

OPTIMIZE WEAR. PROTECT UPTIME.

One consolidated platform - selected around the complete duty, not only the nominal pump size.

01

ENERGY

Reduce avoidable head and off-curve loss.

02

WEAR

Match liner and impeller to the actual slurry duty.

03

UPTIME

Plan access, spares and replacement windows.

04

PERFORMANCE

Verify curve, NPSH and drive margin.



PUMP RANGE

2/1.5 TO 12/10

COMPACT DUTY TO HIGH-THROUGHPUT SLURRY TRANSFER

SERIES RANGE

B · C · D · E · F · F-AH · ST-AH · EM · FM



DUTY

MATCHED



WEAR

ENGINEERED



ENERGY

REVIEWED



UPTIME

PLANNED

DATA-DRIVEN SELECTION. CONTROLLED ASSUMPTIONS.

SIMULATING BHARAT. OUTPERFORMING THE WORLD.



PUMP ECONOMICS

OPTIMISE THE SYSTEM. NOT JUST THE PUMP.

A lower purchase price does not guarantee a lower operating cost. Base the decision on energy, wear and availability across the full slurry circuit.

TRUE PUMP VALUE

LOWER ENERGY / TONNE + LOWER WEAR / TONNE + HIGHER AVAILABILITY

Savings is engineered by matching the pump, drive, line and operating window to the real duty point.

01

ENERGY

Keep the operating point close to the efficient zone. Control excess head, throttling and avoidable line loss.

02

WEAR

Match velocity, particle passage and liner material to slurry SG, PSD, shape, temperature and chemistry.

03

UPTIME

Design for stable suction, adequate NPSHa, service access and predictable component replacement.

THE INPUTS THAT CONTROL THE OUTCOME

- Required flow
- Pipe route + fittings
- Static + friction head
- Operating hours
- Slurry SG / solids %
- Material / wear life
- PSD + top size
- Suction conditions

Final power, wear life and savings require validated, application-specific site inputs.

SELECTION STARTS HERE

ONE RANGE. EVERY DUTY SCALE.

Seven discharge sizes and the approved series mapping - organised for rapid duty screening and engineering review.

SIZE		APPROVED SERIES	RANGE PLATFORM
12/10	☐	F-AH • ST-AH • FM	LARGE
10/8	☐	F-AH • ST-AH • EM	LARGE
8/6	☐	E • F	MEDIUM-LARGE
6/4	☐	D • E	MEDIUM
4/3	☐	C • D	MEDIUM-COMPACT
3/2	☐	C	COMPACT
2/1.5	☐	B	COMPACT

SELECTION RULE

SIZE IS THE STARTING POINT. DUTY MATCHING MAKES IT THE RIGHT PUMP.

Confirm flow, TDH, slurry SG, solids concentration, PSD, NPSHa, speed, drive range and wear material before release.

HIGH-THROUGHPUT DUTIES

12/10 • 10/8 • 8/6

Build the selection around the complete circuit - suction, pipeline, solids passage, wear path and drive checks.

PUMP SIZE

12/10

SERIES

F-AH • ST-AH • FM

SELECTION FOCUS

Build the selection around the complete circuit - not nominal pipe size alone.

VERIFY BEFORE RELEASE

- System curve
- Drive margin
- NPSHa margin
- Wear path

PUMP SIZE

10/8

SERIES

F-AH • ST-AH • EM

SELECTION FOCUS

Resolve the real TDH at slurry density and operating concentration.

VERIFY BEFORE RELEASE

- TDH at duty
- Speed range
- Solids loading
- Service access

PUMP SIZE

8/6

SERIES

E • F

SELECTION FOCUS

Balance hydraulic efficiency, solids passage and maintainability.

VERIFY BEFORE RELEASE

- Curve position
- Pipe velocity
- Top particle size
- Liner choice

DESIGN PRINCIPLE

Operate at the required duty with the least avoidable loss - while protecting solids passage, wear life and service access.

WEAR SYSTEM OPTIONS

RUBBER

Abrasion + resilience

HIGH-CHROME

Abrasion + hard-particle duty

PU

Application-specific wear control

FLEXIBLE PROCESS DUTIES

6/4 • 4/3

A flexible middle range for duties where power density, wear and compact installation must be balanced.

PUMP SIZE

6/4

SERIES

D • E

SELECTION FOCUS

Select the operating point first; then confirm speed, impeller and wear material.

VERIFY BEFORE RELEASE

- Required flow
- Total head
- Slurry SG
- NPSHa

PUMP SIZE

4/3

SERIES

C • D

SELECTION FOCUS

Protect the smaller passage from oversize solids, suction loss and off-curve operation.

VERIFY BEFORE RELEASE

- PSD / top size
- Suction layout
- Duty stability
- Maintenance space

DESIGN PRINCIPLE

Operate at the required duty with the least avoidable loss - while protecting solids passage, wear life and service access.

WEAR SYSTEM OPTIONS

RUBBER

Abrasion + resilience

HIGH-CHROME

Abrasion + hard-particle duty

PU

Application-specific wear control

COMPACT DOES NOT MEAN SIMPLE

3/2 • 2/1.5

Smaller pumps deserve the same engineering discipline: validated duty, stable suction and the correct wear system.

PUMP SIZE

3/2

SERIES

C

SELECTION FOCUS

Use the compact platform only after confirming solids passage and real line resistance.

VERIFY BEFORE RELEASE

- Duty point
- Particle passage
- Line loss
- Motor loading

PUMP SIZE

2/1.5

SERIES

B

SELECTION FOCUS

Define intermittent versus continuous duty and verify the suction condition at the sump.

VERIFY BEFORE RELEASE

- Operating cycle
- Sump level
- Speed control
- Wear material

DESIGN PRINCIPLE

Operate at the required duty with the least avoidable loss - while protecting solids passage, wear life and service access.

WEAR SYSTEM OPTIONS

RUBBER

Abrasion + resilience

HIGH-CHROME

Abrasion + hard-particle duty

PU

Application-specific wear control

THE SIMLABS ADVANTAGE.

Convert site data into a defensible pump decision - before fabrication, dispatch or retrofit.

01

MEASURE

Duty point, SG, solids %, PSD, pipe route, suction level and operating hours.

02

MODEL

System curve, friction loss, hydraulic power, wear-sensitive zones and operating envelope.

03

SELECT

Pump size, series, speed, impeller, liner material, seal arrangement and drive margin.

04

VERIFY

Curve match, NPSH margin, energy per tonne, maintainability and controlled assumptions.

DECISION METRICS

HYDRAULIC POWER

$$P_h = \rho \times g \times Q \times H / 1000$$

INPUT POWER

$$P_{in} = P_h / (\eta_p \times \eta_d)$$

OPERATING COST PER TONNE

$$\text{(Energy cost + wear cost + downtime cost) / tonnes handled}$$

RESULT

A traceable decision built on validated inputs - not a fixed savings promise.

SIMLABS OUTPUT

- Duty curve match
- Motor + drive selection
- Pipeline loss review
- Wear-risk review
- Energy / tonne basis
- Assumptions + audit trail

SCAN INTO THE SIMLABS ADVANTAGE

Three direct routes to updates, technical resources and support.



WHATSAPP CHANNEL

Updates, launches & field insights

SCAN FOR WA CHANNEL



DIGITAL LIBRARY

Brochures, data & technical resources

SCAN FOR DIGITAL LIBRARY



WHATSAPP SUPPORT

Start a direct business conversation

SCAN FOR WHATSAPP SUPPORT

DEALER SUPPORT NETWORK

YOUR LOCAL DEALER. BACKED BY SIMLABS.

Regional response, technical review and fulfilment through BHAJJANKA® SIMLABS manufacturing units.

01 **PRODUCT SELECTION**

02 **INSTALLATION SUPPORT**

03 **SPARES COORDINATION**

04 **FACTORY ESCALATION**

MANUFACTURING + SERVICE BACKBONE

BHAJJANKA ISPAT PVT. LTD.

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BHAJJANKA® SIMLABS

Dealer availability and response time may vary by location. Performance, power, wear life and savings are application-specific. Final selection follows technical review. T&C apply.

