





### Titanium Grade 23

Medically compatible and proven grade. Titanium Grade 23 is 60% stronger than commonly used Grade 4 cp-Ti.

	Grade 1 C Titanium	Grade 2 CP Titanium	Grade 3 CP Titanium	Grade 4 CP Titanium	Grade 23 Titanium
Ultimate Strength (MPa)	240	430	440	550	860
Yield Strength (MPa)	170-310	340	377-520	480-552	790

### Progressively Engaging Thread Design

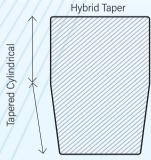
Custom Trapezoidal Progressively Engaging Thread with optimized pitch, flank angles and root to flank ratios.

Thread emergence depth and type varying across length from apical to Higher inter flank space for increased bone Implant contact.

Optimized and uniform load transfer to the hard cortical and the soft cancellous bone.

Lower stress in the Implant bone interface, Implant abutment junction.

Pure cylindrical is
difficult to place and
pure tapered has poor
stability and load
distribution.



Micro-Threads
Custom Square
Threads Emerging
Towards Coronal

Modified Reverse Buttress Threads Emerging Towards Apical Average choices like
V-thread, Buttress,
Square, or similar
threads have lower
compressive load
transfer and lower
bone-implant
contact.

### Shape: Hybrid(Cylindrical & Tapered)

Good primary and secondary stability

Better load distribution between softer cancellous and harder cortical region within the jaw.

Better protection against biting overloads.

Doesn't compromise with lateral stability, due to cylindrical profile at the cortical region.

### Abutment-Implant Connection Conical Hex

Lower micro movement between abutment and Implant.

Lesser loads on screw and reduced screw loosening possibility.

Tight Sealing at interface, lower micro-gaps and microleakages.

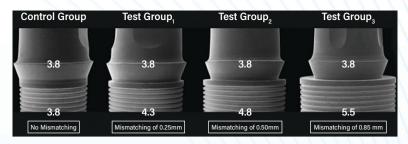
Longer Hex provides better load bearing area for lateral forces.

Better bone and soft tissue preservation.



Conical connection with adequate Implant, abutment thickness and deep engagement has better strength against lateral loads, better seating at implant abutment junction, and better resistance to micro-pumping effects.

A function of Abutment wall thickness, Implant wall thickness, Depth of Hex engagement, Length of Hex, Height of screw seating, Material choice, Cone taper angle.



Better marginal bone stability is seen with platform switched implants as compared to platform matched implants.

Canullo L, Fedele GR, lannello G, Jepsen S. Platform switching and marginal bone-level alterations: the results of a randomized-controlled trial. Clin Oral Implants Res. 2010 Jan;21(1):115-21.

### Platform Switched

Implant – abutment junction is further away from Bone- Implant junction.

Optimum dissipation of occlusal loads in the crestal region.

Lower exposure to micro-pumping effects.

Better long term bone re-modelling and bone preservation.

Better soft tissue emergence.

Better Bio seal between abutment and soft tissue.

Better resistance to peri-implantitis.

# Variety and Versatility Along with Minimum Inventory

Wide variety of healing abutments and stock abutment choices at various gingival heights and emergence enables clinician to pick the right stock abutments for a variety of clinical cases. This is coupled with choice of angular abutments, multi-units and overdenture abutments.

All these are provided on **single connection platform** making it possible for the clinician to plan the prosthesis with minimum inventory and peace of mind.

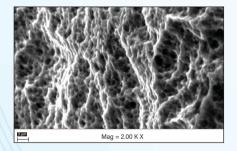
Open and closed tray coping with various heights are available for a seamless impression transfer.

For the digitally inclined, scan bodies of different heights along with digital analog, ensures a digital transfer of impression and prosthetic preparation.



Better than other systems that has different connection platforms for different diameter ranges.

Easy to plan prosthesis, wide variety, minimum inventory.



### Surface Characterization

The micro surface treatment that includes abrasive blasting and acid etching on the machined titanium implants, are designed to achieve excellent osseointegration of the implants.

### Easy Implant Pick and Convey to the Site

Unique Implant Packaging and instrumentation that makes it easy to convey to the site.

Easy Pick, place and drive with "Flex Grip" drivers without any need for mounts.

'Assure' drivers that will retain connection between implant and driver at all times while placing in critical areas (sinus, pterygoid etc.). Armamentarium kit in different sizes based on instrumentation needs of clinician.



### Clinically Proven Performance

Through a Pan India multi-centric clinical study at 9 institutes across the country over two years, a first of its kind in India, the product performance is fully validated.

#### **Key findings**

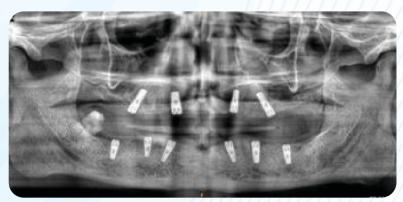
• Easy to Place • Good primary and secondary stability • Good Marginal bone preservation • Global equivalence in Implant success rates

Thousands of Implants in use successfully across India.



# Clinical Cases with Refirm®

### Full Arch Implant Prosthesis







2 Implant Overdenture





Single Implant Fixed Prosthesis









Implant Prosthesis Screw Retained (1 year follow-up)











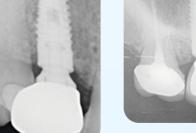
Single Implant Fixed Prosthesis (1.5 years follow-up)















Fixed Implant Prosthesis (3 years follow-up)





Stable Bone Levels

1.5 Years Follow Up



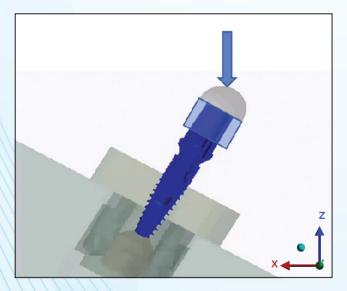


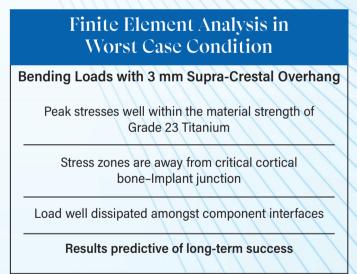


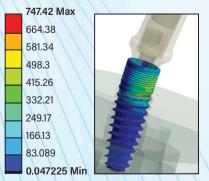


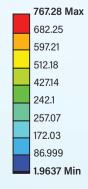
Fixed Implant Prosthesis

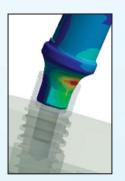
## FEA Analysis Stress Map In Worst Case Condition

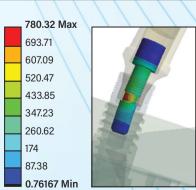












### → IMPLANT



Length	Diameter (mm)				
(mm)	Ø 3.5	Ø 4.0	Ø 4.5	Ø 5.0	Ø 5.50
8.5	11R-IM-XR001	11R-IM-XR006	11R-IM-XR011	11R-IM-XR016	11R-IM-XR021
10	11R-IM-XR002	11R-IM-XR007	11R-IM-XR012	11R-IM-XR017	11R-IM-XR022
11.5	11R-IM-XR003	11R-IM-XR008	11R-IM-XR013	11R-IM-XR018	11R-IM-XR023
13	11R-IM-XR004	11R-IM-XR009	11R-IM-XR014	11R-IM-XR019	11R-IM-XR024
15	11R-IM-XR005	11R-IM-XR010	11R-IM-XR015	11R-IM-XR020	

### - STRAIGHT ABUTMENT

Gingival	Diameter (mm)				
Height (mm)	Ø 3.8	Ø 4.2	Ø 4.5	Ø 5.2	Ø 5.7
1.2	11R-AS-XR019	11R-AS-XR017	11R-AS-XR018	11R-AS-XR022	
2.2	11R-AS-XR020	11R-AS-XR001	11R-AS-XR002	11R-AS-XR003	11R-AS-XR004
3.0	11R-AS-XR016	11R-AS-XR006	11R-AS-XR007	11R-AS-XR008	11R-AS-XR009
4.0	11R-AS-XR021	11R-AS-XR011	11R-AS-XR012	11R-AS-XR013	11R-AS-XR014



### - ST. ABUTMENT SUBCRESTAL



Gingival Height		Diameter (mm)	
(mm)	Ø 3.8	Ø 4.2	Ø 4.5
3.0	11R-AS-XR027	11R-AS-XR025	11R-AS-XR023
4.0		11R-AS-XR026	11R-AS-XR024

### O ANGULAR ABUTMENT

Product Code	11R-AA-XR001	11R-AA-XR002
Angle (degree)	15	25
Gingival Height (mm)	3.0	3.0
Dia (mm)	Ø 4.5	Ø 4.5



### -O CASTABLE ABUTMENT



Product Code	Description	Length (mm)	Diameter (mm)	Gingival Height (mm)
11R-AC-XR001	Ti base with Hex with Sleeve	8.3	Ø 4.5	2.2
11R-AC-XR002	Fully Castable with Hex	11.5	Ø 4.5	2.2
11R-AC-XR004	Fully Castable without Hex	11.5	Ø 4.5	2.2

#### -O TI BASE TEMPORARY ABUTMENT



Produc	ct Code	Description	Length (mm)	Diameter (mm)	Gingival Height (mm)
11R-AC-	-XR006	Ti base without Hex	14	Ø 4.5	2.2

### OVERDENTURE ABUTMENT (LOCATOR)

Gingival Height (mm)	Ø 4.5
2.2	11R-AL-XR011 - Locator Abutment(GH2.2*CD 4.5)
3.0	11R-AL-XR005 - Locator Abutment(GH3.0*CD4.5)
4.0	11R-AL-XR006 -Locator Abutment(GH4.0*CD4.5)



### O ABUTMENT LOCKING SCREW



Product Code 11R-SL-XR001

### HEALING / COVER SCREW O-

Product Code 11R-SH-XR001



### O HEALING ABUTMENT / GINGIVAL FORMER



Gingival	Diameter (mm)			
Height (mm)	Ø 3.8	Ø 4.2	Ø 4.5	Ø 5.2
2.2	11R-AH-XR030	11R-AH-XR001	11R-AH-XR004	11R-AH-XR007
3.0	11R-AH-XR031	11R-AH-XR002	11R-AH-XR005	11R-AH-XR008
4.0	11R-AH-XR032	11R-AH-XR003	11R-AH-XR006	11R-AH-XR009
5.0		11R-AH-XR016	11R-AH-XR018	11R-AH-XR020
6.0		11R-AH-XR017	11R-AH-XR019	11R-AH-XR021

### O HEALING ABUTMENT / GINGIVAL FORMER - SUB CRESTAL

Gingival Height	Diameter (mm)		
(mm)	Ø 4.2	Ø 4.5	Ø 5.2
3.0	11R-AH-XR027	11R-AH-XR025	11R-AH-XR029
4.0	11R-AH-XR028		



### O IMPLANT ANALOG



Product Code 11R-LA-XR001



### IMPRESSION COPING ↔

Product Code	Description
11R-LC-XR009	Impression Coping - Open Tray - Short
11R-LC-XR013	Impression Coping - Open Tray - Long
11R-LC-XR007	Impression Coping - Closed Tray - Short
11R-LC-XR010	Impression Coping - Closed Tray - Long

### - COPING SCREWS



Product Code	Description
11R-LC-S001	Closed Tray Screw - Long



Product Code	Description
11R-LC-S005	Closed Tray Screw - Short

Product Code	Description
11R-LC-S006	Open Tray Screw - Long

Product Code	Description
11R-LC-S002	Open Tray Screw - Short

# Product Information

Multi-Unit Components

### O STRAIGHT MULTI-UNIT



Gingival Height	Dia (mm)	
(mm)	Ø 4.5	
2.2	11R-MS-XR004	
3.0	11R-MS-XR005	
4.0	11R-MS-XR006	

### 17° ANGULAR MULTI-UNIT O-



Gingival Height	Dia (mm)	
(mm)	Ø 5.2	
2.5	11R-MA-XR011	
3.5	11R-MA-XR015	
4.5	11R-MA-XR012	
5.5	11R-MA-XR016	

### - 30° ANGULAR MULTI-UNIT



Gingival Height	Dia (mm)
(mm)	Ø 5.2
3.5	11R-MA-XR017
4.5	11R-MA-XR014
5.5	11R-MA-XR018

### 45° ANGULAR MULTI-UNIT O-



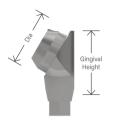
Dia (mm)
Ø 5.2
11R-MA-XR019
11R-MA-XR020

### -O 52° ANGULAR MULTI-UNIT



Gingival Height	Dia (mm)
(mm)	Ø 5.2
4.5	11R-MA-XR021
5.5	11R-MA-XR022
6.5	11R-MA-XR023

### 60° ANGULAR MULTI-UNIT ○



Gingival Height	Dia (mm)
(mm)	Ø 5.5
6.5	11R - MA-XR024

# Product Information

### **Multi-Unit Prosthetics**

### → MULTI-UNIT TI CYLINDER





Multi-unit Ti Cylinder		Multi-unit Fully Castable Cylinder
	Product Code	Product Code
Ø 4.5/Ø 5.2	11R-AL-XR001/11R-AL-XR015	11R-AL-XR008/11R-AL-XR016
Ø 5.2	11R-AL-XR015	11R-AL-XR016
Ø 5.5	11R-AL-XR002	11R-AL-XR013
	Ø 4.5/Ø 5.2 Ø 5.2	Dia (mm)         Product Code           Ø 4.5/Ø 5.2         11R-AL-XR001/11R-AL-XR015           Ø 5.2         11R-AL-XR015



### O MULTI-UNIT HEALING CAP

Multi-Unit Abutment	Dia (mm)	Product Code
For Straight MU	Ø 4.5 / Ø 5.2	11R-MA-HR002/11R-MA-HR004
For 17°, 30°, 45°, 52° MU	Ø 5.2	11R-MA-HR004
For 60° Multi-Unit	Ø 5.5	11R-MA-XR003



### -O MULTI-UNIT PROSTHETIC SCREW



### MULTI-UNIT ABUTMENT SCREW ○



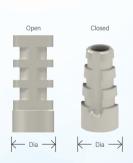
### - MULTI-UNIT ANALOG

Multi-Unit Abutment	Dia (mm)	Product Code
For Straight MU, 17°, 30°, 45°, 52° MU	Ø 4.5 / Ø 5.2	11R-LA-XR002 or 11R-DG-XR011
For 60° Multi-Unit	Ø 5.5	11R-LA-XR003 or 11R-DG-XR012



### → MULTI-UNIT (MU) IMPRESSION COPING

Multi-Unit Abutment	Dia (mm)	MU Impression Coping Open Tray	MU Impression Coping Closed Tray
		Product Code	Product Code
For Straight MU, 17°, 30°, 45°, 52° MU	Ø 4.5/ Ø 5.2	11R-LC-XR002	11R-LC-XR004
For Straight MU, 17°, 30°, 45°, 52° MU	Ø 5.2	11R-LC-XR002	11R-LC-XR012
For 60° Multi-Unit	Ø 5.5		11R-LC-XR005



# -O MU - IMPRESSION COPING SCREW OPEN TRAY



# MU - IMPRESSION COPING SCREW CLOSED TRAY



### -O DIGITAL SCAN BODY

	Dia (mm)	
Types	Ø 3.8	Ø 4.5
Short	11R-DG-XR007	11R-DG-XR003
Long	11R-DG-XR008	11R-DG-XR006









Description	Product Code
Retention Screw	11R-RS-XR001



### - MULTI-UNIT DIGITAL SCAN BODY

Multi-Unit Abutment	Dia (mm)	Product Code
For Straight MU, 17°, 30°, 45°, 52° MU	Ø 4.0 - Short Ø 4.0 - Long	11R-DG-XR010 11R-DG-XR009
For 60° Multi-Unit	Ø 5.2 - Short Ø 5.2 - Long	11R-DG-XR014 11R-DG-XR013



### O MULTI-UNIT DIGITAL ANALOG

Multi-Unit Abutment	Product Code
For Straight MU, 17°, 30°, 45°, 52° MU	11R-DG-XR011
For 60° Multi-Unit	11R-DG-XR012



Description	Product Code
Multi-Unit Prosthetic	11R-SL-MR001
Screw	



Description	Product Code
Retention Screw	11R-RS-XR001



### → Ti BASE WITH HEX

Gingival		Dia (mm)		
Height (mm)	Ø 3.8	Ø 4.2	Ø 4.5	
1.2		11R-AT-XR004	11R-AT-XR008	
2.2	11R-AT-XR001	11R-AT-XR005	11R-AT-XR009	
3.0	11R-AT-XR002	11R-AT-XR006	11R-AT-XR010	
4.0	11R-AT-XR003	11R-AT-XR007	11R-AT-XR011	



### TI BASE WITHOUT HEX O-



Gingival	Dia (mm)		
Height (mm)	Ø 3.8	Ø 4.2	Ø 4.5
1.2		11R-AT-XR015	11R-AT-XR019
2.2	11R-AT-XR012	11R-AT-XR016	11R-AT-XR020
3.0	11R-AT-XR013	11R-AT-XR017	11R-AT-XR021
4.0	11R-AT-XR014	11R-AT-XR018	11R-AT-XR022



Product Code 11R-TK-XR001





REFIRM SURGICAL KIT COMPACT O-

Product Code

11R-TK-XR002

O REFIRM SURGICAL KIT PRIME

Product Code 11R-TK-XR003



### O DRILLS

Description	Product Code	Diameter (mm)
Lance Drill	11R-TD-XR001-A	-
Pilot Drill	11R-TD-XR002-A	Ø 2.0
Drill	11R-TD-XR003-A	Ø 2.5
Taper Form Drill	11R-TD-XR004-A	Ø 2.9
Taper Form Drill	11R-TD-XR005-A	Ø 3.4
Taper Form Drill	11R-TD-XR006-A	Ø 3.9
Taper Form Drill	11R-TD-XR007-A	Ø 4.4
Taper Form Drill	11R-TD-XR008-A	Ø 4.9
Countersink Drill	11R-TD-XR009	Ø 3.2/2.9
Countersink Drill	11R-TD-XR010	Ø 3.7/3.4
Countersink Drill	11R-TD-XR011	Ø 4.2/3.9
Countersink Drill	11R-TD-XR012	Ø 4.7/4.4
Countersink Drill	11R-TD-XR013	Ø 5.3/4.9



### -O STOPPERS

Implant Length (mm)	For Drill Ø 2.0 to Ø 3.4
8.5	11R-TS-XR001
10.0	11R-TS-XR002
11.5	11R-TS-XR003
13.0	11R-TS-XR004
15.0	11R-TS-XR005



Implant Length (mm)	For Drill Ø 3.9 to Ø 4.9
8.5	11R-TS-XR006
10.0	11R-TS-XR007
11.5	11R-TS-XR008
13.0	11R-TS-XR009
15.0	11R-TS-XR010

Countersink Drill

### O IMPLANT DRIVER-ASSURE SERIES

Description	Product Code
Implant driver-Assure Physio Adaptor	11R-TR-XR027
Implant driver-Assure-Short	11R-TR-XR020
Implant driver-Assure-Long	11R-TR-XR021





Taper Form Drill

### O PARALLELING PIN

Dia (mm)	Product Code	
Ø 2.0 / 2.5	11R-TP-XR001	
Ø 2.5 / 2.9	11R-TP-XR002	
Ø 2.9 / 2.0	11R-TP-XR003	



### HAND PIECE (HP) IMPLANT DRIVER



Types	Product Code		
Types	Flex Grip	Passive	Ring
Short	11R-TH-XR005	11R-TH-XR007	11R-TH-XR001
Long	11R-TH-XR006	11R-TH-XR008	11R-TH-XR002

### IMPLANT RATCHET DRIVER SQ - HEAD(4X4)

Tunna	Product Code		
Types	Flex Grip	Passive	Ring
Short	11R-TR-XR025	11R-TR-XR030	11R-TR-XR015
Long	11R-TR-XR026	11R-TR-XR031	11R-TR-XR016



### -O CONTRA - ANGLE CONNECTOR - SQ HEAD FOR RATCHET





(Can be used for straight multi-unit tightening)

### 11R-TX-XR001

**Product Code** 

DRILL EXTENDER ○-







### RATCHET ADAPTOR (4x4) ○-

Product Code	
11R-TR-XR022	



#### O DEPTH MARKER

Dia (mm)	Product Code	
Ø 2.0	11R-TG-XR001	
Ø 2.5	11R-TG-XR002	



### 1.25 HEX DRIVER WITH - SQ - HEAD (4x4) O-

Length (mm)	Product Code
Short - 17 mm	11R-TR-XR018
Long - 23 mm	11R-TR-XR019
Long - 27 mm	11R-TR-XR028



Note: To be used with Ratchet adaptor for hand tightening

### O TORQUE WRENCH

Settable Spring		
Description	Product Code	
With integrated Ratchet adaptor 4X4	11R-TW-XR027	

Note: Range 15-45 Ncm

Lever Type	
Description	Product Code
With integrated Ratchet adaptor 4X4	11R-TW-XR026
Note : Ra	nge 15-50 Ncm





Made from superior medical Grade 23 Titanium, incorporating the most recent advances in the field and novel features, Refirm® dental Implants are developed for market leading performance in ease of placement and stability. These implants are backed by years of research and testing. It is clinically validated for long-term success. This Implant system along with the complete set of associated instruments and armamentarium are designed and made in India with passion and pride. With a design that focuses on optimizing variety, a responsive supply chain, this offering is centered on winning dentists confidence and patient comfort.

Manufactured by

# Int=ssence Solutions Pvt. Ltd.

License Number: MFG/MD/2020/000134

167/1, 3<sup>rd</sup> Cross, 1<sup>st</sup> Stage, Peenya Industrial Estate, Bangalore - 560058, Karnataka, India

> Email: info@intessence.in Website: www.intessence.in

MSME-UDYAM Registration No.: UDYAM-KR-03-0075081

Customer Care Number: +91 80 4170 5021, +91 7975246070

