

inpac

### Our service, Your success

## From raw product to market ready medical devices

### Production of packaging material in clean rooms of ISO class 7

- Hard blisters (PETG, APET)
- Soft blisters (OPA/PE, medical paper, Tyvek®)
- Peel pouches (OPA/PE, PET/PE, medical paper, Tyvek®)
- Production of sealing lids (Tyvek®, medical paper) for hard blisters
- Digital colour printing on Tyvek®

### Packaging design and development

- 3D-construction of standard, individual and transport blisters
- Thermoforming simulation software
- Making of prototypes

# Cleaning of chemical, biological and particulate contamination

- Washing and disinfection machine, with and without detergent substances
- Rinsing bath with and without Isopropanol (IPA)
- Ultrasonic bath with and without IPA

# Assembly of medical devices according to customer specifications

 ESD workplace for the assembly of electronic components

### Logistic services

Inpac vehicle fleet or service providers



#### **Contract packaging**

- With prefabricated blisters and pouches
- In-line production, packaging and labelling in hard/soft blisters and pouches

#### Sterilisation

- Radiation at external partners
- Ethylene oxide at external partners or at in-house EO sterilisation plant

### Labelling

- Label Design according to DIN EN ISO 15223-1 as well as UDI requirements
- Labelling of the products (including bar codes, data matrix codes etc.)

#### **Procurement**

- Procurement of product components (mechanical/electronic/chemical)
- Procurement of cardboard boxes and folding boxes
- Procurement of instructions for use and labels



# Accompanying validations and documentations

The documents are generally issued in English. Further languages may be provided on demand.

## Cleaning validations according to ISO 19227

- Investigation of bioburden ISO 11737-1, USP [61]
- Investigation of particle reduction USP [788]
- Investigation of cytotoxic substances, ISO 10993-5
- Investigation of endotoxins, USP [85]
- Investigation of organic and inorganic residues ISO 10993-12, -15, -18
- Biocompatibility ISO 10993-1

#### Sterilisation validations

- According to DIN EN ISO 11137-1,-2,-3 (gamma)
- According to DIN EN ISO 11135 (ethylene oxide)

#### Packaging validation

- DIN EN ISO 11607-1,-2, DIN EN 868-5, ASTM F1140, F88/F88M, ASTM F1929, ASTM F3039
- Accelerated aging ASTM F1980
- Real-time aging according to an internal standard

#### **Transport Simulation**

 ASTM D4169 DC 13, ISTA 2A, ISTA 3A, with pre-conditioning according to ASTM D4332

#### Packaging tests

- Visual inspection, ASTM F1886
- Seal strength test, DIN EN 868-5 and/or ASTM F88/F88M
- Dye penetration test, ASTM F1929, ASTM F3039
- Burst test, ASTM F1140
- Investigation of the microbiological barrier property DIN EN 58953-6
- Bubble test ASTM F2096

Safe. Sterile. Packaging.