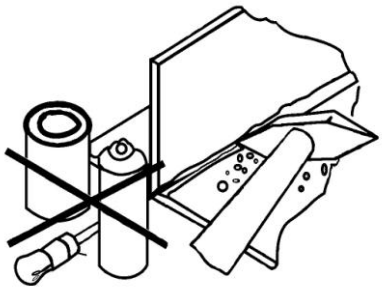
CERINTE SI RECOMANDARI

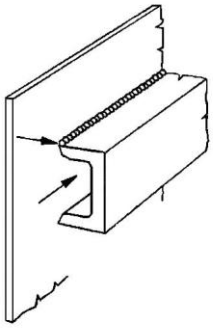
privind materialul de baza si suprafetele pieselor supuse zincarii termice

Element	Cerinte si recomandari
MATERIAL DE BAZA	Cerinta: materialul de baza (otel) trebuie sa fie adecvat pentru zincare termica potrivit strandardelor EN ISO 14713 / ASTM A 385, avand in compozitia sa urmatoarele procente maximale din elemente chimice de mai jos: • C: < 0.25% • Mn: < 1.35% • Si + P: < 0.05% • Al: < 0.04% Se recomanda: conform clauzei 7.4.3 din standardul EN ISO 10025-2:2004, tipurile de material pot fi produse din otel S235 / S275 / S355 corespunzator: • Clasei 1 (Si ≤ 0.03% si Si + 2.5 P ≤ 0.09%) sau • Clasei 3 (0.14% ≤ Si ≤ 0.25% si P ≤ 0.035%)
SUPRAFATA	Cerinta: toate suprafetele vor fi curate si in special libere de: • vopsea / grund / lac • marker permanent • smoala • etichete

INSTRUCTIUNI DE PROIECTARE SI EXECUTIE A PRODUSELOR in vederea asigurarii celei mai bune protectii anticorozive prin zincare termica

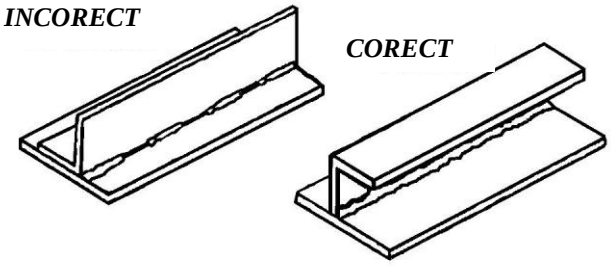
- ***Nu aduceti repere cu reziduuri de vopsea, vaselina sau zgura de sudura.***



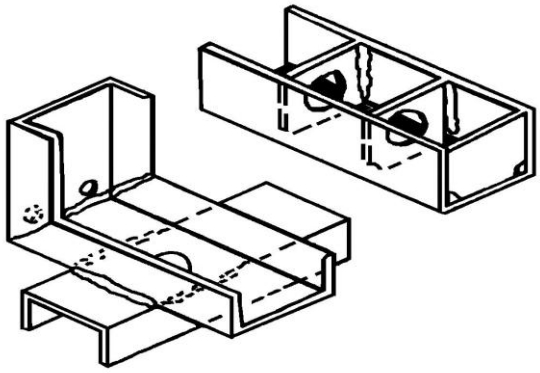


- ***Cordoanele de sudura vor fi continue, fara pori si perfect debavurate***

INCORECT ***CORECT***

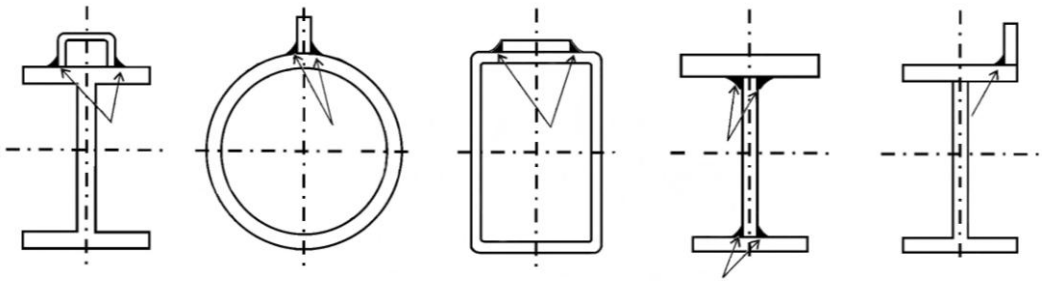


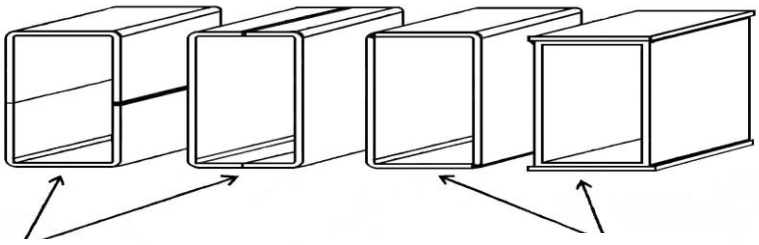
- ***Profilele nu vor fi asamblate prin suprapunere pe laturi***



- ***Produsele nu trebuie sa prezinte colturi inchise sau unghiuri moarte***

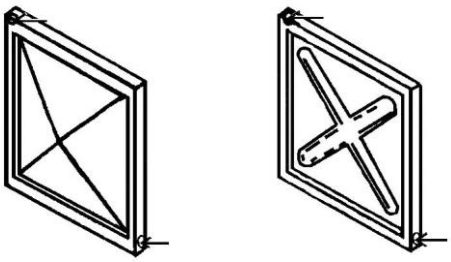
-Sudurile din figurile alaturate pot suferi deformari in timpul zincarii termice.





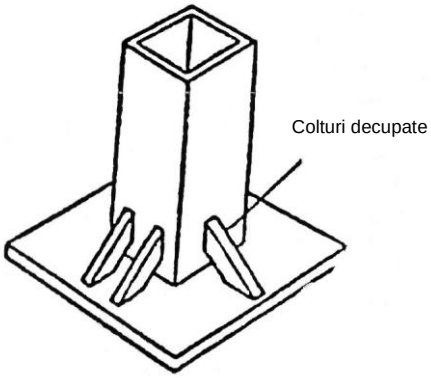
- Pentru evitarea deformarii la imersia in baia de zinc topit, se recomanda sudura in axele centrului de greutate sau simetric cu acestea.

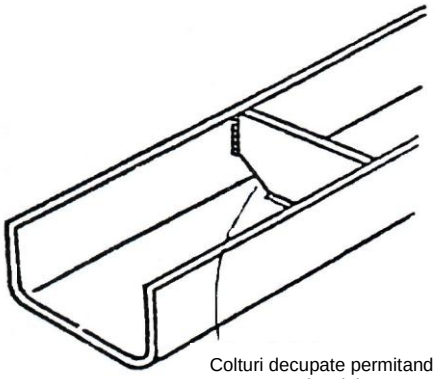
CORECT ***INCORECT***



- ***suprafetele plane (tabla) trebuie sa permita dilatarea prin nervuri, indoiri radiale sau piramidale, etc.***

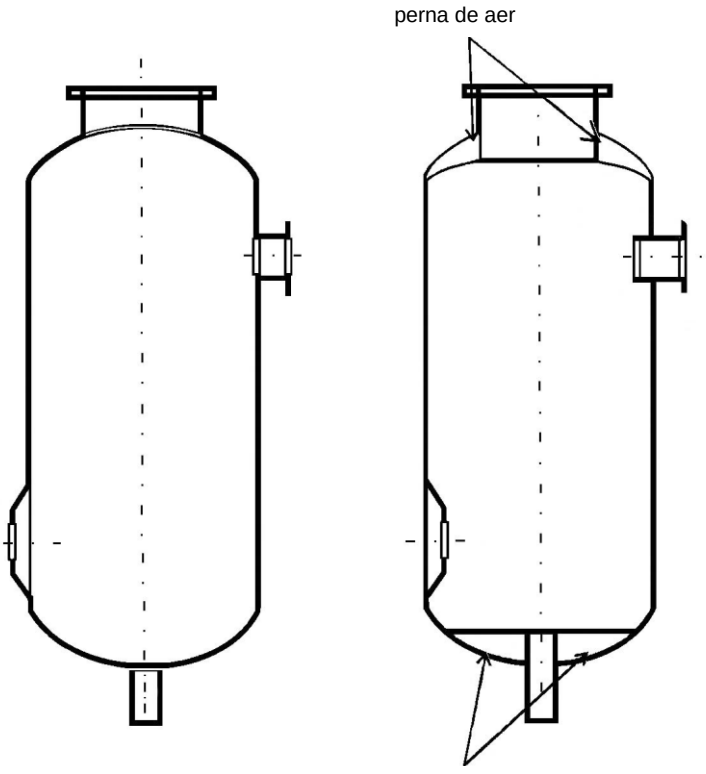
- ***Constructiile sudate trebuie sa aiba colturile decupate pentru a permite scurgerea zincului***





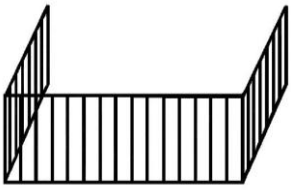
Colturi decupate permitand scurgerea zincului

- ***Racordurile la recipiente trebuie amplasate corect pentru a permite acoperirea adecvata a intregii suprafete interioare si pentru a asigura scurgerea zincului.***

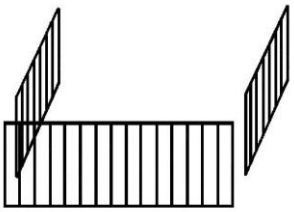


CORECT ***INCORECT***

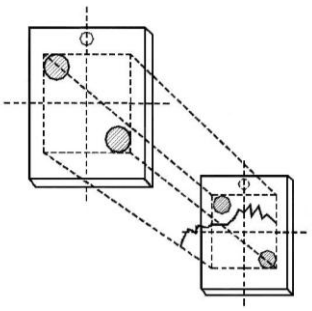
- ***Proiectare modulara***

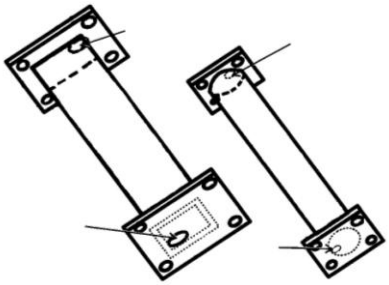


INCORECT



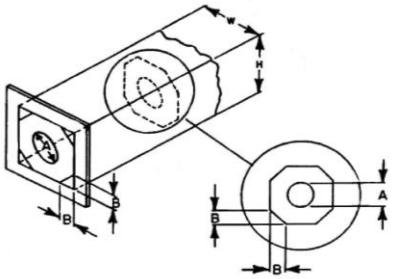
CORECT

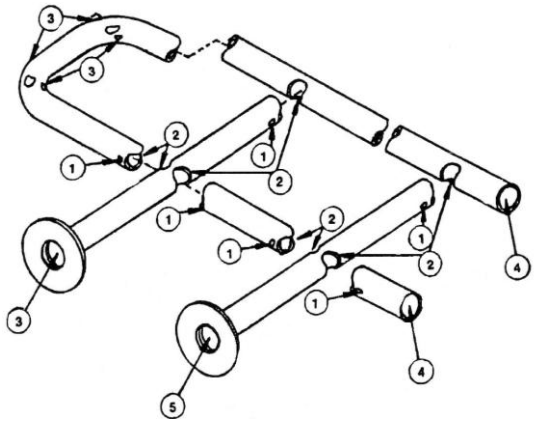


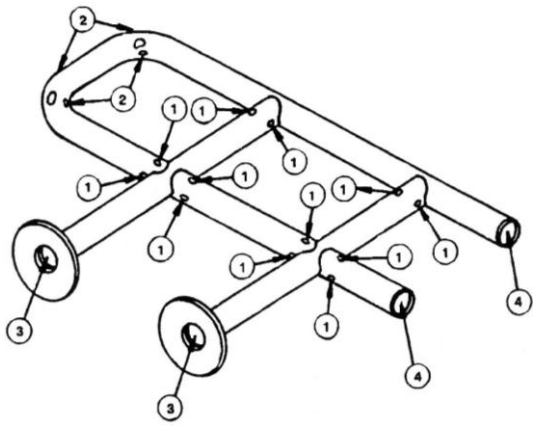


- ***Se recomanda ca inca din faza de proiectare sa se prevada gauri tehnologice care sa permita scurgerea usoara si libera a zincului topit***

Dimensiuni profile (mm) ○	□	▭	***Diametru minim (mm) la numar de gauri:*** ***1***	***2***	***4***
15	***15***	***20 x 10***	***8***		
20	***20***	***30 x 15***	***10***		
30	***30***	***40 x 20***	***12***	***10***	
40	***40***	***50 x 30***	***14***	***12***	
50	***50***	***60 x 40***	***16***	***12***	***10***
60	***60***	***80 x 40***	***20***	***12***	***10***
80	***80***	***100 x 60***	***20***	***16***	***12***
100	***100***	***120 x 80***	***25***	***20***	***12***
120	***120***	***160 x 80***	***30***	***25***	***16***
160	***160***	***200 x 120***	***40***	***25***	***16***
200	***200***	***260 x 140***	***50***	***30***	***16***

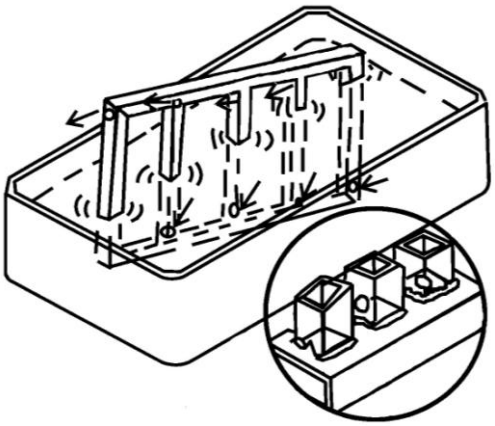




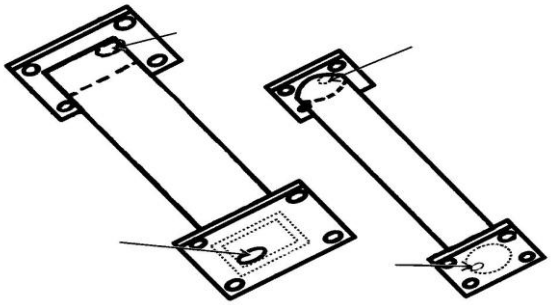


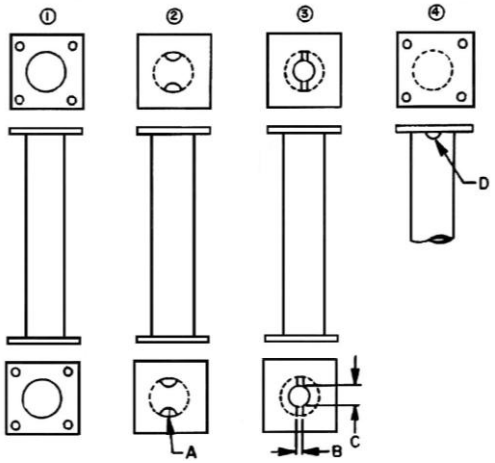
① Gaurile de aerisire se vor plasa cat mai aproape de cordonul de sudura si vor avea Ø min. 9,5 mm
② Gaurile interioare vor avea dimetrul egal cu diamentrul interior al tevii
③ Gaurile de aerisire de capat vor avea Ø min. 12,7 mm
④ si ⑤ Orice dispozitiv de manipulare ce ar obtura capetele structurii supuse zincarii se va monta numai dupa zincare. Gaurile de aerisire vor fi vizibile pentru toate tevile ce formeaza ansamblul reperului de zincat.

① Gaurile de aerisire se vor pl;asa cat mai aproape de cordonul de sudura si vor fi dimensionate la min. 25% din diametrul interior al tevii, dar nu mai putin de 9,5 mm.
② Gaurile de aerisire de capat vor avea Ø min. 12,7 mm
③ si ④ Orice dispozitiv de manipulare ce ar obtura capetele structurii supuse zincarii se va monta numai dupa zincare. Gaurile de aerisire vor fi vizibile pentru toate tevile ce formeaza ansamblul reperului de zincat.



- ***Gaurile de acces vor permite atat intrarea zincului topit in reperul de zincat, cat si scurgerea zincului din acesta***



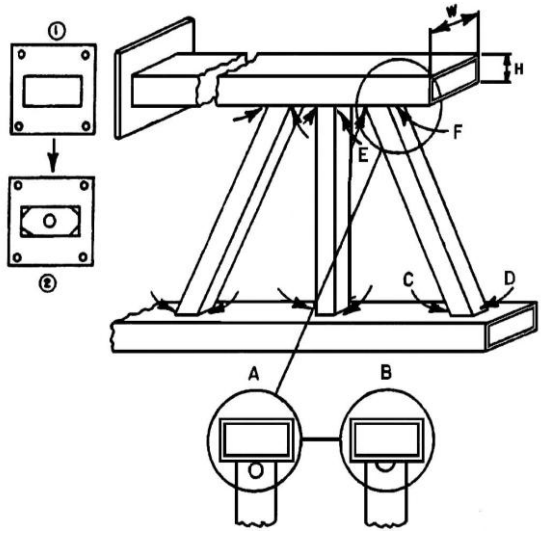


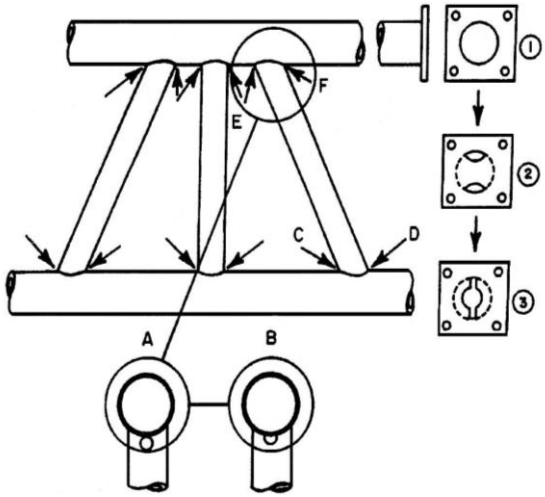
- ***Pentru coloane din teava, stalpi de iluminat si stalpi de transmisie cu placa de baza, cu sau fara suport din tabla***

Localizarea deschiderilor
① este preferabil ca deschiderile sa aiba acelasi diametru la intrare si la iesire
② si ③ Daca nu se pot practica deschideri complete, cele existente vor avea diametrul maxim posibil.
Deschiderile se dimensioneaza la min. 30% din aria sectiunii transversale a tevii (la diametere peste 76 mm), respectiv 45% din aria sectiunii transversale a tevii (la diametere sub 76 mm).

In cazul ilustrat, teava are diametrul de 152 si deschiderea va avea min. 30% din aria sectiunii la fiecare capat.

② Semicerc cu raza A = 44 mm
③ Canal B = 19 mm.. Gaura centrala C = 76 mm
④ Semicerc cu raza D = 41 mm





Pentru repere din profile

Localizarea gaurilor se va face ca in sectiunile ilustrate A sau B. Fiecare sectiune verticala si orizontala va avea cate 2 gauri in partea de sus si de jos la 180° una de alta. Gaurile vor fi egale si dimensionate la min. 30% din aria sectiunii transversale a tevii (pt. zona C si D, sau zona E si F)
Tabla de capat – Orizontala
① Preferabil deschidere completa
② Daca H+W ≥ 610 mm, suprafata gaurii plus a colturilor decupate va fi min. 25% din aria sectiunii transversale a tevii (HxW)
Pentru 406 mm < H +W < 610 mm --- utilizati 30%
Pentru 203 mm < H + W < 406 mm --- utilizati 40%
Pentru H + W < 203 mm --- se va lasa liber

Pentru repere din teava

Localizarea gaurilor se va face ca in sectiunile ilustrate A sau B. Fiecare sectiune verticala si orizontala va avea cate 2 gauri in partea de sus si de jos la 180° una de alta. Gaurile vor fi egale si dimensionate la min. 30% din aria sectiunii transversale a tevii (pt. zona C si D, sau zona E si F)
Tabla de capat – Orizontala
① Preferabil deschidere completa
② Deschideri egale – min. 30% din aria sectiunii transversale a tevii