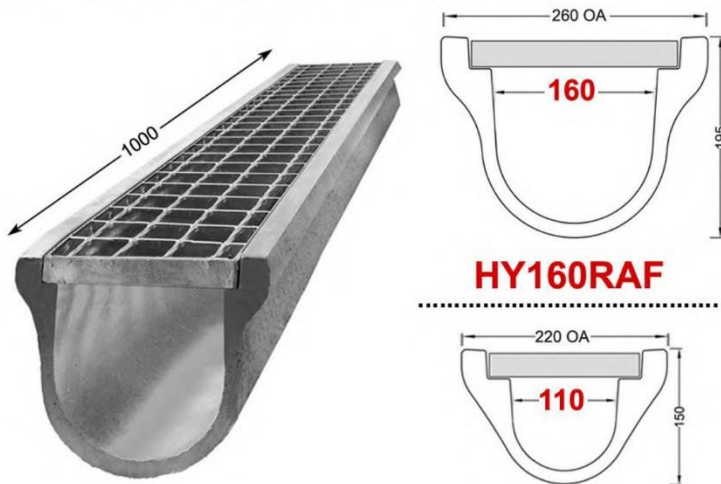
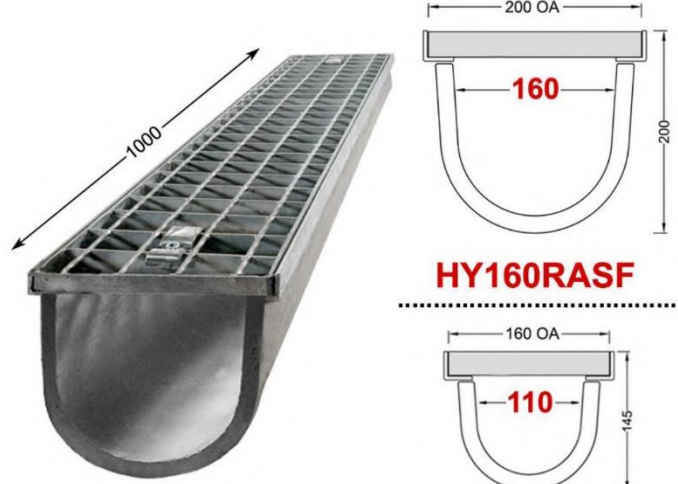


SURFACE WATER DRAINS & GRATES

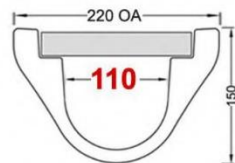
CARS & LIGHT VEHICLES



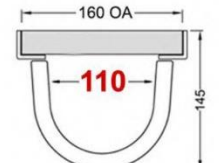
HY160RAF



HY160RASF



HY110RAF



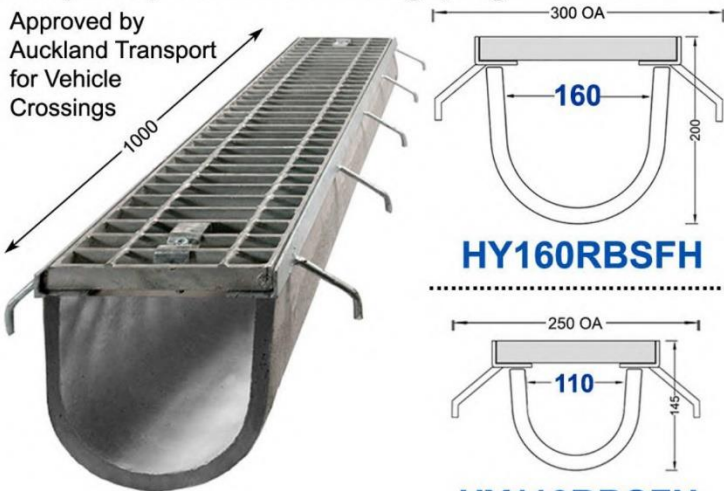
HY110RASF

SECURITY CLIPS HYCL2 included

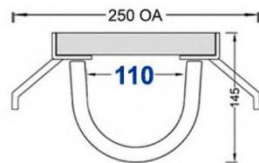
COMMERCIAL

Carparks, Vehicle Crossings, Light Trucks

Approved by
Auckland Transport
for Vehicle
Crossings



HY160RBSFH

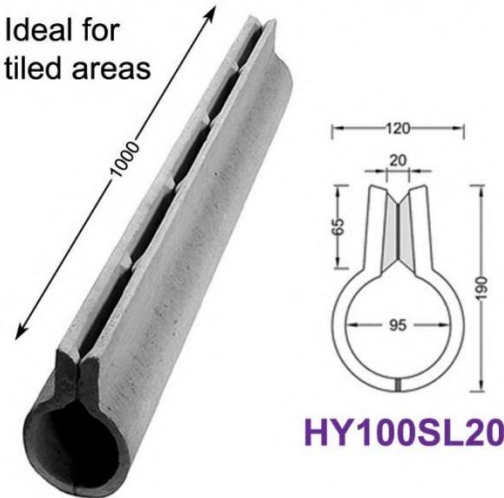


HY110RBSFH

SECURITY CLIPS HYCL2 included

POOL & PATIO SLOT CHANNEL

Ideal for
tiled areas



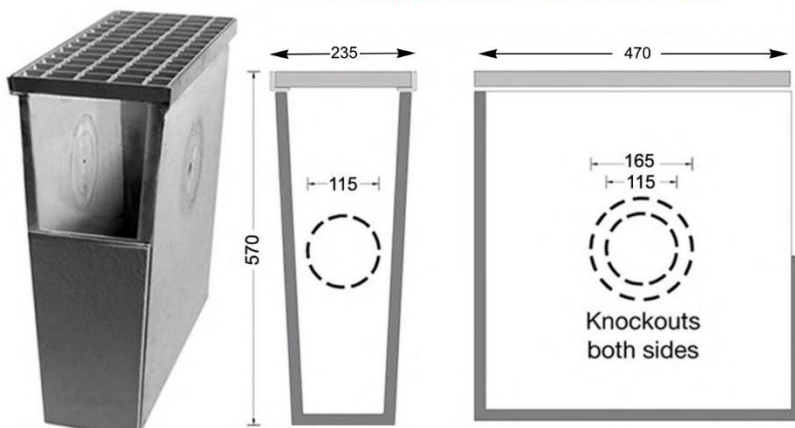
HY100SL20

SUMPS

SUMP: **HYSU**

SUMP GRATE: **HYSUF/HYSUFH/HYSUDF**

SUMP END PLATES ACCOMODATE CHANNEL TYPE



GRATE LOADING

GRATE TYPE	Loadbars size mm	Centres mm	Max.Uniform Load kPa	
F	25 x 3	40	2.5	Light vehicle traffic areas (AS/NZS 1170 activity type F)
FH	25 x 5	30	5.0	Medium vehicle traffic areas (AS/NZS 1170 activity type G)

GRATE DIMENSIONS

HY160F	1000 x 200 x 25	HY160FH	995 x 200 x 25
HY110F	1000 x 160 x 25	HY110FH	995 x 160 x 25

CHANNEL CAPACITY & CATCHMENT

RA / RAS / RBS CHANNELS			SL CHANNELS		
Size	Litres per second	Max Catchment Area m ²	Size	Litres per second	Max Catchment Area m ²
160	13.5	571	100SL20	3.7	159
110	5.0	212			

Capacity and catchment area figures are calculated assuming:

- Channel gradient = 1 in 250 (20mm fall over 5m length).
- Surface roughness (Mannings n) = 0.012 for smooth concrete.
- Rainfall intensity = 100mm/hour - (a ten year storm in the Auckland City area).
- The catchment area is approximately equal sided.

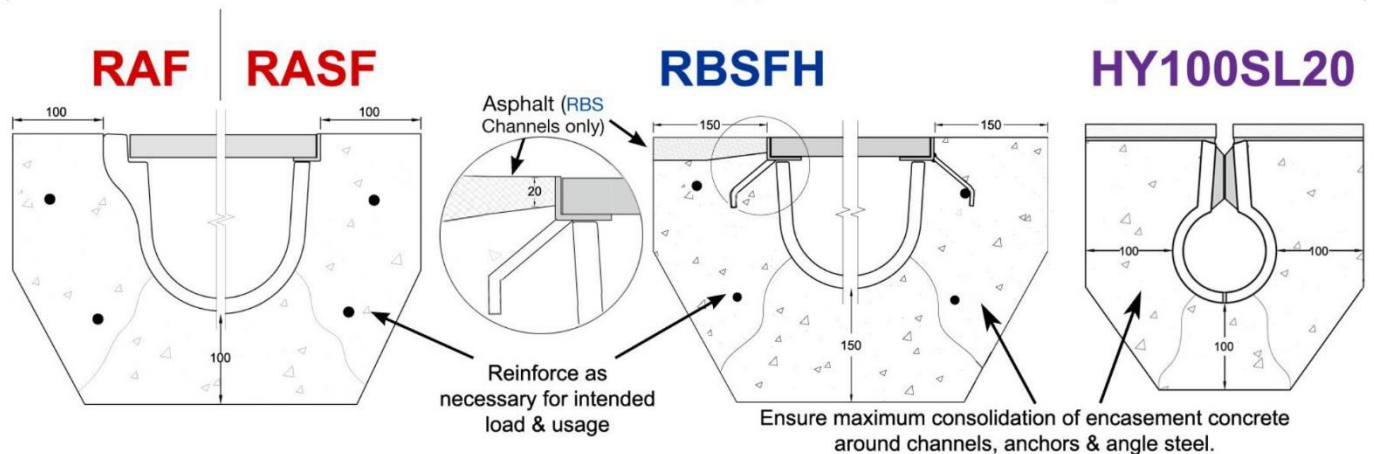
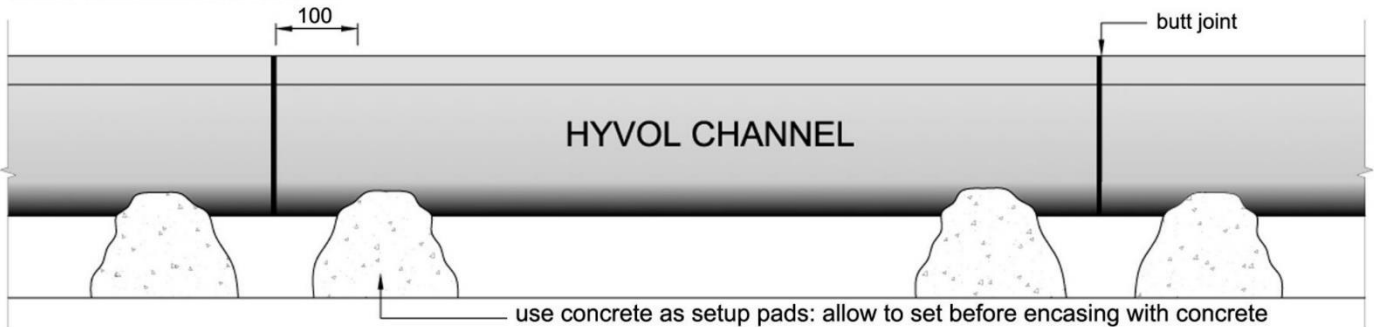
INSTALLATION GUIDE

1. SETTING UP

Position channels to line and grade on concrete support pads approximately 100mm from each butted joint. Leave until concrete pads have set.

2. ENCASEMENT WITH CONCRETE

- 1) Encase channels to the minimum dimensions shown in the diagrams using high density concrete.
- 2) Increase the dimensions of the encasement concrete and reinforce with steel as necessary for the intended load and usage of the channels and site substrate stability.
- 3) Encasement concrete should be installed using acceptable engineering standards e.g. It should be isolated from adjacent concrete by construction/contraction joints. These should also be applied to control longitudinal shrinkage of the encasement concrete.



HYVOL® is manufactured and distributed by:

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