Water injection dredging is a technique by which the horizontal movement of the sediment is caused by natural current and gravity.

How does it work?
1. Water is injected with high flow at low pressure
2. A density current is created
3. The soil is transported by gravity or natural current
Water injection dredging is an efficient technique and has the following main advantages:

- Mobility & manoeuvrability
- Stand alone vessel
- Continues process
- Fuel efficient
- No need to transport dredged material
- Favorable CAPEX / OPEX
Water injection dredging is ideal for maintenance and/or bed leveling dredging activities.

Typical working areas are:
- Ports & harbours
- Rivers
- Access channels
- Around submerged equipment
- Support of dredge operations
MODULAR WATER INJECTION DREDGING SYSTEMS
**MAIN CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>WID 500</th>
<th>WID 600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total flow (@ 1.6 bar)</td>
<td>4,200 m$^3$/hr</td>
<td>11,000 m$^3$/hr</td>
</tr>
<tr>
<td>Dredging depth</td>
<td>12 m*</td>
<td>20 m*</td>
</tr>
<tr>
<td>Width jet beam</td>
<td>10 m*</td>
<td>14.5 m*</td>
</tr>
<tr>
<td>Dredge pump</td>
<td>Damen BP5045LD</td>
<td>2x Damen BP6055LD</td>
</tr>
<tr>
<td>Req. pump power (approx.)</td>
<td>330 kW</td>
<td>2x 405 kW</td>
</tr>
<tr>
<td>Matching vessel</td>
<td>Multi Cat 1908</td>
<td>Multi Cat 2712</td>
</tr>
<tr>
<td>Weight approx.</td>
<td>29 T*</td>
<td>63 T*</td>
</tr>
<tr>
<td>Total footprint jet station</td>
<td>14 m$^2$*</td>
<td>28 m$^2$*</td>
</tr>
</tbody>
</table>

* Depends on vessel used
MODULAR DESIGN

The Damen WID system is designed for easy use in all remote areas.

- No dedicated vessel necessary
- No structural changes or docking
- System adjusted to fit on your vessel
- Control system in flight cases
- Easy transport (fits in containers)
- Proven, wear-resistant components
In order to deliver the best suited equipment for your project, the water injection dredging systems can be customized according to any wishes.

- Navguard position visualisation
- Flow measurement
- IMO TIER III / EPA Stage IV diesel
- Adjustable jet beam angle
- Lifting system
- Swell compensator
- Plough
- DOP pump
REFERENCES

RSD2915 WID TUG
Dutch Dredging and Iskes Towing

- WID integrated in vessel
- Electric driven
- Water and air injection
REFERENCES

Damen components and engineering:
- WID Hol Blank
  Bremerhaven
- WID Milouin
  Port Autonome de Nantes

Damen TSHD and WID package:
- TSHD Hegemann I
  Hegeman GmbH