



	CSD250	CSD350	CSD450	CSD500	CSD650
<b>PRINCIPAL DIMENSIONS</b>					
Length o.a. (incl. ladder & spudkeepers)	19.00 m	26.00 m	33.15 m	38.50 m	61.20 m
Length over pontoons	11.50 m	16.50 m	22.60 m	25.50 m	49.30 m
Beam o.a.	4.20 m	6.00 m	6.95 m	7.95 m	10.50 m
Depth	1.50 m	1.50 m	1.80 m	2.00 m	2.80 m
Draught (bunkers 50% filled, approx)	0.90 m	0.80 m	1.15 m	1.00 m	1.65 m
Air draught (spuds removed, ladder up)	3.60 m	4.70 m	6.10 m	6.40 m	8.40 m
Total weight	30 tons	55 tons	115 tons	140 tons	535 tons
<b>DREDGING FEATURES</b>					
Min/max dredging depth (ladder angle 5°/45°)	1/6 m	1/9 m	1.5/12 m	2.5/14 m	3/18 m
Dredging width (40° swing angle/max depth)	19.1 m	27.0 m	34.0 m	39.6 m	62.8 m
Maximum mixture capacity	1,000 m³/h	2,000 m³/h	3,000 m³/h	4,000 m³/h	7,000 m³/h
<b>DREDGING INSTALLATION</b>					
Damen dredge pump type	BP2525MD	BP3530MD	BP45-1100	BP5045	BP6560MD
Suction/discharge internal pipe diameter	250 mm	350 mm	450 mm	550/500 mm	650 mm
Cutter power	40 kW	55 kW	110 kW	180 kW	700 kW
<b>ENGINE INSTALLATION</b>					
Total installed power	254 kW	447 kW	941 kW	1,293 kW	2,972 kW
Dredge pump diesel Caterpillar	C12	C18	C32	3512C	3516C HD
Continuous power rating (A-rating)	254 kW @ 1,800 rpm	447 kW @ 1,800 rpm	706 kW @ 1,600 rpm	954 kW @ 1,600 rpm	1,825 kW @ 1,600 rpm
Fuel oil tank capacity (approx 100 running hrs)	2 x 3.0 m³	2 x 4.2 m³	2 x 9.4 m³	2 x 11.0 m³	83.6 m³
<b>DECK MACHINERY</b>					
Ladder hoisting	hydraulic cylinder	winch 50 kN, 0-15 m/min	winch 80 kN, 0-15 m/min	winch 120 kN, 0-15 m/min	winch 270 kN, 0-15 m/min
Side wire winches (2x)	40 kN, 0-15 m/min	50 kN, 0-15 m/min	80 kN, 0-15 m/min	120 kN, 0-15 m/min	270 kN, 0-20 m/min
Spud hoisting (2x)	hydr. cylinder, stroke 1 m	hydr. cylinder, stroke 1.2 m	hydr. cylinder, stroke 1.5 m	hydr. cylinder, stroke 1.5 m	hydr. cylinder, stroke 2 m



# CUTTER SUCTION DREDGERS

## DAMEN DREDGING EQUIPMENT



A CSD250 CAN BE SHIPPED IN JUST THREE 40' CONTAINERS



CSD350 ON RIVER MAINTENANCE JOB



A CSD450 ON A RIVER MAINTENANCE JOB



A FULL OPTION CSD500



CSD500 FITTED OUT WITH ANCHOR BOOMS



A POWERFUL AND DISMOUNTABLE CSD650

- ▲ CSD450 WITH SPUD CARRIAGE PONTON AND ANCHOR BOOMS
- ▼ THE COMPLETE CSD RANGE

## DAMEN DREDGING EQUIPMENT



DAMEN DREDGING EQUIPMENT

Edisonstraat 32  
3861 NE Nijkerk

P.O. Box 1021  
3860 BA Nijkerk  
The Netherlands

phone +31 (0)33 247 40 40  
fax +31 (0)33 247 40 60

contact.dde@damen.com  
www.damendredging.com

Member of the DAMEN SHIPYARDS GROUP

© No part of this series may be reproduced in any form, by print, photo print, microfilm, or any other means, without written permission from Damen Dredging Equipment.





## THE DAMEN APPROACH TO DREDGING EQUIPMENT

Damen Dredging Equipment offers an extensive standard range of efficient and robustly constructed cutter suction dredgers. The dismantlable dredgers offer a high productivity combined with a reliable operation. The dredgers can be customized effortlessly due to the large number of available options.

The stationary dredgers consist of an ergonomically designed operating cabin, a main pontoon housing the diesel engines and the dredge pump, plus side pontoons, the cutter ladder and the spud poles. The pontoons are fitted out with a simple yet heavy duty coupling system enabling rapid and straightforward dismantling and reassembly on land and afloat. All elements of the cutter suction dredger can be transported by road, rail or sea.

The spacious operating cabin has dark tinted windows all around providing excellent view on essential deck equipment. The well insulated cabin

is mounted on shock absorbers for improved comfort and low noise levels. The ergonomic design shows in the two separate control panels between which the dredge masters chair is located. The dredger is designed for one-man operation. The cutter suction dredgers are well powered by modern computer-controlled Caterpillar diesel engines with low fuel consumption and low emissions, enabling all functions to operate simultaneously. The engines are connected to a closed fresh water cooling system with box coolers.

The Damen standard range consist of five types of dredgers. The standard design and the continuous building process have resulted in a short delivery time and competitive pricing. All cutter suction dredgers are completely assembled and fully tested at the yard before delivery, and they thus are immediately ready for operation on arrival at site.



**DAMEN BOOSTER STATIONS**  
Damen can ship a complete dredge package with your CSD to your job site, including the pipe line and a matching booster station. Standard booster stations are fitted out with:

- Radiator cooled diesel engine with constant power over large speed range
- Standard container sized frame and casing for practical hoisting and transport



**MODULAR DESIGN**  
The CSD's all are of a modular design. The practical dimensions of all elements enable transport by road, rail or sea. The manageable weight of the modular elements ensure straightforward dismantling and reassembly on land and afloat.



**DAMEN SERVICES**  
Damen Services offers a wide-ranging portfolio of customer support and after-sales services. The services include commissioning on site, crew training, spare parts delivery and technical assistance, renovations and conversions – all as per customer request.

## ALL DAMEN CSD'S CAN BE EQUIPPED WITH NUMEROUS OPTIONS



**ANCHOR BOOMS**  
Anchor booms boost the CSD's efficiency by swiftly repositioning the anchors.



**DECK CRANE**  
A deck crane can be mounted on the portside aft pontoon to handle pump parts and spares.



**DAY ACCOMMODATION**  
Fitted underneath the operating cabin: a day room with galley, sanitary space and airco.



**SPUD CARRIAGE PONTOON**  
A spud carriage pontoon can be added to the main pontoon to increase efficiency



**VALVES**  
A dredge valve or non-return valve which can be placed in the discharge piping.



**SWIVEL HOSE**  
Re-orientates the floating pipe line with minimal resistance.



**NAVIGATION LIGHTS**  
A foldable mast with navigations lights can be added to the operating cabin.

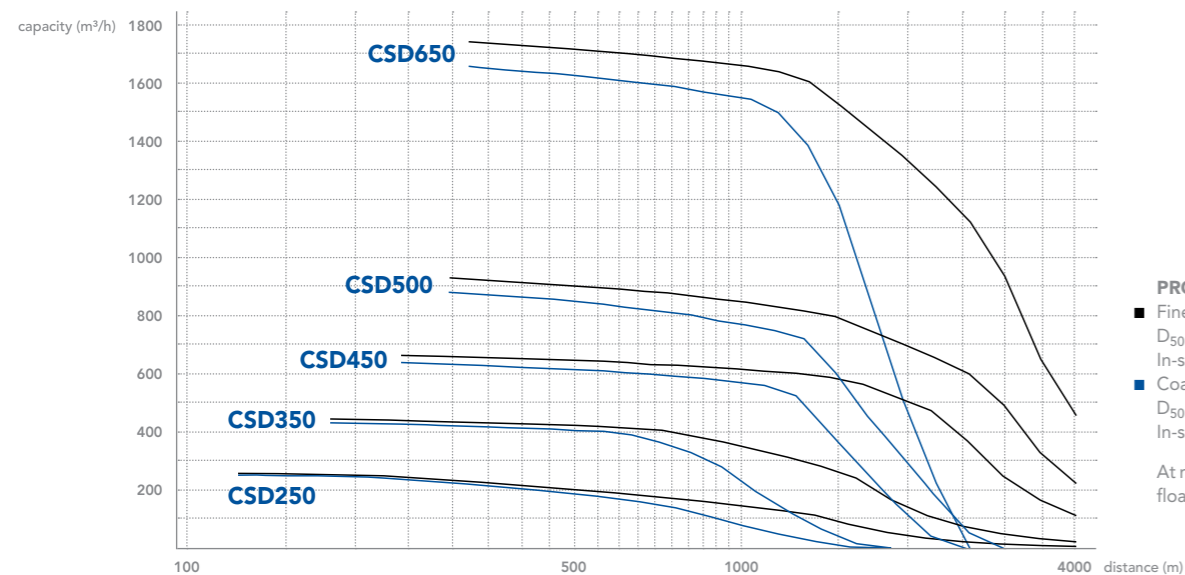


**DREDGING INSTRUMENTATION**  
Production measurement system visualizes the real time production on a cross needle screen and logs this production using counters.



**ADAPTED DREDGING DEPTH**  
A wedge piece can be added to minimize the dredging depth. Should this depth be increased, a ladder extension is optionally available.

## CUTTER SUCTION DREDGER DREDGE PUMP CURVES



# DAMEN



STANDARD DREDGERS AVAILABLE FROM STOCK



SPACIOUS OPERATING CABIN



EFFICIENT AND CONVENIENT DECK LAY-OUT