

### ESK DESIGN NOTES

THE ESK™ IS A PASSIVE HIGH EFFICIENCY COALESCING SEPARATOR THAT REMOVES FREE OIL FROM CONTAMINATED STORMWATER RUNOFF AND HAS A BUILT-IN SHUTOFF VALVE TO PREVENT SPILLS AND STORAGE CAPACITY EXCESS EXITING THE DEVICE. THE DEVICE IS IDEALLY SUITED FOR SITES WHERE SPECIFIC EFFLUENT TARGETS ARE SPECIFIED, OR FOR SITES WHERE REMOVAL OF OIL AND GREASE IS THE GREATEST CONCERN E.G. FUEL STATIONS, FUEL DISTRIBUTION STATIONS, CAR SERVICING WORKSHOPS, ETC. IT IS TYPICALLY SIZED TO REMOVE OIL DROPLETS AS SMALL AS 10 MICRONS AND ACHIEVE AN EFFLUENT CONCENTRATION OF 5 MG/L OR LESS.

|               |   |        |        |        |         |
|---------------|---|--------|--------|--------|---------|
| <b>(A)</b>    | ESK MODEL                               | ESK10  | ESK20  | ESK40  | ESK100  |
|               | TREATMENT FLOW RATE (L/s)               | 10 L/s | 20 L/s | 40 L/s | 100 L/s |
| <b>(Voil)</b> | MINIMUM OIL STORAGE (L)                 | 175    | 400    | 900    | 1900    |
| <b>(B)</b>    | CHAMBER DIAMETER (mm)                   | Ø 1050 | Ø 1200 | Ø 1500 | Ø 1800  |
| <b>(C)</b>    | INTERNAL HEIGHT (mm)                    | ≈ 1100 | ≈ 1400 | ≈ 1700 | ≈ 2300  |
| <b>(D)</b>    | TYPICAL DEPTH TO INVERT INLET/OUTLET    | 875    | 875    | 875    | 900     |
|               | RECOMMENDED INLET/OUTLET PIPE SIZE (mm) | Ø 150  | Ø200   | Ø 300  | Ø 300   |

### SITE SPECIFIC DATA REQUIREMENTS

|                                   |      |          |          |
|-----------------------------------|------|----------|----------|
| STRUCTURE ID                      |      |          |          |
| ESK MODEL                         |      |          |          |
| CATCHMENT AREA                    |      |          |          |
| HYDROCARBON SPECIFIC GRAVITY (SG) |      |          |          |
| WATER QUALITY FLOW RATE (L/s)     |      |          |          |
| PEAK FLOW RATE (L/s)              |      |          |          |
| RETURN PERIOD OF PEAK FLOW (yrs)  |      |          |          |
| PIPE DATA:                        | R.L. | MATERIAL | DIAMETER |
| INLET PIPE #1                     |      |          |          |
| INLET PIPE #2                     |      |          |          |
| OUTLET PIPE                       |      |          |          |
| LID LEVEL                         |      | N/A      | N/A      |
| AS PER ENGINEER OF RECORD         |      |          |          |

### GENERAL NOTES :

1. STORMWATER360 TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR SW360 STORMWATER CONSULTANT VIA [www.stormwater360.co.nz](http://www.stormwater360.co.nz), OR 0800 STORMWATER, OR [sales@stormwater360.co.nz](mailto:sales@stormwater360.co.nz).
3. T.W.L. = TREATMENT WATER LEVEL
4. STRUCTURE SHALL MEET NZTA'S HN-HO-72 OR PER APPROVING JURISDICTION TRAFFICKED LOAD REQUIREMENTS, WHICHEVER IS MORE STRINGENT. COVER AND FRAME ARE TO BE RATED TO EITHER CLASS B (FOR PEDESTRIAN AREAS) OR CLASS D (TRAFFICKED ROADS) IN ACCORDANCE WITH AS 3996 : 2006.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO NZS 3109 : 1997, NZS 3114 : 1987 AND AS/NZS 4058 : 2007.
6. DEVICE IS TO CONTAIN A COALESCENCE SEPARATION COLUMN TOGETHER WITH AUTOMATIC OUTFLOW CLOSURE VALVE THAT ACTIVATES WHEN THE LIMIT OF OIL STORED IN THE SEPARATOR IS REACHED.
7. LIGHT LIQUID SEPARATION IN ACCORDANCE WITH EUROPEAN & BRITISH EN858 STANDARD.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

### INSTALLATION NOTES :

- A. SIZE AND CLASS OF PIPE OR SQUARE KNOCKOUT SIZE TO BE SPECIFIED ON DRAWING BY CLIENT / CONTRACTOR.
- B. ADDITIONAL RISERS TO BE FORMED ON SITE BY CONTRACTOR (IF REQUIRED).
- C. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- D. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- E. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- F. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPES.
- G. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT DEVICE FROM CONSTRUCTION-RELATED EROSION RUNOFF.

