



# GIRAFFE & ZEBRA

## Commissioning and Machine QA

180 measurement points in one shot  
for high accuracy and speed

PARTICLE THERAPY QA

PROTECT +  
ENHANCE +  
SAVE LIVES

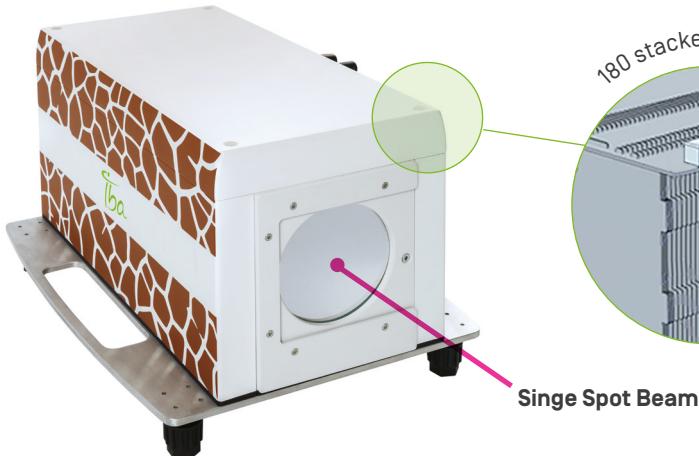
## Machine QA



### For single-spot & bragg peak measurements

#### Electrode: 12 cm large diameter

- Reconstruct the bragg peak for a single-spot within seconds
- Instant absolute range verification for weekly & monthly QA



**Single Spot Beam**

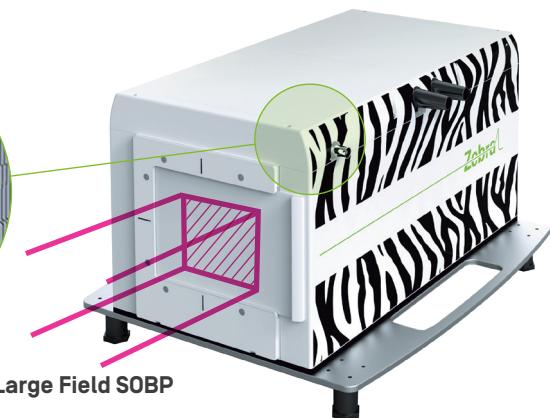
## Commissioning and Machine QA



### For scanned monolayer & SOBP checks

#### Electrode: 2.5 cm small diameter

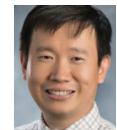
- 3x faster commissioning vs. single detector measurements
- Save up to three hours for scanned beams compared to a single SOBP reconstruction using a water tank
- Acquire monolayers and dose cubes with a single irradiation



**Large Field SOBP**

One important device you really need to have in a Proton Center is a Zebra. It makes your life much easier because it measures a PDD Bragg peak and SOBP much quicker than with a water phantom. The Zebra helps to significantly reduce your commissioning time.

Dr. Ding, Lead Medical Physicist, Proton Beam Therapy at William Beaumont Health System



## Giraffe & Zebra

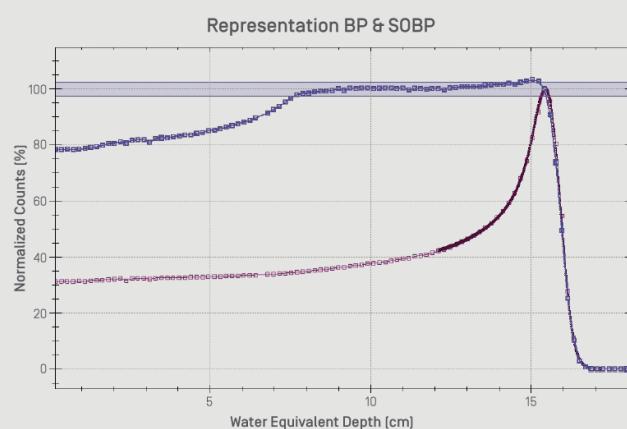
### Key Benefits

- Instant absolute range verification for monthly and annual QA
- Water-equivalent material for equivalent scattering properties
- Verify the TPS library periodically without setting up your water tank
- Measurements at any angle supported [not possible with water tank]

### Technical Specifications

- Measure ranges with an accuracy of 0.5 mm compared to measurements in water (Bortfeld fit)
- Verify the full clinical range up to 230 MeV
- 43.9 cm [L] × 19.5 cm [H] × 17.5 cm [W]
- 180 chambers with 2 mm pitch [1 mm pitch supported with WET cover and automatic software reconstruction]

Consult your IBA Dosimetry Expert for a detailed presentation of Zebra and Giraffe



Click / Scan  
to watch the Zebra video

