

### 1.1 CONTACT INFORMATION

Contact details				
Company				
Location				
Contact person		e-mail		

#### 1.2 PROJECT PLANNING

Project details			
Project	☐ Replacement	☐Facility expansion	☐ New terminal / plant
Project phase	☐ Budget	☐ FEED Study	□Tender
Planned date of site delivery			

### 1.3 ENVIRONMENTAL DETAILS

Environmental influences			
Location	City	Country	
Terminal / plant name			
Temperature	Min	Max	
Seismic load			Peak ground acceleration (g)
Max wind speed stored position			M/s
Max wind speed maneuvering			M/s
Hazardous Area Classification			ATEX / NEC

### 1.4 GENERALREQUIREMENT

JLA Product	Product / Medium	Flowrate m <sub>3</sub> /h	Diameter (inch)	Operation	
Marine Loading Arm 1				□Manual	□Hydraulic
Marine Loading Arm 2				□Manual	□Hydraulic
Marine Loading Arm 3				□Manual	□Hydraulic
Marine loading Arm 4				□Manual	□Hydraulic
Marine Loading Arm 5				□Manual	□Hydraulic
Marine Loading Arm 6				□Manual	□Hydraulic
Marine Loading Arm 7				□Manual	□Hydraulic
Marine Loading Arm 8				□Manual	□Hydraulic



# 1.5 DESIGN DETAILS

JLA Product	Design pressure (bar)	Design temperature (min/max °C)	Ope	ration
Marine Loading Arm 1			□Manual	□Hydraulic
Marine Loading Arm 2			□Manual	□Hydraulic
Marine Loading Arm 3			□Manual	□Hydraulic
Marine loading Arm 4			□Manual	□Hydraulic
Marine Loading Arm 5			□Manual	□Hydraulic
Marine Loading Arm 6			□Manual	□Hydraulic
Marine Loading Arm 7			□Manual	□Hydraulic
Marine Loading Arm 8			□Manual	□Hydraulic

### 1.6 ACCESSORIES

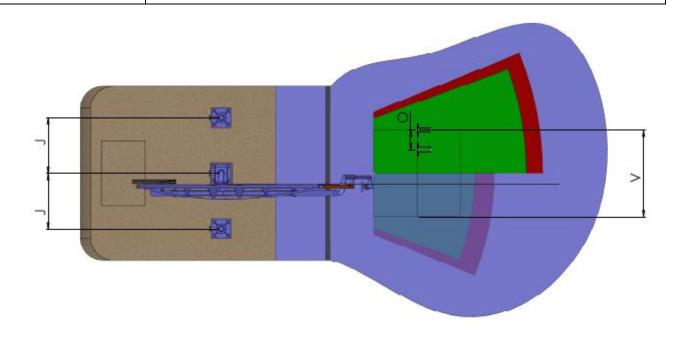
JLA Product	QCDC	ERS	Vacuum breaker	Tracing and insulation	Vapour return line
MLA 1	☐ yes ☐ no	☐ yes ☐ no	□ yes □ no	☐ yes ☐ no	□ yes □ no
Operation	☐ Manual ☐ Hydraulic	•	•	•	•
MLA 2	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no
Operation	☐ Manual ☐ Hydraulic	-	-	-	-
MLA <sub>3</sub>	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no
Operation	$\square$ Manual $\square$ Hydraulic				
MLA 4	☐ yes ☐ no	☐ yes ☐ no	□ yes □ no	☐ yes ☐ no	□ yes □ no
Operation	$\square$ Manual $\square$ Hydraulic				
MLA 5	☐ yes ☐ no	$\square$ yes $\square$ no	□ yes □ no	☐ yes ☐ no	□ yes □ no
Operation	$\square$ Manual $\square$ Hydraulic				
MLA 6	☐ yes ☐ no	☐ yes ☐ no	□ yes □ no	☐ yes ☐ no	□ yes □ no
Operation	$\square$ Manual $\square$ Hydraulic				
MLA <sub>7</sub>	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no	$\square$ yes $\square$ no
Operation	$\square$ Manual $\square$ Hydraulic				
MLA 8	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no	☐ yes ☐ no
Operation	$\square$ Manual $\square$ Hydraulic				

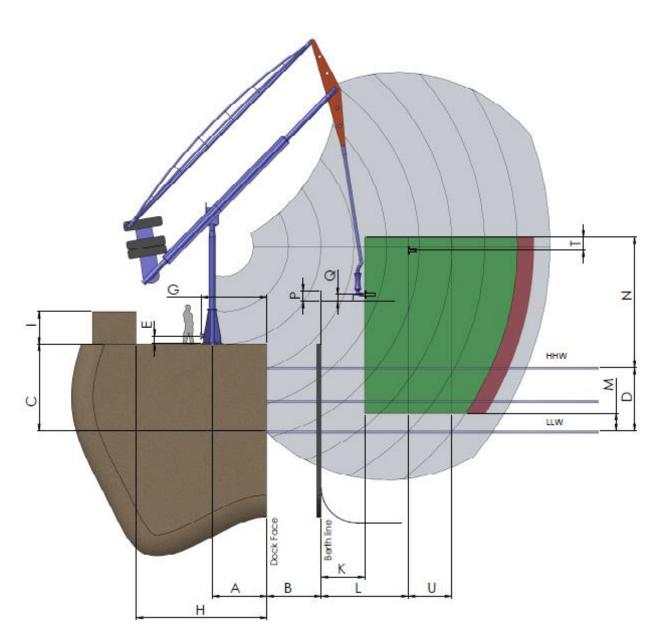


### 1.8 DIMENSIONS

Jetty	Dimensions		
Α	Centerline of Base Riser to dock face		
В	Dock face to compressed fender		
C	Dock level to lowest low water	Min	
D	Difference between lowest low water and highest high water	Max	
	The minimum ship size	DWT	
	The maximum ship size	DWT	
Vesse	el Data		
K	Min. Distance from ship railing to ship connection flange	mm	
L	Max. Distance from ship railing to ship connection flange	mm	
М	Minimum difference between Lowest low water and ship flange	mm	
N	Maximum difference between Highest high water and Ship Flange	mm	
0	Minimum spacing between ship flanges	mm	
	Maximum spacing between ship flanges	mm	
Р	Rail height	mm	
	Is the rail removable?	mm	
Q	Height of center of ship flange to deck	mm	
Ship I	Movements		
Т	Heave	mm	
U	Sway	mm	
٧	Surge	mm	
Addit	ional jetty dimensions		
Е	Centerline of inlet flange to dock level	mm	
G	Dock face to flange face	mm	
Н	Any dock conditions that limit the arm design	mm	
I	Any dock conditions that limit the arm design	mm	
J	Spacing between different base risers	mm	









# 1.9 CONTROL SYSTEM

Berth information	
Berth customer reference	
No. of New Marine Loading Arms	
No. of existing Marine Loading Arms	

ltem		Configuration	Hazardous area classification	Included
1	Hydraulic control manifold	One (1) on each loading arm		□ yes □ no
2	Hydraulic Power Unit	Outside on jetty		$\square$ yes $\square$ no
3	Operation Control Panel at jetty nearby MLA	☐ Outdoor on jetty ☐ Indoor in Berth control room		□ yes □ no
4	Satellite control panel	□ outdoor on berth		☐ yes ☐ no
5	PLC control cabinet	☐ Integrated in operation control panel ☐ Standalone PLC cabinet in control room		□ yes □ no
6	Radio remote control			☐ yes ☐ no
7	Pendant remote control	☐ On berth ☐ At TSA (shipside)		□ yes □ no