SPECIFICATION OF THE PRODUCT/SERVICE REQUIRED OR ATTACH SCOPE OF WORK

Supply and delivery of 2 Manifold Pumps and drive Shafts

The Terminal requires the supply and delivery of two complete, like-for-like centrifugal sump pump assemblies, including extended drive shafts, to replace the existing sump pumps.

The replacement pumps shall be suitable for the existing slop tank and shall be compatible with the existing pipework, supports, motor and gearbox arrangement.

Component	Existing marking / reference
Pump casing	B140-4
Pump casing	B80/40 or 80/20, as observed on the casting
Impeller	CBS 80/20 5040 3250
Rotation	As indicated by the cast rotation arrow on the pump casing
Existing pump speed	Approximately 900 r/min

No pump nameplate is available on the existing pump. Original manufacturer datasheets, general arrangement drawings and

detailed pump drawings are also not available in the Terminal records.

Existing Drive Arrangement

The replacement pump and shaft shall be compatible with the retained existing drive arrangement:

- Vertically mounted 30 kW flameproof electric motor.
- Existing reduction gearbox, type NOWA 125.
- Approximate pump operating speed: 900 r/min.
- Existing pump rotation direction as indicated by the casing arrow.

Existing Pump Interfaces to be Matched

Existing interface to be matched	Information available
Pump mounting arrangement	Four mounting feet.
Suction flange	Eight-bolt flange; approximate bore measured at 150 mm.
Discharge flange	Eight-bolt flange; existing drawing indicates a 3-inch discharge connection.
Flange connections	Replacement pump shall include matching flange connections, gaskets, studs/bolts and nuts required for installation.
Nozzle orientation	Front suction and top discharge arrangement, matching the existing pump.
Pump rotation	Match existing casing rotation arrow.
Pump mounting	Replacement pump mounting feet and centreline height shall match the existing supports/baseplate.

The existing impeller is marked "80/20" and carries the code "5040 3250" on its outer face.

Shaft Requirements

Each replacement shaft shall be an extended stepped shaft with an approximate overall length of **3,480 mm**.

The existing shaft includes stepped diameters, keyways and threaded sections. Preliminary measurements, and shaft details will be issued as reference information.

The contractor shall verify all shaft dimensions, coupling interfaces, keyways, threaded ends and pump/gearbox fitment requirements before manufacture.

Shaft dimension / location	Measurement
Overall shaft length	3,480 mm
Shaft diameter, unconfirmed section	Ø42.20 mm
Keyed and threaded shaft-end diameter	Ø32 mm
First stepped section, opposite end	Ø27 mm × 72 mm long

Second stepped section, following Ø27 mm section	Ø34 mm × 145 mm long
Final stepped section	Ø40 mm
Thread start from shaft edge	90 mm
Thread length	25 mm
Keyway width × depth	8 mm × 4 mm
Key 1, starting approximately 90 mm from shaft edge	62 mm long
Key 2, position from shaft edge still to be confirmed	47.70 mm long

Documentation Required

The contractor shall provide:

- Pump datasheet
- General arrangement drawing showing principal pump dimensions and nozzle orientation.
- Shaft dimensional drawing.
- Material specification for wetted components, impeller and shaft.
- Warranty 12 months
- Operation and maintenance manual.



