### Dana SAC Norway

DANA

**Products & Services Overview Gearboxes, Hydraulics & Winches** 



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### SALES

Managing sales, support and logistics for the complete range of products

### SERVICE

Servicing of gearboxes, winches and hydraulic components of all brands

### SOLUTIONS

Hydraulic, mechanical and electrical solutions for drivetrain and motion control.



DANA

### **MULTI SECTOR EXPERTISE**



#### Agriculture

Our unique offering of mechanical transmission and fluid power components allows us to supply complete solutions for the Agricultural machinery market. The Brevini® and Spicer® products are used in many applications including Harvesters, Sprayers, Feeders and Hedge Cutters.



Industrial and stationary equipment Our range of gearboxes and hydraulics offers reliable solutions to guarantee high productivity and low maintenance costs. This is backed up by aftersales and service specifically in sectors such as the steel processing industry as well as many other sectors.



#### Green Technologies

Reliability and low maintenance is a key requirement for applications such as wind turbines. Brevini<sup>®</sup> Yaw and Pitch drive gearboxes are used by many of the major wind turbine OEM's. Our service division also has a vast experience of servicing gearboxes for the main drives as well as the Yaw and Pitch.

### **OUR VALUE PROPOSITION**

The Dana Service and Assembly Centre Norway has built up strong competence of supplying Norwegian industry with reliable solutions for many types of machinery.

Our comprehensive range of mechanical power transmission solutions combined with our range of hydraulic and electronic products, gives us a unique offering for machinery manufacturers.

Our investment in skilled personnel based in Norway, ensures we can offer our customers full pre and post-sales support of the entire Dana Brevini motion systems product range.



Our extensive range of gearboxes with

full life cycle after supply.

a unique offering to provide solutions for

Heavy duty

#### Marine

Brevini® planetary gearboxes have been torque ratings up to 3 million Nm, gives us used in the Marine and Offshore Market for many years. In applications such as heavy duty applications. Our qualified and winches and cranes we are able to support experienced engineers are able to ensure we the correct specifications and certifications provide the correct solution for the machine, required in this market. Combined with our as well as our service team supporting the range of fluid power solutions we are able to work with OEM's to provide safe and reliable solutions for their applications.







Mobile and infrastructure With the combination of the range of Spicer® and Brevini® products we are one of the only manufacturers to be able to provide solutions for the travel and work functions for mobile machinery. Our products provide safe and reliable solutions for applications including access work platforms, construction machinery and airport handling equipment.

### **High quality** power transmission systems

The Dana Brevini Motion Systems line of power-transmission technologies is relied upon around the globe.

Our comprehensive range of power transmission solutions are supplied and supported by the Dana Service and Assembly Centres.

Manufactured to Dana's high quality global standards with full traceability, we can supply certified solutions for market requirements.

### **Standard &** custom-built winches & winch drives

Winch drives and complete winches for lifting applications. These can be supplied with certification where required.

The technical data pages contain information regarding dimensions, performance etc. This data should be used as a guideline only, definitive data can be obtained from our sales office.



#### Winch Drives

Series	T <sub>stat</sub> (Nm)
PWD2100	10000
PWD3150	20000
PWD3200	25000
PWD3300	36000
PWD3500	45000
PWD3700	70000
SLW3003	85000
SLW4003	105000
SLW6003	165000
SLW8503	190000
SMW12004	300000
SMW18004	390000
SMW25004	590000
SMW35004	850000



**Standard Winches** 

Standard winches from 0.5 ton up to 16 ton hoisting, fitted with hydraulic motors. Compact design and available with all standard option as groove, pressure roller and limit switches.

**Industrial Planetary** Gearboxes

Series	l <sub>eff</sub>	T <sub>N</sub> (Nm)
010	3.38-3282	1000
020	3.08-3235	2100
030	15.37-3097	3800
040	15.37-3170	3800
045	3.50-3301	3800
046	3.08-3301	3800
065	3.50-3170	6400
067	12.25-201.0	6400
090	4.08-3207	9200
091	11.22-42.37	9200
150	3.90-3460	13000
155	19.50-272.7	13000
250	4.04-2741	20000
255	16.48-2744	20000
320	19.95-245.3	25000



High Torque Planetary Gearboxes

Series	I <sub>eff</sub>	T <sub>N</sub> (Nm)
S300	4.04-2401	34000
S400	4.18-1958	48000
S600	4.18-2785	64000
S850	4.18-1987	90000
S1200	4.18-1620	133000
S1800	4.18-2305	190000
S2500	4.18-1987	260000
S3500	4.18-1620	370000
S5000	76.01-1338	530000
S7500	20-7800	735000
S10000	85-6500	1035000
S15000	90-6600	1500000
S20000	100-8000	2170000





#### **Planetary Slewing Drives**

**Pump Drives** 

Series	T2 <sub>max</sub> (Nm)	Т <sub>гем т5(M5-L2)</sub> (Nm)
RPR046DC	6000	3400÷5550
RPR065DC	11500	6600÷9550
RPR150DC	23000	13450÷181
RPR250DC	37000÷46200	21350÷294
RPR255DC	37000÷46200	21350÷294
RPR320DC	46200	21000÷338
SLS300DC	53800÷74600	31850÷487
SLS400DC	72000÷100000	39950÷614
SLS600DC	165000	-
SLS850DC	200000	-

-L2)	Series	Pm (kW)	P <sub>T</sub> (kW)
50	BZ2-265	110	40
50	BZ3-265	130	45
3100	BZ2-290	170	50
9450	BZ3-290	190	55
9450	BZ2-340	220	70
3850	BZ3-340	240	80
3700	BZ2-470	380	130
1400	BZ3-470	420	150
	BZ4-470	480	160
	BZ7-470	500	175





**Helical & Bevel Helical** Gearboxes

Series	Nominal Torque (Nm)
22	16800
25	24600
28	33900
31	47000
35	60400
40	79000
42	105000
45	134000
47	164000
50	194000
53	239000
56	297000
60	343000
63	416000
67	483000
71	555000
75	645000
80	720000
85	805000



Single Screw Extruder **Drives** 

Series	Nominal Torque (Nm)
22	16800
25	24600
28	33900
31	47000
35	60400
40	79000
42	105000
45	134000
47	164000
50	194000
53	239000





#### **BPH Series Compact Shaft-mounted Gearboxes**

Series	Pm (kW)	P <sub>T</sub> (kW)
BPH.13	3900	70
BPH.16	5800	70
BPH.18	7700	80
BPH.20	10900	90
BPH.23	16700	100
BPH.25	24200	120
BPH.28	35000	140



#### **Slew Bearings**

Slewing Bearings supplied by La Leonessa:

- From 300mm to 3200mm OD
- Internal and external geared, and no gear
- Ball bearing single and double row
- Roller bearing single row
- Material certification



#### **Twin Screw Extruder** Drives

Technical Data	
Screw Diameter [mm]	20 to 250
Centre distance [mm]	15 to 200
Power [kW]	up to 5500
Ratio	1.25 to 5.6
Output Speed [rpm]	up to 1800
Output torque per shaft [Nm]	up to 35000
Axial thrust capacity (kN)	up to 250
Efficiency	up to 98%



#### Gearmotors

We are pleased to announce that a new product family is now in our portfolio, with the following range build up:

- Shaft mounted and flange mounted parallel helical gearmotors, up to 18k Nm.
- Foot mounted and flange mounted helical inline gearmotors, up to 18k Nm.
- · Bevel helical gearmotors, up to 15k Nm.

## Product range Dana Brevini Winches & Winche drives

Dana SAC Norway offers a complete product and knowledge portfolio of winches and winch drives.



Line pull up to 40 ton winches (hoisting winches) are designed and produced completely in the Netherlands according customer demands. All winches can be certified according the latest rules of all known classification societies.

#### Specialized in

- hoisting and pulling applications
- ATEX
- personnel lifting
- offshore environment

#### Possible options

- spooling device
- special encoder/limit switch solutions
- stainless steel pressure roller
- helical grooved drum or (according) Lebus





#### Winch Drives

Serie	T <sub>STAT</sub> (Nm)
PWD2100	10.000
PWD3150	20.000
PWD3200	25.000
PWD3300	36.000
PWD3500	45.000
PWD3700	70.000
SLW3003	85.000
SLW4003	105.000
SLW6003	165.000
SLW8503	190.000
SMW12004	300.000
SMW18004	390.000
SMW25004	590.000
SMW35004	850.000

# Standard Winches Standard winches from 0,5 ton up to 16 ton

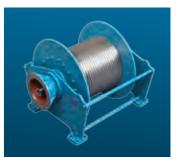
biandard winches from 0,5 ton up to 16 ton hoisting, fitted with hydraulic motors. Compact design and available with all standard option as groove, pressure roller and limit switches.

The technical data pages contains information regarding dimensions, performance etc. This data should be used as a guideline only, definitive data can be obtained from our sales office.



#### Custum-built Winches

Range from 0,5 ton up to 40 ton. Winches completely designed according customer demands. Hydraulically, electrically or pneumatically driven. If needed the (personnel lifting) winches can be class approved according the latest regulations. Lot of options as spooling device, load cell, encoder etc.



#### Hybrid Winches

Range from 2 ton up to 16 ton. Perfect combination of standard features with the flexibility to meet almost every demand Hydraulically, electrically or pneumatically driven. Available with all standard options as groove, pressure roller and limit switch.

Linepull
3 tonnes
4 tonnes
5 tonnes
7 tonnes
10 tonnes
14 tonnes
16 tonnes

### **Advanced** fluid power technologies

The Dana Brevini Motion Systems range of fluid power solutions gives a comprehensive offering for mobile and industrial applications. The Norwegian Service and Assembly Centre is able to supply and support this full range, and provide complete solutions for the motion of machinery.

### Pumps



**Axial Piston Pumps** 

Variable displacement - closed loop Pcont = 250 bar - 420 bar

Series	сс	Rpm max.	
MD10V14	14.0	3600	
MD10V18	18.0	3600	
MD10V21	21.0	3600	
MD10V28	28.0	3600	
MD10V50	50.0	3600	
MD10V64	64.0	3600	
HD1 055	55.0	4250	
S6CV075	75.0	3600	
S6CV128	128.0	3250	



**Axial Piston Pumps** Variable displacement - open loop Pcont = 280 bar - 350 bar

Series	сс	Rpm max.
S5AV032	32.0	3150
S5AV045	43.3	2700
S5AV050	49.7	3000
S5AV063	64.0	2500
S5AV075	75.0	2250
S5AV090	93.8	2100



Gear Pumps/Motors Gear motors Flow dividers

Series	сс	Pmax.
OT100-GR1	0.73 - 9.7	300 bar
OT200-GR2	4.1-30.0	300 bar
OT 200 - silent	4.1-30.0	300 bar
OT300-GR3	22.0 - 90.0	300 bar

# **Directional Valves**





**Proportional Valves** Open/closed centre Pcont = 370 bar

Series	Inlet flow	Section flow
HPV41	250 l/min	130 l/mir
HPV77	390 l/min	190 l/mir
HPV310	600 l/min	550 l/mir
Wide range of el Also available in		

<b>Directional Valves</b>	•
Open centre	
Pcont = 350 bar - 400 bar	

Series	Inlet flow	
DCV20	40l/min	monoblock
DCV40	70l/min	monoblock
DCV30	40l/min	modular
DCV50	70l/min	modular
DCV80	1201/min	modular
DCVMG	230l/min	modular

### **Motors**



**Axial Piston Motors** Variable displacement - open/closed loop Pcont = 430 bar

Series	сс	Rpm max.	
SH7V/R055*	61	4450	

SH7V/R055*	61	4450
SH7V/R075*	80.6	4000
SH7V / R108 *	112.5	3550
SH7V / R160 *	160.8	3100
MD11V046	46	4000
MD11V050	50	4000
MD11V064	64	4000

\* Motors can swivel to zero displacement

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**Axial Piston Motors** Fixed displacement - open/closed loop Pcont \*\* = 350 bar Pcont \*= 430 bar

Series	CC	Rpm max.
H1C-006**	6.1	6000
H1C-012**	10.9	5590
SH11C/R020*	19.9	6300
SH11C/R030 *	31.9	6300
H1C-040**	40.1	4350
H1C-226 **	225.1	2400
SH11C/R055*	56.3	5000
SH11C/R063*	63.3	5000
SH11C/R075*	77.8	4500
SH11C/R090*	86.2	4500
SH11C/R108*	108.4	4000
SH11C/R125*	124.8	4000
SH11C/R160*	163.9	3600
SH11C/R180*	178.1	3600



**Orbital Motors** Open/closed loop

BG	13-15 50-400	1935 1530	83 400
BR	50-400	970	750
HR	80-400	995	980
HT	160-500	780	1370
ARS /ARF	50-400	970	510

### **Compact units, gearboxes & electronics**



Electronics Electronic control systems

Limiting device

Pressure sensor

Bar led display

Limiting device

Graphic display

Angle sensor

Pin load cell

Angle/length transducer

Strain gauge transducer

Electronic control card

Tilt device

M82

TPV

VPL

IDXY

ASU

MD93

TPE

TD

OPUS

TAC

MAV



Support Bellhousings & couplings

Series	Description
SU-IM	Belt & pully support
HL	Bellhousing
HE	Flexible couplings
8F-BFM	Splined bushing couplings





#### **CETOP Valves**

Cetop valves, Circuit selector, Atex valves & Subplates

	Series	Flow	Pressure (bar)
cetop values	2/NG04	20	250
	3/NG06	80	350
	5/NG10	100- 120	350
	7/NG16	300	350
	8/NG25	600	320
circuit selector	ADL/CDL	80	250
atex values	AD3XG	80	250
subplates	BS/BM	20- 600	250



#### **Bankable Valves**

On-off/proportional

Pcont = 310 bar

Series	Flow I/min	
CDC3	30	on /off compact
CD3	40	on /off
CX3	<20	proportional control
CXQ3	<25	proportional flow control

#### Proportional directional compensated Is line Pmax = 300 bar - Flow 80 l/min

Series	Regulated flow		
CXDH3	<35	proportional compensated	
CDH3	<26	on/off compensated	
CFS3	<60	flow Sharing	



**Compact Units** Mini powerpack / Micro powerpacks

Series	Pump/cc	Motor	
MC2-MC4	0.25-9.8	DC/AC-B14	
MK1-MK2	dockleveler units		
MH	4.0-25.0	AC-B5	
FP	0.25-9.8	DC/AC-B14	
EP-MP	pump DC motor combinations		
MR2-MR4	0.25-1.26	DC/AC-B14	
MW-MW1	0.25-1.26	DC/AC-B14	



Gearboxes Power take off

Series	Ratio (speed increase)	Power (KW)
ML32	1.5 - 3.8	10
ML52	1.0 - 3.8	30
B580	1 - 4.8	30
B600	1 - 3.8	50
B502	1 - 3.8	55
B582	1 - 3.8	55
B602	1 - 3.8	100
RD33	0.66 - 0.26	6
RD42	0.66 - 0.26	6
RD52	0.66 - 0.26	12

Gearbox Servicing & Case **Studies** 

### **GEAR BOX SERVICING**

Dana Service & Assembly Centres in Norway offer a complete aftermarket support for all Brevini® products as well as gearboxes of other manufacturers.

### Maintain, Repair, Replace, Upgrade.

- Dedicated service and repair division
- Rapid and cost effective refurbishment of all gearbox types and manufacture
- Highly equipped gearbox service centres
- Fully trained and experienced service engineers
- Installation and commissioning support
- · Site inspections and condition monitoring







**SERVICE & REPAIR** Dana Service and Assembly Centre Norway offer a complete support for all Brevini products as well as gearboxes of other manufacturers.



People Finding A Better Way®

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