DP04

DESIGN AND UNDERSTANDING TECHNOLOGY FOR WELDING

TRAINING MODELS ON WELDING TECHNOLOGY
These training aids are proposed to give the students a familiarity of the basic technical and practical aspects of welding preparation and execution.

There are two main aspects to be considered in teaching welding practice:

- The preparation of parts before the welding occurs
- The need to visually compare metal parts welded by expert workers

A complete set of training panels is presented in the following pages, each one composed by two units: the first representing parts preparation, the second representing workmanlike welding.

Training panels cover the majority of the most important welding processes, such as:

- Gas and arc welding for seam-type fusion welding; various joint configuration are presented;
- Gas and arc welding for intermittent fusion welding; various joint configurations are presented;
- Main pressure welding processes;
- Gas braze welding and brazing for various joint configurations.
SEAM-TYPE FUSION WELDING MODELS-BUTT JOINTS
Set of butt joint models for the study and application of seam-type fusion welding

Each butt joint model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of butt joints consisting of:
• Convex, edge weld (atomic-hydrogen)
• Convex, square groove weld (gas)
• Single-Vee groove weld, flat (gas)
• Single-Vee groove weld, convex, welded on both sides (arc)
• Single-Vee groove weld convex, welded on both sides (gas)
• Single-U groove weld, flat (arc)
• X-seam, dissymmetrical, convex (gas)
• Double-U groove weld, flat-convex (arc)
• Double-J groove weld, flat-convex (arc)

Code: DP0411/100/001 SERIES

SEAM-TYPE FUSION WELDING MODELS-EDGE JOINTS
Set of edge joint models for the study and application of seam-type fusion welding

Each edge joint model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of edge joints consisting of:
• Square groove weld, convex (arc) field weld
• Single-U groove weld, convex (arc)

Code: DP0411/100/002 SERIES

SEAM-TYPE FUSION WELDING MODELS-CORNER JOINT CONVEX FILLET WELD (GAS)
Corner joint convex fillet weld (gas) model for the study and application of seam-type fusion welding.

The corner joint convex fillet weld (gas) model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Code: DP0411/100/003 SERIES
SEAM-TYPE FUSION WELDING MODELS - T-JOINTS
Set of T-joint models for the study and application of seam-type fusion welding.

Each T-joint model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of T-joints consisting of:
- Flat fillet weld (arc)
- Symmetrical fillet weld (gas)
- Flat fillet weld
- Single-bevel groove weld, concave (arc)
- K-groove weld, concave (gas)

Code: DP0411/100/005 SERIES

SEAM-TYPE FUSION WELDING MODELS - L-JOINTS
Set of L-joint models for the study and application of seam-type fusion welding.

Each L-joint model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of L-joints consisting of:
- Concave fillet weld (gas)
- Flat fillet weld and single J-groove weld, flat (arc)

Code: DP0411/100/004 SERIES

SEAM-TYPE FUSION WELDING MODELS - LAP-JOINTS
Set of lap joint models for the study and application of seam-type fusion welding.

Each lap joint model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of lap-joints consisting of:
- Fillet welds, flat (atomic-hydrogen)
- Fillet welds, flat and concave (gas)

Code: DP0411/100/006 SERIES
INTERMITTENT FUSION WELDING MODELS- BUTT JOINT SQUARE GROOVE WELD, FLAT (GAS)
Butt joint square groove weld, flat (gas) model for the study and application of intermittent fusion welding.

The butt joint square groove weld, flat (gas) model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Code: DP0411/101/001 SERIES

INTERMITTENT FUSION WELDING MODELS- EDGE JOINT SQUARE GROOVE WELD, CONVEX ARC FILLED WELD
Edge joint square groove weld, convex (arc) filled weld for the study and application of intermittent fusion welding.

The edge joint square groove weld, convex (arc) field weld model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Code: DP0411/101/002 SERIES

INTERMITTENT FUSION WELDING MODELS- T-JOINTS
Set of T-joints for the study and application of intermittent fusion welding.

Each set of the T-joint model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of T-joints consisting of:
- Symmetrical fillet weld with staggered intermittent welds (gas)
- Flat fillet welds, with staggered intermittent welds (gas)
- Symmetrical fillet welds, flat and concave with chain intermittent fillet welds (arc)
- Staggered fillet welds (gas)

Code: DP0411/101/003 SERIES

INTERMITTENT FUSION WELDING MODELS- LAP JOINTS
Set of lap joints for the study and application of intermittent fusion welding.

Each set of the lap joint model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of lap joints consisting of:
- Continuous and staggered fillet weld (arc)
- Flat fillet welds, staggered (arc)
- Plug weld inside straight edge hole (gas)
- Plug weld inside scarfed hole (arc)

Code: DP0411/101/004 SERIES
BRAZE WELDING MODELS - BUTT JOINTS
Set of butt joints for the study and application of braze welding.

Each set of the butt joint model comprises two units. The first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of butt joints consisting of:
• Single-Vee groove braze weld, convex welded both sides
• Single-X groove, dissymmetrical, convex braze weld

Code: DP0411/103/001 SERIES

BRAZE WELDING MODELS - L-JOINT, SYMMETRICAL CONCAVE FILLET BRAZE WELD
L-joint - symmetrical concave fillet braze weld - for the study and application of braze welding.

The L-joint model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Code: DP0411/103/002 SERIES

BRAZE WELDING MODELS - T-JOINTS
Set of T-joints for the study and application of braze welding.

Each T-joint model comprises two units. The first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of T-joints consisting of:
• Concave, symmetrical fillet braze weld
• Concave, K-groove braze weld

Code: DP0411/103/003 SERIES

BRAZE WELDING MODELS - LAP JOINT, CONCAVE FILLET BRAZE WELD
Model of lap joint - concave fillet braze weld - for the study and application of braze welding.

The lap joint model comprises two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Code: DP0411/103/004 SERIES
BRAZING MODELS

Set of brazing models

Each brazing model comprise two units: the first one executed by highly skilled technicians and the second one showing the correct preparation of the joints to be welded.

Models of consisting of:

- Lapped brazing
- Flush, bevelled brazing
- Brazing on folded seam

Code:  D0411/104/001 SERIES