
校 对 Checked	邱佳文 QIU JIAWEN	邱佳文	25/12-20
制 图 Drawn	陈 蓓 CHEN BEI	陈蓓	20/12-20

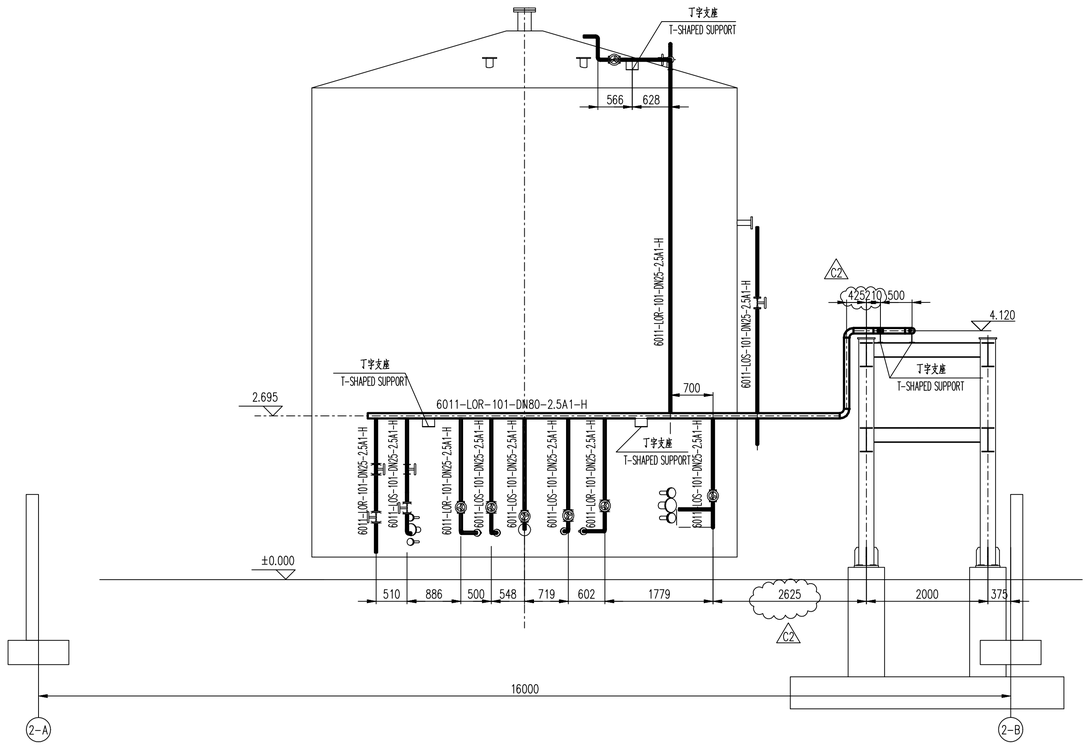
沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY	工程编号 Proj. No. DG0505
	设计阶段 Phase 竣工图 AD
低温热媒油管道剖面布置图(1) LOW TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(1)	专 业 Specialty 炭素工艺 CP
	图纸比例 Scale 1:50
图 号 Dwg. No. DG0505AD-DR-6011CP-0430	图纸规格 Size A1

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0060	热媒系统图 PROCESS FLOW DIAGRAM OF HEAT MEDIUM
DG0505AD-DR-6011CP-0410	低温热媒油管道平面布置图(1) LOW TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT(1)

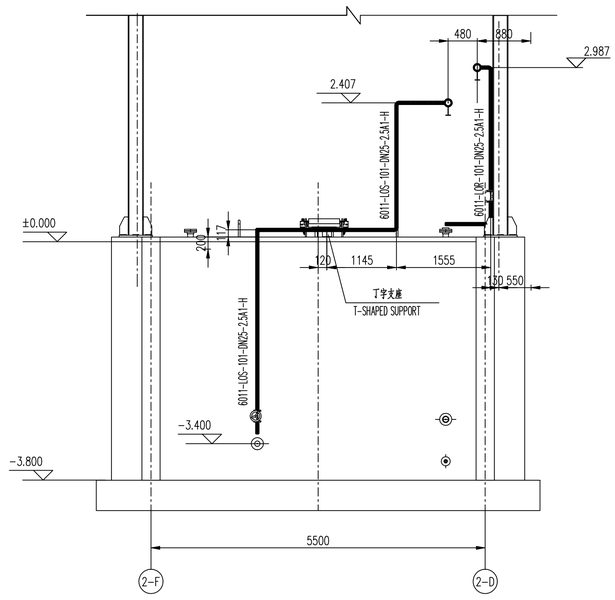
B-B剖面图
SECTION B-B



C-C剖面图
SECTION C-C



D-D剖面图
SECTION D-D



业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	27/12-20	AS BUILT			

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制图 Drawn	陈蓓 CHEN BEI		20/12-20

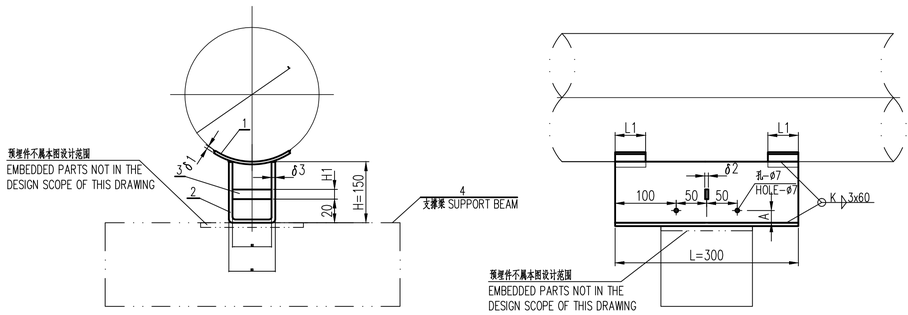
沥青贮存及沥青熔化
PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

低温热媒油管道剖面布置图(2)
LOW TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(2)

工程编号 Proj. No.	DG0505
设计阶段 Phase	施工图 AD
专业 Specialty	灰重工艺 CP
图纸比例 Scale	
图纸规格 Size	A1
图号 Dwg. No.	DG0505AD-DR-6011CP-0440
版 Rev.	1

参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0060	热媒系统图 PROCESS FLOW DIAGRAM OF HEAT MEDIUM
DG0505AD-DR-6011CP-0380	高温热媒油管道平面布置图 HIGH TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT
DG0505AD-DR-6011CP-0410	低温热媒油管道平面布置图(1) LOW TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT(1)

曲面槽支座
U-SHAPED SUPPORT

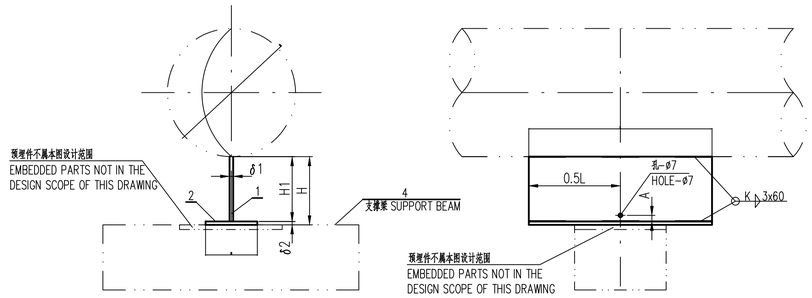


注： 1.焊条按GB5117-2012规定的E4303。
2.焊缝高度与被焊件较小厚度相同。
3.本支座与件4焊死即可作固定支座使用。
4.尺寸"A"应根据管道保温厚度决定。
5.曲面槽亦可用焊接代替煨弯。

NOTES: 1. ACCORDING TO NATIONAL STANDARD GB5117-2012, E4303 ELECTRODES WILL BE USED.
2. THE HEIGHT OF WELDS IS THE SAME AS THE THICKNESS OF THINNER WELDMENT.
3. THIS SUPPORT CAN BE USED AS FIXED SUPPORT AFTER BEING FIRMLY WELDED TO PART 4.
4. THE DIMENSION "A" IS TO BE DETERMINED ACCORDING TO PIPE INSULATION THICKNESS.
5. THE U STRUCTURES CAN ALSO BE MADE BY WELDING INSTEAD OF HOT BENDING.

支座型号 SUPPORT NO.	零件号 PART NO.	1					2				3					总重 TOTAL WEIGHT kg
	名称 NAME	弧形板 CURVED PLATE					肋板 RIB PLATE				曲面槽 U STRUCTURE					
	数量 QUANTITY	2					1				1					
	材料 MATERIAL	Q235B					Q235B				Q235B					
	管道外径 PIPE O.D. D(mm)	尺寸 SIZE mm B1	L1	规格 SPECIFICATION L1xδ1 mm	重量 WEIGHT kg 单重 UNIT WEIGHT	总重 TOTAL WEIGHT	尺寸 SIZE mm B2	H1	规格 SPECIFICATION H1xδ2 mm	重量 WEIGHT kg 单重 UNIT WEIGHT	总重 TOTAL WEIGHT	尺寸 SIZE mm B3	展开长 DEVELOPED LENGTH	规格 SPECIFICATION Lxδ3 mm	重量 WEIGHT kg 单重 UNIT WEIGHT	总重 TOTAL WEIGHT	
DN150 L=300 H=150	168	140	50	扁钢 50x4 FLAT STEEL	0.22	0.44	100	100	扁钢 100x6 FLAT STEEL	0.47	0.47	112	421	钢板 300x6 STEEL PLATE	5.95	5.95	6.860
DN200 L=300 H=150	219	180	50	扁钢 50x4 FLAT STEEL	0.28	0.56	120	100	扁钢 100x6 FLAT STEEL	0.57	0.57	132	441	钢板 300x6 STEEL PLATE	6.23	6.23	7.360
DN250 L=300 H=150	273	200	60	扁钢 60x4 FLAT STEEL	0.38	0.76	140	100	扁钢 100x8 FLAT STEEL	0.88	0.88	156	464	钢板 300x8 STEEL PLATE	8.74	8.74	10.380
DN300 L=300 H=150	325	250	60	扁钢 60x4 FLAT STEEL	0.47	0.94	180	100	扁钢 100x8 FLAT STEEL	1.13	1.13	196	520	钢板 300x8 STEEL PLATE	9.78	9.78	11.850
DN350 L=300 H=150	356	270	80	扁钢 80x4 FLAT STEEL	0.68	1.36	190	100	扁钢 100x8 FLAT STEEL	1.19	1.19	206	526	钢板 300x8 STEEL PLATE	9.90	9.90	12.450
DN400 L=300 H=150	406	330	80	扁钢 80x4 FLAT STEEL	0.83	1.66	220	100	扁钢 100x8 FLAT STEEL	1.33	1.33	236	564	钢板 300x8 STEEL PLATE	10.60	10.60	13.640
DN500 L=300 H=150	508	390	80	扁钢80x6 FLAT STEEL	0.98	1.96	260	100	扁钢 100x10 FLAT STEEL	2.04	2.04	280	613	钢板 300x10 STEEL PLATE	14.40	14.40	18.400
DN770 L=300 H=150	770	500	100	扁钢100x6 FLAT STEEL	2.355	4.71	350	100	扁钢 100x10 FLAT STEEL	2.748	2.748	370	752	钢板 300x10 STEEL PLATE	17.71	17.71	25.168

丁字支座
T-SHAPED SUPPORT

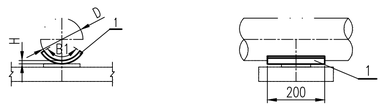


注： 1.焊条按GB5117-2012规定的E4303。
2.焊缝高度与被焊件较小厚度相同。
3.本支座与件4焊死即可作固定支座使用。
4.尺寸"A"应根据管道保温厚度决定。

NOTES: 1. ACCORDING TO NATIONAL STANDARD GB5117-2012, E4303 ELECTRODES WILL BE USED.
2. THE HEIGHT OF WELDS IS THE SAME AS THE THICKNESS OF THINNER WELDMENT.
3. THIS SUPPORT CAN BE USED AS FIXED SUPPORT AFTER BEING FIRMLY WELDED TO PART 4.
4. THE DIMENSION "A" IS TO BE DETERMINED ACCORDING TO PIPE INSULATION THICKNESS.

支座型号 SUPPORT NO.	零件号 PART NO.	1						2				总重 TOTAL WEIGHT kg
	名称 NAME	顶板 TOP PLATE						底板 BOTTOM PLATE				
	数量 QUANTITY	1						1				
	材料 MATERIAL	Q235B						Q235B				
	应用范围 APPLICATION RANGE 管子外径 mm OUTSIDE DIAMETER OF PIPE	H mm	尺寸 SIZE mm H1	L	δ1	规格 SPECIFICATION mm	重量 WEIGHT kg	尺寸 SIZE mm B	L	δ2	规格 SPECIFICATION mm	重量 WEIGHT kg	
DN25 L=200 H=150	34	150	146	200	4	钢板300x146x4 STEEL PLATE 300X146X4	0.917	60	200	4	钢板300x60x4 STEEL PLATE 300X60X4	0.377	1.294
DN32 L=200 H=150	42		146	200	4	钢板300x146x4 STEEL PLATE 300X146X4	0.917	60	200	4	钢板300x60x4 STEEL PLATE 300X60X4	0.377	1.294
DN40 L=200 H=150	48		146	200	4	钢板300x146x4 STEEL PLATE 300X146X4	0.917	60	200	4	钢板300x60x4 STEEL PLATE 300X60X4	0.377	1.294
DN50 L=200 H=150	60		146	200	4	钢板300x146x4 STEEL PLATE 300X146X4	0.917	60	200	4	钢板300x60x4 STEEL PLATE 300X60X4	0.377	1.294
DN65 L=200 H=150	76		144	200	6	钢板300x144x6 STEEL PLATE 300X144X6	1.356	80	200	6	钢板300x80x6 STEEL PLATE 300X80X6	0.754	2.110
DN80 L=200 H=150	89		144	200	6	钢板300x144x6 STEEL PLATE 300X144X6	1.356	80	200	6	钢板300x80x6 STEEL PLATE 300X80X6	0.754	2.110
DN100 L=300 H=150	114		144	300	6	钢板300x144x6 STEEL PLATE 300X144X6	2.035	100	300	6	钢板300x100x6 STEEL PLATE 300X100X6	1.413	3.448
DN125 L=300 H=150	140		142	300	8	钢板300x142x8 STEEL PLATE 300X142X8	2.675	100	300	8	钢板300x100x8 STEEL PLATE 300X100X8	1.884	4.559
DN150 L=300 H=150	168		142	300	8	钢板300x142x8 STEEL PLATE 300X142X8	2.675	100	300	8	钢板300x100x8 STEEL PLATE 300X100X8	1.884	4.559

弧形板支座
CURVED PLATE SUPPORT



注： 1.焊条按 GB/T 5117-2012规定的 E4303。
2.焊缝高度与被焊件较小厚度相同。
3.用于不保温管道。

NOTES: 1.ELECTRODES SHALL COMPLY WITH E4303 STIPULATED IN NATIONAL STANDARD GB/T 5117-2012.
2.WELD THICKNESS SHALL BE SAME WITH THE THINNER THICKNESS OF THE WELDED PARTS.
3.THIS IS APPLICABLE FOR PIPES WITHOUT THERMAL INSULATION.

零件号 PART NO.	1				零件号 PART NO.	1			
名称 NAME	弧形板 CURVED PLATE				名称 NAME	弧形板 CURVED PLATE			
数量 QTY.	1				数量 QTY.	1			
材料 MATERIAL	Q235B				材料 MATERIAL	Q235B			
管道外径 PIPE O.D. D(mm)	尺寸(mm) DIMENSION B1	H	钢板规格 STEEL PLATE SPECIFICATION mm	重量 WEIGHT kg	管道外径 PIPE O.D. D(mm)	尺寸(mm) DIMENSION B1	H	钢板规格 STEEL PLATE SPECIFICATION mm	重量 WEIGHT kg
27	27	2	200x2	0.085	89	78	2	200x2	0.245
34	33	2	200x2	0.104	114	93	3	200x3	0.440
42	38	2	200x2	0.120	140	112	3	200x3	0.527
48	43	2	200x2	0.135	168	140	3	200x3	0.660
60	53	2	200x2	0.166	219	180	3	200x3	0.850
76	65	2	200x2	0.204	273	200	3	200x3	0.940

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总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.
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设计单位(Engineering Institute): 东北大学 设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

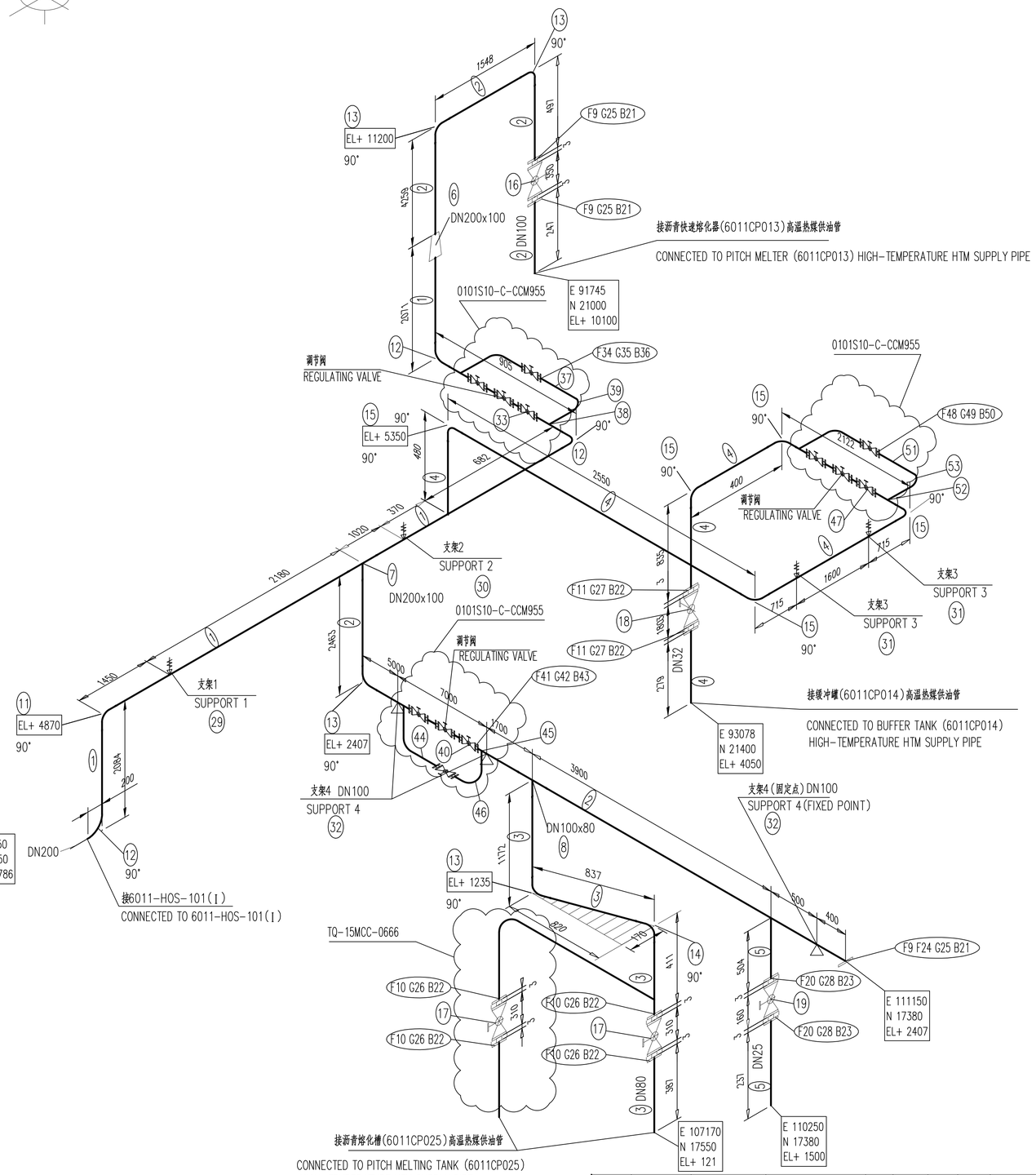
版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	27/12-20	AS BUILT			

审核/审定 Approved			
校对 Checked	秦学泉 QIN XUESHEN	秦学泉	26/12-20
	邱佳文 QIU JIAWEN	邱佳文	25/12-20
制图 Drawn	陈菲 CHEN FEI	陈菲	20/12-20

工程名称 Proj. Name	热媒锅炉房及换热站 HTM BOILER HOUSE & HEAT EXCHANGE STATION
图名 Dwg. Name	管道详图(1) PIPELINE DETAIL (1)
图号 Dwg. No.	DG0505AD-DR-6011CP-0450
版号 Rev.	1
工程编号 Proj. No.	DG0505
设计阶段 Phase	AD
专业 Specialty	CP
图纸比例 Scale	
图纸规格 Size	A1

NORTH

6011-HOS-101(Ⅱ)



参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0380	高温热媒油管道平面布置图 HIGH TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT
DG0505AD-DR-6011CP-0390	高温热媒油管道剖面布置图(1) HIGH TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(1)
DG0505AD-DR-6011CP-0400	高温热媒油管道剖面布置图(2) HIGH TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(2)

序号 No.	标准或图号 Code or Dwg No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W. (kg)	总重 T.W. (kg)	备注 Remarks
14	GB/T 12459-2005	90° ELBOW	90E(L)80-Sch40	3	20	-	-	
13	GB/T 12459-2005	90° ELBOW	90E(L)100-Sch40	3	20	-	-	
12	GB/T 12459-2005	90° ELBOW	90E(L)200-Sch3	4	20	-	-	
11	GB/T 9119-2010	SO FLANGE	DN32-PN25 SO RF Ⅰ	2	STL	-	-	
10	GB/T 9119-2010	SO FLANGE	DN80-PN25 SO RF Ⅰ	4	STL	-	-	
9	GB/T 9119-2010	SO FLANGE	DN100-PN25 SO RF Ⅰ	3	STL	-	-	
8	GB/T 8163-2008	REDUCING TEE	T(R)100x100x80-Sch40	1	20	-	-	
7	GB/T 8163-2008	REDUCING TEE	T(R)200x200x100-Sch30	1	20	-	-	
6	GB/T 12459-2005	REDUCING JOINT	R(C)200x100-SchXS	1	20	-	-	
5	GB/T 8163-2008	SEAMLESS STEEL PIPE	D33.7X3	741	20	-	1.76	
4	GB/T 8163-2008	SEAMLESS STEEL PIPE	D42.4X3	9071	20	-	26.22	
3	GB/T 8163-2008	SEAMLESS STEEL PIPE	D88.9X4	2198	20	-	18.42	
2	GB/T 8163-2008	SEAMLESS STEEL PIPE	D114.3X4	26269	20	-	265.02	
1	GB/T 8163-2008	SEAMLESS STEEL PIPE	D219.1X6	8560	20	-	269.81	
32	DG0505AD-DR-6011CP-0480	支架4	DN100	3	Q235B	22.82	68.46	管道详图(4)
31	DG0505AD-DR-6011CP-0470	支架3	DN32	2	Q235B	25.15	50.30	管道详图(3)
30	DG0505AD-DR-6011CP-0470	支架2	DN200	1	Q235B	19.26	19.26	管道详图(3)
29	DG0505AD-DR-6011CP-0470	支架1	DN200	1	Q235B	11.52	11.52	管道详图(3)
28	GB/T 4622.2-2008	缠绕式垫片	D1222 DN25-PN25	2	-	-	-	
27	GB/T 4622.2-2008	缠绕式垫片	D1222 DN32-PN25	2	-	-	-	
26	GB/T 4622.2-2008	缠绕式垫片	D1222 DN80-PN25	4	-	-	-	
25	GB/T 4622.2-2008	缠绕式垫片	D1222 DN100-PN25	3	-	-	-	
24	GB/T 9123-2010	凸面钢制法兰盖	DN100-PN25 BL RF Ⅰ	1	STL	-	-	
	GB/T 97.1-2002	垫圈	12	16	200HV	-	-	
	GB/T 6175-2000	螺母	M12	16	30CrMo	-	-	
23	GB/T 20613-2009	全螺纹螺柱	M12x75	8	35CrMo	-	-	
	GB/T 97.1-2002	垫圈	16	48	200HV	-	-	
	GB/T 6175-2000	螺母	M16	48	30CrMo	-	-	
22	GB/T 20613-2009	全螺纹螺柱	M16x95	48	35CrMo	-	-	
	GB/T 97.1-2002	垫圈	20	48	200HV	-	-	
	GB/T 6175-2000	螺母	M20	48	30CrMo	-	-	
21	GB/T 20613-2009	全螺纹螺柱	M20x105	24	35CrMo	-	-	
20	GB/T 9119-2010	带颈平焊法兰	DN25-PN25 SO RF Ⅰ	2	STL	-	-	
19	WJ41H-25	波纹管截止阀	DN25,PN25	1	-	-	-	
18	WJ41H-25	波纹管截止阀	DN32,PN25	1	-	-	-	
17	WJ41H-25	波纹管截止阀	DN80,PN25	2	-	-	-	
16	WJ41H-25	波纹管截止阀	DN100,PN25	1	-	-	-	
15	GB/T 12459-2005	90° 弯头	90E(L)32-Sch40	5	20	-	-	
14	GB/T 12459-2005	90° 弯头	90E(L)80-Sch40	3	20	-	-	
13	GB/T 12459-2005	90° 弯头	90E(L)100-Sch40	3	20	-	-	
12	GB/T 12459-2005	90° 弯头	90E(L)200-Sch30	4	20	-	-	
11	GB/T 9119-2010	带颈平焊法兰	DN32-PN25 SO RF Ⅰ	2	STL	-	-	
10	GB/T 9119-2010	带颈平焊法兰	DN80-PN25 SO RF Ⅰ	4	STL	-	-	
9	GB/T 9119-2010	带颈平焊法兰	DN100-PN25 SO RF Ⅰ	3	STL	-	-	
8	GB/T 8163-2008	异径三通	T(R)100x100x80-Sch40	1	20	-	-	
7	GB/T 8163-2008	异径三通	T(R)200x200x100-Sch30	1	20	-	-	
6	GB/T 12459-2005	异径接头	R(C)200x100-SchXS	1	20	-	-	
5	GB/T 8163-2008	无缝钢管	D33.7X3	741	20	-	1.76	
4	GB/T 8163-2008	无缝钢管	D42.4X3	9071	20	-	26.22	
3	GB/T 8163-2008	无缝钢管	D88.9X4	2198	20	-	18.42	
2	GB/T 8163-2008	无缝钢管	D114.3X4	26269	20	-	265.02	
1	GB/T 8163-2008	无缝钢管	D219.1X6	8560	20	-	269.81	

序号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	27/12-20	AS BUILT			

53	GB/T 12459-2005	90° 弯头 90° ELBOW	90E(L)32-Sch40	2	20	-	-
52	GB/T 8163-2008	等径三通 STRAIGHT TEE	T(S)32x32x32 -Sch40	2	20	-	-
51	GB/T 8163-2008	无缝钢管 SEAMLESS STEEL PIPE	D32X3	3000	20	-	8.67
	GB/T 97.1-2002	垫圈 GASKET	16	48	200HV	-	-
	HG/T 6175-2000	螺母 NUT	M16	48	30CrMo	-	-
50	HG/T 20613-2009	全螺纹螺柱 FULL THREADED STUD	M16X90	24	35CrMo	-	-
49	GB/T 4622.2-2008	缠绕式垫片 WOUND GASKET	D1222 DN32-PN25	6	-	-	-
48	GB/T 9119-2010	带颈平焊法兰 FLAT NECK WELDING FLANGE	DN32-PN25 SO RF Ⅰ	6	20	-	-
47	WJ41H-25	波纹管截止阀 BELLOWS GLOBE VALVE	DN32-PN25	3	-	-	-
46	GB/T 12459-2005	90° 弯头 90° ELBOW	90E(L)100-Sch40	4	20	-	-
45	GB/T 8163-2008	等径三通 STRAIGHT TEE	T(S)100x100x100 -Sch40	4	20	-	-
44	GB/T 8163-2008	无缝钢管 SEAMLESS STEEL PIPE	D114.3X4	1000	20	-	10.85
	GB/T 97.1-2002	垫圈 GASKET	20	48	200HV	-	-
	HG/T 6175-2000	螺母 NUT	M20	48	30CrMo	-	-
43	HG/T 20613-2009	全螺纹螺柱 FULL THREADED STUD	M20X110	24	35CrMo	-	-
42	GB/T 4622.2-2008	缠绕式垫片 WOUND GASKET	D1222 DN100-PN25	6	-	-	-
41	GB/T 9119-2010	带颈平焊法兰 FLAT NECK WELDING FLANGE	DN100-PN25 SO RF Ⅰ	6	20	-	-
40	WJ41H-25	波纹管截止阀 BELLOWS GLOBE VALVE	DN100-PN25	3	-	-	-
39	GB/T 12459-2005	90° 弯头 90° ELBOW	90E(L)200-Sch30	4	20		
38	GB/T 8163-2008	等径三通 STRAIGHT TEE	T(S)200x200x200 -Sch30	4	20	-	-
37	GB/T 8163-2008	无缝钢管 SEAMLESS STEEL PIPE	D219.1X6	1000	20	-	31.52
	GB/T 97.1-2002	垫圈 GASKET	24	96	200HV	-	-
	HG/T 6175-2000	螺母 NUT	M24	96	30CrMo	-	-
36	HG/T 20613-2009	全螺纹螺柱 FULL THREADED STUD	M24X130	48	35CrMo	-	-
35	GB/T 4622.2-2008	缠绕式垫片 WOUND GASKET	D1222 DN200-PN25	12	-	-	-
34	GB/T 9119-2010	带颈平焊法兰 FLAT NECK WELDING FLANGE	DN200-PN25 SO RF Ⅰ	12	20	-	-
33	WJ41H-25	波纹管截止阀 BELLOWS GLOBE VALVE	DN200-PN25	6	-	-	-
32	DG0505AD-DR-6011CP-0480	SUPPORT 4	DN100	3	Q235B	22.82	68.46	PIPELINE DETAIL(4)
31	DG0505AD-DR-6011CP-0470	SUPPORT 3	DN32	2	Q235B	25.15	50.30	PIPELINE DETAIL(3)
30	DG0505AD-DR-6011CP-0470	SUPPORT 2	DN200	1	Q235B	19.26	19.26	PIPELINE DETAIL(3)
29	DG0505AD-DR-6011CP-0470	SUPPORT 1	DN200	1	Q235B	11.52	11.52	PIPELINE DETAIL(3)
28	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN25-PN25	2	-	-	-	
27	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN32-PN25	2	-	-	-	
26	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN80-PN25	4	-	-	-	
25	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN100-PN25	3	-	-	-	
24	GB/T 9123-2010	SLIP-ON BLIND FLANGE	DN100-PN25 BL RF Ⅰ	1	STL	-	-	
	GB/T 97.1-2002	WASHER	12	16	200HV	-	-	
	GB/T 6175-2000	NUT	M12	16	30CrMo	-	-	
23	GB/T 20613-2009	CONTINUOUS THREAD STUD	M12x75	8	35CrMo	-	-	
	GB/T 97.1-2002	WASHER	16	48	200HV	-	-	
	GB/T 6175-2000	NUT	M16	48	30CrMo	-	-	
22	GB/T 20613-2009	CONTINUOUS THREAD STUD	M16x95	48	35CrMo	-	-	
	GB/T 97.1-2002	WASHER	20	48	200HV	-	-	
	GB/T 6175-2000	NUT	M20	48	30CrMo	-	-	
21	GB/T 20613-2009	CONTINUOUS THREAD STUD	M20x105	24	35CrMo	-	-	
20	GB/T 9119-2010	SO FLANGE	DN25-PN25 SO RF Ⅰ	2	STL	-	-	
19	WJ41H-25	FLANGE BELLOW STOP VALVE	DN25,PN25	1	-	-	-	
18	WJ41H-25	FLANGE BELLOW STOP VALVE	DN32,PN25	1	-	-	-	
17	WJ41H-25	FLANGE BELLOW STOP VALVE	DN80,PN25	2	-	-	-	
16	WJ41H-25	FLANGE BELLOW STOP VALVE	DN100,PN25	1	-	-	-	
15	GB/T 12459-2005	90° ELBOW	90E(L)32-Sch40	5	20	-	-	

业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

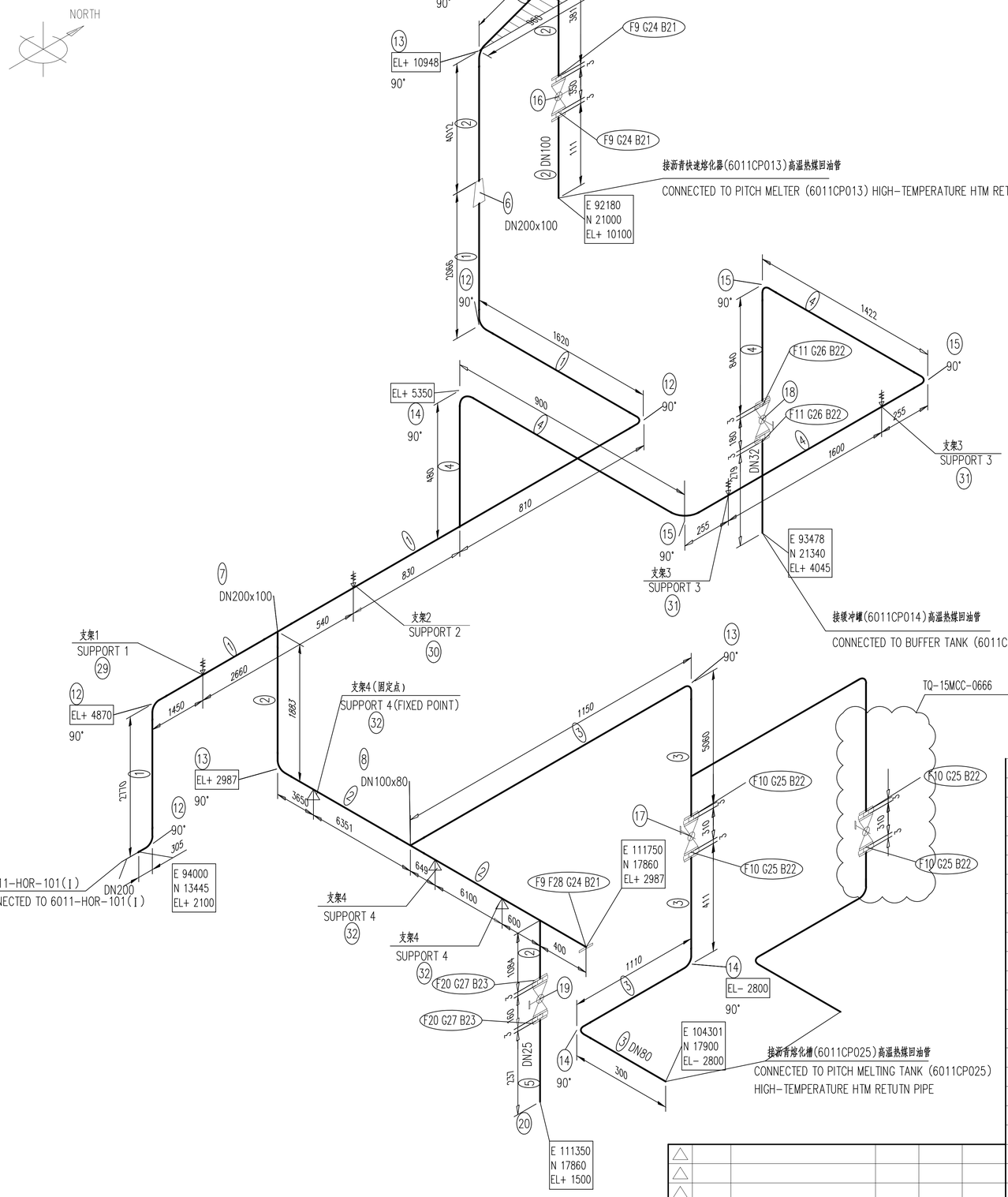
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设计单位(Engineering Institute): 东北大学设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

审核/审定 Approved	秦学英 QIN XUESHEN	秦学英	26/12-20
校对 Checked	邱佳文 QIU JIAWEN	邱佳文	25/12-20
制图 Drawn	陈贝 CHEN BEI	陈贝	20/12-20

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY	
高温热媒油供油管道轴测图(2) HIGH-TEMPERATURE OIL SUPPLY PIPE ISOMETRIC VIEW(2)	
工程编号 Proj. No.	DG0505
设计阶段 Phase	施工图 AD
专业 Specialty	热素工艺 CP
图纸比例 Scale	
图纸规格 Size	A1
图号 Dwg. No.	DG0505AD-DR-6011CP-0500
Rev.	1

6011-HOR-101(Ⅱ)



参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0380	高温热煤油管道平面布置图 HIGH TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT
DG0505AD-DR-6011CP-0390	高温热煤油管道剖面布置图(1) HIGH TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(1)
DG0505AD-DR-6011CP-0400	高温热煤油管道剖面布置图(2) HIGH TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(2)

11	GB/T 9119-2010	SO FLANGE	DN32-PN25 SO RF Ⅰ	2	STL	-	-	
10	GB/T 9119-2010	SO FLANGE	DN80-PN25 SO RF Ⅰ	2	STL	-	-	
9	GB/T 9119-2010	SO FLANGE	DN100-PN25 SO RF Ⅰ	3	STL	-	-	
8	GB/T 8163-2008	REDUCING TEE	T(R)100X100X80-Sch40	1	20	-	-	
7	GB/T 8163-2008	REDUCING TEE	T(R)200x200x100-Sch30	1	20	-	-	
6	GB/T 12459-2005	REDUCING JOINT	R(C)200x100-Sch30	1	20	-	-	
5	GB/T 8163-2008	SEAMLESS STEEL PIPE	D33.7X3	1321	20	-	3.13	
4	GB/T 8163-2008	SEAMLESS STEEL PIPE	D42.4X3	5666	20	-	16.37	
3	GB/T 8163-2008	SEAMLESS STEEL PIPE	D88.9X4	7194	20	-	60.29	
2	GB/T 8163-2008	SEAMLESS STEEL PIPE	D114.3X4	23271	20	-	252.49	
1	GB/T 8163-2008	SEAMLESS STEEL PIPE	D219.1X6	10125	20	-	319.14	
32	DG0505AD-DR-6011CP-0480	支架4	DN100	3	Q235B	22.82	68.46	管道详图(4)
31	DG0505AD-DR-6011CP-0470	支架3	DN32	2	Q235B	25.15	50.30	管道详图(3)
30	DG0505AD-DR-6011CP-0470	支架2	DN200	1	Q235B	19.26	19.26	管道详图(3)
29	DG0505AD-DR-6011CP-0470	支架1	DN200	1	Q235B	11.52	11.52	管道详图(3)
28	GB/T 9123-2010	凸面钢制法兰盖	DN100-PN25 BL RF Ⅰ	1	STL	-	-	
27	GB/T 4622.2-2008	缠绕式垫片	D1222 DN25-PN25	2	-	-	-	
26	GB/T 4622.2-2008	缠绕式垫片	D1222 DN32-PN25	2	-	-	-	
25	GB/T 4622.2-2008	缠绕式垫片	D1222 DN80-PN25	4	-	-	-	
24	GB/T 4622.2-2008	缠绕式垫片	D1222 DN100-PN25	3	-	-	-	
	GB/T 97.1-2002	垫圈	12	16	200HV	-	-	
	GB/T 6175-2000	螺母	M12	16	30CrMo	-	-	
23	GB/T 20613-2009	全螺纹螺柱	M12x75	8	35CrMo	-	-	
	GB/T 97.1-2002	垫圈	16	48	200HV	-	-	
	GB/T 6175-2000	螺母	M16	48	30CrMo	-	-	
22	GB/T 20613-2009	全螺纹螺柱	M16x95	48	35CrMo	-	-	
	GB/T 97.1-2002	垫圈	20	48	200HV	-	-	
	GB/T 6175-2000	螺母	M20	48	30CrMo	-	-	
21	GB/T 20613-2009	全螺纹螺柱	M20x105	24	35CrMo	-	-	
20	GB/T 9119-2010	带颈平焊法兰	DN25-PN25 SO RF Ⅰ	2	STL	-	-	
19	WJ41H-25	波纹管截止阀	DN25, PN25	1	-	-	-	
18	WJ41H-25	波纹管截止阀	DN32, PN25	1	-	-	-	
17	WJ41H-25	波纹管截止阀	DN80, PN25	2	-	-	-	
16	WJ41H-25	波纹管截止阀	DN100, PN25	1	-	-	-	
15	GB/T 12459-2005	90° 弯头	90E(L)32-Sch40	4	20	-	-	
14	GB/T 12459-2005	90° 弯头	90E(L)80-Sch40	3	20	-	-	
13	GB/T 12459-2005	90° 弯头	90E(L)100-Sch40	6	20	-	-	
12	GB/T 12459-2005	90° 弯头	90E(L)200-Sch30	4	20	-	-	
11	GB/T 9119-2010	带颈平焊法兰	DN32-PN25 SO RF Ⅰ	2	STL	-	-	
10	GB/T 9119-2010	带颈平焊法兰	DN80-PN25 SO RF Ⅰ	2	STL	-	-	
9	GB/T 9119-2010	带颈平焊法兰	DN100-PN25 SO RF Ⅰ	3	STL	-	-	
8	GB/T 8163-2008	异径三通	T(R)100X100X80-Sch40	1	20	-	-	
7	GB/T 8163-2008	异径三通	T(R)200x200x100-Sch30	1	20	-	-	
6	GB/T 12459-2005	异径接头	R(C)200x100-Sch30	1	20	-	-	
5	GB/T 8163-2008	无缝钢管	D33.7X3	1321	20	-	3.13	
4	GB/T 8163-2008	无缝钢管	D42.4X3	5666	20	-	16.37	
3	GB/T 8163-2008	无缝钢管	D88.9X4	8000	20	-	67.04	
2	GB/T 8163-2008	无缝钢管	D114.3X4	23271	20	-	252.49	
1	GB/T 8163-2008	无缝钢管	D219.1X6	10125	20	-	319.14	

序号 No.	标准或图号 Code or Dwg.No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W. (kg)	总重 T.W. (kg)	备注 Remarks

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	27/12-20	AS BUILT			

业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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设计单位(Engineering Institute): 东北大学设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

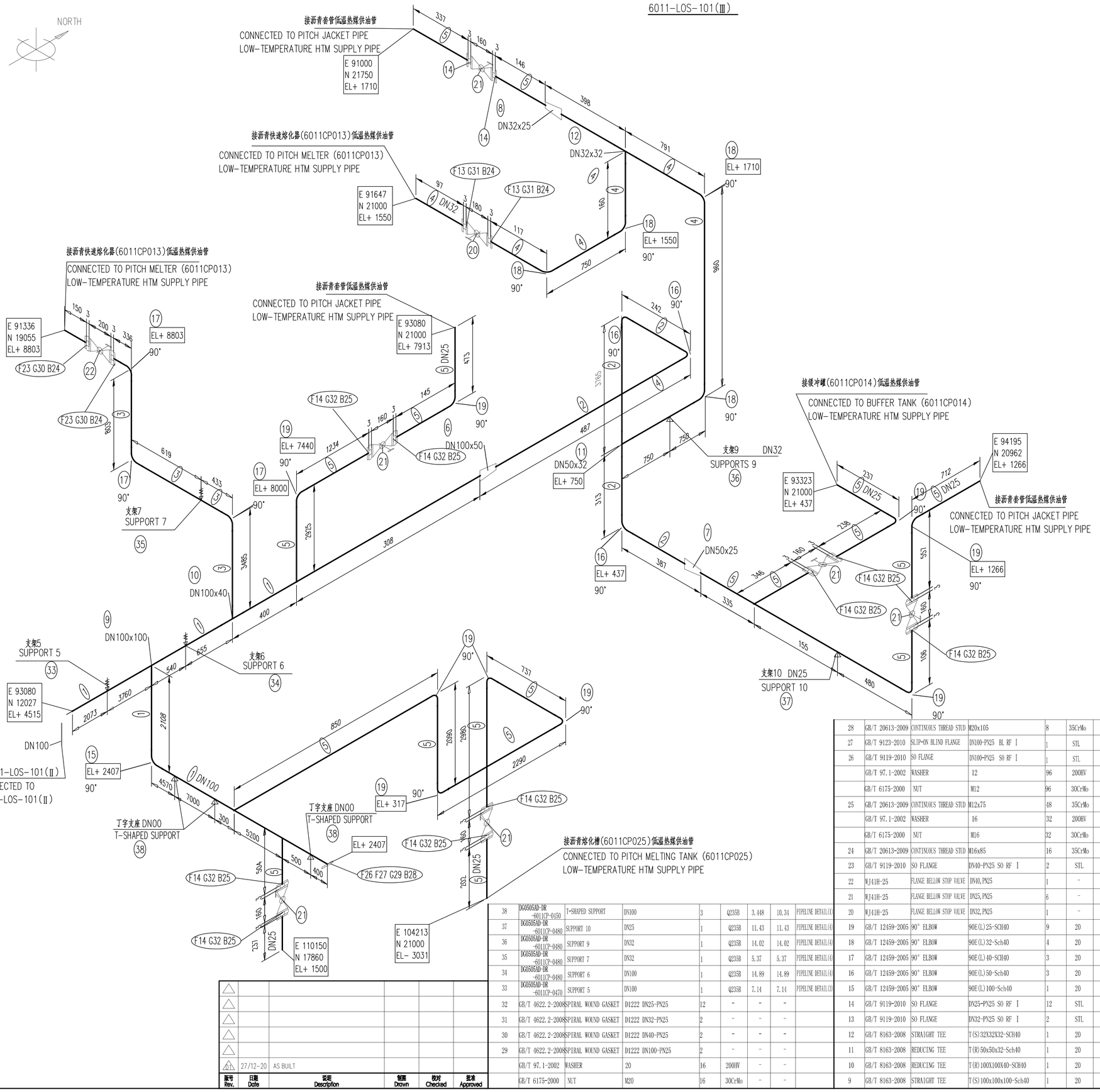
审核/审定 Approved			
	高学民 QIN XUESHEN		26/12-20
校对 Checked	邱佳文 QIU JIAWEN		25/12-20
制图 Drawn	陈睿 CHEN RUI		20/12-20

沥青贮存及沥青熔化
PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

高温热煤油回油管道轴侧图(2)
HIGH-TEMPERATURE OIL RETUTN PIPE ISOMETRIC VIEW(2)

工程编号 Proj. No.	DG0505
设计阶段 Phase	施工图 AD
专业 Specialty	热素工艺 CP
图纸比例 Scale	
图纸规格 Size	A1
图号 Dwg. No.	DG0505AD-DR-6011CP-0520
Rev.	1

6011-LOS-101(Ⅲ)



38	DG0505AD-DR-6011CP-0150	T-SHAPED SUPPORT	DN100	3	Q235B	3.448	10.34	PIPELINE DETAIL(1)
37	DG0505AD-DR-6011CP-0480	SUPPORT 10	DN25	1	Q235B	11.43	11.43	PIPELINE DETAIL(4)
36	DG0505AD-DR-6011CP-0480	SUPPORT 9	DN32	1	Q235B	14.02	14.02	PIPELINE DETAIL(4)
35	DG0505AD-DR-6011CP-0480	SUPPORT 7	DN32	1	Q235B	5.37	5.37	PIPELINE DETAIL(4)
34	DG0505AD-DR-6011CP-0480	SUPPORT 6	DN100	1	Q235B	14.89	14.89	PIPELINE DETAIL(4)
33	DG0505AD-DR-6011CP-0470	SUPPORT 5	DN100	1	Q235B	7.14	7.14	PIPELINE DETAIL(3)
32	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN25-PN25	12	-	-	-	
31	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN32-PN25	2	-	-	-	
30	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN40-PN25	2	-	-	-	
29	GB/T 4622.2-2008	SPIRAL WOUND GASKET	D1222 DN100-PN25	2	-	-	-	
	GB/T 97.1-2002	WASHER	20	16	200HV	-	-	
	GB/T 6175-2000	NUT	M20	16	30CrMo	-	-	

28	GB/T 20613-2009	CONTINUOUS THREAD STUD	M20x105	8	35CrMo	-	-
27	GB/T 9123-2010	SLIP-ON BLIND FLANGE	DN100-PN25 BL RF Ⅰ	1	STL	-	-
26	GB/T 9119-2010	SO FLANGE	DN100-PN25 SO RF Ⅰ	1	STL	-	-
	GB/T 97.1-2002	WASHER	12	96	200HV	-	-
	GB/T 6175-2000	NUT	M12	96	30CrMo	-	-
25	GB/T 20613-2009	CONTINUOUS THREAD STUD	M12x75	48	35CrMo	-	-
	GB/T 97.1-2002	WASHER	16	32	200HV	-	-
	GB/T 6175-2000	NUT	M16	32	30CrMo	-	-
24	GB/T 20613-2009	CONTINUOUS THREAD STUD	M16x85	16	35CrMo	-	-
23	GB/T 9119-2010	SO FLANGE	DN40-PN25 SO RF Ⅰ	2	STL	-	-
22	WJ41H-25	FLANGE BELLOW STOP VALVE	DN40,PN25	1	-	-	-
21	WJ41H-25	FLANGE BELLOW STOP VALVE	DN25,PN25	6	-	-	-
20	WJ41H-25	FLANGE BELLOW STOP VALVE	DN32,PN25	1	-	-	-
19	GB/T 12459-2005	90° ELBOW	90E(L)25-SCH40	9	20	-	-
18	GB/T 12459-2005	90° ELBOW	90E(L)32-Sch40	4	20	-	-
17	GB/T 12459-2005	90° ELBOW	90E(L)40-SCH40	3	20	-	-
16	GB/T 12459-2005	90° ELBOW	90E(L)50-Sch40	3	20	-	-
15	GB/T 12459-2005	90° ELBOW	90E(L)100-Sch40	1	20	-	-
14	GB/T 9119-2010	SO FLANGE	DN25-PN25 SO RF Ⅰ	12	STL	-	-
13	GB/T 9119-2010	SO FLANGE	DN32-PN25 SO RF Ⅰ	2	STL	-	-
12	GB/T 8163-2008	STRAIGHT TEE	T(S)32X32X32-SCH40	1	20	-	-
11	GB/T 8163-2008	REDUCING TEE	T(R)50x50x32-Sch40	1	20	-	-
10	GB/T 8163-2008	REDUCING TEE	T(R)100X100X40-SCH40	1	20	-	-
9	GB/T 8163-2008	STRAIGHT TEE	T(S)100x100x100-Sch40	1	20	-	-

8	GB/T 12459-2005	REDUCING JOINT	R(C)32X25-SCH40	1	20	-	-	
7	GB/T 12459-2005	REDUCING JOINT	R(C)50x25-Sch40	1	20	-	-	
6	GB/T 12459-2005	REDUCING JOINT	R(C)100X50-SCH40	1	20	-	-	
5	GB/T 8163-2008	SEAMLESS STEEL PIPE	D33.7X3	16741	20	-	39.68	
4	GB/T 8163-2008	SEAMLESS STEEL PIPE	D42.4X3	4094	20	-	11.83	
3	GB/T 8163-2008	SEAMLESS STEEL PIPE	D48.3X3.5	5485	20	-	21.06	
2	GB/T 8163-2008	SEAMLESS STEEL PIPE	D60.3X3.5	4439	20	-	18.73	
1	GB/T 8163-2008	SEAMLESS STEEL PIPE	D114.3X4	27204	20	-	295.16	

序号 No.	标准或图号 Code or Dwg. No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	质量 U.W. (kg)	总重 T.W. (kg)	备注 Remarks
38	DG0505AD-DR-6011CP-0150	丁字支座	DN100	3	Q235B	3.448	10.34	管道详图(1)
37	DG0505AD-DR-6011CP-0480	支架10	DN25	1	Q235B	11.43	11.43	管道详图(4)
36	DG0505AD-DR-6011CP-0480	支架9	DN32	1	Q235B	14.02	14.02	管道详图(4)
35	DG0505AD-DR-6011CP-0480	支架7	DN32	1	Q235B	5.37	5.37	管道详图(4)
34	DG0505AD-DR-6011CP-0480	支架6	DN100	1	Q235B	14.89	14.89	管道详图(4)
33	DG0505AD-DR-6011CP-0470	支架5	DN100	1	Q235B	7.14	7.14	管道详图(3)
32	GB/T 4622.2-2008	缠绕式垫片	D1222 DN25-PN25	12	-	-	-	
31	GB/T 4622.2-2008	缠绕式垫片	D1222 DN32-PN25	2	-	-	-	
30	GB/T 4622.2-2008	缠绕式垫片	D1222 DN40-PN25	2	-	-	-	
29	GB/T 4622.2-2008	缠绕式垫片	D1222 DN100-PN25	2	-	-	-	
	GB/T 97.1-2002	垫圈	20	16	200HV	-	-	
	GB/T 6175-2000	螺母	M20	16	30CrMo	-	-	
28	GB/T 20613-2009	全螺纹螺柱	M20x105	8	35CrMo	-	-	
27	GB/T 9123-2010	凸面钢制法兰盖	DN100-PN25 BL RF Ⅰ	1	STL	-	-	
26	GB/T 9119-2010	带颈平焊法兰	DN100-PN25 SO RF Ⅰ	1	STL	-	-	
	GB/T 97.1-2002	垫圈	12	96	200HV	-	-	
	GB/T 6175-2000	螺母	M12	96	30CrMo	-	-	
25	GB/T 20613-2009	全螺纹螺柱	M12x75	48	35CrMo	-	-	
	GB/T 97.1-2002	垫圈	16	32	200HV	-	-	
	GB/T 6175-2000	螺母	M16	32	30CrMo	-	-	
24	GB/T 20613-2009	全螺纹螺柱	M16x85	16	35CrMo	-	-	
23	GB/T 9119-2010	带颈平焊法兰	DN40-PN25 SO RF Ⅰ	2	STL	-	-	
22	WJ41H-25	波纹管截止阀	DN40,PN25	1	-	-	-	
21	WJ41H-25	波纹管截止阀	DN25,PN25	6	-	-	-	
20	WJ41H-25	波纹管截止阀	DN32,PN25	1	-	-	-	
19	GB/T 12459-2005	90° 弯头	90E(L)25-Sch40	9	20	-	-	
18	GB/T 12459-2005	90° 弯头	90E(L)32-Sch40	4	20	-	-	
17	GB/T 12459-2005	90° 弯头	90E(L)40-Sch40	3	20	-	-	
16	GB/T 12459-2005	90° 弯头	90E(L)50-Sch40	3	20	-	-	
15	GB/T 12459-2005	90° 弯头	90E(L)100-Sch40	1	20	-	-	
14	GB/T 9119-2010	带颈平焊法兰	DN25-PN25 SO RF Ⅰ	12	STL	-	-	
13	GB/T 9119-2010	带颈平焊法兰	DN32-PN25 SO RF Ⅰ	2	STL	-	-	
12	GB/T 8163-2008	等径三通	T(S)32X32X32-Sch40	1	20	-	-	
11	GB/T 8163-2008	异径三通	T(R)50x50x32-Sch40	1	20	-	-	
10	GB/T 8163-2008	异径三通	T(R)100X100X40-Sch40	1	20	-	-	
9	GB/T 8163-2008	等径三通	T(S)100x100x100-Sch40	1	20	-	-	
8	GB/T 12459-2005	异径接头	R(C)32X25-Sch40	1	20	-	-	
7	GB/T 12459-2005	异径接头	R(C)50x25-Sch40	1	20	-	-	
6	GB/T 12459-2005	异径接头	R(C)100X50-SCH40	1	20	-	-	
5	GB/T 8163-2008	无缝钢管	D33.7X3	16741	20	-	39.68	
4	GB/T 8163-2008	无缝钢管	D42.4X3	4094	20	-	11.83	
3	GB/T 8163-2008	无缝钢管	D48.3X3.5	5485	20	-	21.06	
2	GB/T 8163-2008	无缝钢管	D60.3X3.5	4439	20	-	18.73	
1	GB/T 8163-2008	无缝钢管	D114.3X4	27204	20	-	295.16	

参考图纸/文献 Ref. Drawing/Documents

图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0410	低温热煤油管道平面布置图(1) LOW TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT(1)
DG0505AD-DR-6011CP-0420	低温热煤油管道平面布置图(2) LOW TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT(2)
DG0505AD-DR-6011CP-0430	低温热煤油管道剖面布置图(1) LOW TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(1)
DG0505AD-DR-6011CP-0440	低温热煤油管道剖面布置图(2) LOW TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(2)

版号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	27/12-20	AS BUILT			

业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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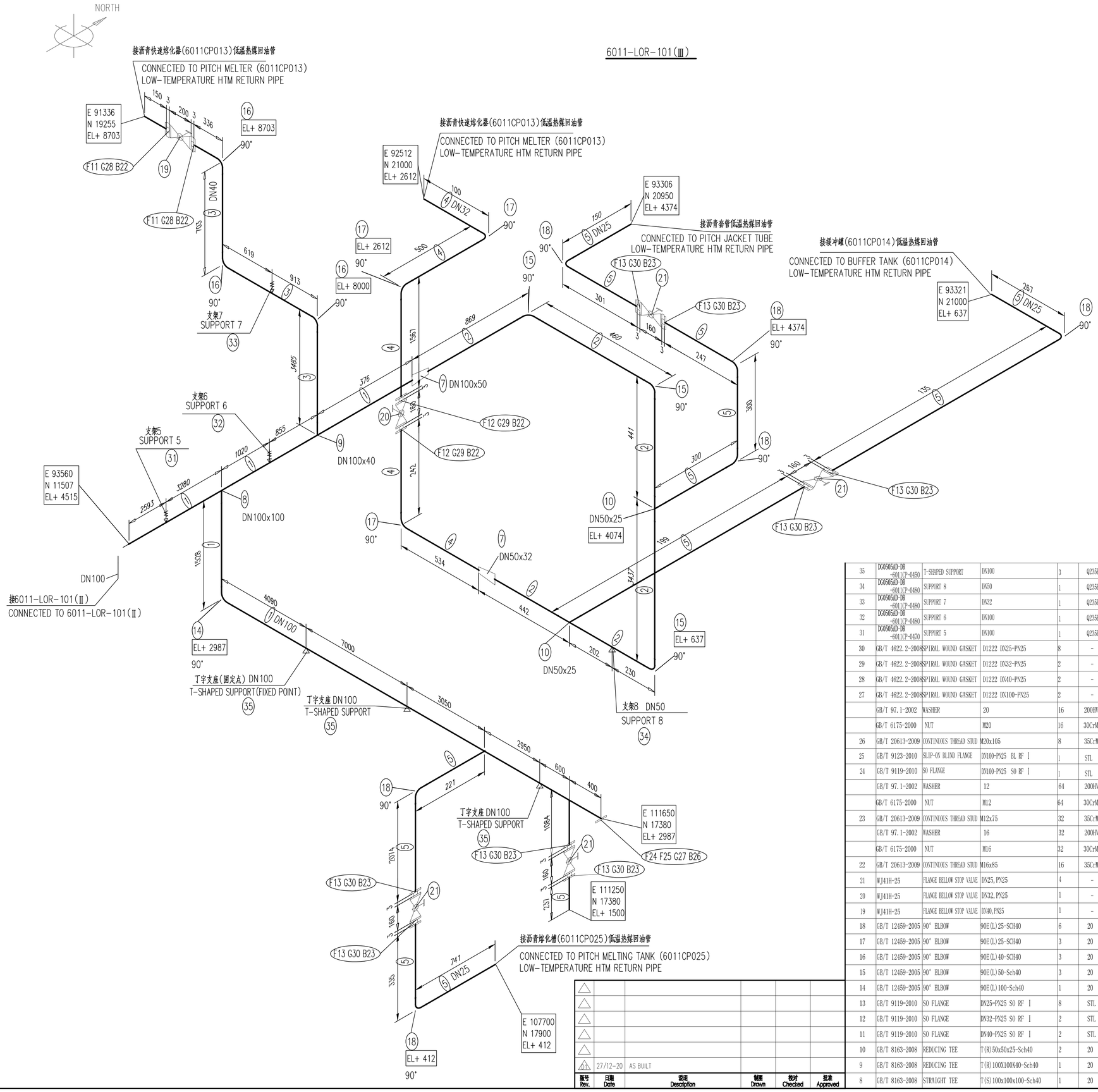
设计单位(Engineering Institute): 东北大学 设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

审核/审定 Approved				
校对 Checked	秦学英 QIN XUESHEN	秦学英	26/12-20	
	邱佳文 QIU JIAWEN	邱佳文	25/12-20	
制图 Drawn	陈蓉 CHEN RE	陈蓉	20/12-20	

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY

低温热煤油供油管道轴测图(3) LOW-TEMPERATURE OIL SUPPLY PIPE ISOMETRIC VIEW(3)

工程编号 Proj. No.	DG0505
设计阶段 Phase	竣工图 AD
专业 Specialty	热表工艺 CP
图纸比例 Scale	
图纸规格 Size	A1
图号 Dwg. No.	DG0505AD-DR-6011CP-0550
版次 Rev.	01



参考图纸/文献 Ref. Drawing/Documents	
图纸/文献号 Drawing/Document No.	名称 Title
DG0505AD-DR-6011CP-0410	低温热煤油管道平面布置图(1) LOW TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT(1)
DG0505AD-DR-6011CP-0420	低温热煤油管道平面布置图(2) LOW TEMPERATURE HEAT MEDIUM PIPELINE ARRANGEMENT(2)
DG0505AD-DR-6011CP-0430	低温热煤油管道剖面布置图(1) LOW TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(1)
DG0505AD-DR-6011CP-0440	低温热煤油管道剖面布置图(2) LOW TEMPERATURE HEAT MEDIUM PIPELINE ELEVATION(2)

序号 No.	标准或图号 Code or Dwg.No.	名称 Description	规格及型号 Specification	数量 Qty.	材料 Grade	单重 U.W. (kg)	总重 T.W. (kg)	备注 Remarks
7	GB/T 12459-2005	REDUCING JOINT	R(C)50X32-Sch40	1	20	-	-	
6	GB/T 12459-2005	REDUCING JOINT	R(C)100x50-Sch40	1	20	-	-	
5	GB/T 8163-2008	SEAMLESS STEEL PIPE	D33.7X3	6591	20	-	15.62	
4	GB/T 8163-2008	SEAMLESS STEEL PIPE	D42.4X3	2943	20	-	8.51	
3	GB/T 8163-2008	SEAMLESS STEEL PIPE	D48.3X3.5	5865	20	-	22.52	
2	GB/T 8163-2008	SEAMLESS STEEL PIPE	D60.3X3.5	5217	20	-	25.46	
1	GB/T 8163-2008	SEAMLESS STEEL PIPE	D114.3X4	26532	20	-	287.87	
35	DG0505AD-DR-6011CP-0450	丁字支座	DN100	3	Q235B	3.448	10.34	管道详图(1)
34	DG0505AD-DR-6011CP-0480	支架8	DN50	1	Q235B	13.00	13.00	管道详图(4)
33	DG0505AD-DR-6011CP-0480	支架7	DN32	1	Q235B	5.37	5.37	管道详图(4)
32	DG0505AD-DR-6011CP-0480	支架6	DN100	1	Q235B	14.89	14.89	管道详图(4)
31	DG0505AD-DR-6011CP-0470	支架5	DN100	1	Q235B	7.14	7.14	管道详图(3)
30	GB/T 4622.2-2008	缠绕式垫片	D1222 DN25-PN25	8	-	-	-	
29	GB/T 4622.2-2008	缠绕式垫片	D1222 DN32-PN25	2	-	-	-	
28	GB/T 4622.2-2008	缠绕式垫片	D1222 DN40-PN25	2	-	-	-	
27	GB/T 4622.2-2008	缠绕式垫片	D1222 DN100-PN25	2	-	-	-	
	GB/T 97.1-2002	垫圈	20	16	200HV	-	-	
	GB/T 6175-2000	螺母	M20	16	30CrMo	-	-	
26	GB/T 20613-2009	全螺纹螺柱	M20x105	8	35CrMo	-	-	
25	GB/T 9123-2010	凸面钢制法兰盖	DN100-PN25 BL RF Ⅰ	1	STL	-	-	
24	GB/T 9119-2010	带颈平焊法兰	DN100-PN25 SO RF Ⅰ	1	STL	-	-	
	GB/T 97.1-2002	垫圈	12	64	200HV	-	-	
	GB/T 6175-2000	螺母	M12	64	30CrMo	-	-	
23	GB/T 20613-2009	全螺纹螺柱	M12x75	32	35CrMo	-	-	
	GB/T 97.1-2002	垫圈	16	32	200HV	-	-	
	GB/T 6175-2000	螺母	M16	32	30CrMo	-	-	
22	GB/T 20613-2009	全螺纹螺柱	M16x85	16	35CrMo	-	-	
21	WJ41H-25	波纹管截止阀	DN25, PN25	4	-	-	-	
20	WJ41H-25	波纹管截止阀	DN32, PN25	1	-	-	-	
19	WJ41H-25	波纹管截止阀	DN40, PN25	1	-	-	-	
18	GB/T 12459-2005	90° 弯头	90E(L)25-Sch40	6	20	-	-	
17	GB/T 12459-2005	90° 弯头	90E(L)32-Sch40	3	20	-	-	
16	GB/T 12459-2005	90° 弯头	90E(L)40-Sch40	3	20	-	-	
15	GB/T 12459-2005	90° 弯头	90E(L)50-Sch40	3	20	-	-	
14	GB/T 12459-2005	90° 弯头	90E(L)100-Sch40	1	20	-	-	
13	GB/T 9119-2010	带颈平焊法兰	DN25-PN25 SO RF Ⅰ	8	STL	-	-	
12	GB/T 9119-2010	带颈平焊法兰	DN32-PN25 SO RF Ⅰ	2	STL	-	-	
11	GB/T 9119-2010	带颈平焊法兰	DN40-PN25 SO RF Ⅰ	2	STL	-	-	
10	GB/T 8163-2008	异径三通	T(R)50x50x25-Sch40	2	20	-	-	
9	GB/T 8163-2008	异径三通	T(R)100X100X40-Sch40	1	20	-	-	
8	GB/T 8163-2008	等径三通	T(S)100x100x100-Sch40	1	20	-	-	
7	GB/T 12459-2005	异径接头	R(C)50X32-Sch40	1	20	-	-	
6	GB/T 12459-2005	异径接头	R(C)100x50-Sch40	1	20	-	-	
5	GB/T 8163-2008	无缝钢管	D33.7X3	6591	20	-	15.62	
4	GB/T 8163-2008	无缝钢管	D42.4X3	2943	20	-	8.51	
3	GB/T 8163-2008	无缝钢管	D48.3X3.5	5865	20	-	22.52	
2	GB/T 8163-2008	无缝钢管	D60.3X3.5	5217	20	-	25.46	
1	GB/T 8163-2008	无缝钢管	D114.3X4	26532	20	-	287.87	

序号 Rev.	日期 Date	说明 Description	制图 Drawn	校对 Checked	批准 Approved
1	27/12-20	AS BUILT			

业主(Owner): 伊朗南方铝业公司 Iran South Aluminum Corporation

总承包商(EPC Contractor): 中国有色金属建设股份有限公司 China Nonferrous Metal Industry's Foreign Engineering And Construction Co., Ltd.

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设计单位(Engineering Institute): 东北大学 设计研究院(有限公司) N.E.U Engineering & Research Institute Co., Ltd.

沥青贮存及沥青熔化 PITCH UNLOADING & PITCH STORAGE & MELTING FACILITY		工程编号 Proj. No.	DG0505
		设计阶段 Phase	竣工图 AD
低温热煤油回油管道轴测图(3) LOW-TEMPERATURE OIL RETURN PIPE ISOMETRIC VIEW(3)		专业 Specialty	质量工艺 CP
		图纸比例 Scale	
		图纸规格 Size	A1

审核/审定 Approved			
校对 Checked	秦学辰 QIN XUESHEN	秦学辰	26/12-20
制图 Drawn	邱佳文 QIU JIAWEN	邱佳文	25/12-20
	陈香 CHEN BEI	陈香	20/12-20

图号 Dwg. No. DG0505AD-DR-6011CP-0580 版号 Rev. 1