

• Type of shiploader	Radial type continuous loader equipped with luffable and traversable boom
• Product to be handled	Granular Sulphur with bulk density between 1.12 and 1.2 ton/m ³ ; The sulphur may produce dust while handling;
• Design capacity	1,000 tph based on a bulk density of the sulphur of 1.12 ton/m ³ . Motions interlocked: - simultaneously slewing, boom traversing and luffing not possible. All other motions combinations shall be possible (e.g. boom traversing and slewing with running belt conveyors). The conveyor shall be capable of working with increased bulk density of 1.2 ton/m ³ . The capacity shall be > 1000 tph. The conveyor in the boom shall be capable of working with increased capacity during boom traversing.
• Radial motion (slewing)	+ 40 / -40 degrees, working range + 16 degrees (additional to one side of the working range), parking position
• Stowed position shiploader	Radial shiploader at parking position with retracted traversing boom construction
• Outreach from C/L waterside rail	Minimum 24 m - Maximum 62 m
• Traversing length of the boom	38 m, depending on the min. and max. design vessel
• Boom luffing, working range	+6 / -6 degrees (measured from the horizontal)
• Height of quay side conveyor above rails (quay level)	Approx. 22.7 m
• Height of loading point of shiploader (above kingpin support)	Approx. 25 m
• Height loading chute above quay level (in horizontal position boom and retracted chute)	Approx. 14 m
• Overhead clearance	Minimum 10 m (measured from quay level to lowest point main girder between kingpin support and waterside rail)
• Maximum overall shiploader length (centre kingpin support – farthest point traversing boom in extended situation)	Approx. 140 m – to be verified by Contractor
• Telescopic length of chute	Approx. 16 m
• Telescopic loading chute feature	Rotating 360°

• Chute raising/lowering speed	46 m/min
• Dedusting loading spout	The loading spout shall be equipped with a dedusting system. The loading spout shall consist of two pipes, an inner and outer pipe. The dust at the loading spout is removed by a suction fan, using the space between the pipes for removing the dust. The system is designed to return all dust into the product flow. Additionally the loading spout can be equipped with rubber flaps to control the outflow of the sulphur.
• Boom traversing speed	23 m/min
• Luffing speed	30 sec. for working range (+6 / -6 degrees)
• Radial motion speed at the rails	0-46 m/min (into wind 19.0 m/s) – variable speed Max. 23 m/min if the conveying system is running.
• Max. loads on the waterside rails	To be calculated by the Contractor Assumption max. rail load is 50 ton/m The specification for the rail alignment shall be according to specification FEM 8.2.3, keeping in mind that the rails are radial shaped. It shall be possible to realign the rail track.
• Rail profile	To be defined by the Contractor
• Operator's cabin	Situated with clear view on working area
• Height of buffers	To be determined later (measured from centre of buffer to topside of rails)
• MV power supply	6 kV, 50 Hz, earthed by earthing resistor, one per transformer
• LV power supply	3 phase, 400 V, 50 Hz, neutral earthing system shall be TN-S type
• AC motor voltage	400 V / 50 Hz
• Control voltage	DC 110 V (MV & LV circuit breakers and MV contactors) AC 230 V (LV contactors)
• (Safety) Lighting and heating	AC 230 V / 50 Hz
• Instruments / Uninterrupted power supply	To be determined by Contractor