

Trans-Mar Services®

G L O B A L M A R I N E S U P P L I E S

CATALOGUE 2018



2702 17



YOU NAME IT, WE'VE GOT IT!

Introduction

The Company Trans – Mar Services Ltd was established 2006 in Varna with the main activity import, export and manufacturing of marine technical goods. We are a dynamic technical one stop wholesale company in maritime and industrial products. Every day we work hard to supply our customers in various trades with our products. The maritime industry is one of our most important target groups and ships do not wait! Flexibility and the ability to quickly anticipate situation are paramount. And this attitude proves helpful to all our customers: fast and accurate delivery, especially when it comes to the crunch.

As a stock-keeping marine wholesaler, we believe our prices, qualities and services are of utmost importance to our customers, and we will exert all efforts to meet your demands and needs, so as to establish a long term business relationship.

The Company has operated a quality management system since the end of 2008, and currently operates within the scopes of ISO 9001:2015



Our Mission

- To provide efficient cost – saving and quality services and facilities to our customers.
- To continuously review and improve our services and facilities with the best modern technology coast to satisfy our customer needs and expectations.
- To motivate our staff to achieve organizational objectives by providing training and management strategies.

Signal Bell, Cast Brass



IMPA 37-01-01, 200mm
 IMPA 37-01-02, 300mm
 IMPA 37-01-03, 400mm
 ISSA 49-012-11, 200mm
 ISSA 49-012-22, 300mm
 ISSA 49-012-33, 400mm

Signal Gong, Cast Brass



IMPA 37-01-0#, Dia.400mm
 IMPA 37-01-0#, Dia.460mm
 IMPA 37-01-0#, Dia.600mm
 ISSA 49-012-12, Dia.400mm

Fog Horn



IMPA 37-01-04
 ISSA 49-012-13

Radio Room Clock



IMPA 37-02-01
 ISSA 49-001-15
 • Brass case 200mm

Marine Clock



IMPA 37-02-04
 ISSA 49-001-10
 • Brass case 200mm

Marine Clock



IMPA 37-02-04
 ISSA 37-02-04
 • St.st.case 250mm

Marine World Time Clock



IMPA 37-02-05
 • Bass case 200mm

Desktop World Time Clock



IMPA 37-02-05
 • 22 selected world cities local time display
 • Time mode: Hour/Minute/Second/Alarm/Snooze
 • Calendar Mode: Y/M/D/D
 • Temp: Indoor °C/°F
 • Size 180x130x37mm
 • Power supply: 2 AA batteries

Quartz Chronometer



IMPA 37-02-07
ISSA 49-001-25
• 200x155x70mm

Stopwatch, Analogue



IMPA 37-02-12
ISSA 49-001-3#

Stopwatch, Digital



IMPA 37-02-13
ISSA 49-001-30

Digital Planimeter



IMPA 37-02-31
• Range: width 30cm
unlimited length
• Accuracy: better than
+/-0.2%
• Power: AC with adaptor
DC rechargeable 6V
• Size: 240x150x39mm
• Weight: 1.25kg

Clinometer, Dial Type



IMPA 37-02-41
ISSA 49-003-41
• Brass case 200mm
• 50-0-50 deg

Clinometer



IMPA 37-02-41
• Black Aluminium case
150mm
• 40-0-40 deg
• 24V DC illumination

Clinometer, Double Tube Type



IMPA 37-02-42
ISSA 49-003-42
• L6" x H3-3/4"
• 60-0-60 deg / 5-0-5
deg

Clinometer, Pendulous Type



IMPA 37-02-43
ISSA 49-003-43
• 45-0-45 deg
• Hand Length 145mm
• Plastic plate
• Hand Length

Clinometer, Pendulous Type



- IMPA 37-02-43W
ISSA 49-003-43W
- 45-0-45 deg
 - Hand Length 145mm
 - Wooden plate

Marine Aneroid Barometer



- IMPA 37-02-48
ISSA 49-005-48
- Range: 800-1060mBar
- Plastic case D140 x H110mm

Wet & Dry Hygrometer



- IMPA 37-02-51
ISSA 49-050-4#
- -10+50°C
 - Plastic 300 x 110mm
- Code NE-02-51W
- -30+50°C
 - Woden 270 x 75mm

Dial Thermo-Hygrometer



- IMPA 37-02-56
ISSA 61-216-01
- Bimetal thermometer 10+40°C
 - Hair hygrometer 0-100%RH
 - Plastic case dia.120mm

Whirling Hygrometer



- IMPA 37-02-61
ISSA 61-208-01
- Foldable type
 - -20+50°C
 - Red alcohol filled
 - L230xW50mm

Hair Hygrometer



- IMPA 37-02-66
ISSA 61-217-01
- Alcohol thermometer 20+50°C
 - Hair hygrometer 0-100%RH

Humidity & Temp. Meter



- IMPA 37-02-05Q
ISSA 49-050-47
- With separate sensor
 - Renge: humidity 0-100%RH temp 10+65°C
 - Accuracy: humidity 2.5%±1%RH, temp. +/-0.5°C
 - Resolution: 0.1
 - Power supply: 4x1.5V AA battery

Humidity & Temp. Meter



- IMPA 37-02-05D
- With build-in sensor
 - Range: humidity 0-100%RH temp 10+65°C
 - Accuracy: humidity 2.5%±1%RH, temp. +/-0.5°C
 - Resolution: 0.1
 - Power supply: 4x1.5V AA battery

Hand Anemometer



- IMPA 37-02-71
ISSA 49-050-31
- Wind speed: 0.4-30.0 m/s
1.4-62.0 km/h
80-8860 ft/min
0.8-88.0 knots
 - Temp: 0-60°C/32-140°F
 - Accuracy: +/-2% +2d
 - Resolution: 0.1
 - Power supply: 4x1.5V AA battery
 - Low battery indicator

Barograph



- IMPA 37-02-86D, for 1 day
IMPA 37-02-86W, for 7 days (week)
IMPA 37-02-87, Recording paper for 7 days
IMPA 37-02-88, Recording paper for 1 day
ISSA 49-050-2#

Hand Anemometer



- IMPA 37-02-##
ISSA 49-050-30
- Wind speed: 0.4-30.0 m/s
1.4-62.0 km/h
80-8860 ft/min
0.8-88.0 knots
 - Wind flow: 0.004-9999 m³/min
0.013-9999 ft³/min

- Wind scale: 0-12 level
- Wave height: 0-14 m
- Wind direction: 16 direction (resolution 22.5 deg)
- Temp: 0-60°C/32-140°F
- Accuracy: +/-2% +2d
- Resolution: 0.1
- Computer interface: Rs232C

- Memory: 24 groups
- Low battery indicator
- Auto-switch off
- Power supply: 4x1.5V AAA battery
- Optional accessories:
 1. cable & software for RS-232S interface
 2. AC adapter

Sounding Lead



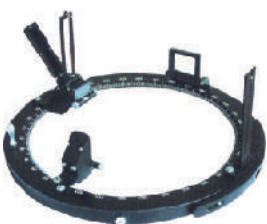
- IMPA 37-03-01, lead 3.5kg
IMPA 37-03-01R, lead 3.5kg with rope L46m, div.1m
IMPA 37-03-02, lead 12.7kg
IMPA 37-03-02R, lead 12.7kg with rope L230m, div.5m
ISSA 43-085-0#

Sounding Rod



- IMPA 37-03-10
- Square brass
 - 1 mtr in 8 fold

Azimuth Circle



- IMPA 37-03-2#
ISSA 49-100-35

Nautical Sextant



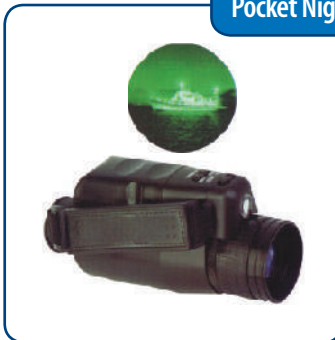
- IMPA 37-03-32
ISSA 49-100-20
- 3.5x40mm
 - With light

Binocular



IMPA 37-03-42, 7 x 50, CF
 IMPA 37-03-44, 7 x 50, IF, WP
 IMPA 37-03-45, 7 x 50, IF, WP
 with scale
 ISSA 49-100-01
 ISSA 49-100-02
 ISSA 49-100-03

Pocket Night Vision Scope



IMPA 37-03-46
 • Max observation distance: 100-120m
 (environmental illuminance: 0.01 Lux)
 • Magnification: 2x
 • Field of view: over 18 degree
 • Objective focal length: 50mm
 • Objective aperture: 40mm

- Focusing range: 0.5m to ∞
- Diopter regulating range: -4+4D
- Supply power: 2 x AA Batteries
- Overall size: 180x80x60mm
- Weight: 0.5kg
- IR lamp: build-in

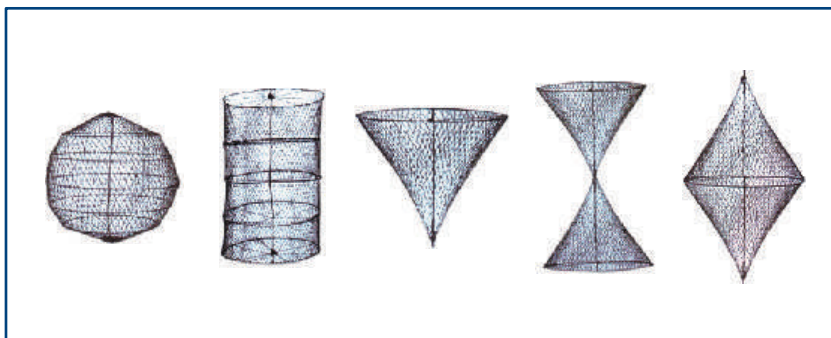
Pocket Night Vision Scope



IMPA 37-03-47
 • Max observation distance: 100-180m
 (environmental illuminance: 0.01 Lux)
 • Magnification: 3x
 • Field of view: over 12.5 degree
 • Objective focal length: 80mm
 • Objective aperture: 46mm

- Focusing range: 1m to ∞
- Diopter regulating range: -4+4D
- Supply power: 2 x AA Batteries
- Overall size: 200x90x60mm
- Weight: 0.65kg
- IR lamp: build-in
- Bright-light protection: automatic

Day Signal



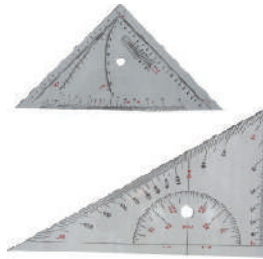
IMPA 37-05-81, dia.610mm, black ball
 IMPA 37-05-82, dia.610mm, black cylindrical shape
 IMPA 37-05-83, dia.610mm, black conical shape
 IMPA 37-05-84, dia.610mm, double conical shape
 IMPA 37-05-85, dia.610mm, diamond shape
 ISSA 49-011-11, dia.610mm, black ball
 ISSA 49-011-12, dia.610mm, black cylindrical shape
 ISSA 49-011-13, dia.610mm, black conical shape
 ISSA 49-011-14, dia.610mm, double conical shape
 ISSA 49-011-15, dia.610mm, diamond shape

Parallel Rule



IMPA 37-10-01, 450mm
 IMPA 37-10-02, 600mm
 ISSA 49-200-10
 ISSA 49-200-12

Nautical Triangle



IMPA 37-10-07
 • 360mm
 • 2pcs/set

Nautical Triangle



IMPA 37-10-08
 ISSA 49-200-25
 • 300mm

Chart Divider



IMPA 37-10-12, 170mm
 IMPA 37-10-13, 200mm
 ISSA 49-200-32, 170mm
 ISSA 49-200-33, 200mm
 Single hand tipe
 Code 37-10-12s, 170mm
 Code 37-10-13s, 200mm
 ISSA 49-200-32s, 170mm
 ISSA 49-200-33s, 200mm

Chart Room Compass



IMPA 33-471-01, 170 mm
 ISSA 33-471-01, multi-functional

Chart Weight



IMPA 37-37-10-21
 ISSA 49-200-60
 • St.steel 500 gm

Magnifying Glass



IMPA 37-10-26, 75mm, 5X
 IMPA 37-10-27, 90mm, 3X

Chart Brush



IMPA 37-10-31h

Illuminated Magnifier



IMPA 37-10-52, 110V
 IMPA 37-10-53, 220V
 ISSA 61-080-01

Illuminated Magnifier



IMPA 37-10-55, 110W
 IMPA 37-10-56, 220W

Flag Hook



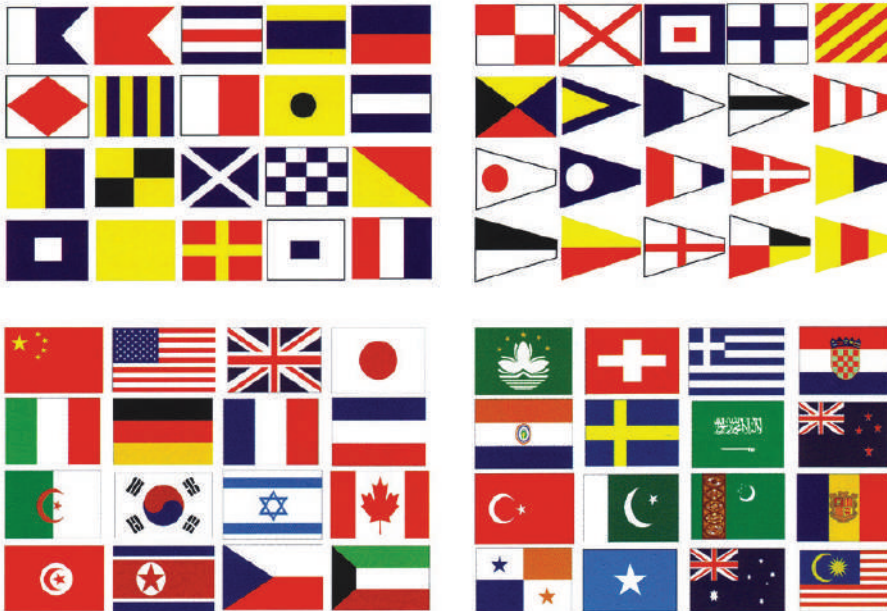
IMPA 37-15-81
 • Complete upper/lower
 • Brass case 200mm

Flag Block



IMPA 37-15-86, 25mm (1")
 IMPA 37-15-87, 38mm (1.5")
 IMPA 37-15-88, 50mm (2")

Flag



- Merchant Flag
- International Code of Signal
- Flags ICS
 - IMPA 37-15-##
 - ISSA 49013##
- National Flags
 - IMPA 37-12-##
 - 37-13-##
 - 37-14-##
 - ISSA 49-014-##

Magnetic Compass



- IMPA 37-25-51
ISSA 49-101-##
- Table type
 - Dia. 130mm, 165mm, 190mm
 - Range 0-360 x 1 deg

Magnetic Compass



- IMPA 37-25-##
ISSA 49-101-01
- Stand type
 - Dia. 165mm, 190mm
 - Range 0-360 x 1 deg

Magnetic Compass



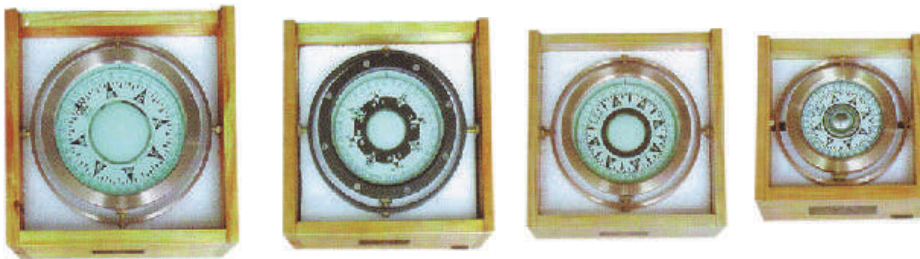
- IMPA 37-25-##
ISSA 49-101-##
- Projector type
 - Dia. 165mm
 - Range 0-360 x 1 deg

Lifeboat Compass



- IMPA 33-02-11/01, dia. 100mm
IMPA 33-02-11/02, dia. 90mm
IMPA 33-02-11/03, dia. 75mm
- Plastic compass in woden box
 - Built-in lighting or no lighting
 - Golden or black case

Lifeboat Compass



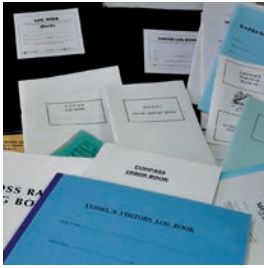
- IMPA 33-02-11/11, dia.150mm
IMPA 33-02-11/12, dia.130mm
IMPA 33-02-11/13, dia.100mm
IMPA 33-02-11/14, dia.75mm
- Bronze compass in wooden box
 - Built-in lighting or no lighting

Lifeboat Compass



- IMPA 33-02-11/21, dia.190mm
IMPA 33-02-11/22, dia.150mm
IMPA 33-02-11/23, dia.130mm
IMPA 33-02-11/24, dia.100mm
- Bronze compass with aluminium seat
 - Built-in lighting or no lighting

Log Books



IMPA 37-00-##
ISSA

Teleprinter Recording Paper



IMPA 37-26-9#
ISSA

Navtex Recording Paper



IMPA 37-27-0#
ISSA

Facsimile Recording Paper



IMPA 37-27-1#
ISSA

IMO Signs and Posters



IMPA 33-15-##
ISSA 47-510-##



Economical Gauge



ORDER OPTIONS:

- 1. Dia
- 2. Range and Accuracy
- 3. Connection
- 4. Thread
- 5. Qty

IMPA	65-15-11	65-15-12	65-15-13
ISSA	61 230 11	61 230 12	61 230 13
CASE	Black plastic	Black steel	St.St.304
BEZEL	None	None	None
WINDOW	Snap-in plexiglass	Snap-in plexiglass	Snap-in plexiglass
MOWEMENT	copper alloy	copper alloy	copper alloy
DIA.SIZE	1-1/2" (40mm), 2" (50mm), 2-1/2" (63mm)		
DIAL	White aluminium		
POINTER	Black aluminium		
RANGE	0+1, 0+1.6, 0+2.5, 0+4, 0+6, 0+10, 0+16, 0+25, 0+40, 0+60, Bar & Psi 0+100, 0+150, 0+250, 0+300, 0+400 Bar & Psi -1+0, -1+1.5, -1+2, -1+2.5, -1+3, -1+4, -1+6, -1+10, -1+16, -1+25 Bar & Psi other range in Kg/cm ² , Mpa is available		
ACCURACY	2.5%, 1.6% is also available		
CONNECTION	BM: Bottom connection BK: Central back connection		
SHANK	Square		
BRASS THREAD	1/8" BSP for dia.40mm 1/4" BSP for dia.50mm or dia.63mm		

Pressure Gauge

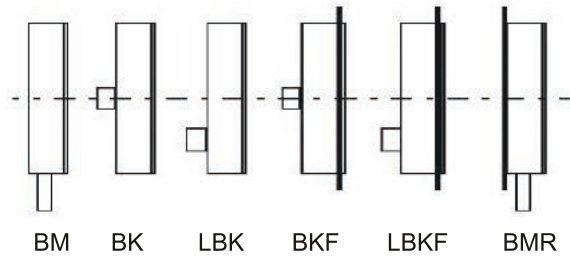


IMPA	65-15-21	65-15-21S	65-15-22	65-15-23
ISSA	61-230-21	61-230-21S	61-230-22	61-230-23
CASE	Black plastic	Black steel	St.St.304	St.St.304
BEZEL	None	None	None	Crimped St.St.304
WINDOW	Snap-in plexiglass	Snap-in plexiglass	Snap-in plexiglass	plexiglass
MOWEMENT	copper alloy	copper alloy	copper alloy	St.St.316
LIQUID FILLED	None	None	Glycerin fillable	Glycerine fillable
DIA.SIZE	1-1/2" (40mm), 2" (50mm)			
DIAL	White aluminium			
POINTER	Black aluminium			
RANGE	0+1, 0+1.6, 0+2.5, 0+4, 0+6, 0+10, 0+16, 0+25, 0+40, 0+60, Bar & Psi 0+100, 0+150, 0+250, 0+300, 0+400 Bar & Psi -1+0, -1+1.5, -1+2, -1+2.5, -1+3, -1+4, -1+6, -1+10, -1+16, -1+25 Bar & Psi other range in Kg/cm ² , Mpa is available			
ACCURACY	1.6%			
CONNECTION	BM: Bottom connection BK: Central back connection		BM: Bottom connection BK: Central back connection BKC: Central back connection with U-bracket channel BKU: Central back connection U-bracket	
SHANK	Square	Square	Hexagonal nut attached	Hexagonal nut attached
THREAD	1/8" BSP brass for 40mm 1/4" BSP brass for 50mm	1/8" BSP brass for 40mm 1/4" BSP brass for 50mm	1/8" BSP brass for 40mm 1/4" BSP brass for 50mm	1/8" BSP brass for 40mm 1/4" BSP brass for 50mm

ORDER OPTIONS:

1. Dry or filled
2. Dia
3. Range and Accuracy
4. Connection
5. Thread
6. Qty

Pressure Gauge

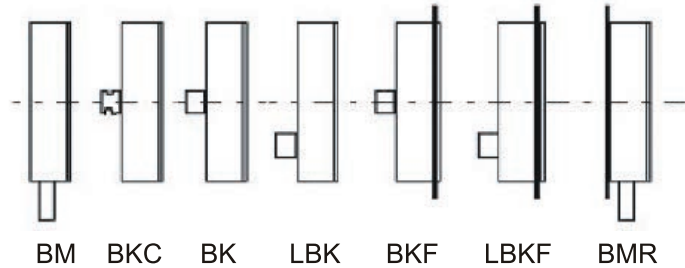


CODE	65-15-31	65-15-31S(only for dia.125mm, BK)
ISSA	61-230-31	61-230-31S
CASE	Black steel	St.St.304
BEZEL	Black steel	St.St.304
WINDOW	Glass	Glass
MOWEMENT	copper alloy	copper alloy
LIQUID FILLED	None	None
DIA.SIZE	2-1/2" (63mm), 3" (75mm), 4" (100mm), 6" (150mm)	
DIAL	White aluminium	
POINTER	Black aluminium	
RANGE	0+1, 0+1.6, 0+2.5, 0+4, 0+6, 0+10, 0+16, 0+25, 0+40, 0+60, Bar & Psi 0+100, 0+150, 0+250, 0+300, 0+400 Bar & Psi -1+0, -1+1.5, -1+2, -1+2.5, -1+3, -1+4, -1+6, -1+10, -1+16, -1+25 Bar & Psi other range in Kg/cm ² , Mpa is available	
ACCURACY	Usual 1.6%, 1% can also be available	
CONNECTION	BM: Bottom connection BMR: Bottom connection with Rear flange BMRO: Bottom connection with Rear Oval-Flange BK: Central back connection BKF: Central back connection with Front flange LBK: Lower back connection LBKF: Lower back connection with Front flange	
SHANK	Square	
BRASS THREAD	1/4" BSP, 3/8" BSP, 1/2" BSP or other	

ORDER OPTIONS:

1. Dia
2. Range and Accuracy
3. Connection
4. Thread
5. Qty

Pressure Gauge

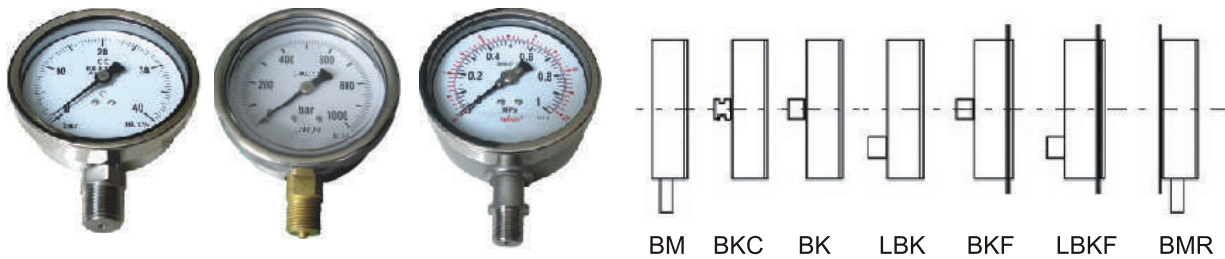


IMPA	65-15-32	65-15-33
ISSA	61-230-32	61-230-33
CASE	St.St. 304	St.St. 304
BEZEL	Crimped ss304	Crimped ss304
WINDOW	Plexiglass	Plexiglass
MOWEMENT	copper alloy	St.St. 316
LIQUID FILLED	Glycerine fillable	Glycerine fillable
DIA.SIZE	2-1/2" (63mm), 3" (75mm), 4" (100mm), 6" (150mm)	
DIAL	White aluminium	
POINTER	Black aluminium	
RANGE	0+1, 0+1.6, 0+2.5, 0+4, 0+6, 0+10, 0+16, 0+25, 0+40, 0+60, Bar & Psi 0+100, 0+150, 0+250, 0+300, 0+400, 0+600, 0+800, 0+1000 Bar & Psi -1+0, -1+1.5, -1+2, -1+2.5, -1+3, -1+4, -1+6, -1+10, -1+16, -1+25 Bar & Psi other range in Kg/cm ² , Mpa is available	
ACCURACY	Usual 1.6%, 1% can also be available	
CONNECTION	BMR: Bottom connection with Rear flange BMRO: Bottom connection with Rear Oval-Flange BK: Central back connection BKF: Central back connection with Front flange BKC: Central back connection with U-bracket channel BKU: Central back connection w LBK: Lower back connection LBKF: Lower back connection with Front flange	
SHANK	Hexagonal Nut Attached	Hexagonal Nut Attached
BRASS THREAD	1/4", 3/8", 1/2" BSP or other in brass	1/4", 3/8", 1/2" BSP or other in st.st.304

ORDER OPTIONS:

1. Dry or filled
2. Dia
3. Range and Accuracy
4. Connection
5. Thread
6. Optional
7. Qty

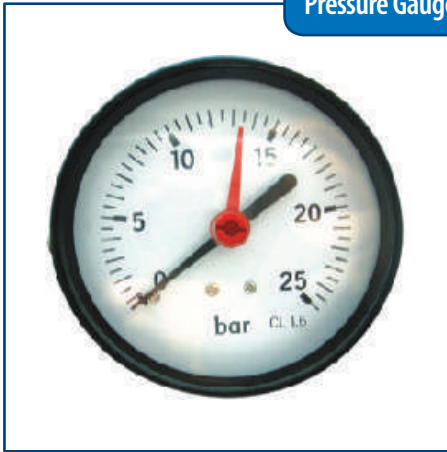
Pressure Gauge



IMPA	65-15-34	65-15-34R	65-15-35	65-15-35R
ISSA	61-230-34	61-230-34R	61-230-35	61-230-35R
CASE	St.St.304	St.St.304	St.St.304	St.St.304
BEZEL	Bayonet ss304	Bayonet ss304	Bayonet ss304	Bayonet ss304
WINDOW	Plexiglass	Plexiglass	Plexiglass	Plexiglass
MOWEMENT	copper alloy	copper alloy	St.St.316	St.St.316
LIQUID FILLED	Glycerine fillable	Glycerine fillable	Glycerine fillable	Glycerine fillable
DIA.SIZE	2-1/2" (63mm), 3" (75mm), 4" (100mm), 6" (150mm)			
DIAL	White aluminium			
POINTER	Black aluminium			
RANGE	0+1, 0+1.6, 0+2.5, 0+4, 0+6, 0+10, 0+16, 0+25, 0+40, 0+60, Bar & Psi 0+100, 0+150, 0+250, 0+300, 0+400, 0+600, 0+800, 0+1000 Bar & Psi -1+0, -1+1.5, -1+2, -1+2.5, -1+3, -1+4, -1+6, -1+10, -1+16, -1+25 Bar & Psi other range in Kg/cm ² , Mpa is available			
ACCURACY	Usual 1.6%, 1% can also be available			
CONNECTION	BM: Bottom connection BMR: Bottom connection with Rear flange BMRO: Bottom connection with Rear Oval-Flange BK: Central back connection BKF: Central back connection with Front flange BKC: Central back connection with U-bracket channel BKU: Central back connection w LBK: Lower back connection LBKF: Lower back connection with Front flange			
SHANK	Hexagonal Nut Attached	Round Cornered	Hexagonal Nut Attached	Round Cornered Case & Shank is welded
BRASS THREAD	1/4", 3/8", 1/2" BSP or other in brass	1/4", 3/8", 1/2" BSP or other in brass	1/4", 3/8", 1/2" BSP or other in st.st.304	1/4", 3/8", 1/2" BSP or other in st.st.304
OPTIONAL	Adjustable pointer Securit glass Disk blow-out back			

- ORDER OPTIONS:
1. Dry or filled
 2. Dia
 3. Range and Accuracy
 4. Connection
 5. Thread
 6. Optional
 7. Qty

Pressure Gauge



ORDER OPTIONS:

1. Dia
2. Range and Accuracy
3. Connection
4. Thread
5. Qty

IMPA	65-15-31-W
ISSA	61-230-31
CASE	Black Steel
BEZEL	Black Steel
WINDOW	Plexiglass with adjustable red plastic pointer on window
MOWEMENT	copper alloy
DIAL SIZE	80 mm, or other dia is available
DIAL	White aluminium
POINTER	Black aluminium
RANGE	0+1, 0+1.6, 0+2.5, 0+4, 0+6, 0+10, 0+16, 0+25, 0+40, 0+60, Bar & Psi 0+100, 0+150, 0+250, 0+300, 0+400, 0+600 Bar & Psi -1+0, -1+1.5, -1+2, -1+2.5, -1+3, -1+4, -1+6, -1+10, -1+16, -1+25 Bar other range in Psi, Kg/cm ² , Mpa is available
ACCURACY	1.6%
CONNECTION	BM: Bottom connection BK: Central back connection
SHANK	Square
BRASS THREAD	1/4" BSP, 3/8" BSP, 1/2" BSP in brass

USE-NO-OIL Gauge

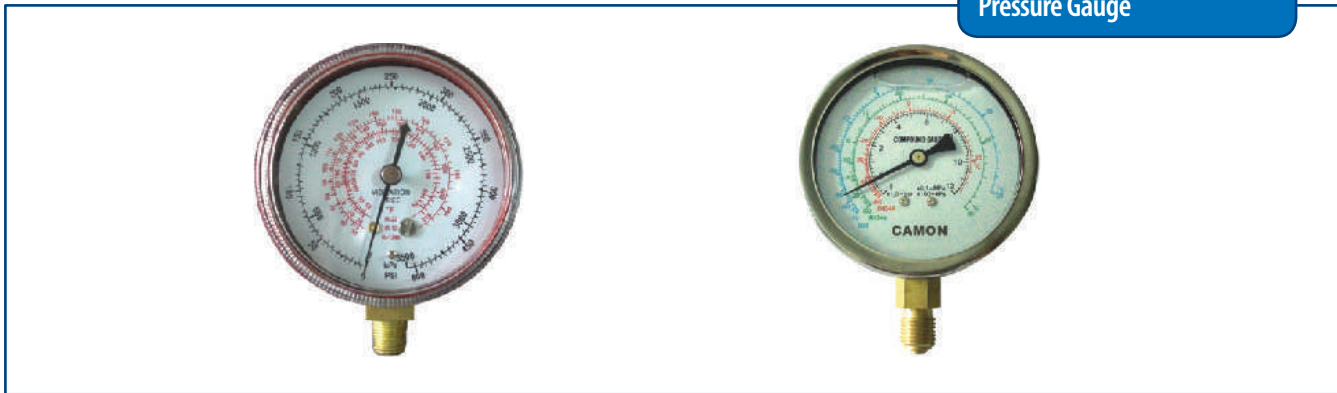


ORDER OPTIONS:

1. Dia
2. Range and Accuracy
3. Connection
4. Thread
5. Qty

IMPA	65-15-32-N
ISSA	61-230-32
CASE	St.St. 304
BEZEL	Cromped St.St. 304
WINDOW	Plexiglass
MOWEMENT	copper alloy
DIAL SIZE	2-1/2" (63mm)
DIAL	White aluminium
POINTER	Black aluminium
RANGE	0-3.5, 35, 250, 400 Bar/Psi
ACCURACY	1.6%
CONNECTION	BM: Bottom connection BMR: Bottom connection with Rear flange
SHANK	Hexagonal Nut attached
BRASS THREAD	1/4" BSP

Pressure Gauge



IMPA	65-15-41	65-15-42	65-15-34
ISSA	61-230-41	61-230-42	61-230-34
CASE	Plastic or steel in red or blue	Black steel	St.St. 304
BEZEL	none	Black steel	Cromped St.St.304
WINDOW	Screw window	Plexiglass	Plexiglass
MOWEMENT	copper alloy	copper alloy	copper alloy
LIQUID FILLED	None	None	Glycerine fillable
DIA.SIZE	2-3/4" (70mm)	2-1/2" (63mm), 3" (75mm), 4" (100mm)	
DIAL	White aluminium		
POINTER	Black aluminium		
RANGE	-30" Hg-0+120Psi, 250Psi, 500Psi // °C -1+12Bar, 15Bar, 25Bar, 30Bar // °C other range is available		
REFRIGERANT	R12, R22, R502, R134a, R404a, R507, R401a, R401b, R402a, R402b, R407C		
ACCURACY	1,6%		
CONNECTION	BM: Bottom connection	BM: Bottom connection BMR: Bottom connection with Rear flange BK: Central back connection BKF: Central back connection with Front flange	
SHANK	Square	Square	Hexagonal Nut Attached
BRASS THREAD	1/8" NPT in brass	1/4" BSP, 7/16" SAE or their in brass	1/4" BSP, 7/16" SAE or their in brass

ORDER OPTIONS:

1. Dry or filled
2. Dia
3. Range and Accuracy
4. Connection
5. Thread
6. Optional
7. Qty

IMPA	65-15-01	65-15-02	65-15-03
ISSA	61-230-01	61-230-02	61-230-03
CASE	St.St.304	St.St.304	St.St.304
BEZEL	None	bayonet st. st. 304	bayonet st. st. 304
WINDOW	Snap-in plexiglass	Glass	Glass
CAPSULE	copper alloy	copper alloy	St.St.316
MOWE-MENT	copper alloy	copper alloy	St.St.316
DIA.SIZE	63mm	75, 100, 150mm	75, 100, 150mm
DIAL	White aluminium		
POINTER	Black aluminium		
RANGE	0+25, 0+40, 0+60, 0+100, 0+160, 0+250, 0+400, 0+600, mbar & mmH ₂ O -25+0, -10+0, -60+0, -100+0, -160+0, -250+0, -400+0, -600+0 mbar & mmH ₂ O -12+12, -20+20, -30+30, -50+50, -80+80, -120+120, -200+200, -300+300 mbar & mmH ₂ O other range is available		
ACCURACY	1.6%		
CONNECTION	BM: Bottom connection BMR: Bottom connection with Rear flange BK: Central back connection		
SHANK	Round		
THREAD	1/4" BSP in brass	3/8" or 1/2" BSP in brass	3/8" or 1/2" BSP in st.st.

Capsule Gauge



ORDER OPTIONS:

1. Cod
2. Dia
3. Range and Accuracy
4. Connection
5. Thread
6. Qty

Sanitary Gauge With Diaphragm Seal



IMPA	65-15-05	65-15-06	65-15-07
ISSA	61-230-05	61-230-06	61-230-07
PRESSUR GAUGE	Dia.63,BM,1/4" BSP Dia.100,BM,1/4" BSP	Dia.100,BM,1/2" BSP	Dia.100, BM
DIAPHRAGM	SS316L, welded	SS316, welded	SS316L, welded
PROCESS CONNECTION	1-1/2" clamp in SS316 or 2" clamp in SS316	DIN 11851 in SS316	SA 335 in SS316
ACCURACY	1.6%	1.6%	1.6%

- ORDER: 1. Code
2. Pressure gauge
3. Process connection
4. Quantity

V-THERMOMETER



- **V-BODY:** Aluminium Die Casting, Gold Anodised, Grey is also available as requested
- **POCKET STEM:** Body length 110, 150 or 200mm with width 35mm
Machined (from sold bar) for stem length up to 100mm
Welded for stem length over 100mm
Steel with Chrom-plated
Brass
Stainless steel 304
Stem dia.10mm
- **CONNECTION:** Fixed Hexagon with thread 3/8" BSP, 1/2" BSP or other
Plug-in with thread 3/8" BSP, 1/2" BSP can also be available
- **GLASS INSERT:** Triangle (round) glass with white back when range is up to 200°C
Transparent and round glass when range is over 200°C
- **SCALE LINES:** Graduation printed on the glass when range is up to 200°C
Graduation etched on the glass when range is over 200°C
Corresponding figures printed on V-body
- **TEMP RANGE:** Usually temp range °C scale
F scale or °C+°F scales can also be available
- **LIQUIDE-FILLED:** Blue (red) alcohol when range up to 200°C
Mercury when range over 200°C
- **ACCURACY:** +/- division scale
- **THERMOWELL:** Optional order
- **ITEM NO:** The most popular combination is represented in below table
- **ORDER OPTION:**
 1. Item no.
 2. Thread
 3. material
 4. Qti

V-BODY LENGTH 110MM

* Straight type: IMPA 65 19 ## | ISSA 61 100 ## | ISSA 61 101 ##

* Angle Type: IMPA 65-20-## | ISSA 61-100-##

RANGE °C	STRAIGHT TYPE (174B)				90 ANGLE TYPE (175A)			
	IMMERSION LENGTH				IMMERSION LENGTH			
	30MM	40MM	63MM	100MM	30MM	40MM	63MM	100MM
-60+40	11S3/64	11S4/64	11S6/64	11S10/64	11A3/64	11A4/64	11A6/64	11A10/64
-30+50	11S3/35	11S4/35	11S6/35	11S10/35	11A3/35	11A4/35	11A6/35	11A10/35
0-50	11S3/05	11S4/05	11S6/05	11S10/05	11A3/05	11A4/05	11A6/05	11A10/05
0-100	11S3/10	11S4/10	11S6/10	11S10/10	11A3/10	11A4/10	11A6/10	11A10/10
0-120	11S3/12	11S4/12	11S6/12	11S10/12	11A3/12	11A4/12	11A6/12	11A10/12
0-160	11S3/16	11S4/16	11S6/16	11S10/16	11A3/16	11A4/16	11A6/16	11A10/16

* Spare glasses for thermometers

V-BODY LENGTH 150MM

- * Straight type: IMPA 65-22-##
- * Angle Type: IMPA 65-23-##
- * -60+40 - 0-160: ISSA 61-100-##
- * 0-200 - 0-600: ISSA 61-101-##

RANGE °C	STRAIGHT TYPE (191B)				90 ANGLE TYPE (175A)			
	IMMERSION LENGTH				IMMERSION LENGTH			
	63MM	100MM	160MM	200MM	63MM	100MM	160MM	200MM
-60+40	15S6/64	15S10/64	15S16/64	15S20/64	15A6/64	15A10/64	15A16/64	15A20/64
-30+50	15S6/35	15S10/35	15S16/35	15S20/35	15A6/35	15A10/35	15A16/35	15A20/35
0-50	15S6/05	15S10/05	15S16/05	15S20/05	15A6/05	15A10/05	15A16/05	15A20/05
0-100	15S6/10	15S10/10	15S16/10	15S20/10	15A6/10	15A10/10	15A16/10	15A20/10
0-120	15S6/12	15S10/12	15S16/12	15S20/12	15A6/12	15A10/12	15A16/12	15A20/12
0-160	15S6/16	15S10/16	15S16/16	15S20/16	15A6/16	15A10/16	15A16/16	15A20/16
0-200	15S6/20	15S10/20	15S16/20	15S20/20	15A6/20	15A10/20	15A16/20	15A20/20
0-600	15S6/60	15S10/60	15S16/60	15S20/60	15A6/60	15A10/60	15A16/60	15A20/60

V-BODY LENGTH 200MM

- * Straight type: IMPA 65-19-##
- * Angle Type: IMPA 65-20-##
- * -60+40 - 0-160: ISSA 61-100-##
- * 0-200 - 0-600: ISSA 61-101-##

RANGE °C	STRAIGHT TYPE (191B)				90 ANGLE TYPE (175A)			
	IMMERSION LENGTH				IMMERSION LENGTH			
	63MM	100MM	160MM	200MM	63MM	100MM	160MM	200MM
-60+40	20S6/64	20S10/64	20S16/64	20S20/64	20A6/64	20A10/64	20A16/64	20A20/64
-30+50	20S6/35	20S10/35	20S16/35	20S20/35	20A6/35	20A10/35	20A16/35	20A20/35
0-50	20S6/05	20S10/05	20S16/05	20S20/05	20A6/05	20A10/05	20A16/05	20A20/05
0-100	20S6/10	20S10/10	20S16/10	20S20/10	20A6/10	20A10/10	20A16/10	20A20/10
0-120	20S6/12	20S10/12	20S16/12	20S20/12	20A6/12	20A10/12	20A16/12	20A20/12
0-160	20S6/16	20S10/16	20S16/16	20S20/16	20A6/16	20A10/16	20A16/16	20A20/16
0-200	20S6/20	20S10/20	20S16/20	20S20/20	20A6/20	20A10/20	20A16/20	20A20/20
0-300	20S6/30	20S10/30	20S16/30	20S20/30	20A6/30	20A10/30	20A16/30	20A20/30
0-400	20S6/40	20S10/40	20S16/40	20S20/40	20A6/40	20A10/40	20A16/40	20A20/40
0-500	20S6/50	20S10/50	20S16/50	20S20/50	20A6/50	20A10/50	20A16/50	20A20/50
0-600	20S6/60	20S10/60	20S16/60	20S20/60	20A6/60	20A10/60	20A16/60	20A20/60



IMPA	65-25-11	65-25-12	65-25-13	65-25-14	65-25-15
ISSA	61-126-11	61-126-12	61-126-13	61-126-14	61-126-15
CASE SIZE	115mm	115mm	100mm	115mm	100mm
CASE	Black aluminium	St.St.304	St.St.304	St.St.304	St.St.304
BEZEL	Black aluminium	Bayonet SS304	Bayonet SS304	Bayonet SS304	Bayonet SS304
STEM TYPE	Plain stem	Plain stem	Plain stem	Anti-vibration stem	Anti-vibration stem
LIQUID FILLED	Silicone oil filled				
WINDOW	Glass				
DIAL	White aluminium				
POINTER	Black aluminium				
RANGE	50-650°C and/or °F Other range is also available				
ACCURACY	1.5 grade				
STEM UPPER & IMMERSION	L50 x D18 mm	L50 x D18 mm	L50 x D18 mm	L140 x D25 mm	L140 x D25 mm
THREAD	1/2" BSP or 3/4" BSP Sliding union in St.St.304				
CONNECTION	Bottom connection Central or Lower Back connection				

ORDER OPTIONS:

1. Code
2. Range
3. Immersion Length & Dia
4. Thread
5. Connection
6. Quantity

Remote-Reading Thermometer



IMPA	65-25-21	65-25-22	65-25-23	65-25-24
ISSA	61-129-21	61-129-22	61-129-23	61-129-24
CASE SIZE	2.5" (63mm)	3" (75mm)	4" (100mm)	6" (150mm)
CASE	St.St.304			
BEZEL	Bayonet SS304			
WINDOW	Glass			
MOVEMENT	St.St.316			
LIQUID FILLED	Silicone oil filled			
DIAL	White aluminium			
POINTER	Black aluminium			
RANGE	-40+60, -20+60, 0+100, 0+120, 0+150, 0+200, 0+250, 0+300, 0+400, 0+500, 50+650°C and/or °F Other range can also be available			
ACCURACY	1.5 grade			
CAPILLARY	St.St.304, with SS304 corrugated protective tube Length 3m, 5m, 7m, 10m Other length can also be available (Max. 10m)			
SENSING BULB	St.St.304 Length 120, 150 or 200mm with dia 10mm or 12mm			
THREAD	1/2" BSP or 3/4" BSP Sliding union in St.St.304			
CONNECTION	BMR: Bottom connection with rear flange BFK: Central Back connection with front flange			

ORDER OPTIONS:

1. Code
2. Dry or filled
3. Range
4. Capillary length
5. Sensing bulb length x dia
6. Thread
7. Connection
8. Quantity

Infrared Thermometer



IMPA	65-18-01	65-18-02	65-18-03	65-18-04
ISSA				
TEMP RANGE	-50+330 -58+626	-50+450°C -58+842°F	-50+1250°C -58+2282°F	-50+1500°C -58+2732°F
DISTANCE SPOT RATIO	8:1	12:1	30:1	50:1
ACCURACY	+/-1.5% or +/-1.5°C		+/-1.5% or +/-1.5°C	
EMISSION	0.95		0.10 to 1.00 adjustable	
RESOLUTION	0.1°C or 0.1F(<1000°C) 1°C or 1F(>1000°C)		0.1C or 0.1F(<1000°C) 1C or 1F(>1000°C)	
RESPONSE TIME & WAVE LENGTH	500 ms 8 to 14 um		500 ms 8 to 14 um	
REPEATIVITY	+/-1% or +/-1°C		+/-1% or +/-1°C	
AVERAGE & DIFF. FUNCTION	yes	not	yes	yes
MAX/MIN FUNCTION	yes	not	yes	yes
HIGHT/LOW TEMP ALARM SETUP	yes	not	yes	yes
DATA STROE/RECALL FUNCTION	yes	yes	yes	yes
C/F SELECTION	yes	yes	yes	yes
DATA HOLD FUNCTION	yes	yes	yes	yes
LASER TARGET POINTER SELECTION	yes	yes	yes	yes
BACKLIGHT DISPLAY SELECTION	yes	yes	yes	yes
AUTO POWER SHUT OFF	yes	yes	yes	yes
LOW BATTERY INDICATION	yes	yes	yes	yes
POWER	9V alkaline battery		9V alkaline battery	
PRODUCT NET WEIGHT	210G		277G	
PRODUCT SIZE	175x100x49mm		220x134x60mm	
PACKING	Gift box		Gift box	
STANDART QTY PER CARTON	20		12	
STANDART CARTON SIZE	20 63x45x29cm		53x46x34cm	
STANDART CARTON G/WEIGHT	14.7kg		10.1kg	

Cabin Thermometer



- IMPA 65-17-01, -30+50°C / °F, Wooden 250 x 42mm
 IMPA 65-17-02, -40+50°C / °F, Wooden 400 x 74mm
 IMPA 65-17-03, -40+50°C / °F, Plastic 406 x 65mm
 IMPA 65-17-04, -30+50°C / °F, Plastic 200 x 42mm

Max & Min Thermometer



- IMPA 65-17-06
 ISSA 49 050 36
 • Range -20+50°C
 • Plastic 230 x 65mm
 • Push button reset

Seawater Thermometer



- Coper cased, 300x40x-38mm
 • IMPA 65-17-10, -30+50°C
 • IMPA 65-17-11, -5+110°C
 Coper cased, 300x40x-38mm
 • IMPA 65-17-10P, -30+50°C
 • IMPA 65-17-11P, -5+110°C

Refrigerator Thermometer



- IMPA 65-17-15
 • St.St. tube cased w/ring, -30+50°C, L320mm
 IMPA 65-17-16
 • St.St. Dial 63mm, -50+50°C backing with 3 magnets
 IMPA 65-17-17
 • -35+45°C / °F, wooden 275x30mm

- IMPA 65-17-17P
 • -40+40°C, plastic 155x25mm
 IMPA 65-17-18P
 • -30+30°C, Plastic dial 50mm
 IMPA 65-17-18S
 • -30+30°C/F, St.St.dia. 50mm

Meat Thermometer, Dial type



- IMPA 65-17-20, -50+50°C
 • Dial 63mm
 • Stem L230 x D6mm
 IMPA 65-17-20C, -60+87°C/°F
 • Dial 5000000000mm
 • Stem L110 x D6mm

Oven Thermometer



- IMPA 65-17-21
 ISSA 25 343 20
 • 50-300°C/°F
 • St.St. Dia.50mm

Meat Thermometer, Digital



- IMPA 65-17-22
- IMPA 65-17-22-T
- IMPA 65-17-22-O, 1" dial
- -50+200°C/°F, Probe 150mm

Test Thermometers, In Brass Case



- Test thermometer, In Brass Case
- IMPA 65-17-23, 0-500°C, L320mm
 - IMPA 65-17-24, 0-500°C, L470mm
 - IMPA 65-17-25, 0-100°C, L320mm
 - IMPA 65-17-26, 32-212°C, L320mm

- Spare Glass Thermometer
- IMPA 65-17-29, 0-500°C, L300mm
 - IMPA 65-17-30, 0-500°C, L450mm
 - IMPA 65-17-27, 0-100°C, L300mm
 - IMPA 65-17-28, 32-212°C, L300mm

Pocket Test Thermometers



- IMPA 65-17-32
- -20+50°C, 150mm
- Plastic case with st.st. clip

Pocket Bimetal Dial Thermometers



- IMPA 65-17-35, -30+50°C
- IMPA 65-17-36, 0+100°C
- IMPA 65-17-37, 0+150°C
- IMPA 65-17-38, 0+200°C
- Dia.1" (25mm)
- Stem L125 x D3.8mm

Tank Thermometers
In Metal Case With Sampler, L265mm



- IMPA 65-17-42, -10+100°C/°F, in chrom-brass case
- IMPA 65-17-43, -10+100°C/°F, in st.st. case
- IMPA 65-17-44, -10+100°C/°F, only glass insert
- IMPA 65-17-45, -30+50°C/°F, in chrom-brass case
- IMPA 65-17-46, -30+50°C/°F, in st.st.case
- IMPA 65-17-47, -30+50°C/°F, only glass insert

Tank Thermometers
In Metal Case With Wooden Handle 450x52x30mm



- IMPA 65-17-42W, -10+100°C/°F, in brass case
- IMPA 65-17-43W, -10+100°C/°F, in st.st. case
- IMPA 65-17-44W, -10+100°C/°F, only glass insert
- IMPA 65-17-45W, -30+50°C/°F, in brass case
- IMPA 65-17-46W, -30+50°C/°F, in st.st. case
- IMPA 65-17-47W, -30+50°C/°F, only glass insert

Digital Thermometer



- IMPA 65-17-52
- With thermo-couple K type TP - 2
 - -50+1300°C/-58+2372°F
 - Data Hold: max/min value
 - Resolution: 0.1/1
 - Accuracy: +/- (0.3% n +1)°C
 - Battery: 4x1.5V AA battery

Optional thermo-couple K type

- TP-03, Flexible thermo-couple, -50+800°C, L500 x D4mm
- TP-04, Flexible thermo-couple, -50+1000°C, L500 x D6mm
- TP-202, Surface thermo-couple, -50+800°C, L80 x D3mm

Stevenson Screen



- IMPA 65-17-81
- Size 330x230x130mm

Milk Thermometer



- IMPA 65-17-82P
- -10+120°C, in plastic cage
- IMPA 65-17-82M
- 80+220°C, in metal wire cage

Thermometer For Pipe Surface

Bimetal Dial Type, Dia.63mm, St.St.case



- IMPA 65-17-83-S1, 0-60°C, Brass stem L12 x D15mm with spring
- IMPA 65-17-83-S2, 0-120°C, Brass stem L12 x D15mm with spring
- IMPA 65-17-84-M1, 0-60°C, with 3 magnets
- IMPA 65-17-84-M1, 0-120°C, with 3 magnets

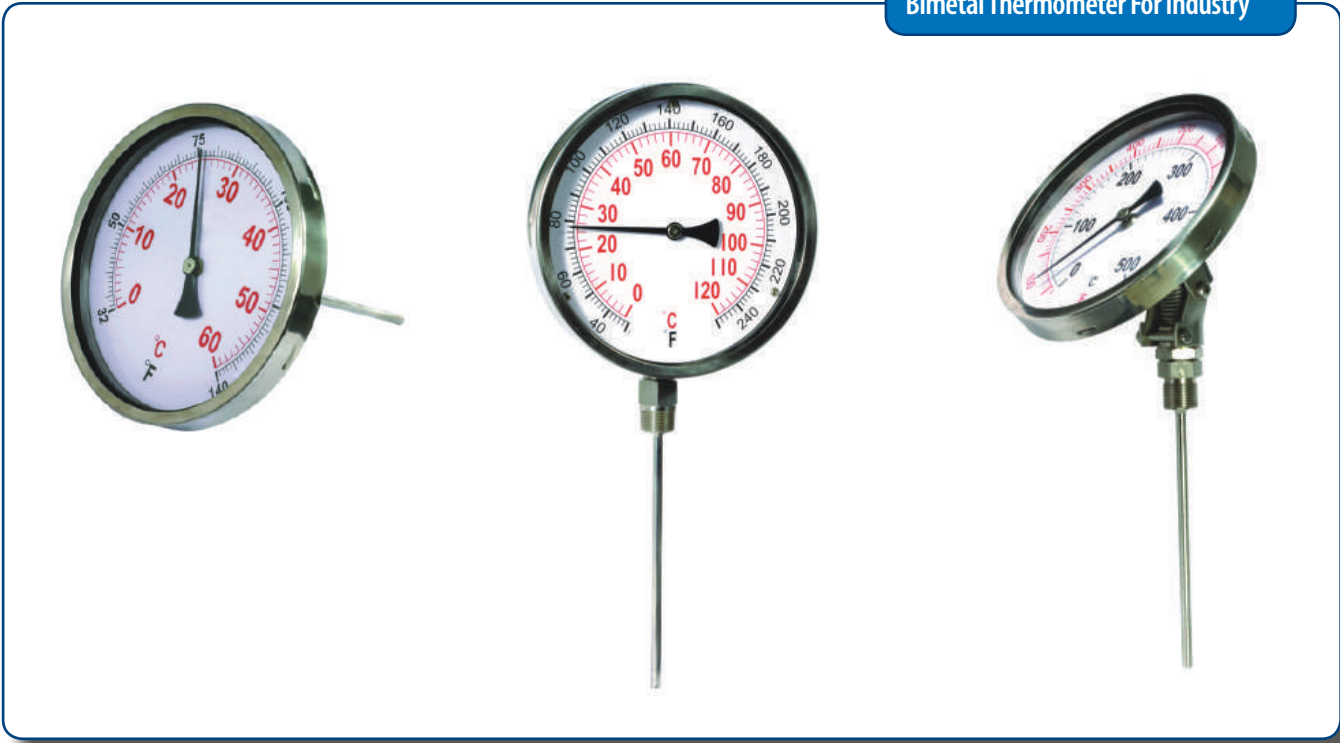
in-out/max-min Thermometer/hygrometer/clock/weather Forecast



- IMPA 65-17-85
- Date Display (Year/Month/Date/Week), auto adjust week
 - Clock with chime & alarm function, 12/24 hour format
 - Alarm with snooze function (repeat 4 times)
 - Temp: Outdoor -50+70°C / -58+158°F
 - Indoor -10+60°C / 14-140°F
 - Humidity: 20% -99%RH

- Accuracy: $\pm 1^\circ\text{C}$; $\pm 5\%$
- Display resolving: 0.1°C, 1%RH
- Temperature and humidity alarm
- Max/Min Temp & Humidity Records
- Power supply: 1.5V AA battery

Bimetal Thermometer For Industry



IMPA	65-17-35	65-17-36
CASE	Black steel, or chrome-steel	st.st.
BEZEL	Black steel, or chrome-steel	Crimped st.st.
WINDOW	Glass	Glass
DIA.SIZE	2-1/2" (63mm), 3" (75mm), 4" (100mm)	
DIAL	White aluminium	
POINTER	Black aluminium	
RANGE	-30+50, 0-60, 0-120°C and/or °F	
ACCURACY	1.5%	
CONNECTION	BM: Bottom connection BK: Back connection	
STEM	Plain stem dia.6mm, in brass	Plain stem dia.6mm, in brass
THERMO-WELL	L50, 75, 100mm with dia.8 or 10mm 1/2", 3/8" BSP with fixed screw in brass	L50, 75, 100mm with dia.8 or 10mm 1/2", 3/8" BSP with fixed screw in brass

ORDER OPTIONS:

1. Code
2. Dial size
3. Range
4. Connection
5. Stem length x Dia.
6. Thermo-well length x Dia.,
thread
7. Qty

Bimetal Thermometer For HVAC

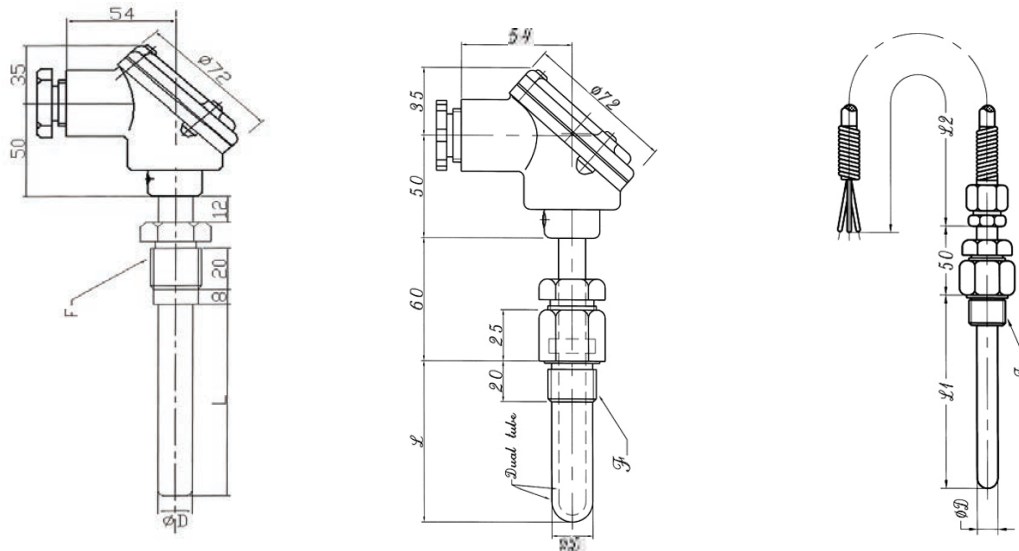


IMPA	65-25-35	65-25-36
CASE	Black steel, or chrome-steel	st.st.
BEZEL	Black steel, or chrome-steel	Crimped st.st.
WINDOW	Glass	Glass
DIA.SIZE	2-1/2" (63mm), 3" (75mm), 4" (100mm)	
DIAL	White aluminium	
POINTER	Black aluminium	
RANGE	-30+50, 0-60, 0-120°C and/or °F	
ACCURACY	1.5%	
CONNECTION	BM: Bottom connection BK: Back connection	
STEM	Plain stem dia.6mm, in brass	Plain stem dia.6mm, in brass
THERMO-WELL	L50, 75, 100mm with dia.8 or 10mm 1/2", 3/8" BSP with fixed screw in brass	L50, 75, 100mm with dia.8 or 10mm 1/2", 3/8" BSP with fixed screw in brass

ORDER OPTIONS:

1. Code
2. Dial size
3. Range
4. Connection
5. Stem length x Dia.
6. Thermo-well length x Dia.,
thread
7. Qty

Thermal Resistance Pt-100



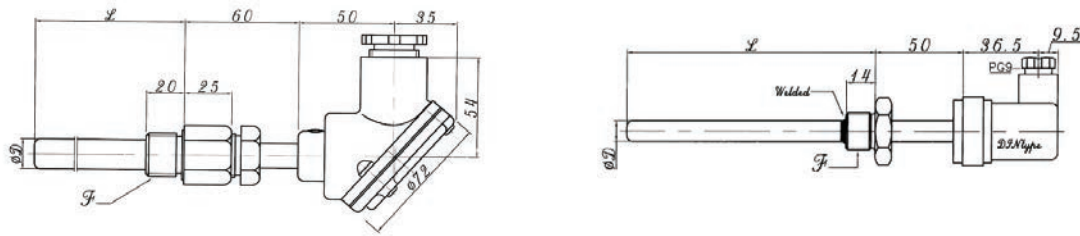
USAGE: FOR DIESEL EXHAUST SYSTEM

CODE	MT-25-71	MT-25-71D	MT-25-71C
JAPAN MODEL	PTR-S	PTR-SD	PTR-SC
DESCRIPTION	Pt100 with Junction box & single stem	Pt100 with Junction box & single stem and thermowell	Pt100 with cable & single stem
RANGE	0-650°C	0-650°C	0-650°C
STEM SIZE	L100, 120, 150 or 200mm Dia.12 or 15mm	L100, 120, 150 or 200mm Dia.12 or 15mm	L100, 120, 150 or 200mm Dia.12 or 15mm
THREAD	1/2, 3/4" BSP, M24 swivel thread sliding union is available	1/2, 3/4" BSP, M24 swivel thread	1/2, 3/4" BSP, M24 sliding union Fixed thread is available
TOLERANCE	Class B	Class B	Class B
PROTECTION RATE	IP65	IP65	IP65
STEM MATERIAL	St.St.304	St.St.304	St.St.304
CONNECTION WAY	2-wire, 3-wire	2-wire, 3-wire, 4-wire	3-wire
WORK CURRENT	Less than 5mA	Less than 5mA	Less than 5mA
THERMO-WELL OR CABLE	N/A	Thermo-well L100,120,150,200,250 or 300mm Dia.23/27, or Dia.23/20mm Thread female x 3/4" BSP male	Cable length: Less than 10m with insulation cover of glass fiber & st.st.wire (Max 500°C)

ORDER OPTION: 1. Code

2. Stem Length x Dia.
3. Thread
4. Connection way
5. Thermowell or cable
6. Quantity

Thermal Resistance Pt-100



USAGE: FOR SCAVENGING BOX

CODE	MT-25-72	MT-25-72-DIN
JAPAN MODEL	PTR-SC	
DESCRIPTION	Pt100 with junction box & single stem	Pt100 with junction box DIN B & single stem
RANGE	0-400°C	0-400°C
STEM SIZE	L150 or 200mm Dia.12 or 15mm	L150 or 200mm Dia.12 or 15mm
THREAD	1/2, 3/4" BSP, M24 sliding union swivel or fixed thread is available	1/2, 3/4" BSP, M24 fixed thread
TOLERANCE	IEC751 Class A & B	IEC751 Class A & B
PROTECTION RATE	IP65	IP68
STEM MATERIAL	St.St.304	St.St.304
CONNECTION WAY	2-wire, 3-wire, 4-wire	2-wire, 3-wire, 4-wire

ORDER OPTION: 1. Code

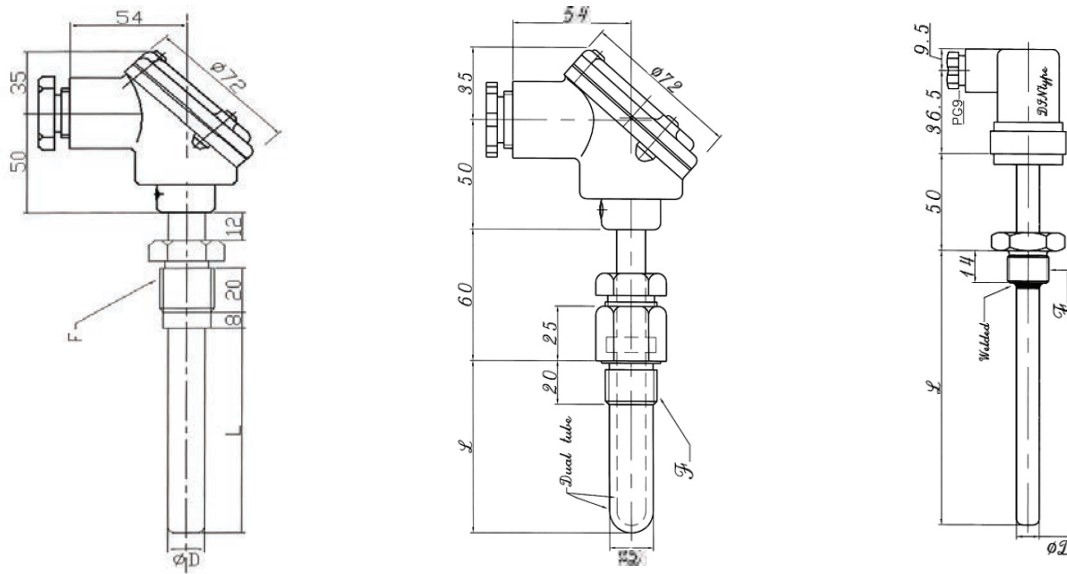
2. Stem Length x Dia.

3. Thread

4. Connection way

5. Quantity

Thermal Resistance Pt-100



USAGE: FOR SCAVENGING BOX

CODE	MT-25-72	MT-25-72-DIN
JAPAN MODEL	PTR-SC	
DESCRIPTION	Pt100 with junction box & single stem	Pt100 with junction box DIN B & single stem
RANGE	0-400°C	0-400°C
STEM SIZE	L150 or 200mm Dia.12 or 15mm	L150 or 200mm Dia.12 or 15mm
THREAD	1/2, 3/4" BSP, M24 sliding union swivel or fixed thread is available	1/2, 3/4" BSP, M24 fixed thread
TOLERANCE	IEC751 Class A & B	IEC751 Class A & B
PROTECTION RATE	IP65	IP68
STEM MATERIAL	St.St.304	St.St.304
CONNECTION WAY	2-wire, 3-wire, 4-wire	2-wire, 3-wire, 4-wire

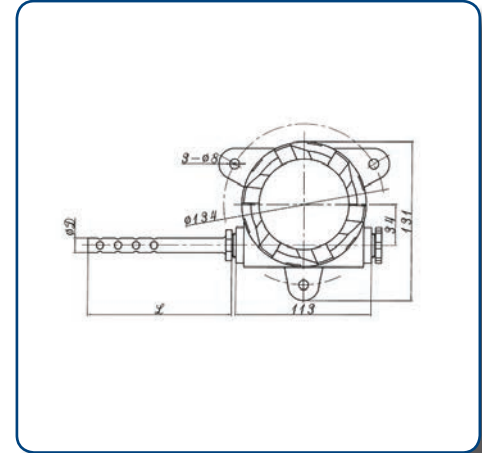
ORDER OPTION: 1. Code

- 2. Stem Length x Dia.
- 3. Thread
- 4. Connection way
- 5. Quantity

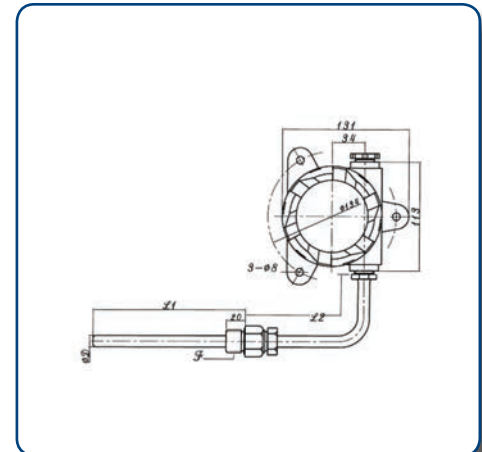
Thermal Resistance Pt-100

USAGE: FOR REFRIGERATED WAREHOUSE & OUTDOOR

CODE	MT-25-74
JAPAN MODEL	PTR-A11
DESCRIPTION	Pt100 with transmitter terminal box & alveolated stem and thermowell
RANGE	0-100°C
STEM SIZE	L80 to 300mm Dia.17 to 25mm
THREAD	n/a
TOLERANCE	IEC751 Class A
PROTECTION RATE	IP68
STEM MATERIAL	St.St.304
CONNECTION WAY	2-wire, 3-wire, 4-wire

**USAGE: FOR TANKER, CARGO HOLD, REFRIGERATOR, OR OTHER CONTAINER HOLDING LIQUEFIED NATURAL GAS OR CHEMICAL**

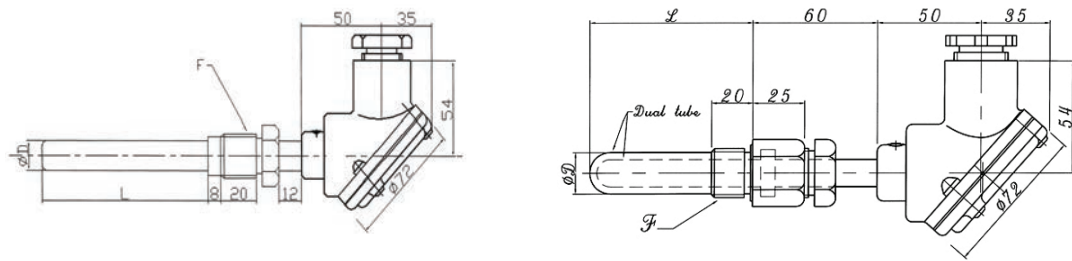
CODE	MT-25-75
JAPAN MODEL	PTR-M
DESCRIPTION	Pt100 with transmitter terminal box & universal single stem
RANGE	0-100°C or below 0°C
STEM SIZE	L100,120,150,200,250 or 300mm Dia.4.8, 6.4, 10, 12mm or other
THREAD	1/4" , 1/2" , 3/4" BSP or other sliding union
TOLERANCE	Class A & B
PROTECTION RATE	IP68
STEM MATERIAL	St.St.304
CONNECTION WAY	2-wire, 3-wire, 4-wire

**China standard armoured Pt100 with junction box & single stem**

CODE	MT-25-76
RANGE	-50+400°C
STEM SIZE	L30 to 300mm Dia.8mm or 10mm
THREAD	1/4" , 1/2" , 3/4" BSP sliding union or other
TOLERANCE	IEC751 Class B
PROTECTION RATE	IP65
STEM MATERIAL	St.St.304
CONNECTION WAY	3-wire



Thermo-couple



USAGE: FOR DIESEL EXHAUST SYSTEM

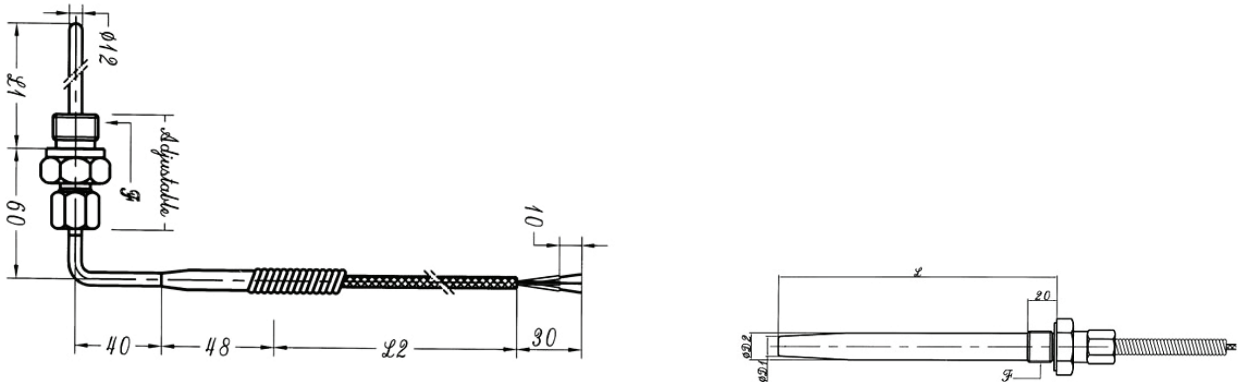
CODE	MT-25-81	MT-25-81-D
JAPAN MODEL	MCA-S	MCA-D
DESCRIPTION	Thermocouple with Junction box & single stem	Thermocouple with Junction box & single stem
RANGE	K for 800°C J for 600°C N for 850°C	K for 800°C J for 600°C N for 850°C
STEM SIZE	L100, 120, 150 or 200mm Dia.10, 12 or 15mm	L100, 120, 150 or 200mm Dia.12 or 15mm
THREAD	1/2, 3/4" BSP, M24 swivel thread sliding union is available	1/2, 3/4" BSP, M24 swivel thread
TOLERANCE	IEC584-2 Class I	IEC584-2 Class I
PROTECTION RATE	IP56	IP56
STEM MATERIAL	St.St.304	St.St.304
CONNECTION WAY	2-wire	2-wire
THERMO-WELL	N/A	THERMO-WELL L100,120,150,200,250 or 300mm Dia.23/27, 23/20, 23/15mm female x 3/4" BSP or M22 male

China standard armoured thermocouple with Junction box & single stem

CODE	MT-25-81A
RANGE	K for 800°C E for 800°C
STEM SIZE	L100 to 300mm Dia.8 or 10mm
THREAD	3/8" , 1/2" , 3/4" BSP sliding union or other
TOLERANCE	IEC651515, class II
PROTECTION RATE	IP56
STEM MATERIAL	St.St.304
CONNECTION WAY	2-wire



Thermo-Couple



USAGE: FOR DIESEL EXHAUST SYSTEM

CODE	MT-25-81C (straight or 90 angle)	MT-25-81E
JAPAN MODEL		MCA-SC
DESCRIPTION	Thermocouple with compensative cable & single stem	Thermocouple with compensative cable & single stem
RANGE	K for 800°C J for 600°C N for 850°C	K for 800°C N for 850°C
STEM SIZE	L100,120 or 150mm Dia.6 or 8mm	L100 to 400mm Dia.12, 22, 24mm
THREAD	1/4" or 1/2" BSP sliding union	1/2" , 3/4" BSP, M18x1.5,M22X1.5, M27x2 sliding union or other
TOLERANCE	IEC584-2 Class I	IEC584-2 Class I
PROTECTION RATE	IP56	IP58
STEM MATERIAL	St.St.304	St.St.304
CONNECTION WAY	2-wire	2-wire
CABLE	Length: less than 10m with insulation cover of glass fiber & st.st. Wire	Length: less than 10m with insulation cover of glass fiber & st.st. Wire



Oil Gauging Tape, Brass Bob, Flat Bottom

- | | | |
|--|--|--|
| Steel white tape
IMPA 65-08-56, 15m/50'
IMPA 65-08-57, 20m/66'
IMPA 65-08-58,
30m/100' | Steel white tape
IMPA 65-08-56, 15m/50'
IMPA 65-08-57, 20m/66'
IMPA 65-08-58,
30m/100' | St.St. Tape
IMPA 65-08-76 15m/50'
IMPA 65-08-77, 20m/66'
IMPA 65-08-78,
30m/100' |
| ISSA 61-030-01, 15m/50'
ISSA 61-030-02, 20m/66'
ISSA 61-030-03,
30m/100' | ISSA 65-030-11, 15m/50'
ISSA 65-030-12, 20m/66'
ISSA 65-030-13,
30m/100' | ISSA 65-030-20 15m/50'
ISSA 65-030-21, 20m/66'
ISSA 65-030-22,
30m/100' |

Water Finding Paste



- IMPA 65-17-32, 75grm
- ISSA 61 031 01, 75grm

Gasoline & Oil Finding Paste



- IMPA 65 08 91, 75grm
- ISSA 61 032 01, 75grm

Outside Caliper



- IMPA 65-01-01, 100mm
- IMPA 65-01-03, 150mm
- IMPA 65-01-04, 200mm
- IMPA 65-01-06, 300mm

- ISSA 65-004-11, 100mm
- ISSA 65-004-13, 150mm
- ISSA 65-004-14, 200mm
- ISSA 65-004-16, 300mm

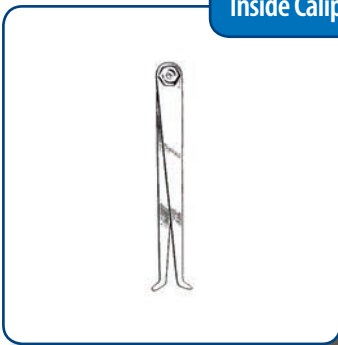
Spring Outside Caliper



- IMPA 65-01-21, 100mm
- IMPA 65-01-23, 150mm
- IMPA 65-01-24, 200mm
- IMPA 65-01-26, 300mm

- ISSA 65-001-21, 100mm
- ISSA 65-001-23, 150mm
- ISSA 65-001-24, 200mm
- ISSA 65-001-26, 300mm

Inside Caliper



- IMPA 65-01-51, 100mm
- IMPA 65-01-53, 150mm
- IMPA 65-01-54, 200mm
- IMPA 65-01-56, 300mm

- ISSA 65-001-51, 100mm
- ISSA 65-001-53, 150mm
- ISSA 65-001-54, 200mm
- ISSA 65-001-56, 300mm

Spring Inside Caliper



- IMPA 65-01-71, 100mm
- IMPA 65-01-73, 150mm
- IMPA 65-01-74, 200mm
- IMPA 65-01-76, 300mm

- ISSA 65-001-71, 100mm
- ISSA 65-001-73, 150mm
- ISSA 65-001-74, 200mm
- ISSA 65-001-76, 300mm

Steel Compass

IMPA 65-02-12, 100mm
 IMPA 65-02-12, 150mm
 IMPA 65-02-12, 200mm
 IMPA 65-02-12, 300mm

Spring Divider

IMPA 65 02 32, 100mm
 IMPA 65 02 34, 150mm
 IMPA 65 02 35, 200mm
 IMPA 65 02 37, 300mm

ISSA 61-002-32, 100mm
 ISSA 61-002-34, 150mm
 ISSA 61-002-35, 200mm
 ISSA 61-002-37, 300mm

Outside Micrometer

Div.0.01mm



IMPA 65-03-01, 0-25mm
 IMPA 65-03-02, 25-50mm
 IMPA 65-03-03, 50-75mm
 IMPA 65-03-04, 75-100mm

IMPA 65-019-01, 0-25mm
 IMPA 65-019-02, 25-50mm
 IMPA 65-019-03, 50-75mm
 IMPA 65-019-04, 75-100mm

Outside Micrometer, Digital

Div.0.001mm/0.00005"



IMPA 65-03-21, 0-25mm/0-1"
 IMPA 65-03-21, 25-50mm/1-2"
 IMPA 65-03-21, 50-75mm/2-3"
 IMPA 65-03-21, 75-100mm/3-4"

Outside Micrometer, Div.0.01mm

With Interchangeable Anvils



IMPA 65-01-81,
 0-100mm, 4 anvils
 IMPA 65-01-82,
 0-150mm, 6 anvils

ISSA 61-021-81,
 0-100mm, 4 anvils
 ISSA 65-021-82,
 0-150mm, 6 anvils

Inside Micrometer, Div.0.01mm

IMPA 65-04-51, 5-30mm
 IMPA 65-04-52, 25-50mm
 IMPA 65-04-53, 50-75mm
 IMPA 65-04-54, 75-100mm

ISSA 65-001-21, 100mm
 ISSA 65-001-23, 150mm
 ISSA 65-001-24, 200mm
 ISSA 65-001-26, 300mm

Varnier Caliper, Div.0.05mm

IMPA 65-05-01, 100mm
 IMPA 65-05-02, 150mm
 IMPA 65-05-03, 200mm
 IMPA 65-05-04, 300mm

Varnier Caliper,
 Div.0.05mm/1/128"
 ISSA 65-05-11, 150mm
 ISSA 65-05-12, 200mm
 ISSA 65-05-12, 300mm

Digital Caliper

Div.0.01mm/0.0005"



IMPA 65-05-21, 150mm/6"
 IMPA 65-05-22, 200mm/8"
 IMPA 65-05-23,
 300mm/12"

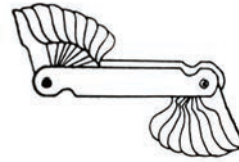
ISSA 65-008-21, 150mm/6"
 ISSA 65-008-22, 200mm/8"
 ISSA 65-008-23,
 300mm/12"

Thickness Gauge



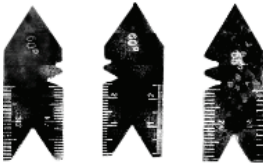
- IMPA 65-05-65
- 3" long
- 25 blades
- 0.04 to 1.00 mm
- IMPA 65-05-69
- 3" long
- 26 blades
- 0.0015 to 0.025 inch

Screw Pith Gauge



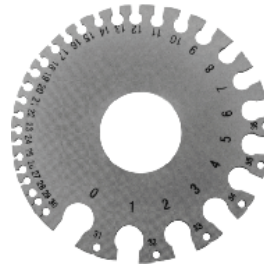
- IMPA 65-06-01 | ISSA 61-015-01
- Whitworth 55°, 4-62 thrs 25's
- IMPA 65-06-05 | ISSA 61-015-05
- Metric 60°, 0.2-6.0 pitch 24's

Center Gauge



- IMPA 65-06-31, Whitworth 55°
- scale on A: 14ths, 20ths
- IMPA 65-06-32, Metric 60°
- scale on A: 25mm/1mm
- 25mm/0.5mm
- IMPA 65-06-33, Metric 60°
- scale on A: 14ths, 20ths
- scale on B: 24ths, 32ths

Wire Gauge



- IMPA 65-06-42, N.1-36
- ISSA 61-012-42

St.St. Straight Rule



- IMPA 65-08-01, 150mm/6"
- IMPA 65-08-02, 300mm/12"
- ISSA 33-473-08, 150mm/6"
- ISSA 33-473-08, 300mm/12"

Convex Rule



- IMPA 65-08-26, 2m/6', W13mm
- IMPA 65-08-27, 3m/10', W13mm
- IMPA 65-08-28, 5m/16', W19mm

Measuring Tape, Linen



- IMPA 65-08-31, 10m/33'
- IMPA 65-08-32, 20m/66'
- IMPA 65-08-33, 30m/100'
- IMPA 65-08-34, 50m/165'

Standart Dial Gauge



- IMPA 65-14-01, 5mm, Non-waterproof
- IMPA 65-14-02, 5mm, Waterproof
- IMPA 65-14-03, 10mm, Non-waterproof
- IMPA 65-14-04, 10mm, Waterproof
- Div.0.01mm
- Shock proof
- Zero setting

Seawater Hydrometer



- IMPA 65-13-43
- 1.000-1.060 x Div.0.001
 - L200mm
 - With thermometer, 0-20°C/°F
- IMPA 65-13-44
- 1.000-1.040 x Div.0.001
 - L260mm

Hydrometer For Light Oil



- Length 300mm, Div.scale 0.0005
- 0.600-0.650, 0.650-0.700, 0.700-0.750, 0.750-0.800, 0.800-0.850, 0.850-0.900, 0.900-0.950, 0.950-1.000, 1.000-1.050, 1.050-1.1000

- IMPA 65-13-67
- Without thermometer
 - 10pcs/set
- IMPA 65-13-68
- Without thermometer
 - 10pcs/set

A.P.I. Hydrometer For Petroleum



- IMPA 65-13-50
- ISSA 61-219-0#
- Length 300mm
 - Div.scale 0.1
 - -1+11 to 89-101
 - 10pcs/set

Bettery Hydrometer



- IMPA 79-26-61, 280mm
- IMPA 79-26-62, 350mm
- ISSA 73-016-02, 280mm
- ISSA 61-220-01, 350mm

Salinometer



- IMPA 65-13-84
- ISSA 61-218-01
- Brass with chrome-plated
 - 1.000 to 1.040

Salinometer Pot



- IMPA 65-13-86 | ISSA 61-223-01
- copper H300xD62 with wooden handle
- IMPA 65-13-88g | ISSA 61-223-02
- glass H440xD65
- IMPA 65-13-88p | ISSA 61-223-03
- plastic H440xD62

Tachometer Analogue Contact



IMPA 65-13-08
 ISSA 61-060-##
 • Dia.80mm,
 • 5 speeds
 • 30-120, 100-400, 300-1200, 1000-4000, 3000-12000 rpm

Tachometer Digital Photo/Contract



IMPA 65-13-10
 ISSA 61-061-##
 • Rotative velocity:
 Photo 2.5-99,999 rpm
 Contract 0.5-19,999 rpm
 • Surface speed:
 Metric 0.05-1999.9 m/ min
 Imperial 0.2-6560 inch/ min

Electronic Stethoscope



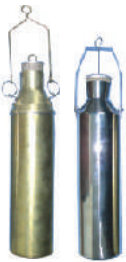
IMPA 65-13-31
 ISSA 35-130-00
 • Frequency Range: 100Hz-10kHz
 • Working Temp: -10°C+1000°C
 • Output volume: adjustable
 • 2 Probe tips, length 60 and 290mm
 • Power supply: 9V battery (6F22)
 • Battery lifetime: about 30 hours

Sound Scope



IMPA 65-13-33
 • Binaural receiver tipe

Sampling Bottle Mouth Collecting Type



IMPA 65-13-71, brass 500cc
 IMPA 65-13-72, brass 1000cc
 IMPA 65-13-73, st.st.500cc
 IMPA 65-13-74, st.st.1000cc

 ISSA 61-221-0#, brass 500cc
 ISSA 61-221-0#, brass 1000cc
 ISSA 61-221-0#, st.st.500cc
 ISSA 61-221-0#, st.st.1000cc

Sampling Bottle, Heavy Duty Bottom Collecting Type



IMPA 65-13-75H, brass 500cc
 IMPA 65-13-76H, brass 1000cc
 IMPA 65-13-77H, st.st.500cc
 IMPA 65-13-78H, st.st.1000cc

 ISSA 61-221-75H, brass 500cc
 ISSA 61-221-76H, brass 1000cc
 ISSA 61-221-77H, st.st.500cc
 ISSA 61-221-78H, st.st.1000cc

Sampling Bottle, Light duty Bottom Collecting Type



IMPA 65-13-77, st.st.500cc
 IMPA 65-13-78, st.st.1000cc

 ISSA 61-221-##, st.st.500cc
 ISSA 61-221-##, st.st.1000cc

PH Test Paper



IMPA 65-13-90, 0-14
 ISSA 61-224-01

Compact pH Meter



- IMPA 65-13-93
- » Range 0.0 to 14.0 pH
 - » Accuracy: +/-0.1 pH
 - » Sampling Temp: 0-50°C
 - » Glass electrode: build-in
 - » Power supply: 4x1.5V button battery

Digital pH Meter



- IMPA 65-13-95
- » Range: 0.00-14.00 pH
 - » Accuracy: +/-0.05 pH
 - » Sampling Temp: 0-50°C
 - » Water-proof, Data hold
 - » Automatic temp compensation
 - » Calibration at 6,86m 4.00, 9.18
 - » Power supply: 4pcs x LR44 battery

Dial Gauge Standard



- IMPA 65-14-21
- » Slidable 220x58x35
 - » Main pole H220xD14
 - » Branch pole H270x12
 - » With fine adjustment
- IMPA 65-14-26
- » Magnetic base
 - » Main pole H176xD12
 - » Branch pole H150x10
 - » With fine adjustment

Crankshaft Distortion Dial Gauge



- IMPA 65-26-70
ISSA 61-009-0#
- » 100-500x0.01mm

Coating Thickness Meter



- IMPA 65-27-2#, with build-in probe
IMPA 65-27-2#, with separate probe
- » F Type (Magnetic induction): measure the thickness of non-magnetic coating layers (such as aluminium, chrome, copper, enamel, rubber, paint) on magnetic substrate (steel, iron, alloy, and magnetic st. steel)
 - » NF Type (Eddy current): measure the thickness of non-conductive coating layers (such as enamel, rubber, paint, varnish, plastic, anodic-oxide layer) covered on non-ferrous substrate (aluminium, brass, zinc, tin & non-magnetic st. steel)
 - » Range: 0 to 1250 um / 0 to 50 mil (default range)
 - » Resolution: 0.1/1
 - » Accuracy: +/- 1 to 3% or +/-2.5um
 - » Min. radius workpiece: F type: Convex 1.5mm / Concave 25mm
NF type: Convex 3mm / Concave 50mm
 - » Min measuring area: 6mm
 - » Min sample thickness: 0.3mm
 - » Power supply: 4x1.5V AAA battery
 - » Optional accessories: cable & software for Rs232C

Ultrasound Thickness Meter



- IMPA 65-27-3#
- Range: 1.5-200mm / 0.06-8inch
- Sound velocity: 500-9000m/s
- Lower limit steel pipe: $\varnothing 15 \times 2.0\text{mm}$, $\varnothing 20 \times 3.0\text{mm}$
- Resolution: 0.1mm
- Accuracy: $\pm(0.5\%n+0.1)$
- Power supply: 4x1.5V AA battery

Metal Detector, Handhold



- Control: On/Off Control
- Sensitivity Control
- Indicator: Visual red/green LED or sound: speaker or earphone
- (earphone not included)
- Vibrator button
- Power supply: 9V(6F22)
- Accessory: Re-chargeable battery

Gas Leak Fetector



- IMPA 61-70-##
- ISSA 77-150-##
- For combusitible leak gas
- Unlimited Sensitivity: 5 ppm
- Power supply: 4.8V

Gas Leak Detector



- IMPA 61-70-##
- ISSA 77-150-##
- For refrigerant leak gas
- Ultimate Sensitivity: SAEJ1627 stamd level; Or 0.5ounce/year
- Power supply: 2x1.5C-cell battery

Vibration Meter



- Accelerator (peak value): 0.1 to 200m/s² (10Hz to 1KHz, 10Hz to 10KHz)
- Velocity (RMS): 0.1-400mm/s (10Hz to 1KHz)
- Displace (peak to peak): 0.001-4.0mm (10Hz to 1KHz)
- RPM (revolution): 5 to 100,000 r/min
- Frequency: 0.1 to 10KHz
- Accuracy: less than 5%

- Metric / Imperial conversion
- Max hold
- Low battery indicator
- Auto power off
- With RS232C interface
- Regulated output: AC output 2.0V peak full scale
- Power supply: 4x1.5V
- AAA (UM-4) battery

Sound Level Meter, With Windscreen



- Standart: GB/T 3785, IEC 651 Type 2, ANSIS 1.4 Type 2
- Velocity (RMS): 0.1-400mm/s (10Hz to 1KHz)
- Displace (peak to peak): 0.001-4.0mm (10Hz to 1KHz)
- RPM (revolution): 5 to 100,000 r/min
- Frequency: 0.1 to 10 KHz
- Accuracy: less than 5%

- Metric / Imperial conversion
- Max hold
- Low battery indicator
- Auto power off
- With Rs232C interface
- Regulated output: AC output 2.0V peak full scale
- Power supply: 4x1.5V
- AAA (UM-4) battery

Water Level Valve



1/2" BSP,
for glass tube O.D.14mm

3/4" BSP,
for glass tube O.D.19mm

- Nominal pressure: 6 bar max.
- Test Pressure: 10 Bar max
- Work Temp: 200°C max.
- Valve Body: Brass
- Seal Material: PTFE

- Handle Material: Bakelite or steel wheel

Sight Glass Plate

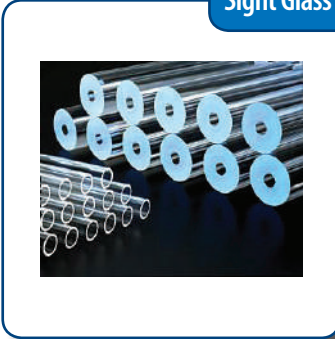


Reflex
Transparent

- 165x34x17mm
- 190x34x17mm
- 218x34x17mm
- 250x34x17mm
- 280x34x17mm

- 300x34x17mm
- 320x34x17mm
- 340x34x17mm
- 370x34x17mm
- 400x34x17mm

Sight Glass Tube, Quartz



- OD 1/2"
- OD 5/8"
- OD 3/4"
- Length 2m
- Wall thickness 2.5mm

Other specification OD 10, 12, 14, 16, 18 and 20mm is available

St.St.Flange



For gauge dia.63,75,100 or 150mm
 Front flange for back connection
 Rear flange for bottom connection

U-Bracket



Steel with chrome-plated
 For gauge dia.40, 50, 63, 75 and 100mm

Pressing Flange's Machine



Pressing 50, 63, 75, 100 or 150 mm st. st. flange onto back or bottom type's pressure gauge

Gauge-Pointer Puller



Bushing



- Female thread - Male thread
- in Brass or st.st.304

Adaptor F-M, Simple



- Female thread - Male thread
- in Brass or st.st.304

Adaptor F-M



- Female thread - Male thread
- in Brass or st.st.304

Adaptor F-M



- Female thread - Male thread
- in Brass or st.st.304

Nipple



- Female thread - Male thread
- In Brass or st.st.304

Snubber



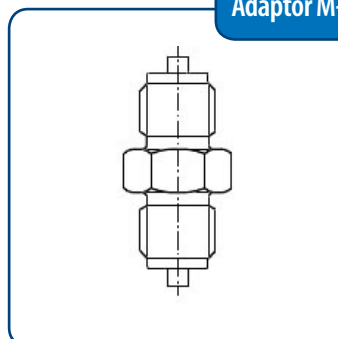
- Male thread-Female thread
- 1/4", 3/8" 1/2" BSP
- In st.st.304

Adaptor M-M, Simple



- Male thread - Male thread
- In Brass or st.st.304

Adaptor M-M



- Male thread - Male thread
- In Brass or st.st.304

Adaptor F-F



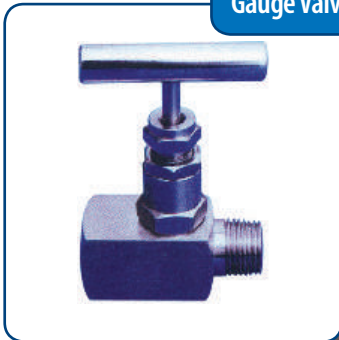
- Female thread - Female thread
- In Brass or st.st.304

Nipple, Self-Sealing



- Female thread - Male thread
- In brass

Gauge Valve, F-M



- Female thread-Male thread
- 1/4", 3/8", 1/2" BSP in steel or st.st.

Gauge Valve, F-F



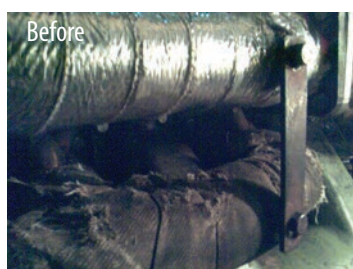
- Female thread-Female thread
- 1/4", 3/8", 1/2" BSP in steel or st.st.

Exowrap® Insulation System



ExoWrap®, the 'one-step' insulation system, is the quick and easy way to insulate high temperature surfaces in vessel engine rooms. ExoWrap® is a revolutionary system made from biosoluble vitreous silicate fibre which is reinforced with an outer jacket of heat sealed aluminum foil. In tape or blanket format, ExoWrap® is applied in one step eliminating the need for bulky and time consuming layered insulation. ExoWrap® can be easily removed and reinstalled by using the ExoWrap® 'Silhesive' Tape and is rated for use to 1,000° C max. ExoWrap® can be used throughout the engine room.

WIDTH	THICKNESS	LENGTH	ROLLS/BOX
50 mm (2")	3 mm (1/8")	7.7 m (25')	24
100 mm (4")	12 mm (1/2")	3.3 m (10')	6
300 mm (12")	25 mm (1")	7.7 m (25')	2
600 mm (24")	25 mm (1")	7.7 m (25')	1

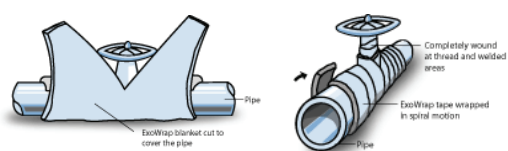


ExoWrap® Tape

For use on bent and flanged pipes in areas where maintenance is not a consideration and/or space is limited. ExoWrap® has a pressure sensitive adhesive on the inner side for ease of installation.

Application Instructions

- 1) Remove dirt, oil, scale and excessive moisture from surface.
- 2) ExoWrap® is wound around the pipe in a spiral motion using a 50% overlap to ensure good adhesion. Be sure that the foil edges are securely fastened. Ends can be secured with wire or clips if desired.

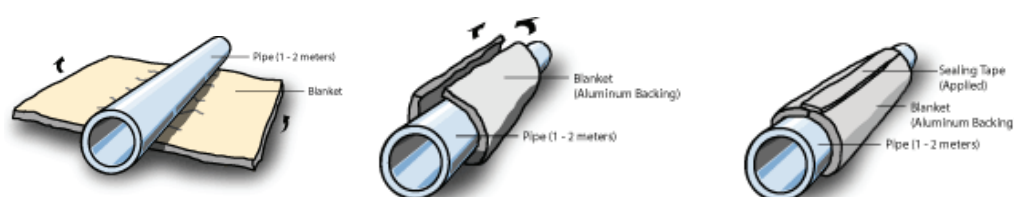


ExoWrap® Blankets

For use on straight pipes, valves, exhaust equipment, turbochargers, angled and uneven surfaces and anywhere that insulation is required. ExoWrap® Blankets are secured with ExoWrap® 'Silhesive' Tape for ease of maintenance.

Application Instructions

- 1) Cut the ExoWrap® Blankets to size with a utility knife or shears. Wrap around the surface to be insulated, butting the ends together forming a seam.
- 2) Secure and seal the seam with Silhesive Tape.
- 3) To remove ExoWrap® Blanket, cut the Silhesive Tape and unwrap from metal surface. To reinstall, new Silhesive Tape must be applied.



No Spray® Protective Type



NoSpray® Protection System is a type approved aluminum/glass cloth jacketing system designed to prevent the flammable spray of hot oil which can come in contact with hot surfaces thus causing fires in vessel engine rooms. NoSpray® is available in tape or sheet format and is coated on one side with a silicone adhesive for ease of installation and superior adhesion.

IMPA CODE	WIDTH	LENGTH	ROLLS/BOX
87 18 01	35 mm	10 m	28
87 18 02	50 mm	10 m	20
-----	100 mm	10 m	12
87 18 03	140 mm	10 m	7
87 18 04	250 mm	10 m	4
87 18 05	500 mm	10 m	2
87 18 06	1000 mm	10 m	1

* Combined Vessel Packs can be supplied on request.



For Protection of Insulated High Temperature Surfaces
NoSpray can be used as a protective shield on insulated hot surfaces which are in close proximity to potential oil spray in the engine room.

Applications

- Fuel oil injection pipes, fuel oil service pipes, fuel oil valve cooling oil pipes attached to diesel engines
- Lube oil service pipes and hydraulic oil pipes attached to diesel engines
- Flammable oil pipes
- Flammable oil pump and strainer
- Fuel oil heater
- Lube oil heater and cooler
- Fuel oil purifier - Lube oil purifier
- Fuel oil burning unit for boiler, thermal oil heater, inert gas generator and incinerator
- Level gauge, fittings and oil tray of flammable oil tank

The preceding areas of fire risk should be protected from the following sources of ignition:

- exhaust gas pipe
- steam pipe
- turbo charger
- electrical equipment
- boiler, thermal oil heater, incinerator
- welding spatter, cigarettes, etc.

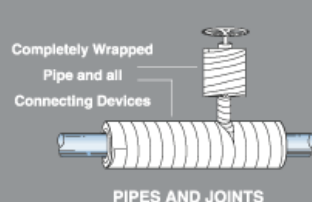
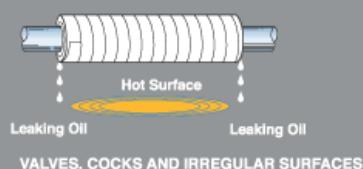
▼ Printed Surface ▼



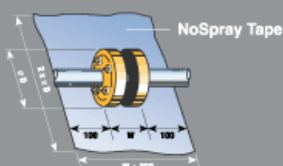
SPECIFICATIONS			
Format x 10 Meters	35 mm 250 mm	50 mm 500 mm	140 mm 1000 mm
Total Thickness	9.5 ml		
Colour	Silver		
Temp. Range	up to 150°C (300°F)		
Pressure	300 psi		
Tensile Strength	93.2 lbs. per inch (ASTM-882)		
Adhesion to Steel	5.8lbs. per inch (ASTM-33330)		
Aging Properties	Indefinite shelf lite when property stored		
Ideal Storage Condi-tions	70°F at 50% relative humidity		



Assembly Cutaways



Flanges



Application Instructions

- 1) Be sure that all surfaces to be protected are cleaned and free of oil.
- 2) Select the NoSpray format applicable to your installation, and, with adhesive film in place, cut with scissors as follows:

For Pipes and Joints

Use NoSpray Tape and allow overlap of 50% each turn.

For Valves, Flanges, and other irregular shaped equipment

Use NoSpray Sheet and cut one piece:

– Length to wrap 2 layers thick around surface to be protected.

– Width to be enough to completely cover bolts and overlap onto connecting pipe at least 100 mm (4").

– Special care must be taken where a device such as a valve is connected to the pipe being rapped. In this case, the NoSpray Tape must be wrapped around the attached device as well as the pipe.

– When using NoSpray Sheet, apply NoSpray Tape on top of the sheet overlapping 50% to secure the NoSpray Sheet.

3) Important Tip

When applying NoSpray Tape, be sure to wrap loosely to allow free flow of oil leak. **DO NOT WRAP TIGHTLY.**

4) When applying NoSpray Sheet or Tape, peel off the adhesive film a little at a time so as not to contaminate adhesive surface with dust or oil prior to application. Wrap snugly (not too tight) around pipe or joint in the likely direction of an oil spray leak. NoSpray Sheet or Tape should be continued to a point where any potential leaks would occur safely away from hot surfaces that could cause combustion.

5) For maintenance and repairs, NoSpray can be removed by cutting with a knife, or tearing with pliers. NoSpray cannot be reused once removed.

6) Important Note

Periodic inspections must be carried out in areas applied with NoSpray Tape. Unravelling, curling, loosening or cracking indicates tape on the applied area must be replaced.

No Spray® Shield

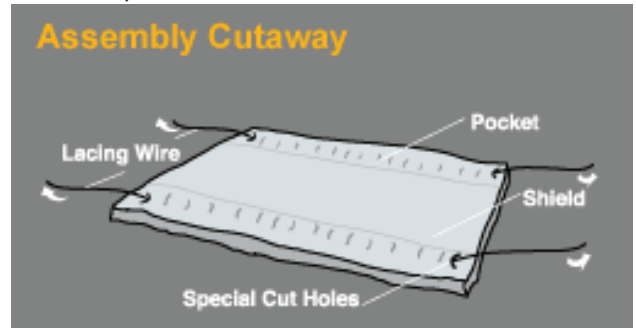


NoSpray® Shields are designed to contain the spray of hazardous liquids in vessel engine rooms, a cause of dangerous fires and loss of life and property. NoSpray® Shields are manufactured in multiple layers from a silicone rubber applied on a silica fibre fabric, specially formulated to withstand high temperatures and pressures, and an aluminum foil lining, which creates a corrosion resistant barrier for long lasting protection. NoSpray® Shields are available in various widths which can be cut to size for use on flanges, valves, fittings, or any irregular shaped surface which can leak hazardous liquids. NoSpray® Shields encapsulate the protected surface and are easily installed using our drawstring system. Removable, reusable and extremely durable, NoSpray® Shields provide a consistent, clean look in vessel engine rooms.



WIDTH	LENGTH	ROLLS/BOX
100 mm (4")	5 m (16.5')	3
150 mm (6")	5 m (16.5')	2
300 mm (12")	5 m (16.5')	1

4" Roll for typical flanges on a 25 mm (0.5") to 50 mm (1") pipe diameter
 6" Roll for typical flanges on a 50 mm (1") to 100 mm (2") pipe diameter
 12" Roll for typical flanges on a 100mm (2") pipe diameter and up



Installation Instructions:

- 1) Measure the outside diameter of the flange and cut the No Spray Shield to a length of 130%.
- 2) Cut a small hole about 1" (25mm) from each end of the shield on the pocket.
- 3) Centre the shield on the flange and wrap snugly, overlapping the ends.
- 4) Thread a lacing wire through each of the two cut holes and pull the lacing wire through the pockets.
- 5) Draw together and fold under the cut edge of Shield for a neat finish.
- 6) When pulled together snugly, secure with pliers and cut off excess wire.



PetroWrap® Anti-Corrosion Tape

The PetroWrap® Anti-Corrosion System has been developed for long term protection of metal surfaces that are underground, underwater, or exposed - even in the most severe environments. It consists of a cold applied system of petrolatum-based PetroWrap® Anti-Corrosion Tape, PetroWrap® Primer, and, where contouring is necessary, PetroWrap® Mastic. PetroWrap® adheres to surfaces without heating, even on damp and/or indifferently prepared areas.

ISSA CODE	WIDTH	LENGTH	ROLLS/BOX
81 24 71	50 mm (2")	10 m (32.8')	36
81 24 72	100 mm (4")	10 m (32.8')	18
81 24 73	150 mm (6")	10 m (32.8')	12
81 24 74	200 mm (8")	10 m (32.8')	8

Applications

- Steel pipes, flanges and valves
- Welded pipe joints
- Cooling tower piping
- Pipe crossings
- Tank bases
- Waterproofing & sealing
- Fire protection
- Pipe & sprinkler systems
- Electrical connection boxes
- Cable splices
- Hydraulic pipes, valves & fittings
- Marine pilings

Application Instructions

- 1) Remove all contaminants such as dirt, oil, and excessive moisture.
- 2) Brush Petrowrap® Primer A evenly over surface to displace remaining moisture and ensure proper adhesion.
- 3) Press Petrowrap® Mastic B into surface irregularities to eliminate air pockets.

4) Wrap Petrowrap® Tape C spirally around prepared surface using even tension. An overlap of 55% is recommended to assure total protection.

5) Finish with Petrowrap® Overwrap D applied like Petrowrap® Tape to prevent mechanical damage as required.

The System

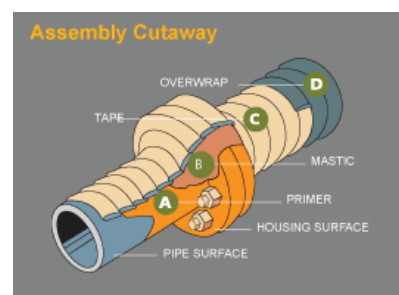
a) PetroWrap® Primer Paste is a preparatory primer that displaces moisture, pacifies oxides, and fills small irregularities that occur on the surface to be wrapped with PetroWrap® Anti-Corrosion Tape.

b) PetroWrap® Mastic is a cold applied filler which profiles areas to be tape wrapped by easing contours on pipe joints, flanges, bolts, and other irregular shapes to be wrapped with PetroWrap® Anti-Corrosion Tape.

c) PetroWrap® Anti-Corrosion Tape consists of a non-woven, stitch bonded, synthetic fabric which has been fully impregnated with neutral petrolatum based compounds and inert fillers.

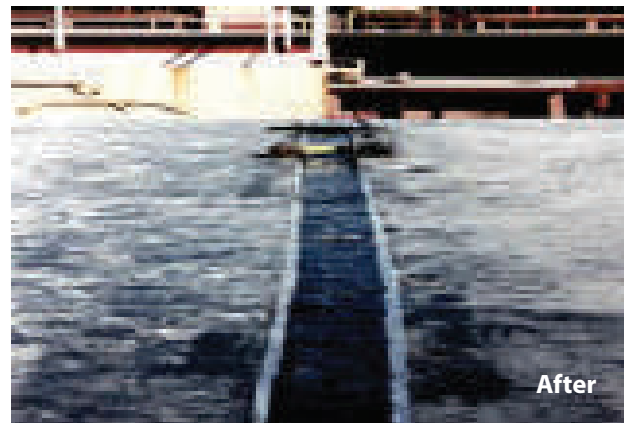
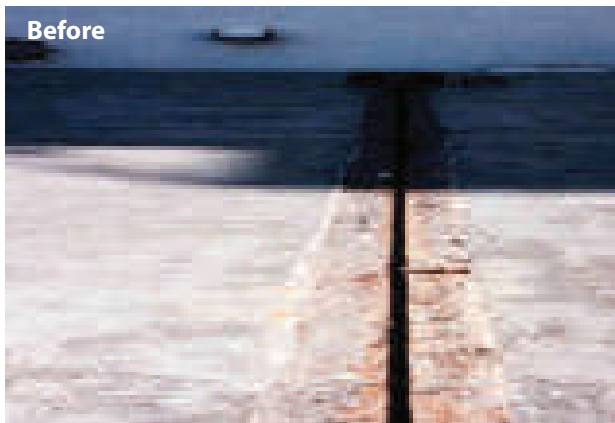
Specifications

- Can be applied on wire-brushed surfaces
- Repels water, salt, alkalis and acids
- Protects new or corroded surfaces
- Temperature variances from -40° C to +84° C
- Will not crack, peel or harden
- Non-toxic and environmentally friendly
- (Meets AWWA C217 Standard)



CanSeal-R® Roll Type Marine Tape

CanSeal-R® is the premium quality roll type marine tape recommended for moderate weather conditions. CanSeal-R® is available in two widths and combines quality and convenience at a very economical price.



ISSA CODE	WIDTH	LENGTH	ROLLS/CARTON	TOTAL LENGTH/CARTON
23 24 52	100 mm (4")	20 m (66')	3	60 m (198')
23 24 53	150 mm (6")	20 m (66')	2	40 m (132')

Specifications

- Heavy duty hatch cover tape in rolls
- High tack adhesive mastic with silver backing



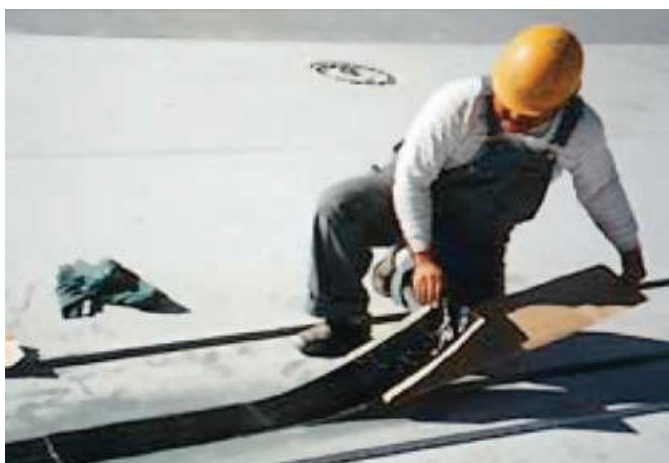
Application Instructions

- 1) Surface must be clean and dry
- 2) Remove loose rust and old tape
- 3) A thin layer of old CanSeal® tape can be used as a base for the new application
- 4) Remove paper backing from CanSeal® roll and press into place, covering hatch joint
- 5) Step firmly on the full length of tape
- 6) Note: In cold weather conditions it is advisable to heat the hatch surface and adhesive side of tape before application

CanSeal® Marine Tape

CanSeal® is the heavy duty hatch sealing tape manufactured in Canada with extraordinary strength, adhesion and flexibility.

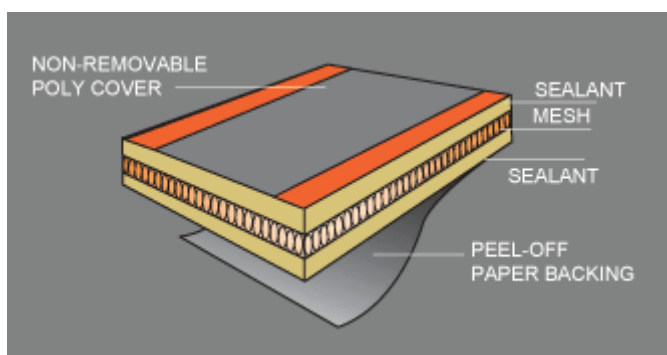
At 5.0 mm thick and reinforced with specially treated fiberglass mesh, CanSeal® Marine Tape ensures that your cargo will arrive damage free.



ISSA CODE	WIDTH	LENGTH	STRIPS/CARTON	TOTAL LENGHT/CARTON
23 24 62	110 mm (4.3")	1.22 m (48')	30	36 m (120')
23 24 63	150 mm (6.0")	1.22 m (48')	30	36 m (120')

Specifications

- Heavy duty hatch cover tape in strips
- High tack adhesive mastic with fiberglass mesh reinforcement and polyethylene cover
- Modern polymer modification process to achieve strength, adhesion and flexibility
- Extreme high and low end temperature performance



Application Instructions

- 1) Surface must be clean and dry
- 2) Remove loose rust and old tape
- 3) A thin layer of old CanSeal® tape can be used as a base for the new application
- 4) Remove paper backing from CanSeal® strip and press into place, covering hatch joint
- 5) Step firmly on the full length of tape
- 6) Note: In cold weather conditions it is advisable to heat the hatch surface and adhesive side of tape before application

SteamKote® HT Pipe Dressing



SteamKote® HT Pipe Dressing is a high temperature coating formulated to protect against corrosion on steam pipes, valves and deck equipment. SteamKote® forms a flexible 'skin' when cured that will not crack, peel or harden even under harsh marine conditions. SteamKote® is the only pipe dressing that is non-flammable.

ISSA CODE	WIDTH
45 07 91	16.0 kg

Application Instructions

- 1) Surface must be ambient temperature
- 2) Remove loose rust and old tape
- 3) Be sure surface is dry
- 4) Apply SteamKote® evenly using a spatula or rubber gloves
- 5) Allow 8 hours before resuming operation of equipment

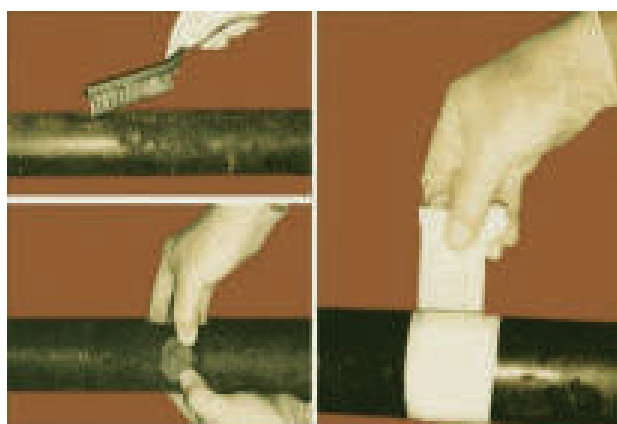
Specifications

- Temperature Range: -40° C to +230° C
- Color: Maroon
- Weight: 16 kg/pail (35.5 lbs/pail)
- Dry to Touch: 8 hours
- Thickness Application: 3-4 mm
- Coverage: 0.5 m²/kg (2.5 ft²/lb)

Packaging

- SteamKote® is available in 16.0 kg (35.5 lb.) pails

CanFix Emergency Repair Kit



CanFix Emergency Repair Kit is a complete system for making emergency repairs to a wide variety of pipe materials. CanFix consists of a patented, fiberglass cloth impregnated with water activated resin that sets in minutes with no measuring, mixing, or messy cleanup. Each kit contains a roll of CanFix cloth, a 'two part epoxy' for filling and sealing, a pair of latex gloves, and complete instructions for use.

ISSA CODE	WIDTH
81 23 61	6 Packs per box: 2" x 4' for pipe diameter 0.5" - 1"
81 23 65	6 Packs per box: 3" x 9' for pipe diameter 1" - 2"
81 23 63	6 Packs per box: 4" x 12' for pipe diameter 4" and up

Specifications

- Max. Pres. Retained (8 layers applied): 1,000 psi
- Tensile Strength: 24,900 psi
- Flexural Strength: 16,100 psi
- Compression Strength: 26,600 psi
- Dielectric Strength: 16,060 volts
- Heat Resistant: 500°F (intermittent)
- Colour: white or grey
- Setting Time @ 70 Deg. F: 30 min
- Setting Time @ 42 Deg. F: 3 hours
- Setting Time @ 35 Deg. F: 6.5 hours

Applications

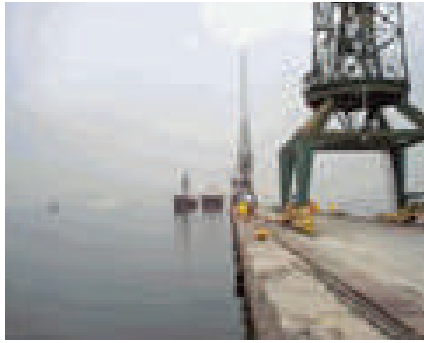
- Riser Exhaust
- Leaking Hydraulic Lines
- Water Cooling Hoses & Fluid Lines
- Leaking Steam Lines & Fittings
- Corrosion Protection Coating
- Repair Broken Tool Handles, etc.
- Emergency Repairs to Fuel Lines



Application Instructions

- 1) Release water pressure if applicable
- 2) Clean and roughen area to be repaired
- 3) Press epoxy into crack or crevice to be repaired
- 4) Wearing enclosed gloves, soak CanFix Tape in temperate water for 20 seconds
- 5) Using entire roll, wrap CanFix approx. 2.0 in. above repair area and continue wrapping approx. 2.0 in. below repair
- 6) Squeeze and mold CanFix in the direction of the wrap, removing excess water and spreading resin until tacky to the touch
- 7) Allow 30 minutes to completely cure (@ 70°F)

Star Marine Chemicals Product Line



We introduce StarMarine - a worldwide provider of marine chemicals, testing equipment, water treatment, tank cleaners, raw materials and related products for the merchant marine industry. The company offers quality assistance 24 hours a day, 365 day a year.

Products:

Cleaning Chemicals for Equipment
 Cleaning Chemicals for Docks/Decks
 Oil Spill Dispersants and Equipment
 Circulation Pumps
 Dosing Units

New Products:**Low-Sulphur Fot**

In January 2010 the sulphur level for fuel oil will be limited to 0.1 % by mass. This will have a negative effect on lubricity of the fuel. By adding Low-Sulphur Fot the lubricity of the fuel will be improved.

Iron Reducer

When a cooling system is effected by corrosion- the water turns brown; this can be disaster for your cooling system. Iron reducer can change the iron oxides in a hard grey reduced iron. This procedure can be done "in service" also!

Hold Barrier

When a cargo hold should be protected against dirty cargo like petcoke, the Hold Barrier is the perfect solution. After cargo discharge the hold can be easily cleaned by a light alkaline cleaner.



Flexible Graphite Sheet with Tanged Metal Reinforced



Specifications

- St.st. 316, st.st.304 or carton steel
- Size 1000mm x 1000mm, 1000mm x 2000mm, 1500mm x 1500mm, 1500mm x 2000mm
- Thickness: 1.0mm - 4.0mm
- Color: black
- Others: Flexible graphite sheets with metal foil and flexible graphite sheets with wire mesh are also available
- Temperature -240+550°C
- Pressure up to 500 bar

Packing Item comes in wooden case

Application The item is used to make gaskets for vessels, boilers, piping, pumps, valves and flanges in petrochemical and mining industries.

Non-Asbestos Rubber Sheet

Specifications

- Usage: Item is used to make gaskets
- Temperature and working pressure: approx. 250°C; 15kgs/cm²
- Sizes: 1270mm x 3810mm, 1350mm x 1500mm, 1500mm x 2000mm, 1500mm x 4000mm
- Thickness: 0.4mm - 6.0mm
- Packing: in wooden cases
- Color: green

Non-Asbestos Gasket Joint Sheet

Specifications

- Usage: Item is used to make gaskets
- Temperature and working pressure: approx. 350°C; 35kgs/cm²
- Sizes: 1270mm x 1270mm, 1270mm x 3810mm, 1300mm x 3810mm, 1500mm x 1500mm, 1500mm x 2000mm, 1500mm x 4100mm, 2700mm x 3810mm
- Thickness: 0.4mm - 6.0mm
- Color: red

Packing in wooden cases of about 100, 200, 500, and 1000 kgs net ea.

Application For water, vapour, air, gas, ammonia alkali and other mediums transmitted in the joints of facilities and pipelines

Oil Resistant Non-Asbestos Sheet

Made from Kevla fibre, oil resistant synthetic rubber and filling material; which are compressed and calendered under high t^o and pressure into a sheet form. It is a good substitute for asbestos rubber sheet.

Specifications

- Specific gravity: 1.9g/cm³
- Tensile strength: 9Mpa
- Compression: 12±5%
- Resilient: 45%
- Ageing coefficient: 0.9
- Temperature and working pressure: : 300C; 3.0Mpa
- Thickness: 0.4-5mm
- Color: Blue

Oil-Resistant Synthetic Rubber Sheet

Specifications

- Water-proof, anti-shock, sealing, high oil-resistant (engine oil, diesel oil, petrol, lubricating oil) and swelling-resistant
- Density: 1.5±0.05g/cm³
- Tensile strength: ≥ 3.5Mpa
- Extensibility: ≥280%
- Hardness: 65°±5° shore A
- Temperature and working pressure: -20~85° environment and middle P
- Size: thickness: 1-60mm, width: 500-1500mm, length: all lengths available
- Color: black

Packing inner plastic cover film, outer woven bag

Application all kinds of oil-resistant gaskets, fittings and washers, and for working table and ground pavement

Natural Terylene-Insertion Rubber Sheet

Specifications

- Specific gravity: 1.6g/cm³
- Tensile strength: 2.5Mpa
- Elongation: 150%
- Hardness: 70 (shore A)
- Ageing coefficient: 0.9
- Color: black

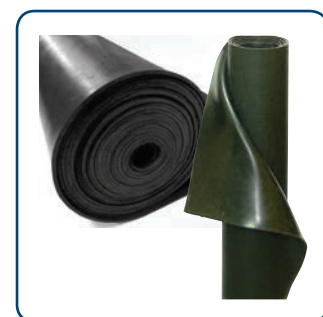
Performance middle pressure, strong tensile strength and small distortion

Application seal gaskets, rings and light-duty conveyor strap etc. requiring high tensile strength

Natural Rubber Sheet

Specifications

- Water-proof, anti-shock and sealing
- Density: 1.6±0.05g/cm³
- Tensile strength: ≥ 3.0Mpa
- zvv Extensibility: ≥250%
- Hardness: 70°±5° shore A
- Color: black
- Temperature and working pressure: -15~70° environment and middle P
- Packing: inner plastic cover film, outer woven bag
- **Application** all kinds of seal buffer washers, rubber mats, gaskets, and for ground pavement and decoration
- Size: thickness: 1-60mm, width: 500-1500mm, length: all lengths available



Copaslip® Anti-seize Compound



Copaslip® is the original anti-seize compound. It is a very high temperature (up to 1100°C) anti-seize assembly compound, bentone based non-melt grease with copper, polybutene, and anti-corrosion additives.

Molyslip AS40/AS60 Anti-Scuff Paste, ADF, Alumslip, Nickslip



Molyslip AS40/AS60 Anti-Scuff Paste is a bedding-in paste, gelled lubricating oil with a high proportion of MoS₂.

- AS60 contains 60% of MoS₂;
- AS40 contains 40% of MoS₂ with graphite, rust and corrosion inhibitors.

ADF is an air drying film. Pure Molybdenum Disulphide in an air drying bonding resin for use where oils/greases cannot be used (ie dust contamination). Ideal for pre-assembly treatment of parts to minimise dangers of seizure, galling or scuffing. Available in aerosols or bulk liquid for use in suitable spray-guns.

Alumslip Anti-seize Assembly Compound is specially formulated to protect against seizure even under extreme conditions of pressure and temperature. Also a highly effective thread lubricant and protective. Designed for same applications as Copaslip® but where there is a prejudice against the presence of copper. Temperature range up to 1100°C.

Nickslip is a nickel based extra high and low temperature anti-seize assembly compound. Containing pure nickel, aluminium and graphite in a non-melt base with corrosion and oxidation inhibitors.

High Performance Specialist Lubricants



OGS: Wire rope lubricant with efficient penetrating properties. The protective coating will resist direct rainfall and immersion in sea water.

OCL: Oven Chain Lubricant. A synthetic product developed for use where cleaning of the chain is as important as lubrication. A non-carbonising high temperature gas resistant lubricant, harmless to rubber seals. Also available in aerosol as SCS.

Moly OCL Based on OCL (above) but with colloidal Molybdenum Disulphide to help inhibit oxidation as well as increasing the lubricating value, thus minimising wear and friction.

High Performance Greases and Specialist Lubricants

EHT: Extra high temperature grease. Bentone grease with MoS₂ and graphite. Formulated to ensure that even if carbonisation occurs the residue will remain friable, with the MoS₂ and graphite present to maintain lubrication. Temperature range up to 250°C.

FMG: Food machinery grease (H1). The grease is gelled with inert bentone which ensures resistance to water and steam as well as brine and fruit and vegetable juices.

HSB: High speed bearing grease. Lithium based with MoS₂ and extreme pressure compounds. Exceptional load carrying capacity with minimum friction and excellent anti-wear characteristics. Has a steady working range from -30°C to 150°C.

LQG: All purpose lubricant with MoS₂. Ability to penetrate when applied results in better lubrication than ordinary grease. Sufficiently fluid to be sprayed on to the most inaccessible places but will not flow or drain away like an oil. Non-fling chain lubricant. Contains rust and corrosion inhibitors. Available in aerosol or bulk.

MBG: Bentone based (non-melt) molybdenised high-load grease. Helps to ensure freedom from bearing failure in shock and over-load conditions. MBG allows you to increase lubrication intervals and to improve safety margins. Ideal for cranes, conveyor systems, printing presses, water pumps, shackle bolts and many more.

OGL: Heavy duty bentone based open gear lubricant. Ideal for adverse weather conditions and for use on slow moving, heavily loaded working surfaces, it is an exceptional fifth wheel lubricant for heavy road transport. MoS₂, graphite and extreme pressure additives. Completely water resistant, OGL provides a protective coating which will not drip or drain.



Workshop Products: Combat A88, Rusolvent, Electrocleaner NF, MSS

Combat A88: First Aid for Metal is developed to save you time and money, COMBAT A88 cleans dirt, grime, grease etc., lubricates and protects all metal components and surfaces against corrosion. Contains no PTFE, silicones or resins and will not cause film 'build-up'.

Rusolvent rapidly penetrates the finest clearances and cuts through rust and corrosion to free and release corroded parts. Ideal for use with release of scaffolding clamps and rusted bolts.

Electrocleaner NF is a non-flammable cleaning solvent for electrical equipment, including dynamos, switch gear, relays etc.

MSS Multi-purpose Silicon Spray - is used in lubrication and as a mould release.

Molyslip products® form a lubricating layer of Molybdenum Disulphide (MoS₂) on metal surfaces:

- The MoS₂ molecules arrange themselves into plates with a laminar structure in which each molybdenum atom is sandwiched between two sulphur atoms. The sulphur atoms are attracted to metal and become bonded on to each of the adjacent bearing surfaces. The sulphur-to-metal bonding is very strong.
- Thus, there are two bearing surfaces, each protectively plated by a layer of MoS₂ molecules with sliding or lubricating layers of molecules in between. In this way direct contact of metal-to-metal surfaces is prevented, friction is considerably reduced, with the consequent elimination of local heating, wear is inhibited and protection achieved even under extreme conditions of pressure and t°.
- The molecular thickness of MoS₂ is such that there are approximately 40,000 lubricating or cleavage planes in an MoS₂ film one thousandth of an inch thick.
- The MoS₂ plating is, in effect, a separating layer of immense strength, greater than the yield stress of most metals; and in addition it possesses the low coefficient of friction of .03 to .06 which gives more efficient lubrication combined with this greater protection.



MOLYSLIP®

Radiator Paint Brushes - / Dog Leg /

- ISSA - 29 114 ##
 IMPA - 51 01 65
 • 1" / 25mm
 IMPA - 51 01 66
 • 1 1/2" / 40mm
 IMPA - 51 01 66
 • 2" / 50mm
 IMPA - 51 01 66
 • 2 1/2" / 65mm

**Flat Paint Brushes**

- ISSA - 29 108 ##
 IMPA - 51 01 01
 • 1" / 25mm
 IMPA - 51 01 02
 • 1 1/2" / 40mm
 IMPA - 51 01 03
 • 2" / 50mm
 IMPA - 51 01 04
 2 1/2" / 65mm

**Paint Rollers WOOL with Handles**

- ISSA - 29 120 ##
 IMPA - 51 03 04
 • mini roller 100mm
 IMPA - 51 03 07
 • 180 mm
 IMPA - 51 03 09
 • 220 mm

**Spare paint roller WOOL**

- ISSA - 29 120 ##
 IMPA - 51 03 34
 • mini roller 100mm
 IMPA - 51 03 37
 • 180 mm
 IMPA - 51 03 39
 • 220 mm



Aluminium Tape for Pipe Protection



- IMPA - 25 17 31
- 50mm x 45mtr
- IMPA - 25 17 3#
- 75mm x 45mtr

Tape ANTI-SPLASHING



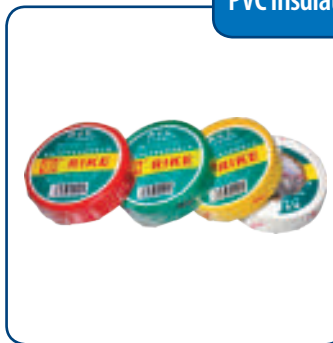
- IMPA - 87 18 01
- 35mm x 10mtr
- IMPA - 87 18 02
- 50mm x 10mtr
- IMPA - 87 18 ##
- 100mm x 10mtr

SOLAS Reflective Tape



- IMPA - 33 01 86
- 50mm x 50mtr
- IMPA - 33 01 89
- 50mm x 45.7mtr

PVC Insulation Tape



- white, red, green, yellow, black
- IMPA - 79 54 31
- 19mm x 20mtr

WARNING Tape



- IMPA - 33 11 91
- 50mm x 10mtr

Self-Fusing Rubber Insulation Tape



- IMPA - 79 54 36
- 19mm x 20mtr

ExoWrap Insulation Tape



- 3mm x 50mm x 7.7mtr

Polypro-mono-filament ropes



3 - strand / 100 mtr
per coil

IMPA - 21 02 00

ISSA - 41 002 01

• dia - 3/4" - 6mm

IMPA - 21 02 01

ISSA - 41 002 03

• dia - 1" - 8mm

IMPA - 21 02 03

ISSA - 41 002 04

• dia - 1 1/4" - 10mm

IMPA - 21 02 04

ISSA - 41 002 05

• dia - 1 1/2" - 12mm

IMPA - 21 02 05

ISSA - 41 002 06

• dia - 1 3/4" - 14mm

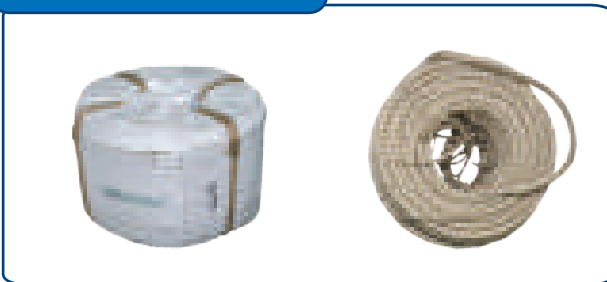
IMPA - 21 02 06

ISSA - 41 002 07

• dia - 2" - 16mm



Manila Ropes



IMPA 21 01 07
IMPA 21 01 08
IMPA 21 01 09
ISSA 41 001 07
ISSA 41 001 08
ISSA 41 001 09

Grease Nipples Button Head Type



different sizes
 IMPA - 61 76 30
 IMPA - ## ## ##
 IMPA - ## ## ##
 IMPA - 61 76 38

Grease Nipples Pin Type



PT 1/8" - IMPA - 61 76 24
 PT 1/4" - IMPA - 61 76 25
 PT 3/8" - IMPA - 61 76 26
 PT 1/2" - IMPA - 61 76 27

Grease Nipples Straight A-type



M 6mm - IMPA - 61 76 06
 M 8mm - IMPA - 61 76 0#
 M 10mm - IMPA - 61 76 0#
 M 12mm - IMPA - 61 76 0#

Grease Nipples



45° B-type
 M 6mm - IMPA - 61 76 ##
 M 8mm - IMPA - 61 76 ##
 M 10mm - IMPA - 61 76 ##

 90° C-type
 M 6mm - IMPA - 61 76 ##
 M 8mm - IMPA - 61 76 ##
 M 10mm - IMPA - 61 76 ##

Coonectors for grease nipples



Pin type grease nipples
 IMPA - 61 76 80
 Button type grease nipples
 IMPA - 61 76 81

Flexible Extension Hose for Grease Nipple



A-type, B-type, C-type
 IMPA - 61 76 82

FIRE FIGHTING VALVE, BRASS



IMPA - 75 60 62
 • STORZ dia 52mm

FIRE FIGHTING VALVE, ALUMINIUM



IMPA - 75 60 ##
 • STORZ dia 52mm

FIRE HOSE NOZZLE SPRAY & JET, PVC



ISSA - 47 152 05
 IMPA - 33 08 ##
 • STORZ dia 52mm
 IMPA - 33 08 ##
 • STORZ dia 75mm

STORZ Couplings, Aluminium



• dia 52mm
 • dia 65mm
 • dia 75mm

STORZ Couplings, Brass



• dia 52mm
 • dia 75mm

FIRE HYDRANTS COUPLINGS



different sizes

FIRE AXE INSULATED HANDLE



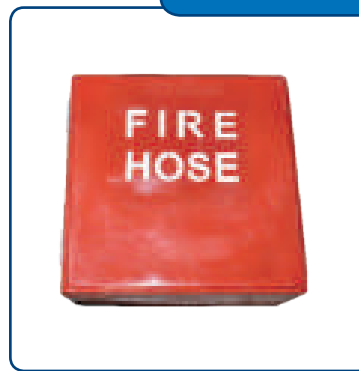
IMPA - 33 09 62

FIRE BLANKET in PVC CASE



IMPA - 33 09 50
ISSA - 47 410 02
• size 1.2mtr x 1.2mtr

Fire Hose Boxes



IMPA - 33 07 51

SPANNER HOSE COUPLINGS



IMPA - 33 07 ##
ISSA - 47 157 10

Dog Bolts material BRASS

different sizes
IMPA - 69 24 ##
ISSA - 37 010 ##

**Bow Nuts material BRASS**

different sizes
ISSA - 37 151 ##

Wing Nuts material BRASS

different sizes
ISSA - 37 152 ##

**Butterfly Nuts material BRASS**

different sizes
IMPA - 69 30 ##



Pendant Light - Water & Vibration Proof



IMPA - 79 20 55
ISSA - 79 091 10

Wall Light Type WB-2



IMPA - 79 20 68
ISSA - 73 328 06

Wall Light - Type WB-1



IMPA - 79 20 67
ISSA - 73 328 ##

Wall Light - Type W



IMPA - 79 20 66
ISSA - 73 332 04

Passage Light Watertight with guard



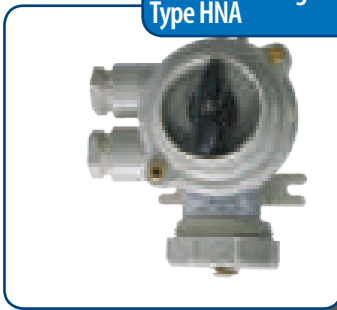
IMPA - 79 21 01
ISSA - 73 332 01

Marine Watertight Joint Boxes Syntetic Resin



2 M
 IMPA - 79 48 33
 ISSA - 73 341 ##

Marine Watertight 3-pin Receptacles With Switch Type HNA



IMPA - 79 28 82
 ISSA - 73 401 01

Marine Watertight 3-pin Receptacles Type HNA



IMPA - 79 28 ##
 ISSA - 73 399 07

Marine Watertight 3-pin Plug HNA



IMPA - 79 28 81
 ISSA - 73 401 04

Marine Watertight Type Small Rotary Switches syntetic resin



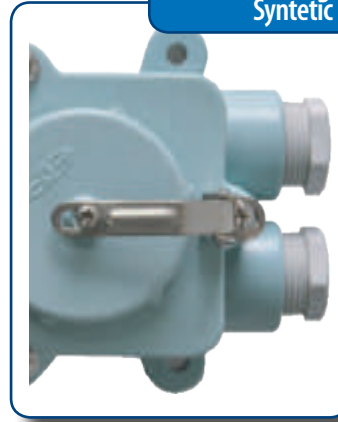
1 MR
 IMPA - 79 30 15
 ISSA - 73 399 01

Marine Watertight Plugs
Syntetic Resin - F 8832



- 1 MA
- IMPA - 79 28 01
- ISSA - 73 411 13
- 1 MB
- IMPA - 79 28 02
- ISSA - 73 411 12

Marine Watertight Receptacles
Syntetic Resin - F 8833



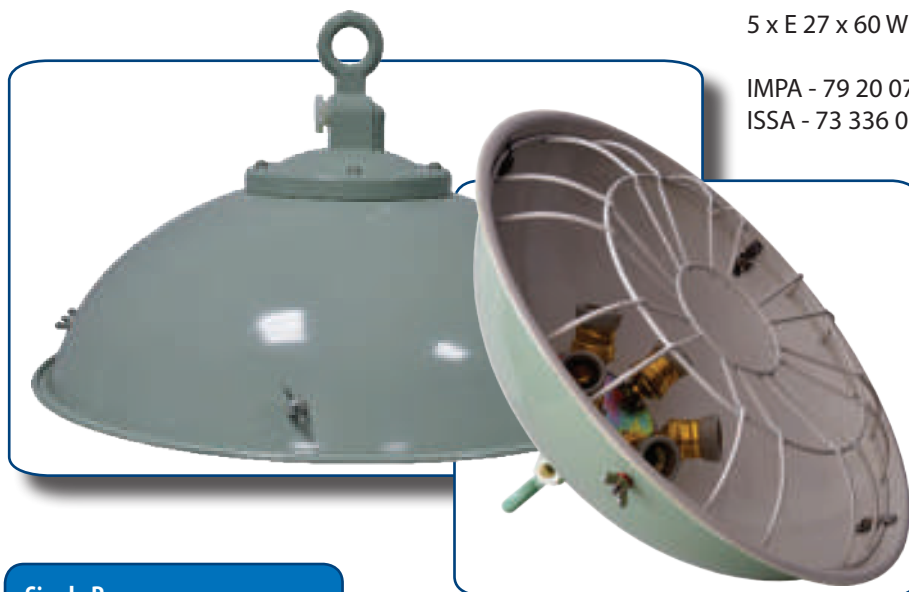
- 1 M
- IMPA - 79 28 06
- ISSA - 73 411 03

S1MR



- IMPA - 79 28 08
- ISSA - 73 411 10

Cargo Clusters



5 x E 27 x 60 W

IMPA - 79 20 07
ISSA - 73 336 03

Single Base



1 x E 40 x 500 W

IMPA - 79 20 04
ISSA - 73 338 01

HEAVY DUTY

IMPA -
ISSA - 73 337 ##

EXPLOSION PROOF

IMPA - 79 21 72
ISSA - 73 090 01

Chemico
a famous
brand name
for over 100 years



Chemico Valve Grinding Paste - Double Ended

The original valve grinding paste

Silicon Carbide and lithium base grease
Available in cartons of 6 x 1 dozen display
units
Tin weight 110 gm, carton holds 72 tins in
total



Oil based grease and silicon carbide paste
300 gm plastic tube

Used by:

Engineering workshops
DIY enthusiasts
Automobile workshop
Marine engineers
Toolmakers

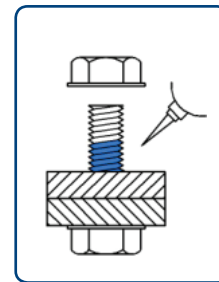
Available in 4 grades

Fine	220 grit
Medium	120 grit
Coarse	80 grit
Extra coarse	30/60 grit
Supplied in cartons of 12 units	
Also available in 2.5kg tubs	

Chemico Grinding Paste 300 GM



Anaerobic threadlockers are designed to lock and seal threaded fasteners to prevent loosening and leakage. Anaerobic threadlockers has excellent chemical and environmental resistance and they are available in a wide range of strength and viscosity for different applications.



ANAEROBIC THREADLOCKERS

AT222 Threadlocker

Low strength, thixotropic
 Easy removal, parts can be separated with hand tools
 Used for locking and sealing small screws M2-M8 (ideal for under M6)

Package	50ml/ bottle	IMPA No.	812751
		ISSA No.	75.600.02
	250ml / bottle	IMPA No.	812781
		ISSA No.	NIL

AT242 Threadlocker

Medium strength, thixotropic
 Controlled lubricity for accurate clamp loads
 Easy removal, parts can be separated with hand tools
 General purpose, used for locking and sealing threaded fasteners M8 – M16 (Ideal for under M8)

Package	50ml/ bottle	IMPA No.	812752
		ISSA No.	75.601.02

AT243 Threadlocker

Medium strength, thixotropic
 Good oil resistance, can be used on the surface with slight oil contamination
 Controlled lubricity for accurate clamp loads
 Easy removal, parts can be separated with hand tools
 General purpose, used for locking and sealing threaded fasteners M8 – M20 (Ideal for under M18)

Package	50ml/ bottle	IMPA No.	812745
		ISSA No.	NIL
	250ml / bottle	IMPA No.	812782
		ISSA No.	NIL

AT262 Threadlocker

Medium to high strength, thixotropic
 Excellent chemical resistance
 Good lubricity
 Easy removal, parts can be separated with hand tools
 Used for permanent locking and sealing threaded fasteners M10 – M26 (Ideal for under M20)

Package	50ml/ bottle	IMPA No.	812753
		ISSA No.	NIL
	250ml / bottle	IMPA No.	812783
		ISSA No.	NIL

AT271 Threadlocker

High strength, medium to low viscosity
 Excellent chemical resistance
 Good lubricity
 Heat and hand tools are required for disassembly
 Used for permanent locking and sealing threaded fasteners M16 – M26 (Ideal for under M22)

Package	50ml/ bottle	IMPA No.	812754
		ISSA No.	NIL
	250ml / bottle	IMPA No.	812784
		ISSA No.	NIL

AT277 Threadlocker

High strength, high viscosity
 Excellent chemical resistance
 Good lubricity
 Heat and hand tools are required for disassembly
 Used for permanent locking and sealing threaded fasteners M24 – M36

Package	50ml/ bottle	IMPA No.	812755
		ISSA No.	NIL
	250ml / bottle	IMPA No.	812785
		ISSA No.	NIL

AT290 Threadlocker

Medium strength, wicking grade
 Excellent chemical resistance
 Used for locking and sealing preassembled threaded fasteners under M12. Penetrate threads by capillary action
 Seals 0.1 mm gap welding seam, crack, dispersed shrinkage and casting microspores

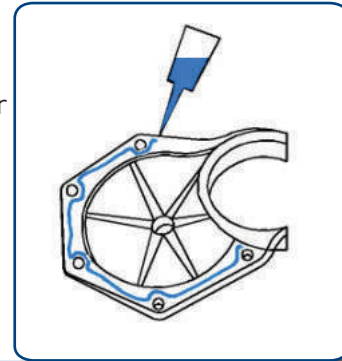
Package	50ml/ bottle	IMPA No.	812756
		ISSA No.	NIL
	250ml / bottle	IMPA No.	812786
		ISSA No.	NIL

PROPERTIES CHART

Product No.	Typical Use	Max Gap Fill mm	Uncured			Cured			Curing Speed	
			Colour	Viscosity GB/T 2794-1995 mPa.s	Specific Gravity GB/T 13354-1992 g/cm ³	Breakaway Torque GB/T 18747.1-2002 Nm	Prevail Torque GB/T 18747.1-2002 Nm	Temperature Range °C	Fixture min	Full Cure hour
AT222	M2 – M8, removable	0.13	Purple	1,200 Thixotropic	1.05	6	4	-50 to 150	10 - 20	24
AT242	M8-M16, removable	0.13	Blue	1,700 Thixotropic	1.05	12	5	-50 to 150	10 - 20	24
AT243	M8-M20, slight oil contamination	0.13	Blue	2,250 Thixotropic	1.05	20	7	-50 to 150	10 – 20	24
AT262	M10-M26, permanent locking and sealing	0.13	Red	1,800 Thixotropic	1.10	22	30	-50 to 150	10 – 20	24
AT271	M16-M26, permanent locking and sealing	0.13	Red	500	1.12	27	30	-50 to 150	10 – 20	24
AT277	M24-M36, permanent locking and sealing	0.25	Red	9500	1.12	30	30	-50 to 150	40 - 60	24
AT290	Under M12, wicking grade	0.10	Green	12	1.08	26	26	-50 to 150	5 - 15	24



Anaerobic flange sealants are special fluids designed to fill small gaps. Anaerobic flange sealant creates a rigid or flexible gasket between two mating flanges after cured. It improves loading capability, reduces noises and Anaerobic flange sealant has excellent solvent and chemical resistance. They can be applied manually or via dispensers.



ANAEROBIC FLANGE SEALANTS

FS515 Anaerobic Flange Sealants

- General purpose
- Excellent solvent and chemical resistance
- Flexible gasket after cured, withstands a slight flange movement caused by vibration. Used for rigid machined parts flange sealing
- Applicable to motive power machines such as automobile, engineering machine, internal combustion engine, mining equipments, etc. for heavy loading

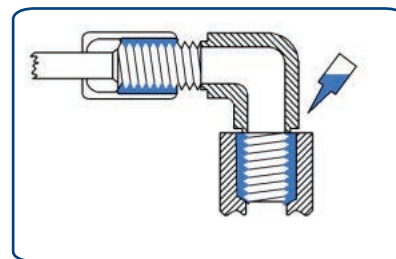
Package	50ml/ bottle	IMPA No. 812790
		ISSA No. NIL
	300ml/ cartridge	IMPA No. 812791
		ISSA No. NIL



PROPERTIES CHART

Product No.	Typical Use	Max Gap Fill mm	Uncured			Cured			Curing Speed	
			Colour	Viscosity GB/T2794-1995 mPa.s	Specific Gravity GB/T13354-1992 g/cm3	Breakaway Torque GB/T18747.1-2002 Nm	Preval Torque GB/T18747.1-2002 Nm	Temperature Range °C	Fixture min	Full Cure hour
FS515	General purpose	0.25	Purple	180,000 Thixotropic	1.05	6	4	-50 to 150	10 - 20	24

Anaerobic thread sealants are designed to seal and secure pipeline fittings for low and high pressure applications, filling the gap between threaded metal parts and stopping leakage and rust after cured.



THREAD SEALANTS

TS 542 Thread Sealant

Medium strength, low viscosity
Contains no fillers and will not foul pipeline system
Used for sealing fine threads of pneumatic and hydraulic systems

Package 50ml/ bottle **IMPA No.** 812748
ISSA No. 75.610.02

TS 545 Thread Sealant

Low strength, medium viscosity
Good oil tolerance, can be used on surface with slight oil contamination
Contains no fillers and will not foul pipeline system
Used for sealing tapered threaded connectors of high pressure pneumatic and hydraulic systems, ideal for under M36

Package 50ml/ bottle **IMPA No.** 812821
ISSA No. NIL
250ml/ bottle **IMPA No.** 812822
ISSA No. NIL

TS 577 Thread Sealant

High strength, paste for m, thixotropic viscosity, instant seal
Contains no fillers and will not foul pipeline system
Suitable for large gap sealing and fast curing
Use for sealing tapered or straight threaded connectors of oil, gas, steam and water pipeline, ideal for under M80

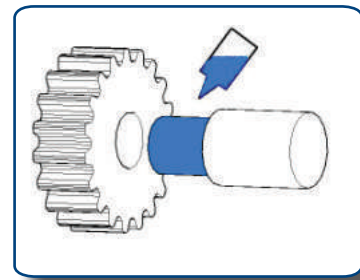
Package 50ml/ bottle **IMPA No.** 812749
ISSA No. NIL
250ml/ bottle **IMPA No.** 812795
ISSA No. NIL



PROPERTIES CHART

Product No.	Typical Use	Max Diameter of Thread mm	Uncured			Cured		Solid Content %
			Colour	Viscosity GB/T2794-1995 mPa.s	Specific Gravity GB/T13354-1992 g/cm3	Max. Sealing pressure MPa	Temperature Range °C	
TS542	Fine threads	M36	Brown	1,850 thixotropic	1.06	70	-50 to 150	-
TS545	For hydraulic and pneumatic pipeline thread sealing	M36, tapered	Red	14,000 thixotropic	1.05	70	-50 to 150	-
TS577	Coarse thread sealing	M80, tapered/ straight	Yellow	24,000 thixotropic	1.10	70	-50 to 150	-

Retaining compounds are designed to seal and secure non-threaded cylindrical shaft-shaft liner assemblies. Retaining compounds are used to fill inner voids between two components and cure to form a strong precision assembly. It can be applied manually or via a dispenser.



RETAINING COMPOUNDS

RC603 Retaining Compound

High strength, low viscosity
 Good oil tolerance, can be used on surface with slight oil contamination
 Seals and secures cylindrical assemblies under 0.13mm diametrical clearance
 Designed for transition and interference fit

Package	50ml/ bottle	IMPA No.	812796
		ISSA No.	NIL
	250ml/ bottle	IMPA No.	812797
		ISSA No.	NIL

RC648 Retaining Compound

High strength, medium to low viscosity
 Withstand high temperature to 175°C
 Seals and secures cylindrical assemblies under 0.13mm diametrical clearance
 Fixtures in 5 minutes
 Designed for transition and interference fit

Package	50ml/ bottle	IMPA No.	812750
		ISSA No.	NIL
	250ml/ bottle	IMPA No.	812798
		ISSA No.	NIL

RC638 Retaining Compound

Maximum high strength, high viscosity
 Seals and secures cylindrical assemblies up to 0.25mm diametrical clearance
 Fixtures in 5 minutes
 Designed for transition and interference fit

Package	50ml/ bottle	IMPA No.	812828
		ISSA No.	NIL
	250ml/ bottle	IMPA No.	812829
		ISSA No.	NIL

RC680 Retaining Compound

High strength, medium viscosity
 Seals and secures cylindrical assemblies from 0.05mm to 0.1mm diametrical clearance
 Designed for transition and interference fit. Enhances bonding strength

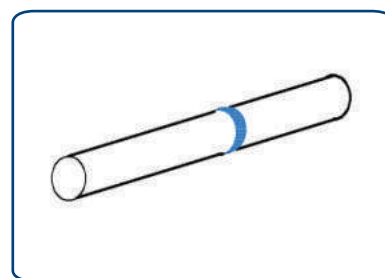
Package	50ml/ bottle	IMPA No.	812831
		ISSA No.	NIL
	250ml/ bottle	IMPA No.	812832
		ISSA No.	NIL



PROPERTIES CHART

Product No.	Typical Use	Max Gap Fill mm	Uncured			Cured		Curing Speed	
			Colour	Viscosity	Specific Gravity	Shear Strength	Temperature Range	Fixture	Full Cure
				GB/T2794-1995 mPa.s	GB/T13354-1992 g/cm3				
RC603	Slightly oil contaminated surface	0.13	Green	200	1.10	> 20	-50 to 150	5 - 10	24
RC638	Maximum strength	0.38	Green	2,500	1.09	> 25	-50 to 150	5 - 10	24
RC648	Withstands continuous working high temperature up to 175°C	0.15	Green	500	1.25	> 18	-50 to 150	5 - 15	24
RC680	For clearance and transition fit	0.25	Green	1,250	1.12	> 19	-50 to 150	5 - 15	24

Cyanoacrylate adhesives are available in a variety of viscosity, curing speed, gap-filling capability and substrate compatibility. Cyanoacrylate adhesives are used for fast bonding many materials such as metal, rubber, plastic, glass, leather, wood, ceramics, etc.



CYANOACRYLATE ADHESIVES

CA 401 Cyanoacrylate Adhesive

General purpose, medium viscosity
Used for bonding inert materials which are difficult to bond

Ideal for coarse, porous and acidic surfaces such as wood, rubber, leather and paperboard bonding.

Package 20gram/ bottle **IMPA No.** 812787
ISSA No. NIL

CA 496 Cyanoacrylate Adhesive

General purpose, medium viscosity

Fast cure

Used for bonding metal parts

Package 20gram/ bottle **IMPA No.** 812759
ISSA No. NIL

CA 495 Cyanoacrylate Adhesive

General purpose, medium to low viscosity

Ideal for filling gaps 0.1mm

Used for bonding various materials such as rubber and plastic

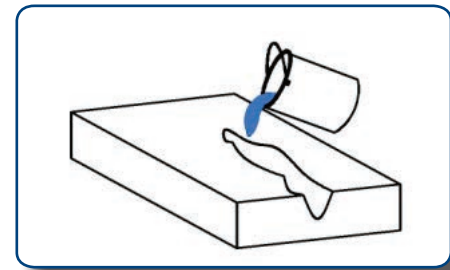
Package 20gram/ bottle **IMPA No.** 812758
ISSA No. NIL



PROPERTIES CHART

Product No.	Typical Use	Max Gap Fill mm	Uncured			Category	Cured		Curing Speed	
			Colour	Viscosity GB/T 2794-1995 mPa.s	Specific Gravity GB/T 13354-1992 g/cm ³		Shear Strength GB/T 18747.2-1992 MPa	Temperature Range °C	Fixture min	Full Cure hour
CA401	General purpose, porous and acidic surface	0.10	Transparent	110	1.1	Ethyl	22	-55 to 83	< 20	24
CA495	General purpose, plastic, rubber	0.10	Transparent	45	1.05	Ethyl	19	-55 to 83	< 20	24
CA496	General purpose, metal parts	0.10	Transparent	1.1	1.1	Methyl	25	-55 to 83	< 20	24

Quick cure epoxy sticks are high performance hand-mouldable metal-filled epoxies with industrial strength. They are used to fill and repair holes, cracks and defects. Quick cure epoxy sticks are quick-curing and cost-effective in returning worn-off parts or equipment back to service.



QUICK CURE EPOXY STICK

SS102 Steel Epoxy Stick

Pre-mixed steel-based formulation in tube ready to use.
 Bonds to most metals, concrete and some plastics
 Cures at room temperature
 Can be drilled, tapped, machined or painted
 Non-toxic and solvent-free
 Does not crack or pull away

Package 114gram/ tube **IMPA No.** 812342
ISSA No. 75.533.40

SS104 Bronze Epoxy Stick

Pre-mixed bronze-based formulation in tube ready to use
 Bonds securely to bronze alloys, brass, copper and ferrous metals
 Can be drilled, tapped, machined or painted
 Non-toxic and solvent-free
 Does not crack or pull away

Package 114gram/tube **IMPA No.** NIL
ISSA No. NIL

SS103 Aluminium Epoxy Stick

Pre-mixed aluminium-based in tube ready to use
 Repairs to non-rusting aluminium castings, machinery and equipment
 Bonds to aluminium and many other metals
 Fills porosity in aluminium castings
 Can be drilled, tapped, machined or painted
 Non-toxic and solvent-free
 Does not crack or pull away

Package 114gram/ tube **IMPA No.** NIL
ISSA No. NIL

SS106 Underwater Putty

Pre-mixed ceramic-based formulation in tube ready to use
 Suitable for moist and wet conditions
 Excellent resistance to oil and chemicals
 Bonds to metallic and non-metallic surfaces
 Fills porosity and cracks on valves, pump bodies
 Can be drilled, tapped, machined or painted
 Non-toxic and solvent-free
 Does not crack or pull away

Package 114gram/ tube **IMPA No.** 812293
IMPA No. 812193
ISSA No. NIL



PROPERTIES CHART

Product No.	Product Name	Uncured (after mixing)	Cured					
		Colour	Compressive Strength GB/T1041-1992 MPa	Tensile Strength GB/T6329-1996 MPa	Shear Strength GB/T7124-1986 MPa	Bending Strength GB/T9341-2000 MPa	Hardness GB/T23411-1980 Shore D	Temperature Range °C
SS102	Steel Epoxy Stick	Dark Grey	82	41	6.2	-	80	-50 to 150
SS103	Aluminium Epoxy Stick	Aluminium	80	40	6.0	-	80	-50 to 150
SS104	Bronze Epoxy Stick	Bronze	80	40	6.0	-	80	-50 to 150
SS106	Under water Epoxy Stick	Light Yellow	82	41	6.0	-	80	-50 to 150

CURING CONDITIONS

Product No.	Product name	Mixture (A : B)		Pot Life* min	Minimum curing time before function
		Weight	Volume	100g mixture	Min
SS102	Steel Epoxy Stick	9:1	5:1	3	20
SS103	Aluminium Epoxy Stick	6:1	3.5:1	3	20
SS104	Bronze Epoxy Stick	9:1	3:1	3	20
SS106	Under water Epoxy Stick	5:1	3.5:1	3	20

Note: * Temperature and mixture weight have great effect on pot life: below 15°C, curing speed is slow, it is recommended to heat: large mixture weight, pot life will be shortened.
* Pot life means the time from mixing A, B component to dispensing the mixture to parts

PROPERTIES CHART

Product No.	Product Name	Uncured (after mixing)	Cured					
		Colour	Compressive Strength GB/T1041-1992 MPa	Tensile Strength GB/T6329-1996 MPa	Shear Strength GB/T7124-1986 MPa	Bending Strength GB/T9341-2000 MPa	Hardness GB/T23411-1980 Shore D	Temperature Range °C
PS102	Steel Repair Putty (A)	Grey	125	34	19	-	85	-50 to 120
PS103	Aluminium Repair Putty	Aluminium	98	30	18	-	80	-50 to 160
PS104	Bronze Repair Putty	Bronze	95	30	18	-	80	-50 to 170
PS105	Stainless Steel Repair Putty	Dark Grey	105	34	20	-	80	-50 to 160
PS106	Under water Repair Putty	Brown	90	31	18	-	80	-50 to 150
PS107	5 Minutes Repair Putty (SF)	Dark Grey	105	21	20	-	80	-50 to 120
PS108	Hi-Temp Repair Putty	Dark Grey	89	30	18	-	80	-50 to 280

CURING CONDITIONS

Product No.	Product Name	Mixture (A : B)		Pot Life* min	Minimum curing time before function h	
		Weight	Volume	100g mixture	50% load	100% load
PS102	Steel Repair Putty (A)	9:1	5:1	50	10	18
PS103	Aluminium Repair Putty	6:1	3.5:1	50	12	24
PS104	Bronze Repair Putty	9:1	3:1	40	12	24
PS105	Stainless Steel Repair Putty	11:1	3.75:1	50	12	24
PS106	Under water Repair Putty	5:1	3.5:1	20	6	12
PS107	5 Minutes Repair Putty (SF)	1.7:1	1:1	30	0.1	1
PS108	Hi-Temp Repair Putty	5:1	4:1	45	6	12

Note: * Temperature and mixture weight have great effect on pot life: below 15°C, curing speed is slow, it is recommended to heat: large mixture weight, pot life will be shortened.
* Pot life means the time from mixing A, B component to dispensing the mixture to parts



Wear & corrosion resistant coating are ceramic filled epoxy system with outstanding abrasion and corrosion resistance to provide effective protection. These products can be applied onto slurry pumps, scrubbers, screens and screw conveyors.



Wear & Corrosion Resistant Coatings

WR204 Wear Resistant Coating

Thixotropic viscosity, brushable, non-sagging
 Filled with wear resistant ceramic
 Designed to rebuild and pre-protect the machine worn by whirlpool, corrosion and cavitation erosion, water pump impeller, shell and induced-draft fan impeller in power house, port, water conservancy and hydroelectric power, mine etc.

Package 500gram/set **IMPA No.** 812281
ISSA No. 75.509.15

WR211 Corrosion Resistant Coating

Thixotropic viscosity, brushable, non-sagging on vertical surface
 Excellent resistance to strong alkali and acid
 Designed to rebuild and protect corrosive pump, valve, tank and pipeline etc.

Package 500gram/set **IMPA No.** 812286
ISSA No. 75.509.17

PROPERTIES CHART

Product No.	Typical Use	Uncured (after mixed)		Cured				
		Colour	Specific Gravity GB/T 13354 -1992 g/cm ³	Compressive strength GB/T 1041 -1992 Mpa	Tensile strength GB/T 6329 -1996 Mpa	Shear Strength GB/T 7124 -1986 MPa	Hardness GB/T 2411 -1980 Shore D	Temperature Range °C
WR204	Cavitation erosion worn machine parts rebuilding and pre-protecting	White	1.65	86	28	18	93	-50 ~ 93
WR211	Corrosive machine parts rebuilding and pre-protecting	Green	1.5	90	33	18	84	-50 ~ 100

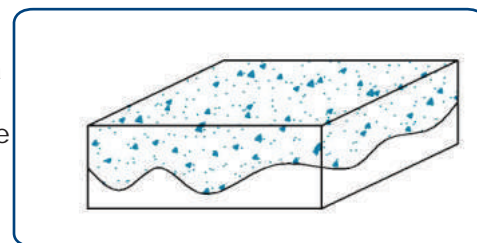
CURING CONDITIONS



Product No.	Typical Use	Mixture Ratio (A:B)		Pot Life* min	Minimum curing time before function h	
		Weight	Volume	100g mixture	50% load	100% load
WR204	Cavitation erosion worn machine parts rebuilding and pre-protecting	5:1	3:1	25	12	24
WR211	Corrosive machine parts rebuilding and pre-protecting	5:1	4:1	60	-	72

No te: * Temperature and mixture weight have great effect on pot life: below 15°C, curing speed is slow, it is recommended to heat: large mixture weight, pot life will be shortened.
 * Pot life means the time from mixing A, B component to dispensing the mixture to parts

Repair system for pipelines, vessels and storage tanks. It is a corrosion barrier, remediate surfaces to prevent corrosion from aggravating and reinforces the pipeline and tanks at the same time. Wrap Seal PLUS can be used on all metal pipes and pipe fittings.



Resin & Activator

- Remediate and repairs
- Corrosion barrier and isolator
- Durable, strong and permanent
- Restore pipe to original strength
- Applicable for pipes, tanks and splash zone structures

Resin & Activator (1.0 lb) **IMPA No. 812301**
ISSA No. 75.501.01

Resin & Activator (2.0 lb) **IMPA No. 812302**
ISSA No. NIL



PROPERTIES CHART

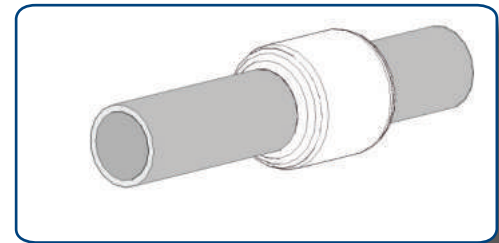
Product No.	Product Name	Cured						
		Tensile Strength ASTM D 688-1.11 Mpa	Flexural Strength ASTM D 695 Mpa	Compressive strength ASTM D 695 Mpa	Tensile Modulus ASTM D 695 Mpa	Flexural Modulus ASTM D 695 MPa	Hardness GB/T2411 -1980 Shore D	Temperature Range °C
		WSP500	Wrap Seal PLUS Resin & Activator (1.0 lb)	448	366	196	26000	24000
WSP1000	Wrap Seal PLUS Resin & Activator (2.0 lb)	448	366	196	26000	24000	85	-65 - 200

CURING CONDITIONS

Product No.	Typical Use	Mixture Ratio (A:B)		Pot Life* min	Minimum curing time before function min	
		Weight	Volume	100g mixture	30°C	40°C
WSP500	Corrosion repair	4:1	3:1	5	30	15
WSP1000	Corrosion repair	4:1	3:1	5	30	15

No. te: * Temperature and mixture weight have great effect on pot life: below 15°C, curing speed is slow, it is recommended to heat: large mixture weight, pot life will be shortened.
 * Pot life means the time from mixing A, B component to dispensing the mixture to parts

Leak repair system is an easy-to-use pipeline leak repair system that repairs active leaks in under 30 minutes. These products are able to withstand temperature and pressure of up to 200°C and 400psi respectively. Besides repairing pipe leaks, they reinforced the pipe wall thickness and reduce the risks of future leak at the same location.



Leak Repair Systems

Quick Repair Kit for Pipe Leaks

Repairs under active leaks
 Repairs leak in 30 minutes
 Withstand pressure up to 400psi
 Withstand temperature up to 200°C
 Safe for drinking water and resistant to most chemicals
 Ideal for pipeline reinforcement

Package	W rap Seal 2" x 5'	IMPA No.	812361
	W rap Seal 2" x 6'	IMPA No.	812364
	W rap Seal 2" x 12'	IMPA No.	812362
	W rap Seal 3" x 9'	IMPA No.	812365
	W rap Seal 4" x 12'	IMPA No.	812363
	W rap Seal 2" x 5'	ISSA No.	75.588.01
	W rap Seal 2" x 6'	ISSA No.	75.588.02
	W rap Seal 2" x 12'	ISSA No.	75.588.03
	W rap Seal 3" x 9'	ISSA No.	NIL
	W rap Seal 4" x 12'	ISSA No.	75.588.04



Quick Repair Kit

Pipe Repair Kit

Repairs under active leaks
 Repairs leak in 30 minutes
 Withstand pressure up to 400psi
 Withstand temperature up to 200°C
 Safe for drinking water and resistant to most chemicals
 Ideal for pipeline reinforcement

Package	Pipe Repair Kit	IMPA No.	812367
		ISSA No.	NIL



Pipe Repair Kit

Pipe Repair Tape

Repairs under active leaks
 Repairs leak in 30 minutes
 Withstand pressure up to 400psi
 Withstand temperature up to 200°C
 Safe for drinking water and resistant to most chemicals
 Ideal for pipeline reinforcement

Package	Pipe Tape 2" x 5'	IMPA No.	812344
	Pipe Tape 2" x 12'	IMPA No.	812348
	Pipe Tape 2" x 5'	ISSA No.	75.553.30
	Pipe Tape 2" x 12'	ISSA No.	75.553.31



Pipe Repair Tape

PROPERTIES CHART

Product No.	Product Name	Cured						
		Tensile Strength ASTM D 688-11 Mpa	Bond Strength ASTM D 2095-72 Mpa	Compressive strength ASTM D 695 Mpa	Yield strength ASTM D 790-1-B Mpa	Tensile Elongation ASTM D 638 MPa	Hardness GB/T2411 -1980 Shore D	Temperature Range °C
WS0205	Wrap Seal 2" x 5' Leak Repair Kit	27	1.6	94 ± 3.6	28	18	93	-29 ~ 200
WS0206	Wrap Seal 2" x 6' Leak Repair Kit	27	1.6	94 ± 3.6	28	18	93	-29 ~ 200
WS0212	Wrap Seal 2" x 12' Leak Repair Kit	27	1.6	94 ± 3.6	28	18	93	-29 ~ 200
WS0309	Wrap Seal 3" x 9' Leak Repair Kit	27	1.6	94 ± 3.6	28	18	93	-29 ~ 200
WS0412	Wrap Seal 4" x 12' Leak Repair Kit	27	1.6	94 ± 3.6	28	18	93	-29 ~ 200
PT0205	SealXpert Pipe Tapes 2" x 5'	27	1.6	94 ± 3.6	28	18	93	-29 ~ 200
PT0212	SealXpert Pipe Tapes 2" x 12'	27	1.6	94 ± 3.6	28	18	93	-29 ~ 200
PT0206	SealXpert Pipe Repair Kit	27	1.6	94 ± 3.6	28	18	93	-29 ~ 200

Seal Expert - Emergency Pipe Repair Kit

- ISSA 75 632 ##
 IMPA - 81 23 64
 • 2" x 6' /50mm x 1.8mtr/
 IMPA - 81 23 65
 • 3" x 9' /75mm x 2.7mtr/
 IMPA - 81 23 63
 • 4" x 12' /100mm x 3.6mtr/



Seal Expert - Fiber Glass Tape

- IMPA - 81 23 ##
 ISSA 75 588 02
 • 2" x 5' /50mm x 1.5mtr/
 ISSA 75 588 03
 • 2" x 12' /50mm x 3.6mtr/



Seal Expert - Epoxy Seal Stick 115 grm

- IMPA - 81 23 42
 ISSA - 75 632 ##

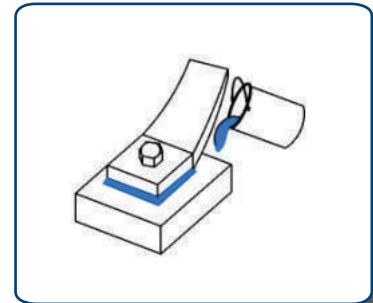


Seal Expert - Emergency Pipe Repair Kit - 5 in 1

- IMPA - 81 23 67
 ISSA - 75 632 ##



Epoxy casting system is a special, two-component pourable chocking compound enriched with high-grade fillers. Modern manufacturing methods, filling and testing systems guarantee constant compliance with the physical and chemical properties required. Epoxy Casting System is easy to use and offer a cost-effective alternative for conventional methods

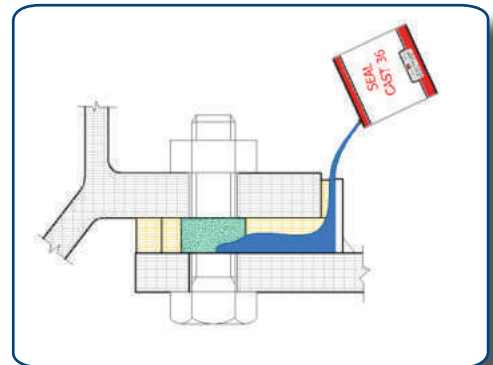


Epoxy Casting System

- Engineered for suitable replacement to steel chocks
- Mounting main engines, auxiliary gears, compressors, pumps, tilting machines, thrust and support bearings
- Service temperature up to 80°C
- Surface load up to 5.0 N/mm²
- Reduces noise and vibration

(6.4 Kg)

IMPA No. NIL
ISSA No. NIL



PROPERTIES CHART

Product No.	Product Name	Cured						
		Tensile Strength ASTM D 638 Mpa	Linear shrinkage ASTM D 2566 mm/mm	Compressive strength ASTM D 695 Mpa	Compressive modulus of elasticity ASTM D 695 Mpa	Elastic Shear modulus MPa	Izoda Impact ASTM D 256 J/m	Temperature Range °C
SC0036	SealCast™ 36 (6.4 kg)	49	15 x 10 ⁻⁴	164	5610	2360	17.2	80°C

CURING CONDITIONS

Product No.	Typical Use	Pot Life* min		Minimum curing time before function h	
		25°C	50°C	16°C	21°C
SC0036	Casting onto engine and motor legs	30	10	48	28

No te: * Temperature and mixture weight have great effect on pot life: below 15°C, curing speed is slow, it is recommended to heat: large mixture weight, pot life will be shortened.
* Pot life means the time from mixing A, B component to dispensing the mixture to parts



1/2 inch	Model No	DPB 12 ALT	DPB 12 ALB	DPB 12 ALN	DPB 12 PPT	DPB 12 CIB	DPB 12 SST
	Wetted material	Aluminium	Aluminum	Aluminum	Polypropylene	Castiron	Stainless Steel 316
	Diaphragm material	Teflon	Buna N	Neoprene	Teflon	Buna N	Teflon
	Ball material	Teflon	Buna N	Neoprene	Teflon	Buna N	Teflon
	Seat material	Aluminum	Buna N	Neoprene	Polypropylene	Buna N	SS 316
	O ring	Teflon-Viton	NA	NA	Teflon-Viton	NA	Teflon-Viton
	Air inlet detail				1/4 inch NPT		
	Fluid Inlet				1/2 inch NPT		
	Fluid Outlet				1/2 inch NPT		
	Suction lift	1.5 mtrs	1.5 mtrs	1.5 mtrs	1.5 mtrs	1.5 mtrs	1.5 mtrs
	Max particle size				1.6 mm		
Construction				Bolted			
Max delivery	50 Litres/min	60 Litres/min	60 Litres/min	50 Litres/min	60 Litres/min	50 Litres/min	

Diaphragm Pumps

1 inch	Model No	DP 25 ALT	DP 25 ALB	DP 25 ALN	DPB 25 PPT	DPB 25 CIB	DP 25 SST
	IMPA No.	-	-	59.16.01	-	-	-
	Wetted material	Aluminium	Aluminum	Aluminum	Polypropylene	Castiron	Stainless Steel 316
	Diaphragm material	Teflon	Buna N	Neoprene	Teflon	Buna N	Teflon
	Ball material	Teflon	Buna N	Neoprene	Teflon	Buna N	Teflon
	Seat material	Aluminum	Buna N	Neoprene	Polypropylene	Buna N	SS 316
	O ring	Teflon-Viton	NA	NA	Teflon-Viton	NA	Teflon-Viton
	Air inlet detail	1/4 inch NPT	1/4 inch NPT	1/4 inch NPT	1/2 inch NPT	1/2 inch NPT	1/4 inch NPT
	Fluid Inlet	1 inch BSPP	1 inch BSPP	1 inch BSPP	1 inch NPT	1 inch NPT	1 inch BSPP
	Fluid Outlet	3/4 inch NPT	3/4 inch NPT	3/4 inch NPT	1 inch NPT	1 inch NPT	1 inch BSPP
	Suction lift	5.2 mtrs	5.2 mtrs	5.2 mtrs	5.2 mtrs	5.2 mtrs	5.2 mtrs
Max particle size				3.2 mm			
Construction	Clamped	Clamped	Clamped	Bolted	Bolted	Clamped	
Max delivery	94 litres/min	114 litres/min	114 litres/min	80 litres/min	114 litres/min	94 litres/min	





1-1/2 inch	Model No	DP 40 ALT	DP 40 ALB	DP 40 ALN	DPB 40 PPT	DPB 40 CIB	DP 40 SST	
	IMPA No.	-	-	59.16.02	-	-	-	
	Wetted material	Aluminium	Aluminum	Aluminum	Polypropylene	Castiron	Stainless Steel 316	
	Diaphragm material	Teflon	Buna N	Neoprene	Teflon	Buna N	Teflon	
	Ball material	Teflon	Buna N	Neoprene	Teflon	Buna N	Teflon	
	Seat material	Aluminum	Buna N	Neoprene	Polypropylene	Buna N	SS 316	
	O ring	Teflon-Viton	NA	NA	Teflon-Viton	NA	Teflon-Viton	
	Air inlet detail	1/2 inch NPT	1/2 inch NPT	1/2 inch NPT	1/2 inch NPT	1/2 inch NPT	1/2 inch NPT	
	Fluid Inlet	1-1/2 inch BSPP	1-1/2 inch BSPP	1-1/2 inch BSPP	1-1/2 inch NPT	1-1/2 inch NPT	1-1 1/2 inch BSPP	
	Fluid Outlet	1-1/4 inch NPT	1-1/4 inch NPT	1-1/4 inch NPT	1-1/2 inch NPT	1-1/2 inch NPT	1-1 1/2 inch BSPP	
	Suction lift	5.5 mtrs	5.5 mtrs	5.5 mtrs	4.9 mtrs	5.2 mtrs	5.5 mtrs	
	Max particle size					4.8 mm		
	Construction	Clamped	Clamped	Clamped	Bolted	Bolted	Clamped	
	Max delivery	210 litres/min	260 litres/min	260 litres/min	180 litres/min	260 litres/min	210 litres/min	

Diaphragm Pumps

2 inch	Model No	DP 50 ALT	DP 50 ALB	DP 50 ALN	DPB 50 CIB	DPB 50 SST
	IMPA No.	-	-	59.16.03	-	-
	Wetted material	Aluminium	Aluminum	Aluminum	Castiron	Stainless Steel 316
	Diaphragm material	Teflon	Buna N	Neoprene	Buna N	Teflon
	Ball material	Teflon	Buna N	Neoprene	Buna N	Teflon
	Seat material	Aluminum	Buna N	Neoprene	Buna N	Teflon
	O ring	Teflon-Viton	NA	NA	NA	Teflon-Viton
	Air inlet detail	1/2 inch NPT	1/2 inch NPT	1/2 inch NPT	1/2 inch NPT	1/2 inch NPT
	Fluid Inlet	2 inch NPT	2 inch NPT	2 inch NPT	2 inch NPT	2 inch NPT
	Fluid Outlet	2 inch NPT	2 inch NPT	2 inch NPT	2 inch NPT	2 inch NPT
	Suction lift	6.4 mtrs	6.4 mtrs	6.4 mtrs	6.4 mtrs	6.4 mtrs
	Max particle size					6.4 mm
Construction	Clamped	Clamped	Clamped	Bolted	Bolted	
Max delivery	540 litres/min	600 litres/min	600 litres/min	600 litres/min	540 litres/min	



Diaphragm Pumps



3 inch	Model No	DPB 75 ALT	DPB 75 ALB	DPB 75 ALN
	IMPA No.	-	-	59.16.04
	Wetted material	Aluminium	Aluminum	Aluminum
	Diaphragm material	Teflon	Buna N	Neoprene
	Ball material	Teflon	Buna N	Neoprene
	Seat material	Aluminum	Buna N	Neoprene
	O ring	Teflon-Viton	NA	NA
	Air inlet detail	3/4 inch NPT	3/4 inch NPT	3/4 inch NPT
	Fluid Inlet	3 inch BSPT	3 inch BSPT	3 inch BSPT
	Fluid Outlet	3 inch BSPT	3 inch BSPT	3 inch BSPT
	Suction lift	3.5 mtrs	5.8 mtrs	5.8 mtrs
	Max particle size	9.5 mm	9.5 mm	9.5 mm
	Construction	Bolted	Bolted	Bolted
Max delivery	680 litres/min	840 litres/min	840 litres/min	

Pneumatic Submersible Pumps



Model **SP 10**
Submersible Sump Pump
2 inch discharge

Model **SP 25**
Submersible Sump Pump
2-1/2 inch discharge

Applications : (Typical industry-wise applications are)

- Construction • De-watering • Engineering industry • Transfer of fluids, usage in sumps for periodic dewatering.
- Marine - emptying ballast tanks, after washing procedure.
- Draining Cargo holds during and after washing procedure.
- Pumping of sea water from bilges, holds, etc.

Features : Will pump down to 22mm. Will handle upto 3mm solids. Governor controlled motor. Inbuilt oil grease lubrication system. Compact design enables use in restricted areas.

Model No	SP 10	SP 25
IMPA No.	59.16.35	59.16.36
Net weight:	21.5 Kgs	35kgs
Height:	340mm	430mm
Minimum opening pump will enter:	204mm x 230mm	210mm x 305mm
Air inlet:	3/4" NPT	3/4" NPT
Air Outlet:	1" BSPP	1-1/2" BSPP
Air consumption:	2.7 m3/min	3.8 m3/min
Recommended hose size:	12mm (1/2")	19mm (3/4")
Fluid inlet:	Screen	Screen
Fluid outlet:	2" NPT	2-1/2" NPT

Pneumatic Oil Transfer Pump



Barrel Pump BP 10

Model No.	BP10
IMPA No.	59.16.51
Applications	These barrel pumps are ideally suited for transferring light oils from barrels. They can be directly inserted into a barrel and screwed onto the bung by means of the provided adaptor.
Features	- Can be inserted into most barrels. - Well operate over a range of air inlet pressures.
Standard Equipment	Brass Bung Adaptor
Weight	5.3 kgs
Tube dia	55 mm
Air consumption	15 cfm
Air Inlet connector	Rc 1/4 inch
Fluid Outlet connector	Rc 3/4 inch

Pneumatic Grease Dispensers



Model GP 25



Model GP 50

GP 25 & GP 50

Features: Teryair offers two models of air operated grease dispensers. These products meet the highest standards in quality and come in powder coated finish with all external components nickel plated for longer life.

The grease dispensers are provided with castors for easy mobility and a swivel arrangement which makes them easy manoeurable. The anti-lock pressure plates ensure easy flow of grease

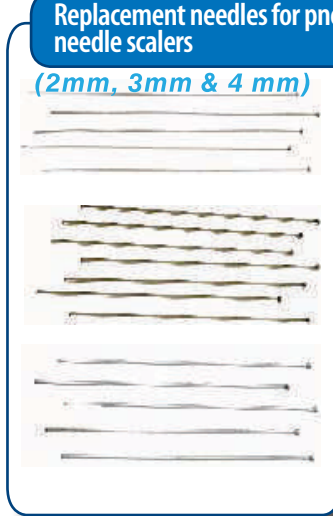
Model	GP 25	GP 50
Capacity	25 Kg	50 Kg
Pressure	8000 Psi	8000 Psi
Output	350 gms / Min	350 gms / Min
Hose length	2 mts hydraulically crimped	2 mts hydraulically crimped
Type of hose	Hydraulic double braided with bursting pressure of 24000 Psi	
Pressure plate	Provided	Provided
Weight net	21.5 kgs	32 kgs

Pneumatic Scalers & Scrabblers



Replacement spares for pneumatic needle scalers

Teryair offers a complete range of spares to suit many needle scalers on the market. These spares are manufactured using high quality materials and heat treatment to provide maximum durability



Replacement needles for pneumatic needle scalers

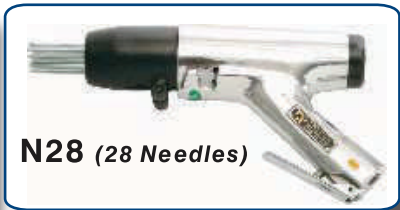
(2mm, 3mm & 4 mm)

Teryair needles are made from finest alloy steels. They are heat treated to provide the maximum durability. Available in different finishes and head profiles to suit various brands of needle scaler

Pistol Needle Scaler



N24 (23 Needles)



N28 (28 Needles)

Model	N24	N28
IMPA No.	59.04.63	59.04.64
Applications	Teryair N24 needle scaler is designed to be easy to use and maintain. It is ideal for removing layers of paint, corrosion, chemical coatings etc. from metal and non metal surfaces. This tool works well on irregular surfaces such as crevices and comers. The needles are heat treated and are quickly replaceable. N24 has the ability to use different size of needles to suit specific applications.	Teryair N28 needle scaler is designed to be easy to use and maintain. It is ideal for removing layers of paint, corrosion, chemical coatings etc. from metal and non metal surfaces. This tool works well on irregular surfaces such as crevices and comers. The needles are heat treated and are quickly replaceable. N28 has the ability to use different size of needles to suit specific applications.
Features	Aluminum high quality gloss construction. Heat treated needles. Quick change needles Can accept 2mm x 53 needles OR 3mm x 23needles	Aluminum high quality gloss construction. Heat treated needles. Quick change needles Can accept 2mm x 65 needles OR 4mm x 14needles
Net Weight	2.8 kgs	3.7 kgs
Frequency	4200 blows per minute	4750 blows per minute
Air Intel detail	3/8 inch NPT threads femals	3/8 inch NPT threads femals
Standard equipment	One set of 3mm x 23 needles One set of adaptor and nipple, One allen key	One set of 3mm x 28 needles One set of adaptor and nipple, One allen key

Descaler



Teryair Needle Scalars are designed to be easy to use and maintain. These Needle Scalars are ideal for removing layers of paint, corrosion, chemical coatings etc. from metal and non metal surfaces. These tools work well on irregular surfaces such as crevices and corners. The needles are heat treated and are quickly replaceable.

Applications

Marine, Offshore and Petrochemical

Hold cleaning, general deck and surface cleaning, removal of heavy rust on tankers and dry dock applications Tank descaling, Descaling of structures prior to painting.

Coatings

Paint removal. Other industrial coating removal from floors and other surfaces

Construction

Removal of concrete residue from re-bar. Cleaning cement from plant and vehicles. Weld cleaning

Model No	IMPA No.	Net Weight	Overall Length	Frequency	Air Consumption	Needles	Air Inlet Pressure	Air Inlet
SN16PG	59.04.82	3.1 Kgs	270mm	4000 bpm	5.3 cfm	2mm X 180mm X 29pcs	90psig	3/8" NPT
SN20ST	59.04.62	5.3 Kgs	345mm	4000 bpm	7.1 cfm	2mm X 180mm X 29pcs 3mm X 180mm X 12pcs	90psig	3/8" NPT
SN24PG	59.04.83	2.6 Kgs	315mm	3000 bpm	5.5 cfm	2mm X 180mm X 40pcs 3mm X 180mm X 19pcs	90psig	1/4" NPT
SN24ST	-	2.6Kgs	375mm	3000 bpm	5.5 cfm	2mm X 180mm X 40pcs 3mm X 180mm X 19pcs	90psig	1/4" NPT
SN29PG	59.04.61	3.8 Kgs	342mm	2200 bpm	8 cfm	2mm X 180mm X 40pcs 3mm X 180mm X 28pcs 4mm X 180mm X 19pcs	90psig	1/4" NPT



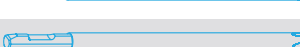

Chisel Scalars



Teryair Chisel Scalars are designed to be easy to use and maintain. These Chisel Scalars are ideal for removing layers of paint, corrosion, chemical coatings etc. from metal and non metal surfaces and for general purpose chipping and scaling. Many different chisel options are available.

Model No.	IMPA No.	Net Weight	Overall Length	Frequency	Air Consumption	Air Inlet Pressure	Air Inlet
CL 3	59.05.81	1.4Kgs	381mm	4600 bpm	12 cfm	90psig	3/8" BSP
SC24ST		2KG	343mm	3000 bpm	5.5 cfm	90psig	1/4" NPT
SC24PG	59.05.82	2.1Kg	260mm	3000 bpm	5.5 cfm	90psig	1/4" NPT
SC29PG	59.05.83	2.6Kg	339mm	2200 bpm	8 cfm	90psig	1/4" NPT

Chisels

Point Style	Part No.	Length mm (Inch)	Width mm (Inch)	Weight Kgs
7" Chisel 19mm wide 	GE0178F19	178 (7)	19 (3/4)	0.200
7" Moil Point 	GE0178MP	178 (7)	-	0.200
7" Chisel 19mm wide 	WF0178F19	178 (7)	19 (3/4)	0.200
7" Moil Point 	WF0178MP	178 (7)	-	0.200

Note: Extra long and special chisels made to customer's specifications.

Pneumatic Scalers & Scrabblers

1 SC Tungsten Single Scrabblers



Model	1SC	X2
IMPA No.	59.03.81	59.03.82
Applications	Teryair 1SC Single Tungsten Scrabblers removes heavy rust and scale by impacting action of a single reciprocating piston. It is used where there is a need to break through heavy and stubborn layers of rust or chemical coatings.	Teryair X2 Single Scrabblers removes heavy rust and scale by impacting action of a single reciprocating piston. It is used where there is a need to break through heavy and stubborn layers of rust or chemical coatings.
Features	Lever type throttle. Special tungsten carbide tipped piston material, Simple one moving part mechanism, Easy to maintain, Light weight, easy to manoeuvre.	Twist type throttle, Special chrome-molybdenum piston material, Simple one moving part mechanism, Easy to maintain, Light weight, easy to manoeuvre.
Net Weight	2.8 kgs	2.2 kgs
Frequency	3900 blows per minute	3900 blows per minute
Air Inlet detail	3/8 inch NPT	3/8 inch BSP
Standard equipment	Adaptor	NA

X2 Single Scrabblers



Model	3SC
IMPA No.	59.03.83
Applications	Teryair 3SC Single Tungsten Scrabblers removes heavy rust and scale by impacting action of a three reciprocating pistons. It is used where there is a need to break through heavy and stubborn layers of rust or chemical coatings.
Features	Lever type throttle, Three piston construction, Special tungsten carbide tipped piston material, Simple one moving part mechanism, Easy to maintain, Light weight, easy to manoeuvre.
Net Weight	3.5 kgs

LR Series Long reach Scaler

Various Length options

Model	LR Series Long Reach Scaler			
Applications	Teryair long reach scalers are used for cleaning and scraping of floors and removal of floor tiles.			
Features	<ul style="list-style-type: none"> - Quick change accessory holder. - Range of accessories available including needle holder. - Multi length available. - Low air consumption. 			
Model Available	Model	IMPA No.	Weight	Length
	LR 076	59 04 51	4.4 kgs	760 mm
	LR 116	59 04 52	4.7 kgs	1160 mm
	LR 146	59 04 53	5.0 kgs	1460 mm
	LR 176	59 04 54	5.2 kgs	1760 mm
Frequency	2250 blows per minute			
Air inlet details	3/8 inch Female			
Shank Bushing	5/8 inch Hexagonal			
Standard Equipment	One 4 inch bladed chisel			



Pneumatic Grinders

SG-6K Straight Grinder



6 inch wheel dia

IMPA No.	59.03.33
Application	Teryair heavy duty grinders are well suited for rugged production use. They are economically designed and kept as light as possible to reduce fatigue. Speed governors are standard equipment ensure optimum performance. Generally used with disc wheels for heavy duty material removal in grinding, blending and smoothing operations. Foundries, shipyards, fabrication shops, railway workshops, construction site, etc use this series extensively
Features	<ul style="list-style-type: none"> - Speed Governor as standard equipment - Hardened wear resistant motor parts - Double spindle bearings higher load bearing capacity.
Net Weight	3.5 kgs
Free speed	6000 rpm
Air inlet details	M 16 x 1.5 pitch female
Spindle thread	M16 x 1.5 pitch male
Max wheel size	150 mm diameter
Standard equipment	Wheel Guard Fitted. Wheel not included

VG-9 Vertical Grinder



9 inch wheel dia

IMPA No.	59.03.03
Application	Teryair heavy duty grinders are well suited for rugged production use. They are economically designed and kept as light as possible to reduce fatigue. Speed governors are standard equipment ensure optimum performance. Generally used with disc wheels for heavy duty material removal in grinding, blending and smoothing operations. Foundries, shipyards, fabrication shops, railway workshops, construction site, etc use this series extensively
Features	<ul style="list-style-type: none"> - Hardened steel cylinder liner - durable - Adjustable dead handle - Safety speed governor, controls speed and saves air. - High power to weight ration - Light weight - easy to use and manoeuver. - Simple to maintain - few moving parts.
Net Weight	5 kgs
Free speed	5800 rpm
Air inlet details	1.2 inch NPT female
Spindle thread	5/8 inch 11 tpi
Max wheel size	225 mm diameter depressed center wheel
Standard equipment	Wheel Guard Fitted. Wheel not included

Klin 20 Vacuum cleaner



20 litres

Applications	Teryair heavy duty industrial grade vacuum cleaners are ideal for quick and efficient cleaning of workspaces. They can operate with dry or wet debris.
Features	Automatic shut off when drum full. Lightweight and maneuverable
Net weight	6.2 Kgs without trolley 8.1 Ks with trolley
Overall dimensions	310mm X 406mm X 610mm
Air inlet detail	3/8 inch BSP Femal
Max Vacuum	2108-2464 mm water column 150-180 mm mercury
Suction flow rate	89 cfm
Drum size	25 Litres
Standard accessories	Hose 2 mtrs. Trolley with wheels Coupler

MCW-100 Mucking winch



100kgs capacity

IMPA No.	59.06.03
Applications	Teryair mucking winch is pneumatically driven winch specially designed for tanker muck handling.
Features	Galvanised non spinning cable Non sparking safety hook Folding design Powerful air motor and worm gear box Control handle positioned for easy operation
Net weight	78 Kgs
Lifting capacity	100 Kgs
Air inlet detail	1/2 inch BSP Female
Lifting speed	35 mtr/min
Wire rope length	33 mtr
Standard accessories	Air Lubricator unit Three way valve for positive control

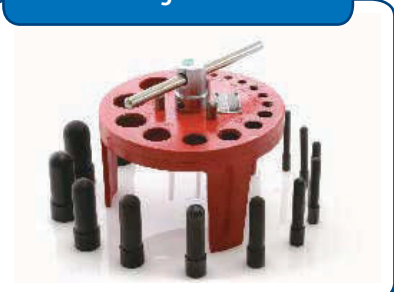
AS-2 Non Spark Shovel



Teryair non Spark shovel has sturdy construction, and it is quite good for heavy duty sludging. The blade size is 8" X 11" and made from brass and it is riveted on to wooden stem. As the blade is made from soft material, it will not remove protective layers from metal surfaces.

Specifications			
Code	IMPA No.	Overall Length	Blade Size
AS-2	61.59.52	970mm	250mm X 300mm

PX 1 Punching Table Set



IMPA No.	61.30.56
Applications	Teryair PX1 punching table set is ideal for quickly punching holes in gaskets.
Features	Light weight and easy to handle. Can be easily used on any workbench. Can punch gaskets, washers, shims, out of asbestos, rubber, fibre, oil paper, brass, aluminium and most thin metals. Punches are hardened, and can be easily reground to retain cutting edge.
Net Weight	15.5 kgs
Standard equipment	Punch diameters supplied 6,7,8,9,10,11,12,13,16,19,22,25,28,32,35 & 38 mm Carry pouch for punches

TEFD 75 Electrical Descaler Kit



IMPA No.	59.12.18
Applications	Teryair descaler kit is excellent for descaling operations such as removal of paint, scale, rust and chemical coatings.
Features	Robust trolley mounted available, Cutters can be quickly changed
Net weight	45 kgs complete with standard equipment
Free Speed	2850 rpm
Standard equipment	Flexible shaft 3 mtr with 5/8 inch BSW thread Electrical Motor 0.75 HP, 230V Hammer head cutter assembly LG Brush assembly Wheel wire brush Cup Brush Grinding Stone Rubber Wheel cover Spanner Set Tool Box

GC42 Gasket Cutter



Applications	The teryair GC42 cuts perfect circles from 2 inch to 42 inch, also irregular gaskets can be easily cut by following a drawn outline. Cuts gaskets fast and easily from materials like asbestos, rubber, cork, felt, Teflon and similar light gauge materials.
Features	Replaceble High speed steel cutters
Net Weight	9 kgs
Standard Equipment	Extensin bar for 22 to 42 diameter circle.

Descaler Spares

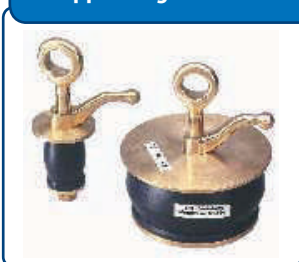
IMPA No.	Teryair P/No	Illustration	Application
59.12.55	No.1 HD Tool		Heavy Rusting
59.12.56	No. 1 - 1 Cutter		for HD Tool
59.12.57	No. 1 - 2 Disc Pin		for HD Tool
59.12.58	No. 1-3 Center Bolt & Nut		for HD Tool
59.12.59	No. 1 - 4 Disc		for HD Tool
59.12.60	No. 2 LG Brush		Light Rusting
59.12.61	No. 2 - LG1 Blade		for LG Tool
59.12.62	No. 2-2 Disc Pin		for LG Tool
59.12.63	No. 2 -3 Center Bolt & Nut		for LG Brush
59.12.64	No.2 - 4 Disc		for LG Brush
59.12.66	No. 4 Hammer Head		Heavy Rusting
59.12.67	No. 4-1 Hammer Blade		for Hammer Head
59.12.68	No. 4-2 Disc Pin		for Hammer Head
59.12.69	No. 4-3 Centra Bolt & Nut		for Hammer Head
59.12.70	No. 4-4 Disc		for Hammer Head
59.12.71	No. 4-5 Collar		for Hammer Head
59.12.72	No. 4-6 Washer		for Hammer Head

VS1 Valve seat Cutter set



IMPA No.	63.34.51
Applications	The Teryair Valve Seat Cutter VS1 is ideal for resurfacing of seat surfaces on most types of valves.
Features	Cutters have cutting edges on both sides one side being standard and the other flat. Cutters are made from special High Speed Steel.
Net weight	15.5 kgs
Standard equipment	The valve seat cutter is supplied with five standard cutters of sizes i.e. 1,2,3,4 and 5 inch sizes. A metal carry box is also supplied.

Scupper Plugs



Applications	Teryair scupper plugs are available in a complete range of sizes they are ideal for sealing scupper holes on deck		
Features	Polished Brass construction Conforms to IMPA code and specifications Oil resistant rubber sleeves		
Sizes available:	Part No	IMPA No.	Suitable for
	SP11	23.24.81	2" Sch-80-160
	SP12	23.24.82	2" SGP, Sch-40/2-1/2" Sch-80
	SP13	23.24.83	2 1/2" SGP, Sch-40/3" SGP, Sch-80
	SP14	23.24.84	3" SGP, Sch-40,60,80/5" Sch-80
	SP15	23.24.85	4" Sch-160
	SP16	23.24.86	5" SGP, Sch-40,80/6" Sch-160
	SP17	23.24.87	6" SGP, Sch-40,80

Rat Guards



Applications	Teryair Rat Guards are fitted closely on hawsers and lines to prevent rats from boarding the ship. Conforms with all quarantine regulations.		
Features	Teryair Rat Guards are made of superior 28 gauge galvanized steel. Sheet edges are rolled around wire for increased durability.		
Sizes Available	Part No	IMPA No.	Applicable rope dia
	RG056	23.23.61	56mm dia
	RG065	23.23.62	65mm dia
	RG073	23.23.63	73mm dia
	RG025	23.23.64	For ropes smaller than above

Flange Jacks



IMPA No.	61.51.84
Applications	Teryair flange jacks exert tremendous pressure smoothly and evenly. The flanges are parted quickly and held in place in perfect alignment without damage to flange faces. Sold in 2 pcs/set only.
Features	Heavy forged wings
Net Weight	6 kgs (per pair)

Slogging Wrenches



IMPA No.	TERYAIR P/NO	Opening mm	Overall Length	For Bolt Size Weight		Kgs
		mm	mm	mm	WW	
61.11.01	PSR30	30	196	M20	-	0.53
61.11.02	PSR32	32	196	M22	W 3/4	0.53
61.11.03	PSR35	35	210	-	W7/8	0.67
61.11.04	PSR36	36	210	M24	-	0.67
61.11.05	PSR41	41	223	M27	W1	0.92
61.11.06	PSR46	46	250	M30	W1-1/8	1.13
61.11.07	PSR50	50	250	M33	W1-1/4	1.13
61.11.08	PSR54	54	273	-	W1-3/8	1.75
61.11.09	PSR55	55	273	M36	-	1.75
61.11.10	PSR58	58	282	-	W1-1/2	2.10
61.11.11	PSR60	60	282	M39	-	2.10
61.11.12	PSR63	63	302	M42	W1-5/8	2.50
61.11.13	PSR65	65	302	-	-	2.50
61.11.14	PSR67	67	327	M45	W1-3/4	3.20
61.11.15	PSR70	70	327	-	-	3.20
61.11.16	PSR71	71	327	M48	W1-7/8	3.20
61.11.17	PSR75	75	353	-	-	4.40
61.11.18	PSR77	77	353	M52	W2	4.40
61.11.19	PSR80	80	353	M54	-	4.40
61.11.20	PSR85	85	397	M56	W2-1/4	7.00
61.11.21	PSR90	90	397	-	-	7.00
61.11.22	PSR95	95	418	M64	W2-1/2	8.50
61.11.23	PSR100	100	418	-	-	8.50
61.11.24	PSR105	105	441	M72	W2-3/4	11.20
61.11.25	PSR110	110	441	M76	W3	11.20
61.11.26	PSR115	115	441	-	-	11.20
61.11.27	PSR120	120	480	M85	-	13.30
61.11.28	PSR125	125	490	-	-	15.80
61.11.29	PSR130	130	492	M90	-	15.80
61.11.30	PSR135	135	512	M95	-	16.60
61.11.31	PSR145	145	553	M100	-	18.00

IMPA No.	TERYAIR P/NO	Opening mm	Overall Length	For Bolt Size Weight		Kgs
		mm	mm	mm	WW	
61.11.41	PSO30	30	222	M20	-	0.83
61.11.42	PSO32	32	222	M22	W3/4	0.83
61.11.43	PSO35	35	222	-	W7/8	0.83
61.11.44	PSO36	36	222	M-24	-	0.83
61.11.45	PSO 41	41	238	M27	W1	1.15
61.11.46	PSO46	46	266	M30	W1-1/8	1.45
61.11.47	PSO50	50	266	M33	W1-1/4	1.45
61.11.48	PSO54	54	303	M36	W1-3/8	2.20
61.11.49	PSO55	55	303	M36	-	2.20
61.11.50	PSO58	58	303	M39	W1-1/2	3.50
61.11.51	PSO60	60	324	M39	-	3.50
61.11.52	PSO63	63	324	M42	W1-5/8	4.10
61.11.53	PSO65	65	324	M42	-	4.10
61.11.54	PSO67	67	350	M45	W1-3/4	5.40
61.11.55	PSO70	70	350	M45	-	5.40
61.11.56	PSO71	71	350	M48	W1-7/8	5.40
61.11.57	PSO75	75	381	M48	-	7.00
61.11.58	PSO77	77	381	M52	W2	7.00
61.11.59	PSO80	80	381	M54	-	7.00
61.11.60	PSO85	85	499	M56	W2-1/4	10.00
61.11.61	PSO90	90	429	M60	-	10.00
61.11.62	PSO95	95	429	M64	W2-1/2	10.00
61.11.63	PSO100	100	451	M68	-	13.70
61.11.64	PSO105	105	469	M72	W2-3/4	14.50
61.11.65	PSO110	110	487	M76	W3	16.00
61.11.66	PSO115	115	507	M80	-	17.90
61.11.67	PSO120	120	521	M85	-	20.20
61.11.68	PSO125	125	532	-	-	23.60
61.11.69	PSO130	130	537	M90	-	23.90
61.11.70	PSO135	135	560	M95	-	24.50
61.11.71	PSO145	145	606	M100	-	29.00

Floor Preparation Machines



FPLD11 FPHD11

Model No.	FPLD11	FPHD11
IMPA No.	59.04.05	-
Net Weight	36 Kgs	70 Kgs
Frequency	11 X 3000 bpm	11 X 2200 bpm
Air Consumption	50cfm	70cfm
Length	290mm	340mm
Width	282mm	285mm
Height	1210 mm	1290 mm
Cutting Width	252mm	250mm
Air Inlet Pressure	90psi	90psi
Air Inlet	3/4" BSP	3/4" BSP

Teryair Floor Preparation Machines are perfect for preparation of floor surfaces. These machines are ideally used for removal of floor coating like paint, chemical & corrosion. Pistons are tungsten tipped & easily replaceable.

TPFD 75 Pneumatic Flexible Descaler



Net weight	45 Kgs
IMPA No.	59.12.51
Pneumatic Air Motor	0.75 HP
Supply	90 PSIG
Flexible Shaft	3 Meter, 5/8" BSW threads

Teryair pneumatic flexible descaler are rugged tools. Designed to be easy to use and maintain, they are ideal for removing layers of paint, corrosion and chemical coatings from surfaces.

Hold Cleaning Gun HC63



Model	HC - 63
IMPA No.	59.07.42
Effective Jet Reach	30 mtr
Working Pressure	80 - 100 psi
Water Consumption	300 gal/min
Water Hose	2"
Hose Coupling	Instantaneous
Air Hose	3/4"
Weight	15 Kgs
Gun Material	Stainless Steel SS 316
Water hose Coupling	Two Brass Quick couplings are provided to accept hose of either 2" I.D. or 2 1/2" I. D.

Teryair Hold cleaning guns have been specifically designed for cleaning of bulk car holds by a high pressure water stream. A combination of water and compressed air produces a strong stream of water that can be projected at a distance of 30 mtrs for removal of any loose rust, flaking paint, or cargo residue.

Reversible Heavy Duty Drilling Machine



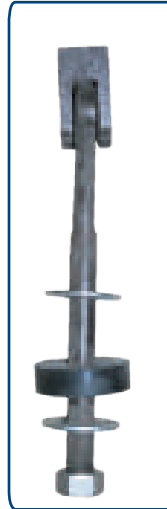
Model No	DRL 350R
IMPA No.	59.03.51
Drilling (Steel)	22.2mm
Reaming	15.9mm
Tapping	15.9mm
Approx Length	410mm
Approx Weight	7Kg
Free Speed	350RPM

The DRL350R Drilling machine is capable of drilling 23mm In steel. It features a feed screw mechanism that enable the drill to be fed into the job with accuracy and minimum operator effort. Because of its light weight, it is the preferred tool for on site drilling application where the job is too heavy or impractical to move. This drill is used extensively by refineries, shipyards, offshore platforms, general engineering and fabrication shops.

QUICK ACTING CLEAT ASSEMBLY



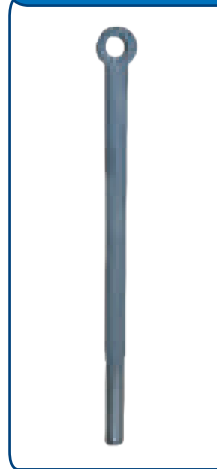
IMPA 23 32 51
ISSA 43 008 01



IMPA 23 32 50
ISSA 43 007 01



Rod
315mm 405mm



SNUG



IMPA 23 32 53
ISSA 43 007 04

Metal Washer



IMPA 23 32 58
ISSA 43 007 09

Rubber Washer



dimmension mm 23x80x20
dimmension mm 34x110x30

IMPA 23 32 57
ISSA 43 007 08

Wedge



IMPA 23 32 42
ISSA 43 014 07

Crutch



IMPA 23 32 56
ISSA 43 007 07

LIFEBOAT PELIKAN HOOK

SWL 3,2 tons



BLOCK WOODEN WITH SECURED HOOK

DOUBLE

SWL 1,0 tons



SINGLE

SWL 1,0 tons



Air Vent. Head



Air Vent. Head - IMPA 87 23 02 ÷ 87 23 06

<i>Глава</i>	<i>Данни за фланеца JIS 5K</i>					<i>ГАБАРИТИ</i>	
<i>DN</i>	<i>Dd</i>		<i>Pitch</i>	<i>Holes</i>	<i>Diam. hole</i>	<i>HW</i>	
65	1556	51	30	41	52	20	210
80	1808	01	45	41	82	40	240
1002	00	1001	65	81	82	80	280
1252	35	1252	00	81	83	30	330
1502	65	1502	30	81	83	60	390

Thermo Pot Electric



Capacity: 3.0L,
110V

IMPA 17 45 25

Thermo Pot Electric



Capacity: 3.0L,
220V~240V,
50/60Hz,
730 W

IMPA 17 45 26

Rice Cooker Electric



IMPA 17 46 04



model: CFXB-18MSO
Capacity: 1.8L, 110V, 60Hz,
700W

Rice Cooker Electric

"MONDIAL"



IMPA 17 46 06

Capacity: 4.0L, 110V,
60Hz, 700W

Rice Cooker Electric

"PENSONIC"



Capacity: 4.2L, 110V,
60Hz, 1600W

Rice Cooker Electric

"PENSONIC"



Capacity: 4.2L, 220V,
60Hz, 1600W

IMPA 17 46 16

Electric Vacuum Cleaner,

EUROSONIC



IMPA 17 46 71

Capacity:
110V, 60Hz, 1400W

Electric Vacuum Cleaner,

BESTRON



IMPA 17 46 72

model ASI500R
Capacity: 220V, 60Hz,
1500W

Electric Vacuum Cleaner,

DAEWOO



Capacity:
220V, 50Hz, 1800W

IMPA 17 46 72

Press Iron, Stea&Dry

SEAWAY



IMPA 17 47 22



Capacity: 110V, 60Hz

Electric Water Kettle

DOMO



Capacity: 220-240V,
50/60Hz, 1850-2200W,
1.7L

IMPA 17 45 13

model: LL - 180GS,
Capacity: 1.8L 1000W,
110V, 60Hz

Electric Kettle,



IMPA 17 45 11

Capacity: 220-240V,
50/60Hz, 1850-2200W,
1.7L

Washing Machine

EVERGLADES L4017



IMPA

Washing Machine

EVERGLADES L4018



IMPA

Microwave Oven

GALANZ



Capacity: 20ltr, 110V,
60Hz

IMPA 17 50 91

Microwave Oven

MDA



Capacity: 20 ltr, 220V,
60Hz

IMPA 17 50 96

Scale Spring Balance



GALANZ

Capacity: 100Kgm

IMPA 17 40 1#

Refrigerator



DIGIHOME

IMPA 17 46 47

model: RF2601DDA+
Capacity: 230L, 220V, 60Hz

Refrigerator



DIGIHOME

Capacity: 130L, 110V, 60Hz

IMPA 17 46 34

Fan Header

WARMWAVE



model: HFQ15A
Capacity: 120V,
60Hz,
1500W

IMPA 17 47 75

Fan Header

NEO



model: FH-1750
Capacity: 230V,
50Hz,
2000W

IMPA 17 47 76

Fan Header

NEO



model: FH3504
Capacity: 230V,
50Hz,
2000W

IMPA 17 47 76

Toaster Auto



model: bHFD, BH-002,
2 slices,
Capacity: 110V, 750W

IMPA 17 45 51

Toaster Auto



model: bHFD, BH-003,
4 slices,
Capacity: 220V, 1300W

IMPA 17 45 54

Coffee Maker Electric



IMPA 17 45 33



model: XQ609,
12 Cups,
Capacity: 110V, 60Hz, 850W

Meat Grinder Electric

GEEPAS GMG761



Capacity:
110V, 60Hz, 2000W

IMPA 17 50 24

Meat Grinder Electric

KENWOOD MG 450



Capacity: 220-240V,
50-60Hz,
400-1400W

IMPA 17 50 25

Spring Clamp Mop Complete



IMPA 17 42 75

Head For Spring Clamp Mop



IMPA 17 42 77

Yellow Pilot Ladder Magnets



IMPA 23 20 93 / 23 20 94 / 23 20 95

Electrode Holder ANGLE Type



IMPA 81 30 70

MacGregor Drain Valve MG.01 DV



IMPA

O-Ring splicing kit, SET



IMPA 81 30 70

Galvanised Oil Funnel



IMPA 23 26 04

Capacity: 200mm

Galvanised Oil Funnel



Capacity: 300mm

IMPA 23 26 07

Drum Hook Chain Type, for 1 drum



IMPA 61 40 25