# SINGLE WALL CHIMNEYS AND LINERS DIA. 180 mm TO 400 mm

# **FIELD OF APPLICATION:**

BURNERS RUNNING ON GAS OIL, FUEL OIL, NATURAL AND LIQUID GAS, COAL, WOOD.

EXHAUSTS USED IN THE ABOVE APPLICATIONS SHOULD COMPLY WITH THE FOLLOWING REQUIREMENTS AS PER EUROPEAN STANDARDS:

## **MATERIALS:**

EUROSEL SERIES - 316L STAINLESS STEEL AISI 316L (1.4404) THICKNESS 0.5 mm

## **OPERATING TEMPERATURE:**

450° C FOR CONTINUOUS DUTY. 750° C FOR INTERMITTENT DUTY.

## PRESSURE TIGHTNESS

(ACCORDING TO Pr EN1856): N1 40 Pa - 2 l/sm<sup>2</sup> WITH SEAL P2 200 Pa - 0.006 l/sm<sup>2</sup>

## **MAIN CHARACTERISTICS:**

- SINGLE WALL CONSTRUCTION, SUITABLE FOR NEW CHIMNEYS AND FOR RELINING PRE-EXISTING CHIMNEYS.
- THE CHIMNEY SECTIONS ARE ASSEMBLED, AFTER SUITABLE CALIBRATION, THROUGH «MALE-FEMALE» JOINTS, WHILE THERE IS PROVISION FOR STATIC CLAMPING WITH STANDARD WALL CLIPS.
- CHIMNEY SECTIONS SHOULD SPECIALLY DESIGNED TO ALLOW FITTING, IN THE JOINING POINT, A SPECIFIC ELASTOMERIC SEAL (NOT STANDARD ACCESSORY SEE «SEAL» SPECIFICATION) WHICH ENSURES A GAS-TIGHTNESS AS PRESCRIBED BY PR EN 1856.
- ALL CHIMNEY SECTIONS OF THIS LINE ARE WELDED UNDER SHIELDING GAS.

## INTERNATIONAL STANDARDS:

THE PREFABRICATED EXHAUST MATERIAL AND ACCESSORIES SHOULD GENERALLY MEET INTERNATIONAL STANDARDS (UNI, DIN, AFNOR) IN REGARDS TO:

- QUICK AND EASY INSTALLATION WITH PROVISION FOR ADAPTING TO MORE COMPLEX PATHS
- PERFECTLY IMPERMEABLE TO CONDENSATE
- GAS TIGHT
- QUICK REACHING OF OPERATING CONDITIONS
- RAPID ACTIVATION OF DRAUGHT
- SUITABLE INSULATED WITH INSULATING SLABS (SEE «ACCESSORIES» SPECIFICATION) THUS AVOIDING BUILD OF CONDENSATE

# THE LINE SHOULD CONSIST OF THE FOLLOWING (see figure)

- STRAIGHT CHIMNEY SECTION
- BOILER FITTING
- TEMPERATURE MEASURING DEVICE WITH INSPECTION OPENING
- 22.5° ELBOWS
- 45° ELBOWS
- COMPENSATION SECTION
- 90° TEE FITTING/INSPECTION OPENING WITH CIRCULARCLOSURE
- 135° FITTING
- EXTRUDED BOILER COUPLING "CFT"
- EXTRUDED BOILER COUPLING "CFT" FOR RELINING
- WALL SUPPORT
- TEE SUPPORT FOR RELINING
- UNBURNT FUEL CHAMBER
- INSPECTION OPENING
- END CAP
- INSPECTION CAP
- CONDENSATE CONVEYOR
- ANCHORING ELEMENT
- INTERMEDIATE EXPANSION JOINT
- END EXPANSION JOINT
- ALIGNMENT CLIP
- WALL CLIP
- FLAT CHIMNEY RAIN STOP WITH CLIP
- SLOPING CHIMNEY RAIN STOP 5°TO 30° WITH CLIP
- SLOPING CHIMNEY RAIN STOP 31°TO 45° WITH CLIP
- ANTI-BACKFLOW TERMINAL
- RAIN CAP
- SEAL

## STRAIGHT CHIMNEY SECTION

THE STRAIGHT CHIMNEY SECTION IS THE MAIN COMPONENT CONNECTING FLUE PIPE AND CHIMNEY.

## **BOILER FITTING**

THE BOILER FITTING IS USEDFOR CONNECTION BETWEENTHE CONNECTING FLUE PIPEAND BOILER. OWING TO THE WIDE VARIETY OF SIZES AND TIGHTNESS REQUIREMENTS, IT IS RECOMMENDED TO SEAL THE INLET WITH SUITABLE MATERIAL.

## TEMPERATURE MEASURING DEVICE WITH INSPECTION OPENING

THE TEMPERATURE MEASURING DEVICE WITH INSPECTION OPENING IS USED FOR ANALYSIS OF THE SMOKE/FUMES, MEASURING THE EFFICIENCY OF COMBUSTION AND CHECKING THE BURNER OUTLET TEMPERATURE. THIS COMPONENT ALLOWS COMBINING THE SMOKE DETECTION FUNCTION WITH THAT OF INSPECTION.

## 22.5° ELBOWS

THE CURVES ARE DESIGNED WITH ANGLES OF 22.5°. THEY ARE USED FOR DISPLACEMENT AND CONNECTIONS BETWEEN THE CHIMNEYAND CONNECTING FLUE PIPE.

## **COMPENSATION SECTION**

THE COMPENSATION SECTION, WITH ADJUSTABLE HEIGHT, SERVES FOR BUILDING A CHIMNEY SYSTEM TO THE REQUIRED SIZE.

## EXTRUDED 90° TEE FITTING / INSPECTION OPENING WITH CIRCULAR CLOSURE

THE 90° TEE FITTING SERVES FOR CORRECTAND QUICK CONNECTION BETWEEN THE CONNECTING FLUE PIPE AND CHIMNEY WITH COUPLING AT 90°. IT IS MANUFACTURED BY MEANS OF INTERNAL AND EXTERNAL EXTRUSION AND ENSURES GAS-TIGHTNESS AND MECHANICAL STRENGTH. WHEN PROVIDED WITH SPECIALCAP (SEE SPECIFICATIONS "INSPECTION CAP"), THE FITTING PERFORMS THE DUAL FUNCTION OF INSPECTION OPENING.

## 135° FITTING

THE 135° FITTING SERVES FOR CORRECT AND EASY CONNECTION BETWEEN THE CONNECTING FLUE PIPE AND CHIMNEY

WITH 45° COUPLING. IT CAN ALSO BE USED FOR MULTIBOILER MANIFOLDS.

## **EXTRUDED BOILER COUPLING «CFT»**

THE CFT FINDS IDEAL APPLICATION FOR CONVEYING, INTO A SINGLE CHIMNEY SYSTEM THE DISCHARGES FROM VARIOUS

GAS-FIRED APPLIANCES WITH FORCED DRAUGHTAND GAS-TIGHT CHAMBER (TYPE "C"). THE BOILER COUPLING IS PROVIDED WITH A CONNECTION TO THE CHIMNEY, EITHER 80 mm OR 100 mm DIAMETER. STANDARD LENGTH IS 450 mm. MANUFACTURED BY MEANS OF EXTRUSION, ENSURES PERFECT GAS-TIGHTNESS AND GOOD MECHANICAL STRENGTH.

## **EXTRUDED BOILER COUPLING CFT FOR RELINING**

IDEAL IN CASE OF RELINING FOR CONVEYING, INTO A SINGLE CHIMNEY SYSTEM THE DISCHARGES FROM VARIOUS GAS-FIRED APPLIANCES WITH FORCED DRAUGHTAND GASTIGHT CHAMBER (TYPE "C".THE COMPACT DESIGN OF THE THREADED AND MODULAR COUPLING IS 10 mm. THE BOILER COUPLING IS PROVIDED WITH A CONNECTION TO THE CHIMNEY, 80 mm DIAMETER. STANDARD LENGTH IS 450 mm; IT IS

MANUFACTURED BY MEANS OF EXTRUSION.

## WALL SUPPORT

THE WALL SUPPORT SERVES FOR SUPPORTING THE CHIMNEY WHEN THE LATTER IS INSTALLED IN THE VICINITY OF AN ALREADY EXISTING SUPPORT STRUCTURE. AN APPROPRIATE ANCHORING SYSTEM SHOULD BE USED, CONFORMING WITH SUCH STRUCTURE. THE WALL SUPPORT IS ADJUSTABLE AND REVERSIBLE. DISTANCE FROM THE WALL IS ADJUSTABLE FROM 80 mm to 120 mm.

## TEE SUPPORT FOR RELINING

THE TEE SUPPORT SERVES FOR SUPPORTING THE CHIMNEY SYSTEM. IT IS NORMALLY GROUTED INTO THE ALREADY EXISTING CHIMNEY SHAFT. IT ALLOWS CONNECTING, IN THE UNDERLYING PART, EITHER THE 90° TEE OR 135° FITTING AS WELL AS THE REGULATORY COMPONENTS.

## **UNBURNT FUELCHAMBER**

THE UNBURNT FUEL CHAMBER IS COMPULSORY AND SHOULD BE FITTED AT THE BOTTOM OF THE CHIMNEY WHEN USING SOLID OR LIQUID FUELS. FOR GASEOUS FUELS, REFERENCE SHOULD BE MADE TO THE INSPECTION OPENING WITH CONDENSATE CONVEYOR.

## **INSPECTION OPENING**

THE INSPECTION OPENING IS PRESCRIBED TO ALLOW INSPECTION INSIDE THE CHIMNEY. THIS COMPONENT SHOULD BE INSTALLED COMPLETE WITH AGAS-TIGHT CLOSURE. WHEN INSTALLED AT THE BOTTOM OF CHIMNEYS FOR SERVICE WITH GASFIRED APPLIANCES, IT SHOULD BE PROVIDED WITH A CONDENSATE CONVEYOR.

#### **END CAP**

THE END CAP IS USED FOR TERMINATING THE CHIMNEY. AS IT IS REMOVABLE, IT ALLOWS ACCESS INSIDE THE CHIMNEY FOR INSPECTION AND CLEANING. WHEN FITTED WITH A SPECIAL SEAL, NOT SUPPLIED AS STANDARD, (SEE «SEAL» SPECIFICATION) IT ENSURES GAS-TIGHTNESS IN ACCORDANCE WITH pren 1856. INSPECTION CAP

THE INSPECTION CAP FITTED WITH SEAL TO ENSURE GASTIGHTNESS IS APPLIED TO THE EXTRUDED 90° TEE FITTING. AS IT IS REMOVABLE AND PROVIDED WITH A TIGHTENING HANDLE, IT ALLOWS ACCESS INSIDE THE CHIMNEY FOR INSPECTION AND CLEANING.

#### CONDENSATE CONVEYOR

THE CONDENSATE CONVEYOR SERVES FOR DRAINING OFF ANY CONDENSATE PRODUCED DURING THE TRANSIENT PHASE OF BRINGING THE CHIMNEY UP TO OPERATING CONDITIONS OR RAIN WATER COMING FROM THE TERMINAL. IT IS PROVIDED WITH A THREADED STAINLESS STEEL NIPPLE.

## ANCHORING ELEMENT

THE ANCHORING ELEMENT IS DESIGNED FOR FACILITATING INTRODUCTION OF THE CHIMNEY SYSTEM IN PRE-EXISTING TECHNICAL CHIMNEY SHAFTS THUS ENSURING QUICK CABLE POSITIONING.

## INTERMEDIATE EXPANSION JOINT

PURPOSE OF THE INTERMEDIATE EXPANSION JOINT NOT ONLY THAT OF COMPENSATING FOR ELONGATION OF THE CHIMNEY SYSTEM; IT ALSO SERVES FOR SUPPORTING CONTINUATION OF THE CHIMNEY. USE OF THIS COMPONENT IS RECOMMENDED IN ORDER NOT TO OVERLOAD THE TEE SUPPORT IN THOSE CASES WHEN THE HEIGHT, AND CONSEQUENTLYTHE WEIGHT, OF THE CHIMNEYSYSTEM ARE RELATIVELY HIGH.

## **END EXPANSION JOINT**

THE END EXPANSION JOINT IS LOCATED AT THE TOP OF THE CHIMNEY SYSTEM. IT COMPENSATES FOR ELONGATION OF LATTER OWING TO HIGH TEMPERATURE OF THE FUMES FLOWING THROUGH THE CHIMNEY. IN ADDITION TO THIS, IT ALSO SERVES TO COVER THE EXISTING CHIMNEY POT.

## ALIGNMENT CLIP

THE ALIGNMENT CLIP SERVES FOR KEEPING THE CHIMNEY SYSTEM IN CENTRAL POSITION WITH REFERENCE TO THE ALREADY EXISTING MASONRY CHIMNEY SHAFT

## **WALL CLIP**

TASK OF THE WALL CLIP IS TO GUIDE THE CHIMNEY AND ALLOW SLIDING DUE TO THERMAL ELONGATION. IT SERVES

FOR BRACING, NOT SUPPORT. THE WALL CLIP SHOULD BE INSTALLED ABOUT EVERYTWO SECTIONS, PREFERABLY CLOSE TO THE JOINT BETWEEN SECTIONS. AN ADJUSTABLE SPACER, 80 mm TO 130 mm, MIGHT BE AVAILABLE ON REQUEST.

## SEAL

THE SEAL IS MADE OF AN ELASTOMER WITH TRIPLE TEARPROOF EDGE PROFILE, TO BE USED FOR GAS-FIRED BURNERS

OR BURNERS WITH FUME TEMPERATURE NOT EXCEEDING 200° C UNDER CONTINUOUS DUTY OR 250° C UNDER INTERMITTENT DUTY. USE OF THIS SEAL ENSURES GASTIGHTNESS AS ACCORDING TO pr EN 1856.