

CONCRETE PUMP SET-UP AND BOOM PLACEMENT

ACTIVITY RAMS — ADAPT TO SITE BEFORE USE

Mobile boom and line pumps · outriggers · overhead lines and wind · blockages, line clearing and washout

KD-RA-CN-003 Rev A0

Statutory basis: PUWER 1998 regs 4, 5, 6 and 9 — the pump suitable, maintained, inspected and operated by trained people; HSE GS6 (4th edition, 2013) for booms near overhead power lines; HSE HSG144 (2nd edition, 2009) for truck mixers and plant around the pump; COSHH 2002 — wet concrete is corrosive and a potent sensitizer. This document is the recorded safe system of work required by HSWA 1974 s.2(2)(a) and MHSWR 1999 regs 3 and 5.

1 DOCUMENT AND PROJECT IDENTIFICATION

RAMS REFERENCE	PROJECT / SITE REF	SITE NAME AND ADDRESS	DATE PREPARED	NEXT REVIEW DATE
CLIENT / PRINCIPAL CONTRACTOR	PLANNED START	DURATION	OPERATIVES	SUPERVISING THE WORK

2 SCOPE OF WORKS

Operation of mobile boom pumps and trailer-mounted line pumps for placing concrete: planning the pump position, outrigger set-up, boom deployment and placing under the placing hand's direction, pipeline and end-hose management, blockage clearing and pressure release, and clean-out and washout.

This document does not cover: placing, compacting and finishing the concrete (KD-RAMS-CF-001), screed pumps (KD-RAMS-CF-005), crane-and-skip pours (under KD-PTW-LO-008), and the detailed ground bearing check and outrigger mat sizing (KD-RA-PL-003).

SITE-SPECIFIC SCOPE, LOCATIONS AND LIMITATIONS

3 RISK ASSESSMENT — SCORE EACH RISK FOR THIS SITE, THEN ADD WHAT IS MISSING

The hazards and controls below are the starting point for this activity, written by a working main contractor. They are not complete for your site until a competent person has scored each risk, added the site-specific hazards, and struck out anything that does not apply. Rate risks High / Medium / Low before and after controls.

1. Pump overturning on its outriggers

At risk: Operator, pour gang, the public

Controls: The pump sets up only where the ground check and mat sizing are done (KD-RA-PL-003), on full outriggers unless the manufacturer's reduced set-up chart is followed.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

2. Boom or pipeline contact with overhead power lines

At risk: Operator, everyone touching the pump, hose or mixer

Controls: Overhead lines identified when the position is planned. Isolation or diversion of the line is arranged first. Where neither is possible, the boom and hose are kept outside the clearance the line owner specifies, following HSE GS6 (4th edition, 2013), and work goes ahead only under the overhead power lines permit — with a signaller watching the clearance in addition to, never instead of, those controls.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

3. End-hose whip at start-up, after a stoppage, or when air enters the line

At risk: Placing hand, pour gang

Controls: Nobody holds the end hose or stands within its swing when pumping starts or restarts; the placing hand takes the hose only once concrete flows steadily. The hopper is kept filled above the grille so air is not drawn into the line. No kinking, no end hose longer than the manufacturer allows, nothing fitted to its outlet; the boom-end hose restrained with its safety chain.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

4. Pipeline bursts, coupling failure and blockages cleared under pressure

At risk: Operator, anyone near the line

Controls: Pipe wall thickness checked at the intervals the manufacturer sets and worn sections replaced; clamps closed and pinned; nobody astride a line or at a coupling while pumping. A blockage is cleared ONLY by the operator's procedure — pump reversed to relieve pressure, zero pressure confirmed, the coupling opened with faces and bodies away. Never knocked open under pressure.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

5. Boom movement, wind and concrete falling over people

At risk: Pour gang, other trades

Controls: The operator checks wind against the pump manufacturer's stated limit before unfolding and throughout the pour; at that limit pumping stops and the boom is folded. Nobody under the boom while it moves or carries concrete; the operator keeps the boom in sight or works to a signaller; the boom is never used to lift, drag or pull anything.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

6. Truck mixers reversing to the hopper, and plant around the pump

At risk: Banksman, pour gang, the public

Controls: Delivery route and mixer standing area planned with the site traffic arrangements under HSE HSG144 (2nd edition, 2009); a trained banksman for every reversing mixer; nobody between the mixer and the hopper; the hopper grille stays in place — no hands or tools through it while the pump can run.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

7. Clean-out — compressed air, cleaning balls and the line end

At risk: Operator, anyone near the line end

Controls: Line cleaning to the operator's procedure; compressed air used to clean boom lines only where the manufacturer permits it, with a catcher fitted at the line end and the area in line with it fenced off; nobody in line with the discharge; washout into the designated washout area — never to drains or open ground.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

8. Cement burns, pump engine noise and exhaust

At risk: Operator, pour gang

Controls: Waterproof gloves and eye protection for hose handling and washout under the COSHH 2002 assessment for wet concrete; hearing protection near the pump engine; exhaust never directed into an enclosed space where people work.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

Site-specific hazards not listed above — every site has at least one:

HAZARD	WHO IS AT RISK	CONTROLS	INITIAL H/...	RESIDUAL...	ACTION OWNER	BY WHEN

4 METHOD — SEQUENCE OF WORK

- Plan the pump position with the pump provider: access route, overhead lines, reach to the furthest placing point, mixer standing and washout; confirm the ground check and mat sizing are done (KD-RA-PL-003).
- On arrival, the operator checks the position against the plan and sets up on the specified mats, level as the manufacturer requires; barrier the outriggers and slew area.
- Check wind against the manufacturer's limit, then unfold the boom clear of structures, people and overhead lines; near a line, work only under the permit with the line owner's clearance kept.
- Agree signals between operator, placing hand and banksman; the remote control stays with the operator.
- Check pipeline, couplings, clamps and end-hose restraint. For line pumps, route pipes away from walkways and restrain them at bends and changes of level.
- Prime and start pumping with everyone clear of the end hose; keep the hopper filled; the placing hand takes the hose only when the flow is steady.
- Place to the pour document's sequence; stop pumping before the boom swings over areas where people are working.
- STOP on wind at the manufacturer's limit, a blockage, burst, outrigger settlement or overhead line concern: clear the area and let the operator deal with it to the procedure.
- Clean out to the procedure with the line end fenced; washout to the designated area; fold the boom and retract outriggers only with the slew area clear.

SITE-SPECIFIC AMENDMENTS TO THE SEQUENCE

5 PLANT, EQUIPMENT AND MATERIALS

- | | |
|--|------------------------------------|
| Mobile boom pump or trailer line pump (operator's documents) | Radios or agreed hand signals |
| Outrigger mats as sized under KD-RA-PL-003 | Clean-out catcher |
| Pipeline, couplings, clamps and end-hose restraint | Washout skip or lined washout area |
| Anemometer or wind reading for the boom limit | |

INSPECTION / THOROUGH EXAMINATION REFS

COSHH ASSESSMENT REFS

6 PPE — THE LAST LINE OF CONTROL, NOT THE FIRST

- | | | |
|-----------------|---------------------|--|
| Head protection | Gloves — task-rated | Waterproof gloves and eye protection for hose handling and washout |
| Safety footwear | Eye protection | |
| High visibility | Hearing protection | |

RPE TYPE, FACE-FIT STATUS, AND ANY OTHER PPE REQUIRED

7 PERMITS REQUIRED BEFORE THIS WORK STARTS

A permit authorises this work in that place, on that day. It extends the safe system of work in this document — it does not replace it (HSE HSG250). The site issues the permit; record its number before work starts.

KD-PTW-OH-031 — Work Near Overhead Power Lines Permit

Where the boom's working envelope could reach an overhead line that cannot be isolated or diverted.

PERMIT NUMBER

8 EMERGENCY ARRANGEMENTS — COMPLETE FOR THIS SITE

FIRST AIDER AND LOCATION	NEAREST A&E	ASSEMBLY POINT
HOW THE ALARM IS RAISED	EMERGENCY ACCESS FOR THIS WORK AREA	SPILL / ENVIRONMENTAL RESPONSE

9 BRIEFING RECORD — EVERYONE WORKING UNDER THIS RAMS SIGNS BEFORE STARTING

By signing you confirm the contents of this RAMS have been explained to you, you understand the hazards and controls, and you will work to the sequence stated. Tell the supervisor if the work or the site does not match this document — work stops until it does.

NAME	COMPANY	SIGNATURE	DATE

10 PREPARED AND ACCEPTED

Prepared / adapted for this site by — I confirm I have adapted this document to the site, scored the risks, and that it describes how the work will actually be done.

PRINTED NAME	ROLE / COMPETENCE	COMPANY	SIGNATURE	DATE	TIME

Accepted for the site by — principal contractor or site manager review.

PRINTED NAME	ROLE	COMPANY	SIGNATURE	DATE	TIME

Review this RAMS if the work, the site or the law changes, and at least before each new phase of the works. Flatten the completed PDF before filing so the record cannot be silently edited.

R REVISION HISTORY

Every revision of this document, and every review that found nothing to change. The revision on the front of this sheet is the one you are holding — check kubitdocs.com for the current one before use.

Rev	Date	Class	What changed	Authorised by
D0	2026-09-11	first-issue	First issue.	— not yet approved —
A0	2026-09-11	review	Approved for issue by the author. Content unchanged from the reviewed draft; the draft status strip is removed. No independent third-party review has been carried out.	Author — director, UK principal contractor, SMSTS. Not an independent review.

Class: first-issue · material (the law, a control, a field or the scope changed — past buyers are notified) · editorial (wording or layout only) · review (checked, nothing changed) · withdrawal. Revision prefix D = draft, not approved and not for sale; A = approved for issue by the person named, on the date shown.