



Holistic OREPs for Fitness to Work

A means to an important end

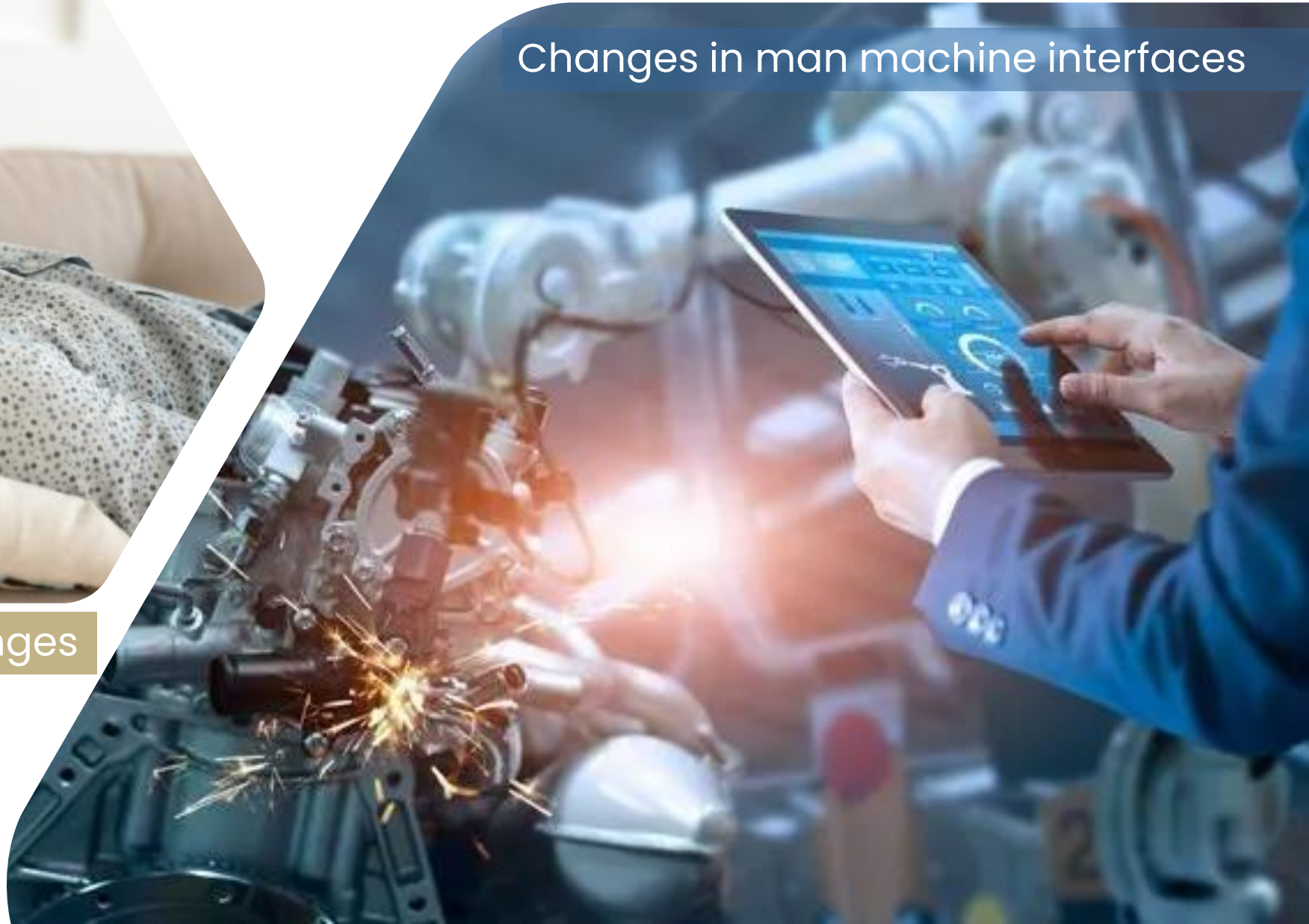
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Contact nr. 0825769911

Health risks are changing



Lifestyle changes

Changes in man machine interfaces



Homosapiens is evolving into homeosedens

and homoSEDENSE into

homo**MORBIDUS**
("the sick one")



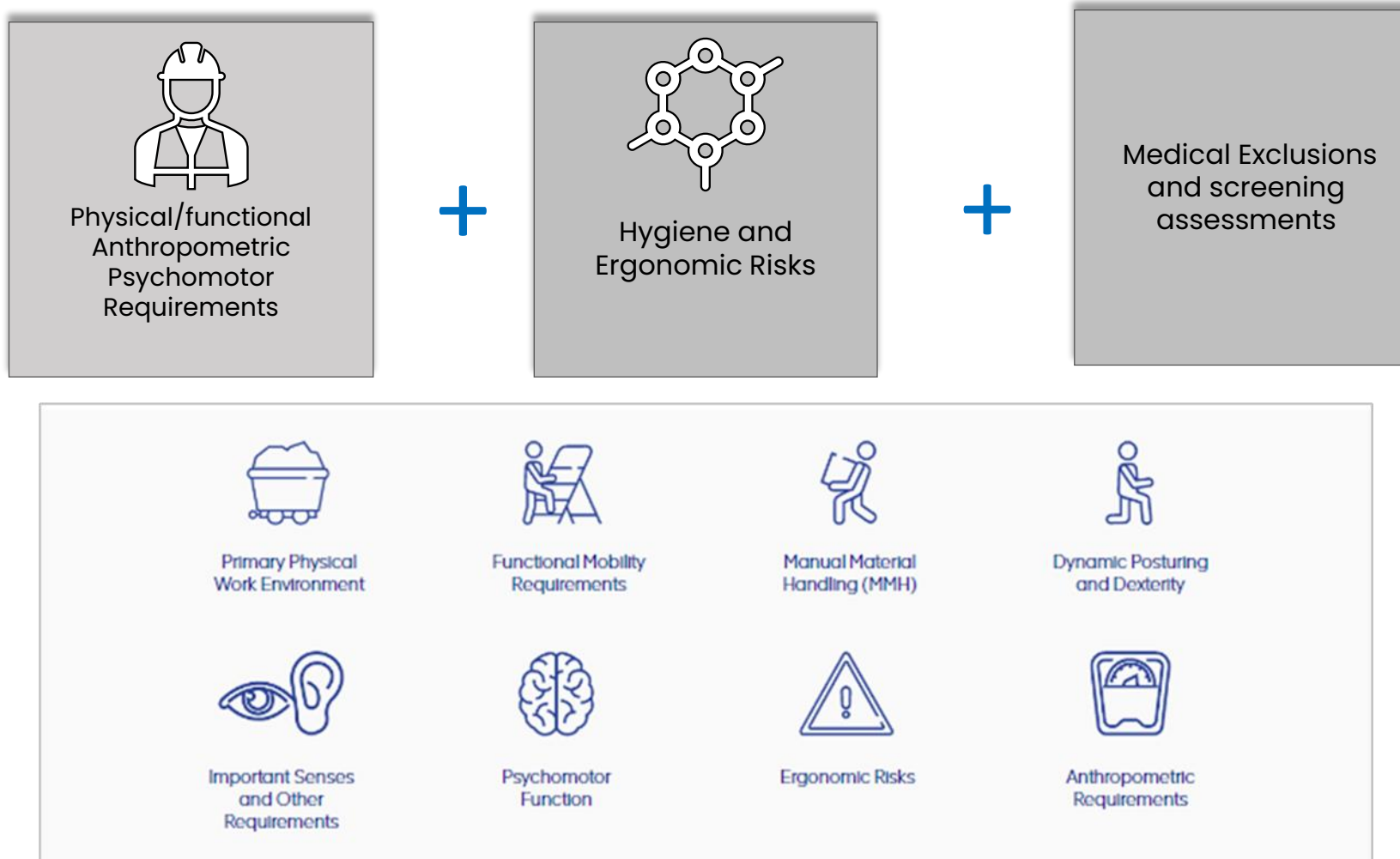
A worker's level of work capacity has a direct impact on the strenuousness of work

Global estimates of physical inactivity indicate that in 2016, 27.5% of adults and 81% of adolescents did not meet the 2010 WHO recommendations (1), and trend data show limited global improvement during the past decade.

Technological innovation and the transition towards more sedentary occupations and recreation, and the increasing use of personal motorised transportation are contributing to changing patterns of physical activity and increased sedentary behaviour across the world.



Holistic Health Job Risk Profiling



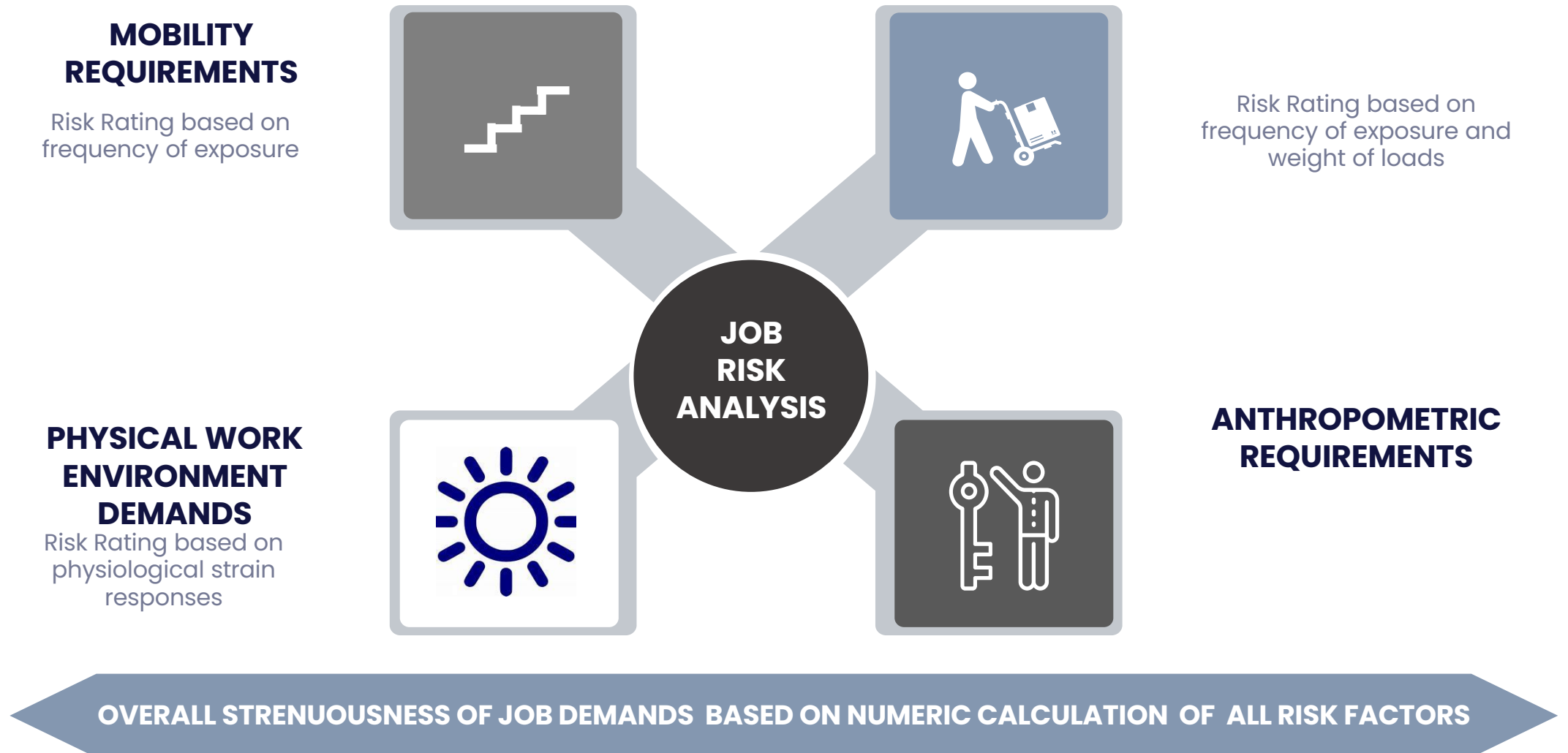
Risk Based Medical Surveillance

Functional Work Requirements Rating System

Rating	 Level of Priority	 Level of Exposure
3	High	Daily exposure of 34-66% per work shift (frequent)
2	Medium	Daily exposure of 2-34% per work shift or Occasional exposure of 34-66% per work shift/not more than twice per work week
1	Low	2-34% of the work shift not daily and no more than twice per work week
x	Ability Requirement	Daily exposure of 1% of the work shift (<10 minutes per shift)
0	No Exposure	None

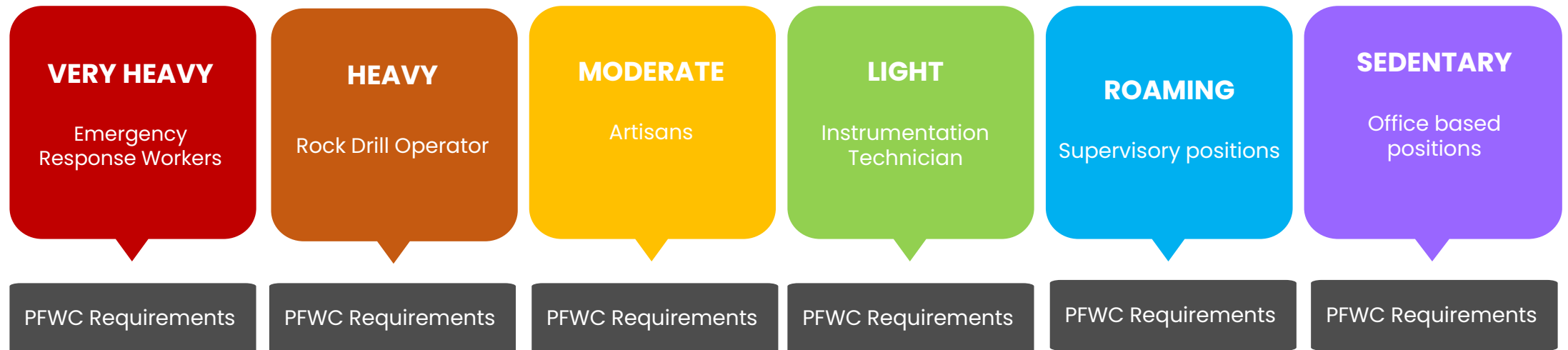


Standardised Risk Rating and Reporting



Classification of Work (Physiological and Biomechanical)

Indicates level of **function** required to perform work **safely and productively** for each Job Risk Profile





Recognising design limitations in fitness to work



THE WORK EXPERT
For a healthy, safe, productive workforce

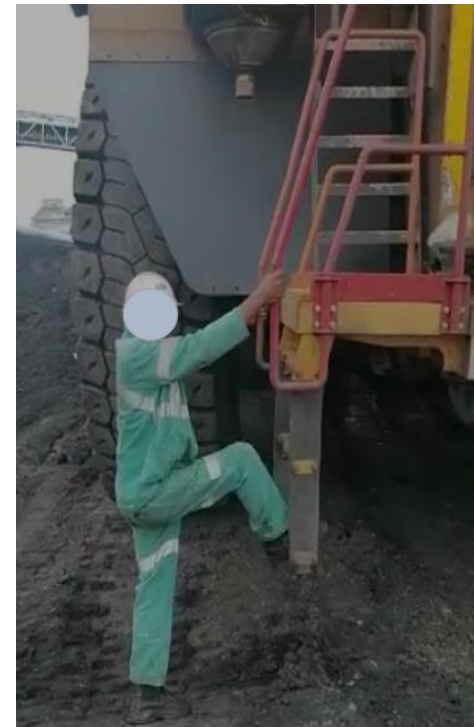
Anthropometric Requirements

Link with cabin design, furniture design specifications, equipment and seating

ANTHROPOMETRIC REQUIREMENTS (Yes = requirement)			
Body stature > 1 640 mm		Body weight > 50 kg (WRULDs risk)	
Body stature > 1 550 mm		Body weight > 55 kg (heat stress / dehydration risk)	
Lower leg length > 470 mm		Seated eye height > 690 mm	
Body weight ≤ 130kg		Body width < 500 mm	



A: Functional leg length – 970 mm to 1,030 mm
B: Seat to eye height – 690 mm
C: Seat pan width – 470 mm



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Exposure to Hazards - Rating System

Ergonomic Risks
Mental Workload

High	Extensive mental effort and concentration necessary. Very complex activity requires total attention including high exposure to driving demands.
Medium	Moderate or conscious mental effort or concentration required. Complexity of activity is moderately high.
Low	Very little conscious mental effort or concentration required. Activity is almost automatic, requiring little or no attention.

Chemicals, Dust

At Risk	> 50% OEL except Silica > 10% OEL
Low	< 50% OEL

Biological

Yes
No

Exposure to Hazards – Rating System

Ergonomic Risks
Abnormal posture
(work with neck in bent position, kneeling
squatting)

High	> 4 hours / shift
Medium	> 2 hours / shift
Low	< 2 hours / shift

Ergonomic Risks
Prolonged sitting

High	> 6 hours / shift
Medium	> 4 hours / shift
Low	< 4 hours / shift

Ergonomic Risks
Prolonged bending (>30°)

High	> 4 hours / shift or 45° > 2 hours / shift
Medium	> 2 hours / shift
Low	< 2 hours / shift

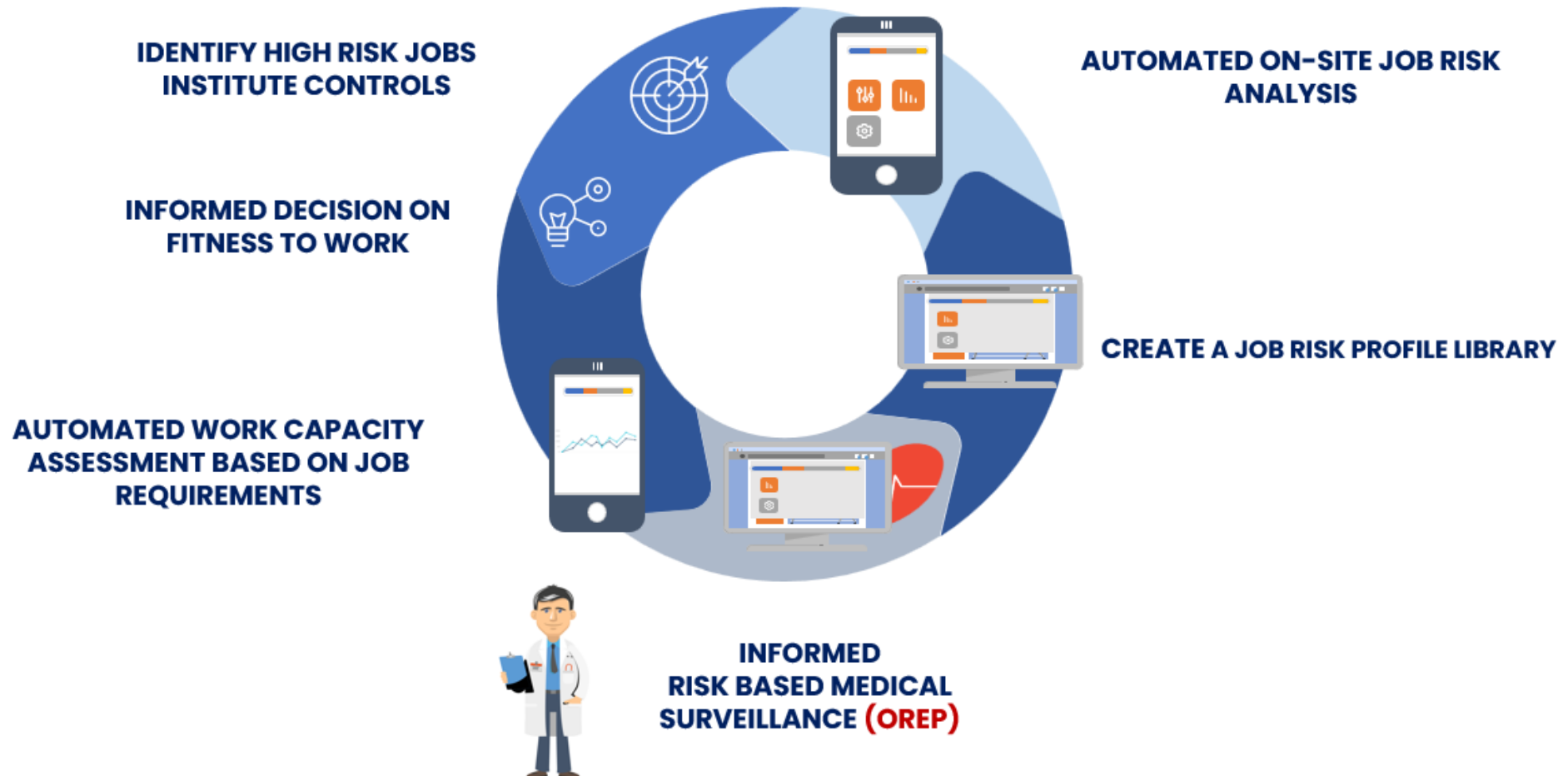


THE WORK EXPERT
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Process

RISK BASED Medical Surveillance

Quantifying risks in the work environment in a uniform manner
Risk based medical surveillance made easy



Acknowledgement

Funding

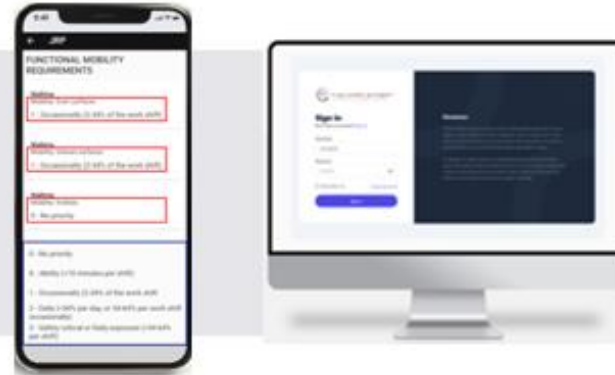


Development



Health Job Risk Analysis

**TOOL
DEVELOPMENT**
Mobile
Application
JRP Library



TRAINING
E-learning



**JRP Library
Maintenance
& Quality
Control**

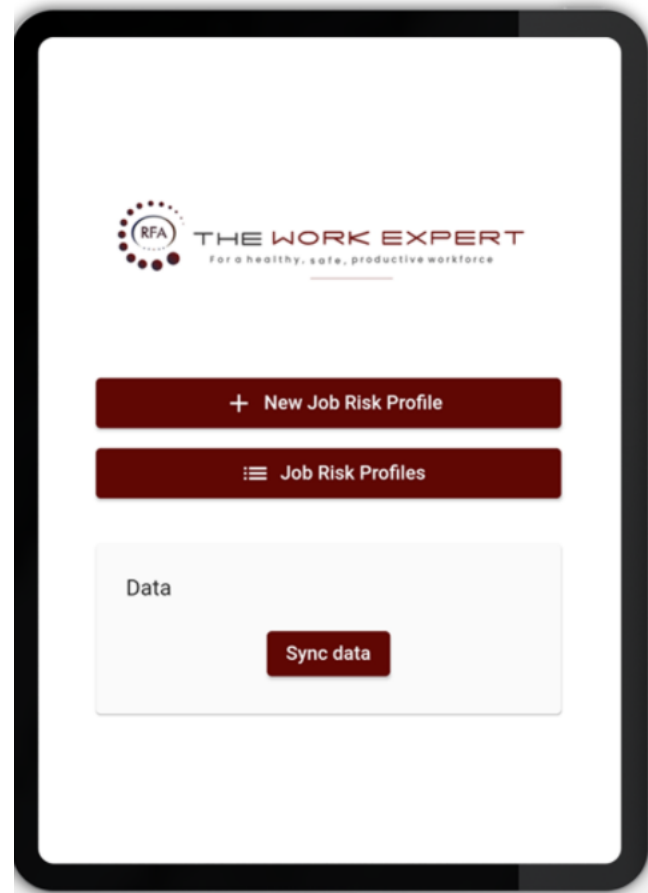
Job Risk Profile Results

Filters: Publications List, Status Filter, Search Results

Export, New Result

Action	Description	Department site	Occupation	Intensity	Status	Review Date	Manual For Review	QC	Modified Date
	Library Process - 2025, Publications Maintenance Complete	Publications Maintenance	Library Process - 2025	Library Process	2025-03-25	2025-03-25			
	Library Process - 2025, Publications Maintenance Complete	Publications Maintenance	Library Process - 2025	Library Process	2025-03-24	2025-03-24			
	Library Process - 2025, Publications Maintenance Complete	Publications Maintenance	Library Process - 2025	Library Process	2025-03-24	2025-03-24			
	Library Process - 2025, Publications Maintenance Complete	Publications Maintenance	Library Process - 2025	Library Process	2025-03-24	2025-03-24			
	Library Process - 2025, Publications Maintenance Complete	Publications Maintenance	Library Process - 2025	Library Process	2025-03-24	2025-03-24			

Job Risk Analysis Mobile Application



Job Risk Analysis Mobile Application

9:45

← JRP

FUNCTIONAL MOBILITY REQUIREMENTS

Walking
Mobility: Even surfaces
1 - Occasionally (2-34% of the work shift)

Walking
Mobility: Uneven surfaces
1 - Occasionally (2-34% of the work shift)

Walking
Mobility: Inclines
0 - No priority

0 - No priority

X - Ability (<10 minutes per shift)

1 - Occasionally (2-34% of the work shift)

2 - Daily (<34% per day, or 34-64% per work shift occasionally)

3 - Safety critical or Daily exposure (>34-64% per shift)

9:45

← JRP

MANUAL MATERIAL HANDLING

Maximum load requirement
The maximum weight of the load to be handled manually
25kg to shoulder level

Handling of loads: pushing horizontal plane
Handling loads by means of pushing (specify kg)
1 - Occasionally (2-34% of the work shift)

Handling of loads: pulling horizontal plane
Handling of loads by means of pulling horizontal plane (specify kg)
1 - Occasionally (2-34% of the work shift)

Handling of loads: pulling vertical plane
Vertical plane
X - Ability (<10 minutes per shift)

Push and pull action of upper limbs, push action of lower limbs in a seated position
Operating arm and leg controls of heavy mobile equipment in off road driving conditions
0 - No priority

9:45

← JRP

ANTHROPOMETRIC REQUIREMENTS

Body Stature > 1 640 mm
Mounting of equipment, manual material handling, visual field
Yes

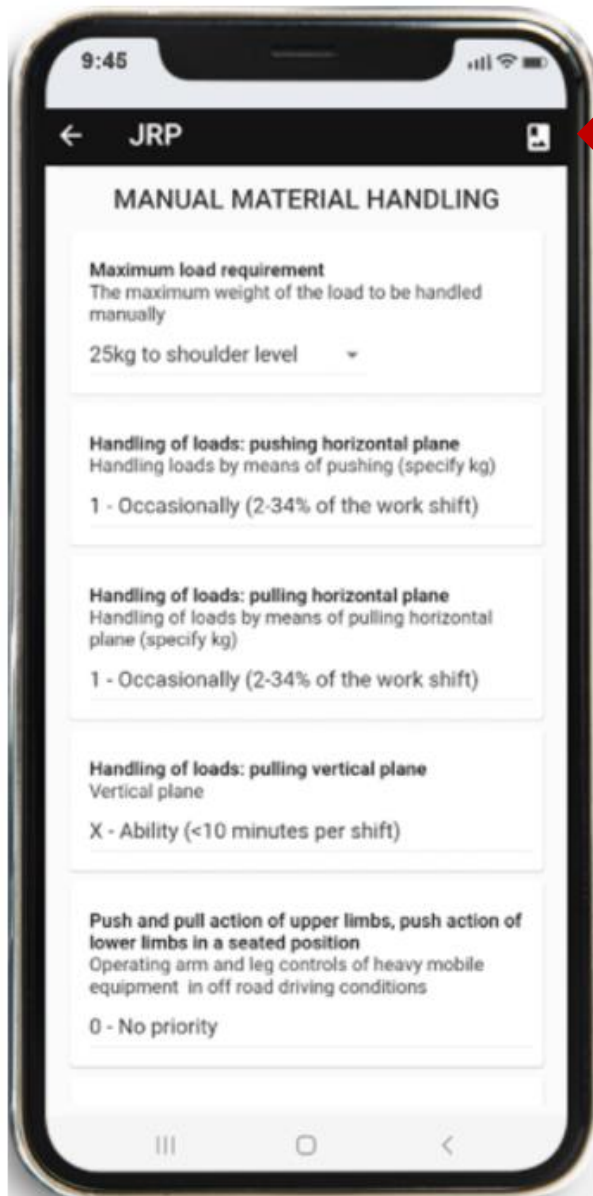
Body Stature > 1 550 mm
Mounting of equipment, manual material handling, visual field
Yes

Lower leg length > 470 mm
Operating of mobile equipment
Yes

Body weight ≤ 130 kg
Sufficient seat / chair / safety harness etc. weight bearing capacity
Yes

Body weight >50 kg
WRULDS risk
No

Job Risk Analysis Mobile Application



Take photos

Job Risk Analysis Mobile Application

The screenshot shows a mobile application interface for Job Risk Analysis (JRP). At the top, the status bar shows the time 9:45 and signal strength. The app header has a back arrow, the text 'JRP', and a trash icon. The main form contains the following sections:

- Description:** Welder
- Occupations:** Welder- Mining Maintenance (Sishen) with a plus icon to add more.
- Require cabin assessment?:** An unchecked checkbox.
- Work Environment:** No value selected with a dropdown arrow.
- Division:** No value selected with a dropdown arrow.
- Operational Site (Optional):** No value selected with a dropdown arrow.
- GENERAL:** Unanswered Questions: 1
- PRIMARY WORK ENVIRONMENT:** Unanswered Questions: 10
- FUNCTIONAL MOBILITY REQUIREMENTS:** Unanswered Questions: 7
- MANUAL MATERIAL HANDLING:** Unanswered Questions: 13

A red 'Save Changes' button is at the bottom of the form. The bottom of the screen shows the standard Android navigation bar with three icons.



Cabin Assessment

Job Risk Analysis Mobile Application

9:45

← JRP

Description
Heavy Mobile Equipment Operator

Occupations
+

Require cabin assessment? ☒

GENERAL
Unanswered Questions: 3

PRIMARY WORK ENVIRONMENT
Unanswered Questions: 10

CABIN ASSESSMENT
Unanswered Questions: 18

FUNCTIONAL MOBILITY REQUIREMENTS
Unanswered Questions: 7

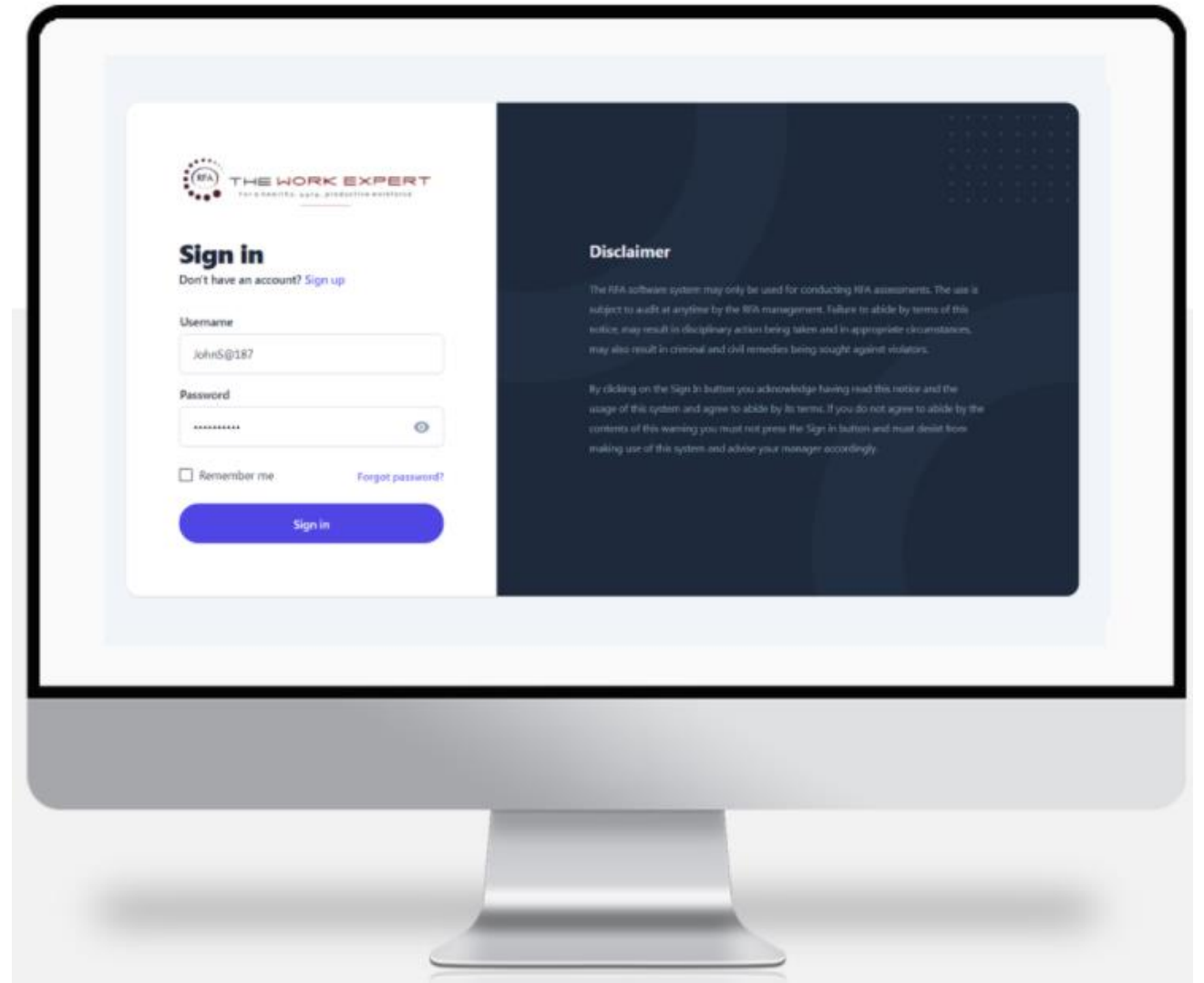
MANUAL MATERIAL HANDLING
Unanswered Questions: 13

DYNAMIC POSTURING AND DEXTERITY
(Skillful movements with hands)
Unanswered Questions: 7

Mark for Upload

NOTE
Mark for
Upload to
JRP Library

Job Risk Profile Library



JRP Library

Access to:

- [Procedures](#)
(linked to user profile)
- [Academy](#)
- [Job Risk Profiles Overview](#)
- [Job Risk Profiles](#)

The screenshot shows the JRP Library mobile app interface for James Bond (JB007). The app has a dark blue header with the Anglo American logo and a welcome message: "Welcome-back, James Bond!". Below the header, there is a sidebar menu with the following items: "Welcome", "Procedures", "Academy", "Chat", "JRP" (with a sub-item "Job Risk Profiles"), "Job Risk Profiles Overview", and "Job Risk Profiles". The "JRP" and "Job Risk Profiles" items are highlighted with a red box. The main content area displays a "Reminders" section with three notifications:

- New Procedure Available**
Procedure RFASOP018 Anthropometry as an aid to health risk assessment and medical surveillance can now be...
Sep 27, 10:29 AM
- New Procedure Available**
Procedure RFASOP030 Guidelines for safety during Physical and Functional Work Capacity Assessments ca...
Sep 23, 10:06 AM
- New Course Available.**
'RFA Software Training' is now available.
Sep 08, 12:22 PM

JRP Library Academy

[← Back to courses](#)

Health Job Risk Analysis

Health Job Risk Analysis

- 1 Health Risk JRA - Module 1
Module 1
- 2 Health Risk JRA - Module 2
Module 2
- 3 Health Risk JRA - Module 3
Module 3

Health JRA_Module 1



2. The Physiology of Muscle Work

Physically demanding work and work physiology

Health Job Risk Analysis

Physiological responses are specific in nature and depend on:

- The type of muscle work
- The size of the active muscle mass
- The ratio of dynamic and static work

[← BACK](#)

[Click each icon to learn more](#)

[NEXT >](#)



THE WORK EXPERT
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Job Risk Profiles

- Search and Filter Job Risk Profiles: various options available

James Bond
JB007

Welcome

Procedures

Academy

Chat

JRP
Job Risk Profiles

Job Risk Profiles Overview

Job Risk Profiles

Job Risk Profiles Overview

Filters

Kolomela Mine

Division

Occupations

Overview

Filter Results

Shatts

Surface Office / Control Rooms

Surface Plants

Surface with Environmental exposure

Surface Workshop

Underground Cool

Underground Not Restricted (Stones)

Clear

Export

Export Summary

Actions	JRP Description	Operational site	Occupations	Intensity	Created Date	Modified Date	Revision Date	Marked For Revision
	Hygiene Technician / Hygienist - Services (Kolomela Mine)	Kolomela Mine		LIGHT (10)	2022-05-23	2022-10-07	2022-06-07	
	Environmental Technician / Officer - Services	Kolomela Mine		LIGHT (11)	2022-05-23	2022-10-07	2022-06-07	
	Field Technician / Instrumentation Technician - Services	Kolomela Mine		LIGHT (18)	2022-05-23	2022-10-18	2022-05-23	
	Service Hygiene - Services	Kolomela Mine		ROAMING (6)	2022-05-25	2022-10-18	2022-05-25	
	Engineer - Services (Kolomela Mine)	Kolomela Mine		ROAMING (6)	2022-05-30	2022-06-13	2022-05-30	
	Field Technician / Assistant - Services (Kolomela Mine)	Kolomela Mine		LIGHT (10)	2022-05-31	2022-10-18	2022-05-31	
	Land Management Operator- Services (Kolomela Mine)	Kolomela Mine		MODERATE (21)	2022-05-31	2022-07-18	2022-07-18	
	Boilermaker / Assistant / Learnership / Semi Skilled - Services (Kolomela Mine)	Kolomela Mine	Boilermaker Artisan - 90019310	MODERATE (24)	2022-05-31	2022-10-18	2022-06-07	

Job Risk Profile Sections

JRP Dashboard >

Job Risk Profile for Assistant / Maintenance Operator- Mining

Overview of JRA risk ratings

STRENUOUSNESS	PRIMARY WORK ENVIRONMENT	FUNCTIONAL MOBILITY REQUIREMENTS	MANUAL MATERIAL HANDLING	DYNAMIC POSTURING AND DEXTERITY (Skillful movements with hands)
100% Answered	100% Answered	100% Answered	100% Answered	100% Answered
MODERATE (24)	MEDIUM	LOW	MEDIUM	LOW

Occupational Risk Exposure Profile (OREP)

[Click to view Occupational Risk Exposure Profile \(OREP\) Details](#)

Description *

Assistant / Maintenance Operator- Mining

Operational Site

Kolomela Mine

Division

Iron Ore

Occupation *



+ Add

- ☒ Cabin Assessment
- ☐ Hygiene Not Applicable
- ☐ M&P Screening Not Applicable

- Functional Job Risk Analysis
- Hygiene
- Explanatory Notes
- Medical and Physical Screening Requirements

Job Risk Profiles Overview of Risk Ratings



James Bond
JB007

Welcome

Procedures

Academy

Chat

JRP
Job Risk Profiles

Job Risk Profiles Overview

Job Risk Profiles

JRP Dashboard

Job Risk Profile for Assistant / Maintenance Operator- Mining

Overview of JRA risk ratings

STRENUOUSNESS	PRIMARY WORK ENVIRONMENT	FUNCTIONAL MOBILITY REQUIREMENTS	MANUAL MATERIAL HANDLING	DYNAMIC POSTURING AND DEXTERITY (Skillful movements with hands)
100% Answered	100% Answered	100% Answered	100% Answered	100% Answered
MODERATE (24)	MEDIUM	LOW	MEDIUM	LOW

Status: Pending Approval

Last Modified By: Vusimuzi Ndlovu On 2022/11/24 11:54

Occupational Risk Exposure Profile (OREP)

Click to view Occupational Risk Exposure Profile (OREP) Details

Description *

Assistant / Maintenance Operator- Mining

Operational Site

Kolomela Mine

Division

Iron Ore

Work Place

Surface with Environmental exposure

Create A Copy

Mark For Revision

Ready for QC

Cancel

Save

Risk Exposure Profile Summary

JRP Dashboard >

Job Risk Profile for Assistant / Maintenance Operator- Mining

Create A Copy

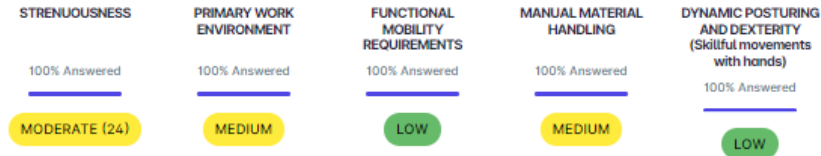
Mark For Revision

Ready for QC

Cancel

Save

Overview of JRA risk ratings



Status: Pending Approval

Last Modified By: Vusimuzi Ndlovu On 2022/11/24 11:54

Occupational Risk Exposure Profile (OREP)

[Click to view Occupational Risk Exposure Profile \(OREP\) Details](#)

SOUTH AFRICAN FITNESS CATEGORY

4 - Surface / Underground - Non-passenger and ordinary goods conveyance, work involving heavy or potentially dangerous machinery

Functional Job Risk Analysis

PRIMARY WORK ENVIRONMENT

Work speed determined by a process

FUNCTIONAL MOBILITY REQUIREMENTS

Climbing vertical ladders/on off machines

Walking uneven surfaces

MANUAL MATERIAL HANDLING

Frequent handling of loads up to 20 kg ABOVE shoulder level

Impact activity

Handling of loads: pushing horizontal plane

Handling of loads: pulling horizontal plane

Handling of loads: pulling vertical plane

Push and pull action of upper limbs, push action of lower limbs in a seated position

25kg above shoulder level

30kg to shoulder level

DYNAMIC POSTURING AND DEXTERITY (Skillful movements with hands)

Dexterity - seated position / table top

Dexterity - above head position

IMPORTANT SENSES & OTHER REQUIREMENTS

Binocular and depth vision

Clarity of speech

Ability to read

Visual field (70° temporal in each eye)

Visual acuity

Colour vision

Night vision

Ability to write

Psychomotor Function

Hearing

ANTHROPOMETRIC REQUIREMENTS

Body mass requirement > 50kg: Manual Material Handling

Body Mass Index (BMI) requirement 20-35 for working in heat

ERGONOMIC RISKS

Repetitive movements (WRULDs)

Shift work

Confined spaces (including rescue capsules)

Poor lighting

Prolonged bending (>30 degrees forward bending)

Abnormal posture (work with hands above head, work with neck in bent position; squatting, kneeling)

Prolonged sitting

Prolonged standing

Mental workload (precision work / overtime / shifts > 8 hours)

Hygiene

HAZARD EXPOSURE - PHYSICAL

Noise (≥ 82 dB(A))

Cold Stress

Heat Stress

HAZARD EXPOSURE - BIOLOGICAL

Viruses

Bacteria

HAZARD EXPOSURE DUST

Respirable crystalline silica

Element - Silica / Quarts

HAZARD EXPOSURE - CHEMICALS

Mixture - DPM

Medical and Physical Screening Requirements

MEDICAL SCREENING REQUIREMENTS

Clinical Examination

Drug testing

Ishihara Colour Blindness Test

Urinalysis

Vision Screening

Lung function

Chest X-RAY

Audiogram

Questionnaire: Fear of heights



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Detailed Cabin Assessment for Operators

[JRP Dashboard](#) >

Job Risk Profile for Assistant / Maintenance Operator- Mining

Create A Copy

Mark For Revision

Ready for QC

Cancel

 Save

CABIN ASSESSMENT

Vehicle name	Cat 745 ADT (Lubrication Truck)	Critical work tasks	Providing lubrication to all HME's in the pit and mine
Manual Material Handling Tools, equipment, stop blocks, fire extinguishers etc. handled with weight	Fire extinguishers, Stop blocks, lubrication hoses	Manual Material Handling Highest height handled to (vertical displacement in mm). Examples hooking of stop blocks, mounting of fire extinguishers	1690mm - handle to mount truck
Cabin Measurements - Access (Ingress / Egress) Surface to first step in mm	300 mm	Cabin Measurements - Access (Ingress / Egress) Number of steps	7
Cabin Measurements - Access (Ingress / Egress) Handrail height in mm	1690 mm	Emergency Exits - vertical enclosed/cage ladders Diameter of cage restrictions in mm	560 mm
Cabin Measurements - Workspace Head clearance in mm	1080 mm	Cabin Measurements - Seating and Posture Seat adjustability (vertical)	Yes
Cabin Measurements - Seating and Posture Seat adjustability (horizontal)	Yes	Cabin Measurements - Seating and Posture Seat backrest indicate (high, mid, no backrest)	760 mm
Cabin Measurements - Seating and Posture Seatpan width in mm	500 mm	Cabin Measurements - Seating and Posture Seatpan depth in mm	480 mm
Cabin Measurements - Seating and Posture Functional leg length in mm - seat in most forward position	850 mm	Cabin Measurements - Seating and Posture Functional leg length in mm - seat in most backward position	940 mm
Cabin Measurements - Seating and Posture Armrests	Yes	Cabin Measurements - Seating and Posture Seat rating (maximum body kilogram)	135 Kg
Thermal environment Ventilation / temperature control (airconditioning available)	Yes		

Job Risk Profile for Assistant / Maintenance Operator- Mining

CABIN ASSESSMENT

Vehicle name Critical work tasks

Manual Material Handling
Tools, equipment, stop blocks, fire extinguishers etc. handled with weight

Cabin Measurements - Access (Ingress / Egress)
Surface to first step in mm

Cabin Measurements - Access (Ingress / Egress)
Handrail height in mm

Cabin Measurements - Workspace
Head clearance in mm

Cabin Measurements - Seating and Posture
Seat adjustability (horizontal)

Cabin Measurements - Seating and Posture
Seatpan width in mm

Cabin Measurements - Seating and Posture
Functional leg length in mm - seat in most forward position

Cabin Measurements - Seating and Posture
Armrests

Thermal environment
Ventilation / temperature control (airconditioning available)

Images



CABIN ASSESSMENT



Ladder to access truck at rear end

Close

Images available

Images available

MANUAL MATERIAL HANDLING

Maximum load requirement
The maximum weight of the load to be handled manually 25kg above shoulder level,

Handling of loads: pulling horizontal plane
Specify kg 2 - Medium (2-34% per day, or

Push and pull action of upper limbs, push action of lower limbs in a seated position
Operating manual arm and leg controls which require physical effort (heavy mobile equipment

Frequent handling of loads up to 10 kg ABOVE shoulder level X - Ability (<10 minut

Handling of loads: Restricted areas
(Ceiling heights < 1.5m) X - Ability (<10 minutes per shi

Impact activity
Handling of pneumatic equipment / extrication tools / jack hammer 2 - Medium (2-34%

Shoveling - Restricted work environments
Digging / lashing tasks e.g. cleaning underneath conveyor belts, stoping areas 0 - No pr

Images +

Toolbox lifted by 2 people onto LDV

Toolbox - 120 Kg

-

DYNAMIC POSTURING AND DEXTERITY (Skillful movements with

MANUAL MATERIAL HANDLING



Anthropometric Requirements

JRP Dashboard >

Job Risk Profile for Assistant / Maintenance Operator- Mining

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Ready for QC

Cancel

 Save

ANTHROPOMETRIC REQUIREMENTS

Body stature requirement > 1 640mm: Safe mounting and visual fields, MMH

Yes

Seated eye height requirement: > 690 mm (visual field)
Required to allow for sufficient visual field; limited vertical seat adjustability, obstacles in visual field

Yes

Body mass requirement ≤ 130kg: Seating capacity - Mobile Operators
Weight bearing capacity limitations of seating, as well as using emergency exits of mobile equipment

Yes

Body mass requirement > 50kg: Manual Material Handling
Heavy load lifting required, posing WRULDS risks

Yes

Body width requirement < 500 mm
Required for entering of confined spaces, rescue capsules, emergency exits, enclosed areas, vertical ladders, seating, Solas

No

Body stature requirement > 1 550mm: Safe mounting and visual fields, MMH

Yes

Body mass requirement ≤ 130kg: Seating capacity - offices / control rooms
Risk of cumulative strain associated with prolonged sitting and body mass of >110 kg. Weight bearing capacity limitations of seating.

No

Body mass requirement ≤ 130kg: Work at / on heights / vessels
Weight bearing capacity limitations of safety harnesses/ immersion suits/ life jackets

No

Body mass requirement > 55kg: Heat strain / dehydration risk
Required for work in hot environments

Yes

Body Mass Index (BMI) requirement 20-35 for working in heat
Required to avoid risk of heat strain

Yes

Important Senses and Ergonomic Risks

JRP Dashboard >

Job Risk Profile for Assistant / Maintenance Operator- Mining

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Ready for QC

Cancel

Save

IMPORTANT SENSES & OTHER REQUIREMENTS

Visual acuity

High - precision work, operating mobile equipment, prolonged viewing time, demanding visual environment (6/9 Binocula...

Night vision

Medium - occasional exposure to poorly illuminated environments

Binocular and depth vision

Medium - Driving light vehicles or slow moving plant equipment, occasional exposure to stair climbing, traversing incline...

Ability to read

Medium - Requires the interpretation of direct and simple instructions within a known context

Hearing

Importance to hear warning signals, instructions

High - Directly linked to safety (warning signals) and high levels of communication (two-way radios, telephonic communi...

Colour vision

Medium - primary and secondary colours – not safety related but required to perform work tasks

Visual field (70° temporal in each eye)

Medium - required but not safety related (e.g. viewing requirements on screens / control rooms)

Clarity of speech

High - Core work task requiring relaying of information verbally in known and unknown contexts, communication on two...

Ability to write

Medium - Medium priority work task requiring relaying of information in a written format in known contexts.

Psychomotor Function

Level of complexity of equipment: Hand eye coordination - Hand feet eye coordination - Reaction speed

Medium

ERGONOMIC RISKS

Working at heights

No Exposure

Abnormal posture (work with hands above head, work with neck in bent position; squatting, kneeling)
Extreme ranges

Medium Risk (2 - 4 h / shift)

Prolonged sitting

Medium Risk (4 - 6 h / shift)

Prolonged standing

Medium Risk (2 - 4 h / shift)

Prolonged bending (>30 degrees forward bending)

Medium Risk (2 - 4 h / shift)

Repetitive movements (WRULDs)

Medium Risk (> 2 h / shift with no additional risks)

Shift work

High Exposure (12 hour shifts or shift rotation)

Poor lighting

Medium Exposure (occasional)

Confined spaces (including rescue capsules)

< 1500 mm

Mental workload (precision work / overtime / shifts > 8 hours)

High Exposure (Extensive mental effort and concentration necessary. Very complex activity, requires total att...



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Explanatory Notes

[JRP Dashboard](#) >

Job Risk Profile for Assistant / Maintenance Operator- Mining

Create A Copy

Mark For Revision

Ready for QC

Cancel

Save

Functional Job Risk Analysis

Hygiene

Explanatory Notes

Medical and Physical Screening Requirements

EXPLANATORY NOTES

Purpose of the work

Assistance of artisans and providing lubrication to all machinery

Critical work tasks

Continuously monitor maintenance progress and related preparation activities against planned schedules to meet operational targets, minimize downtime, enable timely reporting and enhance plant efficiency.

Ensure all toolboxes and tools are kept in good condition

Ensure proper communication and handover on outstanding tasks between shifts and day shift teams

Assist with maintenance (the changing of grease bulkers, diesel nozzles, pipes etc)

Plugging and unplugging of lubrication hose

Removal of pumps

Do pre-shift inspection of vehicle, equipment, machines, machine parts, and / or components to check functionality and safety

Work Processes

12 Hour Shifts

Ergonomic Risk Factors

Manual Material Handling

Lubrication hose
Toolboxes
Pumps

Other

Export Function – Individual JRP

JRP Dashboard >

Job Risk Profile for Assistant / Maintenance Operator- Mining

Export

Overview of JRA risk ratings

Status: Pending Approval
Last Modified By: Vusimuzi Ndlovu On 2022/11/24 11:54

STRENUOUSNESS	PRIMARY WORK ENVIRONMENT	FUNCTIONAL MOBILITY REQUIREMENTS	MANUAL MATERIAL HANDLING	DYNAMIC POSTURING AND DEXTERITY (Skillful movements with hands)
100% Answered	100% Answered	100% Answered	100% Answered	100% Answered
MODERATE (24)	MEDIUM	LOW	MEDIUM	LOW

Occupational Risk Exposure Profile (OREP)

Click to view OREP Details

Description Assistant / Maintenance Operator- Mining

Operational Site Kolomela Mine Division Iron Ore

Work Place

Surface with Environmental exposure

Export Function – Individual JRP

JRP

Assistant / Maintenance Operator- Mining



RISK OVERVIEW

OVERALL PHYSICAL INTENSITY	PRIMARY WORK ENVIRONMENT	FUNCTIONAL MOBILITY REQUIREMENTS	MANUAL MATERIAL HANDLING	DYNAMIC POSTURING AND DEXTERITY
MODERATE(24)	MEDIUM	LOW	MEDIUM	LOW
Operational Site Kolomela Mine		Division Iron Ore		
Occupations				
Workplace Surface with Environmental exposure				
South African Fitness Category 4 - Surface / Underground - Non-passenger and ordinary goods conveyance, work involving heavy or potentially dangerous machinery				

Occupational Risk Exposure Profile (OREP)

FUNCTIONAL REQUIREMENTS	PRIMARY WORK ENVIRONMENT	Surface uncontrolled - 1 Work speed determined by a process - 2
	FUNCTIONAL MOBILITY REQUIREMENTS	Legend: 0 - No priority; X - Ability (<10 minutes per shift) ; 1 - Low (2-34% of the work shift, not daily and no more than twice per work week); Walking even surfaces - 1 Walking uneven surfaces - 2 Walking inclines/declines - x Climbing Stairs (<45° inclines) - 1 Climbing vertical ladders/on off machines - 2 Climbing over obstacles - 1 Mobility in restricted work areas - x

Export Function - Collective

GENERAL					OVERALL PHYSICAL RISK PROFILE						SA FITNESS CATEGORY
Job ID	Occupation	Job Name	Operational Site	Workplace	Strenuousness	Primary Work Env	Functional Mobility	Manual Material Handling	Max. Load handling	Dynamic Posture and Dexterity	SA Fitness Category
		Scheduler / Task Planner / Work Management Planner - Mining Engineering	Kolomela Mine	Surface Office / Control Room	ROAMING (3)	LOW	LOW	LOW	15kg to shoulder	LOW	1
		Supervisor - Mining Engineering	Kolomela Mine	Surface with Environment	LIGHT (7)	MEDIUM	LOW	LOW	20kg to shoulder	LOW	2
		Automated Drill Operator- Mining	Kolomela Mine	Surface with Environment	LIGHT (7)	MEDIUM	LOW	HIGH	20kg above shoulder	LOW	2
		Technologist / Engineering Specialist / HPH Resource/ Mechanical Technologist - Processing Engineering	Kolomela Mine	Surface Plants	LIGHT (9)	MEDIUM	LOW	LOW	10kg above shoulder	LOW	2
		Assistant / Maintenance Operator- Mining	Kolomela Mine	Surface with Environment	MODERATE (24)	MEDIUM	LOW	HIGH	25kg above shoulder	LOW	4
		Millwright / Assistant / Learnership / Semi-Skilled - Processing	Kolomela Mine	Surface Plants	MODERATE (30)	HIGH	MEDIUM	HIGH	30kg to shoulder	MEDIUM	4
		Manager - Mining	Kolomela Mine	Surface Office / Control Room	ROAMING (4)	MEDIUM	LOW	LOW	10kg to shoulder	LOW	1
		Steel Erector / Fixer - Mining Engineering	Kolomela Mine	Surface with Environment	MODERATE (26)	MEDIUM	MEDIUM	HIGH	25kg above shoulder	LOW	2
		Bus Driver - Mining	Kolomela Mine	Surface with Environment	ROAMING (6)	MEDIUM	LOW	LOW		LOW	5
		Farm Supervisor - Services	Kolomela Mine	Surface with Environment	LIGHT (9)	MEDIUM	LOW	LOW	20kg to shoulder	LOW	5
		Manager - Services	Kolomela Mine	Surface Office / Control Room	ROAMING (3)	LOW	LOW	LOW	No load handling	LOW	2
80019429;	Environment Advisor;	Environmental Advisor / Assistant- Services	Kolomela Mine	Surface with Environment	LIGHT (10)	MEDIUM	MEDIUM	HIGH	20kg to shoulder	LOW	2
		Senior Safety Officer - Mining Engineering	Kolomela Mine	Surface Office / Control Room	ROAMING (2)	LOW	LOW	LOW	10kg to shoulder	LOW	2
		Cleaner - Mining	Kolomela Mine	Surface Workshop	LIGHT (16)	LOW	LOW	LOW	15kg to shoulder	LOW	2
		Tyre Fitter / Serviceman - Mining Engineering	Kolomela Mine	Surface with Environment	MODERATE (28)	MEDIUM	LOW	HIGH	20kg above shoulder	MEDIUM	4
		Radio Technician - Services	Kolomela Mine	Surface with Environment	LIGHT (17)	MEDIUM	MEDIUM	LOW	15kg above shoulder	MEDIUM	2

Export Function – Cabin Assessment

GENERAL					
Description	Operational Site	Workplace	Vehicle name	Critical work tasks	Manual Material Handling (kg)
Scheduler / Task Planner / Work Management Planner - Mining Engineering	Kolomela Mine	Surface Office / Control Rooms			
Supervisor - Mining Engineering	Kolomela Mine	Surface with Environmental exposure			
Automated Drill Operator- Mining	Kolomela Mine	Surface with Environmental exposure			
Technologist / Engineering Specialist / HPH Resource/ Mechanical Technologist - Processing Engineering	Kolomela Mine	Surface Plants			
Assistant / Maintenance Operator- Mining	Kolomela Mine	Surface with Environmental exposure	Cat 745 ADT (Lubrication Truck)	Providing lubrication to all HME's in the pit and mine	Fire extinguishers, Stop blocks, lubrication hoses
Millwright / Assistant / Learnership / Semi-Skilled - Processing	Kolomela Mine	Surface Plants			
Manager - Mining	Kolomela Mine	Surface Office / Control Rooms			
Steel Erector / Fixer - Mining Engineering	Kolomela Mine	Surface with Environmental exposure			
Bus Driver - Mining	Kolomela Mine	Surface with Environmental exposure	Hino 66 Seater Bus	Transportation of employees	Stop blocks, fire extinguisher, first aid kit
Farm Supervisor - Services	Kolomela Mine	Surface with Environmental exposure			
Manager - Services	Kolomela Mine	Surface Office / Control Rooms			
Environmental Advisor / Assistant- Services	Kolomela Mine	Surface with Environmental exposure			
Senior Safety Officer - Mining Engineering	Kolomela Mine	Surface Office / Control Rooms			
Cleaner - Mining	Kolomela Mine	Surface Workshop			
Tyre Fitter / Serviceman - Mining Engineering	Kolomela Mine	Surface with Environmental exposure	Komatsu V8 600 Tyre handler	Mounting and dismount of tyres on HME	Stop blocks, fire extinguisher
Radio Technician - Services	Kolomela Mine	Surface with Environmental exposure			
Master Electrician - Mining Engineering	Kolomela Mine	Surface with Environmental exposure			
Civil Engineer - Processing Engineering	Kolomela Mine	Surface with Environmental exposure			

Job Risk Profiles Overview

Job Risk Profiles Overview

 Anglo American ×

Filters

 Kolomela Mine ▼

Division ▼

Workplace ▼

× Clear

 Export

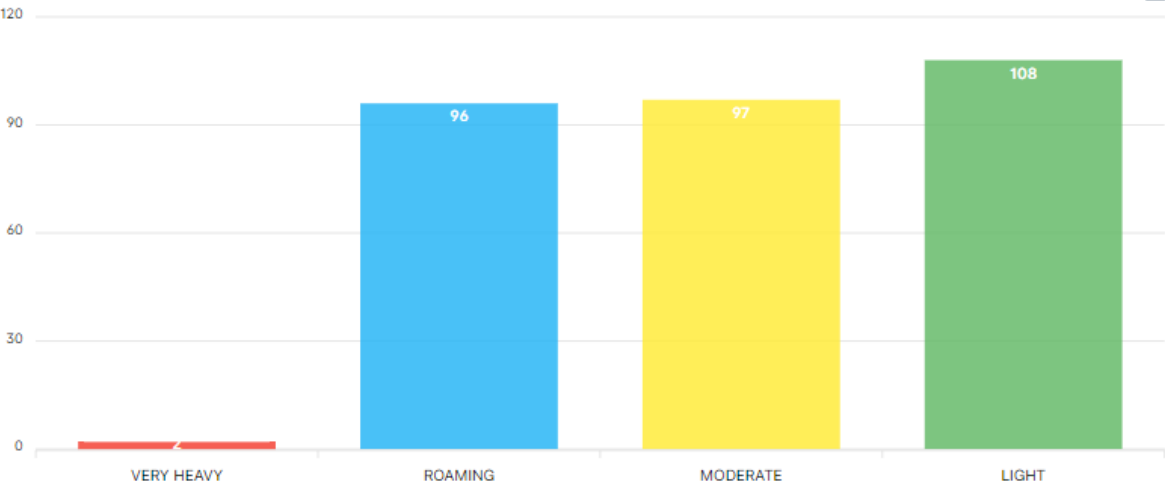
 Export Summary

Occupations

Overview

Kolomela Mine

Risk Spread



Overview

311
Job Id's

308
Identified Jrp's

16
Job Id's with JRP

0
Total Approved JRP's

302
JRA's Completed

206
Hygiene Complete

1
Revisions Due

209
QC Completed

Application

Risk specific medical surveillance

Inclusion of Physical and Functional Capacity assessments in Fitness to work assessments



Informed placement of workers

- Retainment of skills,
- Safety, health and production benefits

JOB RISK PROFILE

Disability management

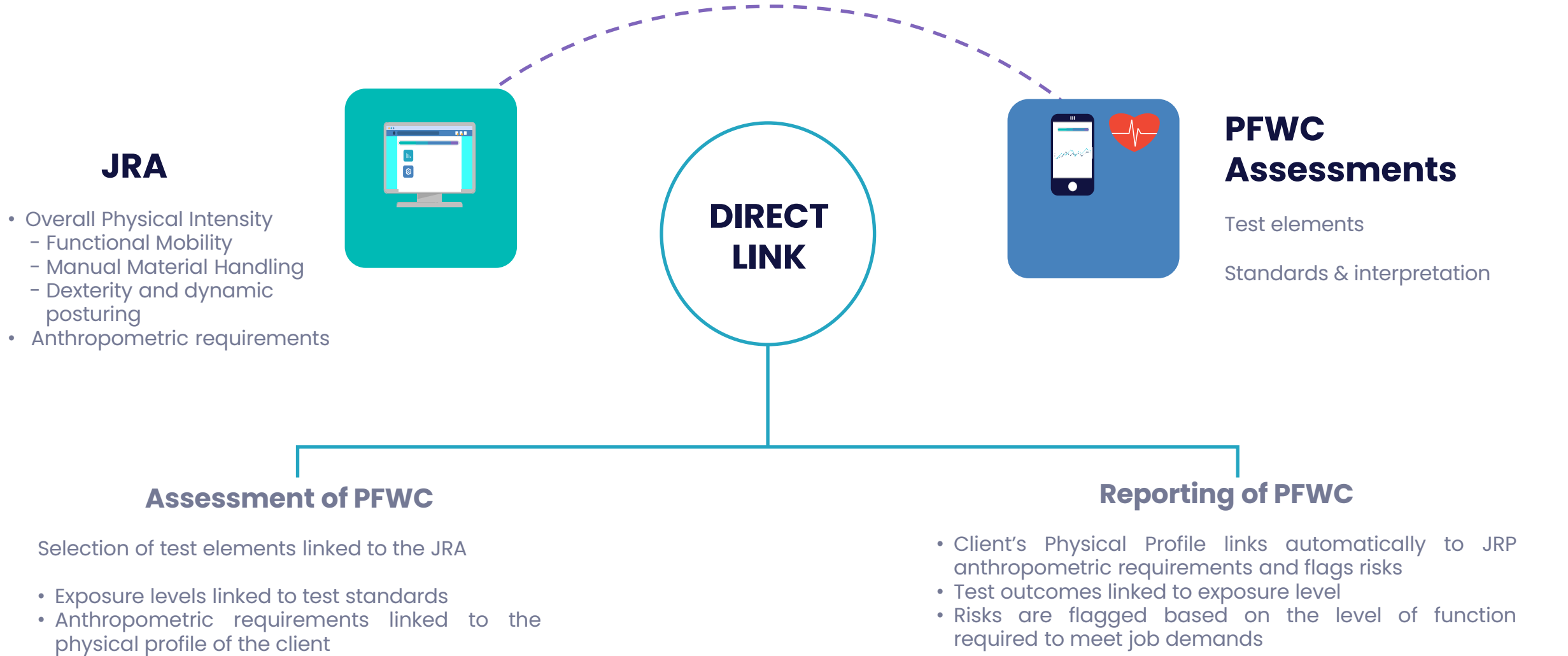
- Ensure safe return after injury/illness,
- Direct rehabilitation goals
- Alternative placement, reasonable accommodation (Job crafting)



Statistical reporting, redesign

- Accident investigation
- Medical conditions to be linked to JRAs
- Redesign of high-risk job tasks

Job Risk Analysis linked to PFWC Assessment



Client Report

Job Risks linked to Client Profile

FUNCTIONAL WORK CAPACITY REPORT

PERSONAL DETAILS

Name: Albert Einstein
Gender: Male
Age: 84
Employee number: Z0462343
ID / Passport number: 3809080113087
Working site: Petra Diamonds
Cullinan Mine

REFERRAL / ASSESSMENT DETAILS

Status of assessment: Medical
Referred by: Rehab Orthopedic
Type of assessment: Final Work Assessment
Referral Date: 07 Nov 2022
Test number: 3

SUMMARY OF PHYSICAL ERGONOMIC RISKS - ENGINEERING ASSISTANT- REFRIGERATION PLANT

JOB DEMANDS

Anthropometric Requirements

Body stature requirement > 1 640mm: Safe mounting and visual fields, MMH

Overall Physical Intensity of work

Moderate

Functional Job Requirement

Mobility Demands: Medium

Dexterity and dynamic posturing demand: Low

CLIENT

Anthropometric Risk

1.50m - At risk

Physical Work Capacity - Premature fatigue risk

At risk - premature fatigue

Functional Work Capacity

Functional Mobility

Climbing stairs (standard) - At risk

Dexterity and Dynamic posturing

Dexterity - Above head - No risk

Other Risks

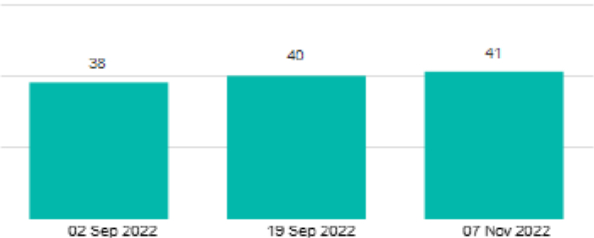
BMI 41.2 - High risk

Assessment Findings and Recommendations

Anthropometric Profile

Height: 1.50m
Weight: 92.70kg
BMI: 41.2
Waist circumference: 93.00cm
Hip circumference: 93.00cm
Waist/Hip ratio: 1

BMI Trends



Occupation

Engineering Assistant- Refrigeration Plant

Comment

Physical Intensity Rating

Moderate (29)

Height Requirement

1.64m

Height not within the required norm.

Informed Placement or Re-allocation

Job Placement Guidelines

Name	James Edward Bond
Employee Number	007007
Working Site	DMR
Recommended Job Category	Light

Overview

Placement in light type of work is recommended.

Exposure to the following is recommended (indicated with X)

General	Yes	No	Comment
Wet conditions		X	
Whole body vibration		X	
Heat	X		
Cold	X		
Production related work		X	
Special PPE	X		
Working at heights		X	
Prolonged standing		X	Some work tasks may be performed in a standing position; alteration of positions is however recommended.
Prolonged sitting	X		

Overall Mobility Requirements	Low	Medium	High
Level of exposure recommended	No exposure	Occasional exposure	Frequent exposure
Walking even surfaces		X	
Walking uneven surfaces		X	
Stair climbing		X	
Vertical ladders	X		
Mobility in confined spaces	X		

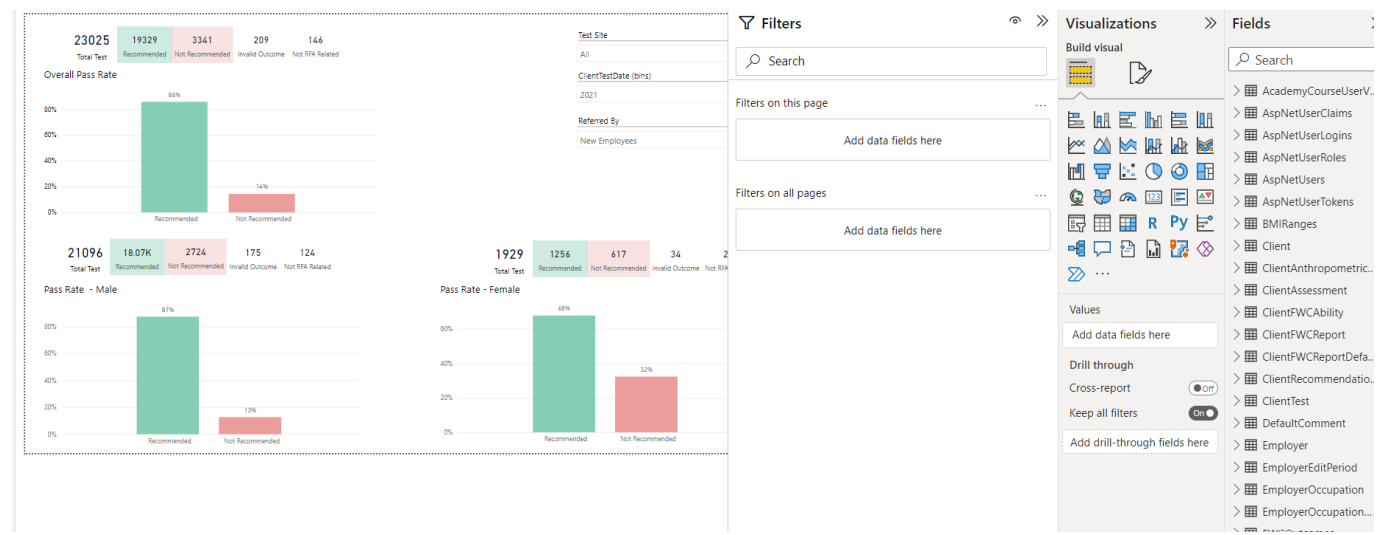
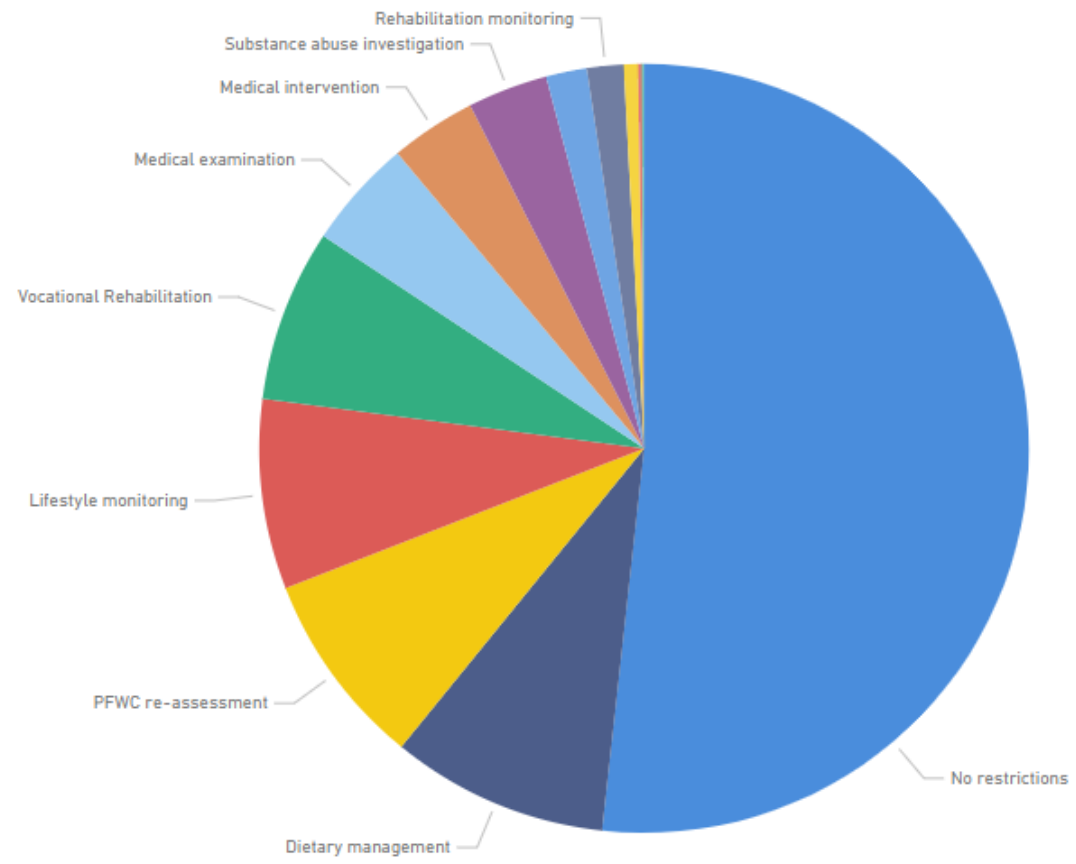
Comments

Overall mobility requirements should be low, with only occasional (<34% of a full work shift) exposure to stair climbing and walking on inclines recommended.

Overall Manual Material Handling Requirements	Low	Medium	High
Level of exposure recommended	No exposure	Occasional exposure	Frequent exposure
Opening and closing of valves			X
Handling loads - lifting / lowering		X	
Lashing		X	
Work with a spanner to loosen or to fasten nuts / bolts			X
Work with a hammer / impact tools			X
Load handling - restricted environments	X		
Operating arm / leg controls		X	

Overall Manual Material Handling Requirements	
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Job Risk Analysis linked to PFWC Assessment



Statistical reports on pass rates, intervention strategies to ensure safe return to work

Let's build wellness rather than treating disease

Dr Bruce Daggy



References

1. Archer E, Blair S. Physical activity and the prevention of cardiovascular disease: from evolution to epidemiology. Prog Cardiovasc. Dis. 2011; 53:387–396
2. Meyers J et al. Physical Activity and Cardiorespiratory Fitness as Major Makers of Cardiovascular Risk: Their Independent and Interwoven Importance to Health Status. Progress in Cardiovascular Disease: 57(2015) 306–314.
3. WHO 2020 guideline on physical activity and sedentary behaviour.