

Quarter turn actuators DFPD-HD



# Quarter turn actuators DFPD-HD

Features

## Function

The quarter turn actuator DFPD-HD is suitable for open and closed-loop control of ball valves, air dampers and butterfly valves. Its VDI/VDE 3845-compliant interface enables direct mounting of sensor boxes or positioners.

The DFPD-HD series, designed with a Scotch yoke system, exhibit a non-linear torque characteristic as a function of the swivelling position.

Graded into three sizes – 9000, 18000 and 32000 – it is possible to achieve a torque of 9000 ... 32000 Nm.

Typical applications:

- For butterfly valves: “canted” (asymmetrical yoke)
- For ball valves: “symmetrical” (symmetrical yoke)

Typical uses include:

- Controlling heating in different power station processes
- Controlling gas vent flaps
- Controlling compressed air flaps on furnaces
- Treatment of drinking water, industrial water and wastewater
- Controlling flaps in chemical processes

Double-acting actuator	Max. torque [Nm]	Piston diameter [mm]	Flange pattern	Shaft connection	Shaft connection depth [mm]	Pneumatic connection
DFPD-HD ... D	9000	235	F25	V60	160	G1/2
DFPD-HD ... D	9000	280	F25	V60	160	G1/2
DFPD-HD ... D	9000	335	F25	V60	160	G1/2
DFPD-HD ... D	9000	385	F25	V60	160	G1
DFPD-HD ... D	9000	435	F25	V60	160	G1
DFPD-HD ... D	18000	335	F30	V72	200	G1/2
DFPD-HD ... D	18000	385	F30	V72	200	G1
DFPD-HD ... D	18000	435	F30	V72	200	G1
DFPD-HD ... D	18000	485	F30	V72	200	G1
DFPD-HD ... D	18000	535	F30	V72	200	G1
DFPD-HD ... D	18000	585	F30	V72	200	G1
DFPD-HD ... D	32000	385	F35	V120	230	G1
DFPD-HD ... D	32000	435	F35	V120	230	G1
DFPD-HD ... D	32000	485	F35	V120	230	G1
DFPD-HD ... D	32000	535	F35	V120	230	G1
DFPD-HD ... D	32000	585	F35	V120	230	G1
DFPD-HD ... D	32000	635	F35	V120	230	G1

Single-acting actuator	Max. torque [Nm]	Piston diameter [mm]	Flange pattern	Shaft connection	Shaft connection depth [mm]	Pneumatic connection
DFPD-HD ... S	9000	280	F25	V60	160	G1/2
DFPD-HD ... S	9000	335	F25	V60	160	G1/2
DFPD-HD ... S	9000	385	F25	V60	160	G1
DFPD-HD ... S	9000	435	F25	V60	160	G1
DFPD-HD ... S	18000	385	F30	V72	200	G1
DFPD-HD ... S	18000	435	F30	V72	200	G1
DFPD-HD ... S	18000	485	F30	V72	200	G1
DFPD-HD ... S	18000	535	F30	V72	200	G1
DFPD-HD ... S	18000	585	F30	V72	200	G1
DFPD-HD ... S	32000	435	F35	V120	230	G1
DFPD-HD ... S	32000	485	F35	V120	230	G1
DFPD-HD ... S	32000	535	F35	V120	230	G1
DFPD-HD ... S	32000	585	F35	V120	230	G1
DFPD-HD ... S	32000	635	F35	V120	230	G1
DFPD-HD ... S	32000	685	F35	V120	230	G1
DFPD-HD ... S	32000	735	F35	V120	230	G1

## Quarter turn actuators DFPD-HD

Key features of variants

Quarter turn actuator DFPD-HD

- Double-acting



Quarter turn actuator DFPD-HD (-RS)

- Single-acting



Quarter turn actuator DFPD-HD (-MW)

- Single-acting
- With manual override with handwheel



Quarter turn actuator DFPD-HD (-HW)

- Single-acting
- With manual override with hydraulic support



# Quarter turn actuators DFPD-HD

Type codes

DFPD - HD - [ ] - [ ] - SY - [ ] - 90 - [ ] - [ ] -

**Type**

DFPD	Quarter turn actuator
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**Version**

HD	Heavy duty version
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**Size**

9000	9000
18000	18000
32000	32000

**Piston diameter**

235	235 mm
280	280 mm
335	335 mm
385	385 mm
435	435 mm
485	485 mm
535	535 mm
585	585 mm
635	635 mm
685	685 mm
735	735 mm

**Design**

SY	Scotch yoke system
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**Yoke type**

A	Asymmetrical
Y	Symmetrical

**Swivel angle**

90	90°
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**Swivel direction**

L	Left
R	Right

**Function**

D	Double-acting
S	Single-acting

## Quarter turn actuators DFPD-HD

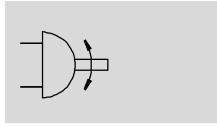
Type codes


<b>Spring force HD</b>		<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div>
-	None (double-acting)	
1	Spring package 1	
2	Spring package 2	
3	Spring package 3	
4	Spring package 4	
<b>Flange pattern</b>		
25	Hole pattern F25	
30	Hole pattern F30	
35	Hole pattern F35	
<b>Manual override</b>		
-	None	
HW	Handwheel, hydraulically supported	
MW	Handwheel	

# Quarter turn actuators DFPD-HD, double-acting


Technical data


Function



 Swivel angle  
90°



 Size  
9000, 18000, 32000

 Torque  
9000 ... 32000 Nm

General technical data			
Size	9000	18000	32000
Flange hole pattern	F25	F30	F35
Shaft connection	V60	V72	V120
Shaft connection depth [mm]	160	200	230
Pneumatic connection	-	-	G1
Design	Scotch yoke system		
Mode of operation	Double-acting		
Cushioning	None		
Connection to process valve to standard	ISO 5211		
Note about the torque	Increasing the operating pressure above the limit given in the table is not permitted; doing so will cause overloading of the actuator.		
Swivel angle [°]	90		
End-position adjusting range at 0° [°]	-5 ... +5		
End-position adjusting range at 90° [°]	-5 ... +5		
Position sensing	Optical		


Operating and environmental conditions			
	9000	18000	32000
Operating pressure [bar]	1 ... +8.5		
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]		
Note on operating/pilot medium [K]	Dew point at least 10°C below the ambient temperature and temperature of medium		
Degree of protection	IP66M IP67M		
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)		
Ambient temperature [°C]	-20 ... +80		
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX) To EC Machinery Directive		
→ <a href="http://www.festo.com">www.festo.com</a>			
Certified for safety function to ISO 13849 and IEC 61508 (SIL)	Product can be used in SRP/CS up to SIL 2 (Low Demand)		
ATEX category gas	II 2G		
Type of ignition protection for gas	c IIB TX X		
ATEX category dust	II 2D		
Type of ignition protection for dust	c TX X		
Explosion ambient temperature [°C]	-20 °C ≤ Ta ≤ +80 °C		

## Quarter turn actuators DFPD-HD, double-acting

Technical data – Torques

Materials	
Housing	Steel
End cap	Steel
Piston	Steel
Piston rod	Steel, hard-chrome-plated
Tie rod	Steel
Cylinder barrel	Steel, nickel-plated
Stop screws	Steel
Spring	Spring steel
Spring rod	Steel, hard-chrome-plated
Socket	Bronze
	PTFE
Seals	NBR
	TPE-U(PU)

Terminology			
Actuator torque at defined positions (0, 45, 90°) and actuation direction (opening, closing)			
Abbreviation	Meaning of abbreviation	Torque on action	Position specification
Actuation direction → Opening			
BTO	Break to open	Breakaway torque to open	Moving off from the 0° (closed) position
RTO	Run to open	Torque during actuation in the open direction	Position during travel at ~45°
ETO	End to open	Torque to arrive in the open position	Entering the 90° (open) position
Actuation direction → Closing			
BTC	Break to close	Breakaway torque to close	Moving off from the 90° (open) position
RTC	Run to close	Torque during actuation in the closed direction	Position during travel at ~45°
ETC	End to close	Torque to arrive in the closed position	Entering the 0° (closed) position

 Note

When connecting quarter turn actuators, you must observe ISO 5211!

## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right, asymmetrical yoke

Theoretical torque [Nm] as a function of operating pressure													
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]											
		3.0						3.5					
		BTO	RTO	ETO	BTC	RTC	ETC	BTO	RTO	ETO	BTC	RTC	ETC
9000-235-SY-A-90-RD-F25	9	2.3	0.9	1.2	1.2	0.8	2.5	2.7	1.1	1.5	1.4	1.0	2.9
9000-280-SY-A-90-RD-F25	9	3.3	1.2	1.8	1.7	1.2	3.6	3.8	1.5	2.1	2.0	1.4	4.2
9000-335-SY-A-90-RD-F25	9	4.7	1.8	2.6	2.5	1.8	5.1	5.5	2.1	3.1	2.9	2.1	6.0
18000-335-SY-A-90-RD-F30	18	5.6	2.2	3.1	2.9	2.2	6.1	6.5	2.5	3.6	3.4	2.5	7.1
18000-385-SY-A-90-RD-F30	18	7.4	2.9	4.1	3.9	2.9	8.1	8.7	3.4	4.8	4.6	3.3	9.5
18000-435-SY-A-90-RD-F30	18	9.5	3.7	5.3	5.1	3.8	10.5	11.1	4.3	6.1	5.9	4.3	12.2
18000-485-SY-A-90-RD-F30	18	11.8	4.7	6.5	6.3	4.7	13.1	13.8	5.4	7.6	7.4	5.5	15.2
32000-385-SY-A-90-RD-F35	32	9.8	3.8	5.4	5.2	3.7	10.7	11.4	4.4	6.3	6.1	4.4	12.5
32000-435-SY-A-90-RD-F35	32	12.5	4.9	6.9	6.6	4.8	13.7	14.6	5.7	8.1	7.8	5.6	16.1
32000-485-SY-A-90-RD-F35	32	15.6	6.0	8.6	8.3	6.1	17.1	18.2	7.1	10.1	9.7	7.1	20.0
32000-535-SY-A-90-RD-F35	32	19.1	7.4	10.5	10.1	7.4	20.9	22.2	8.7	12.3	11.8	8.6	24.4

Theoretical torque [Nm] as a function of operating pressure													
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]											
		4.0						4.5					
		BTO	RTO	ETO	BTC	RTC	ETC	BTO	RTO	ETO	BTC	RTC	ETC
9000-235-SY-A-90-RD-F25	9	3.1	1.2	1.7	1.6	1.2	3.3	3.5	1.3	1.9	1.8	1.3	3.8
9000-280-SY-A-90-RD-F25	9	4.4	1.7	2.4	2.3	1.7	4.8	5.0	1.9	2.7	2.6	1.9	5.4
9000-335-SY-A-90-RD-F25	9	6.3	2.4	3.5	3.3	2.4	6.9	7.2	2.8	3.9	3.8	2.8	7.8
18000-335-SY-A-90-RD-F30	18	7.5	2.9	4.1	4.0	3.0	8.2	8.4	3.3	4.6	4.4	3.2	9.2
18000-385-SY-A-90-RD-F30	18	10.0	3.9	5.5	5.3	3.9	10.9	11.2	4.4	6.1	5.9	4.3	12.2
18000-435-SY-A-90-RD-F30	18	12.8	5.1	7.1	6.8	5.1	14.1	14.3	5.6	7.8	7.5	5.5	15.6
18000-485-SY-A-90-RD-F30	18	15.9	6.2	8.8	8.5	6.3	17.5	-	-	-	-	-	-
32000-385-SY-A-90-RD-F35	32	13.1	5.1	7.2	6.9	5.1	14.3	14.8	5.7	8.2	7.8	5.7	16.2
32000-435-SY-A-90-RD-F35	32	16.8	6.5	9.3	8.9	6.5	18.3	18.9	7.4	10.5	10.1	7.3	20.7
32000-485-SY-A-90-RD-F35	32	20.9	8.1	11.5	11.1	8.1	22.9	23.5	9.2	13.1	12.5	9.1	25.8
32000-535-SY-A-90-RD-F35	32	25.5	9.9	14.1	13.6	9.9	27.9	28.7	11.2	15.8	15.3	11.1	31.4



## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right, asymmetrical yoke

Theoretical torque [Nm] as a function of operating pressure													
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]											
		5.0						5.5					
		BTO	RTO	ETO	BTC	RTC	ETC	BTO	RTO	ETO	BTC	RTC	ETC
9000-235-SY-A-90-RD-F25	9	3.9	1.5	2.1	2.1	1.5	4.2	4.3	1.7	2.3	2.2	1.6	4.6
9000-280-SY-A-90-RD-F25	9	5.5	2.1	3.1	2.9	2.1	6.1	6.1	2.4	3.3	3.2	2.3	6.6
9000-335-SY-A-90-RD-F25	9	7.9	3.1	4.4	4.2	3.1	8.6	-	-	-	-	-	-
18000-335-SY-A-90-RD-F30	18	9.4	3.6	5.2	5.0	3.6	10.3	10.3	4.1	5.6	5.4	4.0	11.3
18000-385-SY-A-90-RD-F30	18	12.5	4.8	6.9	6.6	4.8	13.6	13.7	5.3	7.5	7.2	5.3	14.9
18000-435-SY-A-90-RD-F30	18	15.9	6.2	8.8	8.5	6.1	17.4	-	-	-	-	-	-
18000-485-SY-A-90-RD-F30	18	-	-	-	-	-	-	-	-	-	-	-	-
32000-385-SY-A-90-RD-F35	32	16.4	6.5	9.1	8.7	6.3	18.0	18.1	7.1	10.1	9.6	7.0	19.8
32000-435-SY-A-90-RD-F35	32	21.1	8.2	11.6	11.2	8.1	23.0	23.2	9.1	12.8	12.3	8.9	25.3
32000-485-SY-A-90-RD-F35	32	26.2	10.2	14.5	13.9	10.1	28.6	28.8	11.2	15.9	15.3	11.1	31.5
32000-535-SY-A-90-RD-F35	32	-	-	-	-	-	-	-	-	-	-	-	-

Theoretical torque [Nm] as a function of operating pressure													
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]											
		6.0						7.0					
		BTO	RTO	ETO	BTC	RTC	ETC	BTO	RTO	ETO	BTC	RTC	ETC
9000-235-SY-A-90-RD-F25	9	4.7	1.8	2.6	2.4	1.8	5.1	5.5	2.1	3.0	2.9	2.1	5.9
9000-280-SY-A-90-RD-F25	9	6.6	2.6	3.7	3.5	2.5	7.3	7.8	3.1	4.3	4.1	3.0	8.5
9000-335-SY-A-90-RD-F25	9	-	-	-	-	-	-	-	-	-	-	-	-
18000-335-SY-A-90-RD-F30	18	11.3	4.4	6.3	6.0	4.3	12.4	13.3	5.2	7.3	7.1	5.2	14.5
18000-385-SY-A-90-RD-F30	18	15.0	5.8	8.3	7.9	5.8	16.4	-	-	-	-	-	-
18000-435-SY-A-90-RD-F30	18	-	-	-	-	-	-	-	-	-	-	-	-
18000-485-SY-A-90-RD-F30	18	-	-	-	-	-	-	-	-	-	-	-	-
32000-385-SY-A-90-RD-F35	32	19.8	7.7	10.9	10.5	7.6	21.6	23.1	9.0	12.8	12.3	8.9	25.2
32000-435-SY-A-90-RD-F35	32	25.3	9.8	14.0	13.4	9.8	27.6	29.6	11.5	16.3	15.7	11.4	32.3
32000-485-SY-A-90-RD-F35	32	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-A-90-RD-F35	32	-	-	-	-	-	-	-	-	-	-	-	-



Note

Torques at higher operating pressure are possible on request.

## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right, symmetrical yoke

Theoretical torque [Nm] as a function of operating pressure													
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]											
		3.0						3.5					
		BTO	RTO	ETO	BTC	RTC	ETC	BTO	RTO	ETO	BTC	RTC	ETC
9000-235-SY-Y-90-RD-F25	9	1.4	0.9	1.6	1.4	0.9	1.5	1.7	1.1	1.8	1.7	1.1	1.8
9000-280-SY-Y-90-RD-F25	9	2.1	1.3	2.3	2.1	1.2	2.2	2.4	1.5	2.6	2.4	1.5	2.6
9000-335-SY-Y-90-RD-F25	9	3.0	1.8	3.2	2.9	1.8	3.2	3.5	2.1	3.8	3.4	2.1	3.8
9000-385-SY-Y-90-RD-F25	9	3.9	2.4	4.3	3.9	2.4	4.3	4.6	2.9	5.1	4.6	2.8	5.1
9000-435-SY-Y-90-RD-F25	9	5.1	3.1	5.5	5.1	3.1	5.5	5.9	3.7	6.5	5.9	3.6	6.4
18000-335-SY-Y-90-RD-F30	18	3.5	2.2	3.9	3.5	2.1	3.8	4.1	2.6	4.5	4.1	2.5	4.5
18000-385-SY-Y-90-RD-F30	18	4.7	2.9	5.1	4.6	2.9	5.1	5.5	3.4	6.1	5.4	3.4	6.0
18000-435-SY-Y-90-RD-F30	18	6.1	3.7	6.6	6.0	3.7	6.5	7.1	4.41	7.7	7.0	4.3	7.6
18000-485-SY-Y-90-RD-F30	18	7.5	4.6	8.2	7.4	4.6	8.1	8.8	5.4	9.6	8.7	5.4	9.5
18000-535-SY-Y-90-RD-F30	18	9.1	5.7	10.1	9.1	5.6	10.0	10.7	6.6	11.8	10.6	6.6	11.7
18000-585-SY-Y-90-RD-F30	18	10.9	6.8	12.1	10.9	6.8	12.0	12.7	7.9	14.1	12.7	7.9	14.0
32000-385-SY-Y-90-RD-F35	32	6.2	3.8	6.8	6.1	3.8	6.7	7.3	4.5	7.9	7.2	4.4	7.9
32000-435-SY-Y-90-RD-F35	32	8.0	4.9	8.7	7.9	4.9	8.6	9.3	5.8	10.2	9.2	5.7	10.1
32000-485-SY-Y-90-RD-F35	32	9.9	6.1	10.8	9.8	6.1	10.7	11.6	7.2	12.7	11.5	7.1	12.6
32000-535-SY-Y-90-RD-F35	32	12.1	7.5	13.2	12.1	7.4	13.1	14.1	8.8	15.5	14.1	8.7	15.4
32000-585-SY-Y-90-RD-F35	32	14.5	9.0	15.9	14.4	9.0	15.8	17.0	10.5	18.6	16.9	10.5	18.4
32000-635-SY-Y-90-RD-F35	32	17.2	10.6	18.8	17.1	10.6	18.7	20.1	12.4	21.9	20.0	12.4	21.8

Theoretical torque [Nm] as a function of operating pressure													
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]											
		4.0						4.5					
		BTO	RTO	ETO	BTC	RTC	ETC	BTO	RTO	ETO	BTC	RTC	ETC
9000-235-SY-Y-90-RD-F25	9	1.9	1.2	2.1	1.9	1.2	2.1	2.2	1.4	2.4	2.2	1.4	2.4
9000-280-SY-Y-90-RD-F25	9	2.8	1.7	3.1	2.7	1.7	3.0	3.2	2.0	3.5	3.2	1.9	3.5
9000-335-SY-Y-90-RD-F25	9	4.0	2.5	4.4	3.9	2.4	4.3	4.5	2.8	5.1	4.5	2.8	5.0
9000-385-SY-Y-90-RD-F25	9	5.3	3.3	5.8	5.3	3.3	5.7	6.1	3.7	6.7	6.0	3.8	6.6
9000-435-SY-Y-90-RD-F25	9	6.8	4.2	7.4	6.8	4.2	7.4	7.7	4.8	8.5	7.7	4.8	8.5
18000-335-SY-Y-90-RD-F30	18	4.8	2.9	5.2	4.7	2.9	5.1	5.3	3.3	5.9	5.3	3.3	5.9
18000-385-SY-Y-90-RD-F30	18	6.3	3.9	6.9	6.2	3.9	6.8	7.1	4.4	7.9	7.1	4.4	7.8
18000-435-SY-Y-90-RD-F30	18	8.1	5.1	8.9	8.1	5.0	8.8	9.1	5.6	10.0	8.9	5.6	9.9
18000-485-SY-Y-90-RD-F30	18	10.1	6.2	11.1	10.0	6.2	10.9	11.3	7.1	12.5	11.2	7.0	12.4
18000-535-SY-Y-90-RD-F30	18	12.2	7.6	13.4	12.1	7.5	13.3	13.7	8.5	15.2	13.7	8.5	15.1
18000-585-SY-Y-90-RD-F30	18	14.6	9.1	16.1	14.5	9.1	16.0	-	-	-	-	-	-
32000-385-SY-Y-90-RD-F35	32	8.3	5.1	9.1	8.2	5.1	9.1	9.4	5.8	10.3	9.3	5.8	10.2
32000-435-SY-Y-90-RD-F35	32	10.7	6.6	11.7	10.5	6.5	11.5	12.1	7.5	13.2	11.9	7.4	13.1
32000-485-SY-Y-90-RD-F35	32	13.3	8.2	14.5	13.2	8.2	14.4	15.0	9.3	16.4	14.9	9.3	16.3
32000-535-SY-Y-90-RD-F35	32	16.2	10.1	17.7	16.1	10.0	17.6	18.3	11.3	20.0	18.2	11.3	19.9
32000-585-SY-Y-90-RD-F35	32	19.4	12.1	21.2	19.3	12.0	21.1	21.9	13.6	23.9	21.8	13.6	23.8
32000-635-SY-Y-90-RD-F35	32	23.0	14.2	25.1	22.8	14.2	25.0	25.9	16.1	28.3	25.8	16.0	28.2

## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right, symmetrical yoke

Theoretical torque [Nm] as a function of operating pressure													
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]											
		5.0						5.5					
		BTO	RTO	ETO	BTC	RTC	ETC	BTO	RTO	ETO	BTC	RTC	ETC
9000-235-SY-Y-90-RD-F25	9	2.5	1.5	2.7	2.5	1.5	2.7	2.7	1.1	3.0	2.7	1.7	2.9
9000-280-SY-Y-90-RD-F25	9	3.5	2.2	3.9	3.5	2.2	3.8	3.9	2.4	4.3	3.9	2.4	4.2
9000-335-SY-Y-90-RD-F25	9	5.1	3.1	5.5	5.0	3.1	5.5	5.6	3.5	6.1	5.5	3.4	6.0
9000-385-SY-Y-90-RD-F25	9	6.7	4.2	7.3	6.7	4.1	7.3	7.4	4.6	8.1	7.3	4.6	8.0
9000-435-SY-Y-90-RD-F25	9	–	–	–	–	–	–	–	–	–	–	–	–
18000-335-SY-Y-90-RD-F30	18	6.0	3.7	6.6	5.9	3.7	6.5	6.6	4.1	7.3	6.5	4.1	7.2
18000-385-SY-Y-90-RD-F30	18	7.9	4.9	8.7	7.9	4.9	8.6	8.8	5.5	9.6	8.7	5.4	9.5
18000-435-SY-Y-90-RD-F30	18	10.2	6.3	11.2	10.1	6.3	11.0	11.2	6.9	12.3	11.1	6.9	12.2
18000-485-SY-Y-90-RD-F30	18	12.7	7.9	13.9	12.6	7.8	13.8	–	–	–	–	–	–
18000-535-SY-Y-90-RD-F30	18	15.3	9.6	16.9	15.2	9.5	16.7	–	–	–	–	–	–
18000-585-SY-Y-90-RD-F30	18	–	–	–	–	–	–	–	–	–	–	–	–
32000-385-SY-Y-90-RD-F35	32	10.5	6.5	11.5	10.4	6.5	11.3	11.6	7.2	12.6	11.4	7.1	12.5
32000-435-SY-Y-90-RD-F35	32	13.4	8.3	14.7	13.3	8.3	14.5	14.8	9.2	16.2	14.6	9.1	15.9
32000-485-SY-Y-90-RD-F35	32	16.7	10.4	18.2	16.5	10.3	18.1	18.4	11.4	20.1	18.2	11.3	19.9
32000-535-SY-Y-90-RD-F35	32	20.4	12.6	22.2	20.2	12.6	22.1	22.4	13.9	24.5	22.2	13.8	24.3
32000-585-SY-Y-90-RD-F35	32	24.4	15.1	26.7	24.2	15.1	26.5	26.8	16.7	29.3	26.7	16.6	29.2
32000-635-SY-Y-90-RD-F35	32	28.8	17.9	31.5	28.6	17.8	31.3	–	–	–	–	–	–

Theoretical torque [Nm] as a function of operating pressure													
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]											
		6.0						7.0					
		BTO	RTO	ETO	BTC	RTC	ETC	BTO	RTO	ETO	BTC	RTC	ETC
9000-235-SY-Y-90-RD-F25	9	3.0	1.9	3.3	2.9	1.8	3.2	3.5	2.2	3.8	3.4	2.1	3.8
9000-280-SY-Y-90-RD-F25	9	4.3	2.6	4.7	4.2	2.6	4.6	4.9	3.1	5.4	4.9	3.1	5.4
9000-335-SY-Y-90-RD-F25	9	6.1	3.8	6.7	6.0	3.8	6.6	7.1	4.4	7.8	7.0	4.4	7.7
9000-385-SY-Y-90-RD-F25	9	–	–	–	–	–	–	–	–	–	–	–	–
9000-435-SY-Y-90-RD-F25	9	–	–	–	–	–	–	–	–	–	–	–	–
18000-335-SY-Y-90-RD-F30	18	7.3	4.5	7.9	7.2	4.4	7.8	8.5	5.3	9.3	8.4	5.2	9.1
18000-385-SY-Y-90-RD-F30	18	9.6	5.9	10.5	9.5	5.9	10.4	11.2	6.9	12.3	11.1	6.9	12.1
18000-435-SY-Y-90-RD-F30	18	12.3	7.6	13.4	12.1	7.6	13.3	14.1	8.8	15.6	13.9	8.7	15.4
18000-485-SY-Y-90-RD-F30	18	–	–	–	–	–	–	–	–	–	–	–	–
18000-535-SY-Y-90-RD-F30	18	–	–	–	–	–	–	–	–	–	–	–	–
18000-585-SY-Y-90-RD-F30	18	–	–	–	–	–	–	–	–	–	–	–	–
32000-385-SY-Y-90-RD-F35	32	12.6	7.8	13.8	12.5	7.8	13.6	14.7	9.2	16.1	14.6	9.1	15.9
32000-435-SY-Y-90-RD-F35	32	16.1	10.0	17.6	15.9	9.9	17.5	18.9	11.7	20.6	18.6	11.6	20.4
32000-485-SY-Y-90-RD-F35	32	20.1	12.5	21.9	19.9	12.4	21.7	23.4	14.5	25.6	23.2	14.4	25.4
32000-535-SY-Y-90-RD-F35	32	24.5	15.2	26.7	24.3	15.1	26.5	28.6	17.7	31.2	28.4	17.6	30.9
32000-585-SY-Y-90-RD-F35	32	29.3	18.2	32.0	29.1	18.1	31.8	–	–	–	–	–	–
32000-635-SY-Y-90-RD-F35	32	–	–	–	–	–	–	–	–	–	–	–	–



Note

Torques at higher operating pressure are possible on request.

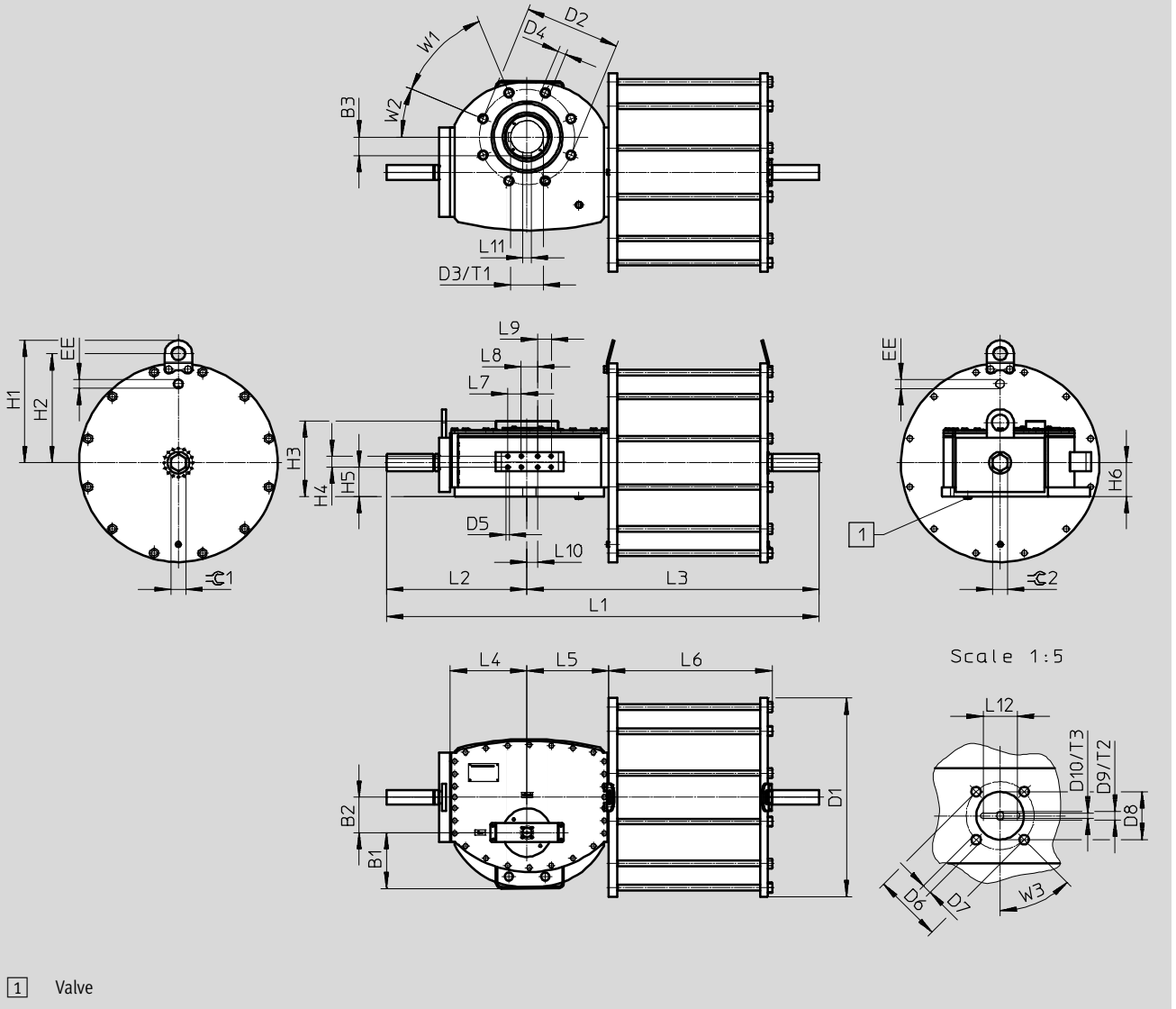
# Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right

**Dimensions**

Size: 9000

Download CAD data → [www.festo.com](http://www.festo.com)



## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right

DFPD-HD-9000-...	B1	B2	B3	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
			+0.1	∅	∅ F25	∅ +0.3/+0.2		∅	∅ F05	∅	∅		
DFPD-HD-9000-235-SY-A-90-RD-F25	159	85	35	310	254	60	M16	12	50	4	35	M6	4
DFPD-HD-9000-235-SY-Y-90-RD-F25													
DFPD-HD-9000-280-SY-A-90-RD-F25													
DFPD-HD-9000-280-SY-Y-90-RD-F25													
DFPD-HD-9000-335-SY-A-90-RD-F25													
DFPD-HD-9000-335-SY-Y-90-RD-F25													
DFPD-HD-9000-385-SY-Y-90-RD-F25													
DFPD-HD-9000-435-SY-Y-90-RD-F25													

DFPD-HD-9000-...	EE	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
DFPD-HD-9000-235-SY-A-90-RD-F25	1/2	244	102	211	40	68	90.5	1254	414	840	185	205	461
DFPD-HD-9000-235-SY-Y-90-RD-F25													
DFPD-HD-9000-280-SY-A-90-RD-F25		266	120										
DFPD-HD-9000-280-SY-Y-90-RD-F25													
DFPD-HD-9000-335-SY-A-90-RD-F25		293	147										
DFPD-HD-9000-335-SY-Y-90-RD-F25													
DFPD-HD-9000-385-SY-Y-90-RD-F25		323	168										
DFPD-HD-9000-435-SY-Y-90-RD-F25		1	346										

DFPD-HD-9000-...	L7	L8	L10	L11	L12	T1	T2	T3	W1	W2	W3	≈C 1	≈C 2
				+0.12/+0.5									
DFPD-HD-9000-235-SY-A-90-RD-F25	55	55	10	18	25	160	6	5	45°	22.5°	45°	55	55
DFPD-HD-9000-235-SY-Y-90-RD-F25													
DFPD-HD-9000-280-SY-A-90-RD-F25													
DFPD-HD-9000-280-SY-Y-90-RD-F25													
DFPD-HD-9000-335-SY-A-90-RD-F25													
DFPD-HD-9000-335-SY-Y-90-RD-F25													
DFPD-HD-9000-385-SY-Y-90-RD-F25													
DFPD-HD-9000-435-SY-Y-90-RD-F25													

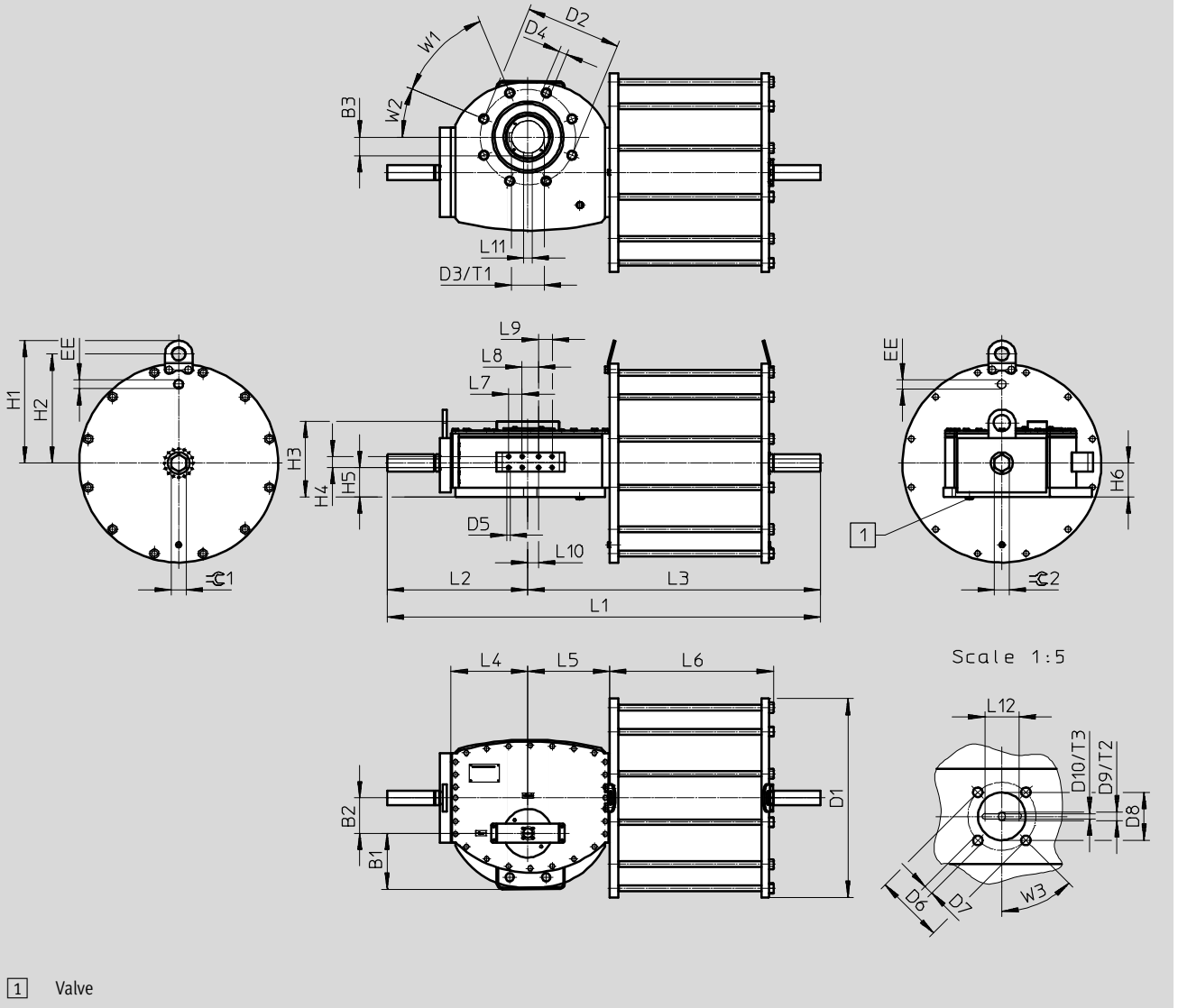
# Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right

**Dimensions**

Size: 18000

Download CAD data → [www.festo.com](http://www.festo.com)



## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right

DFPD-HD-18000-...	B1	B2	B3	D1 ∅	D2 ∅ F30	D3 ∅ +0.3/+0.2	D4	D5 ∅	D6 ∅ F05	D7 ∅	D8 ∅	D9	D10
DFPD-HD-18000-335-SY-A-90-RD-F30	175	100	41	410	289	72	M20	12	50	7	35	M6	4
DFPD-HD-18000-335-SY-Y-90-RD-F30				470									
DFPD-HD-18000-385-SY-A-90-RD-F30				516									
DFPD-HD-18000-385-SY-Y-90-RD-F30				578									
DFPD-HD-18000-435-SY-A-90-RD-F30				629									
DFPD-HD-18000-435-SY-Y-90-RD-F30				680									
DFPD-HD-18000-485-SY-A-90-RD-F30													
DFPD-HD-18000-485-SY-Y-90-RD-F30													
DFPD-HD-18000-535-SY-Y-90-RD-F30													
DFPD-HD-18000-585-SY-Y-90-RD-F30													

DFPD-HD-18000-...	EE	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6						
DFPD-HD-18000-335-SY-A-90-RD-F30	1/2	293	147	247	40	93	108.5	1325	445	880	216	246	461						
DFPD-HD-18000-335-SY-Y-90-RD-F30																			
DFPD-HD-18000-385-SY-A-90-RD-F30	1	323	168																
DFPD-HD-18000-385-SY-Y-90-RD-F30																			
DFPD-HD-18000-435-SY-A-90-RD-F30														346	190				
DFPD-HD-18000-435-SY-Y-90-RD-F30																			
DFPD-HD-18000-485-SY-A-90-RD-F30																376	215		
DFPD-HD-18000-485-SY-Y-90-RD-F30																			
DFPD-HD-18000-535-SY-Y-90-RD-F30																		401	240
DFPD-HD-18000-585-SY-Y-90-RD-F30																			
DFPD-HD-18000-585-SY-Y-90-RD-F30	427	265																	

DFPD-HD-18000-...	L7	L8	L10	L11 +0.15/+0.07	L12	T1	T2	T3	W1	W2	W3	≈ 1	≈ 2
DFPD-HD-18000-335-SY-A-90-RD-F30	55	55	14.5	20	25	200	6	5	45°	22.5°	45°	55	55
DFPD-HD-18000-335-SY-Y-90-RD-F30													
DFPD-HD-18000-385-SY-A-90-RD-F30													
DFPD-HD-18000-385-SY-Y-90-RD-F30													
DFPD-HD-18000-435-SY-A-90-RD-F30													
DFPD-HD-18000-435-SY-Y-90-RD-F30													
DFPD-HD-18000-485-SY-A-90-RD-F30													
DFPD-HD-18000-485-SY-Y-90-RD-F30													
DFPD-HD-18000-535-SY-Y-90-RD-F30													
DFPD-HD-18000-585-SY-Y-90-RD-F30													

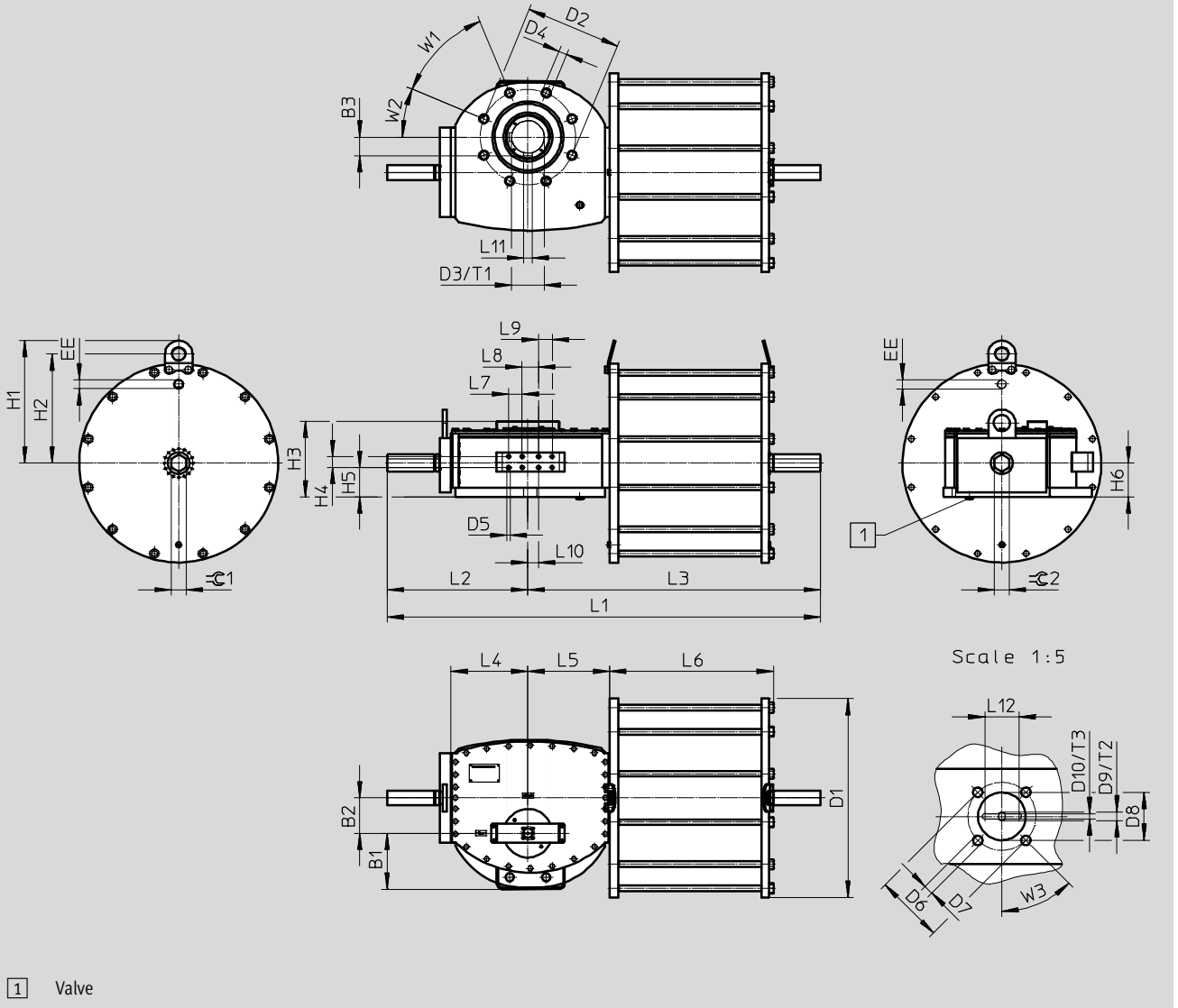
# Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right

**Dimensions**

Size: 32000

Download CAD data → [www.festo.com](http://www.festo.com)





## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right

DFPD-HD-32000-...	B1	B2	B3	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
			+0.1	∅	∅ F35	∅ +0.3/+0.2		∅	∅ F05	∅	∅		
DFPD-HD-32000-385-SY-A-90-RD-F35	205	130	68	470	350	120	M30	12	50	7	35	M6	4
DFPD-HD-32000-385-SY-Y-90-RD-F35													
DFPD-HD-32000-435-SY-A-90-RD-F35				516									
DFPD-HD-32000-435-SY-Y-90-RD-F35													
DFPD-HD-32000-485-SY-A-90-RD-F35				578									
DFPD-HD-32000-485-SY-Y-90-RD-F35													
DFPD-HD-32000-535-SY-A-90-RD-F35				629									
DFPD-HD-32000-535-SY-Y-90-RD-F35													
DFPD-HD-32000-585-SY-Y-90-RD-F35				680									
DFPD-HD-32000-635-SY-Y-90-RD-F35				730									

DFPD-HD-32000-...	EE	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
DFPD-HD-32000-385-SY-A-90-RD-F35	1	323	168	278	40	108	124	1592	517	1075	282	300	602
DFPD-HD-32000-385-SY-Y-90-RD-F35													
DFPD-HD-32000-435-SY-A-90-RD-F35		346	190										
DFPD-HD-32000-435-SY-Y-90-RD-F35													
DFPD-HD-32000-485-SY-A-90-RD-F35		376	215										
DFPD-HD-32000-485-SY-Y-90-RD-F35													
DFPD-HD-32000-535-SY-A-90-RD-F35		401	240										
DFPD-HD-32000-535-SY-Y-90-RD-F35													
DFPD-HD-32000-585-SY-Y-90-RD-F35		427	265										
DFPD-HD-32000-635-SY-Y-90-RD-F35		450	290										

DFPD-HD-32000-...	L7	L8	L10	L11	L12	T1	T2	T3	W1	W2	W3	≈ 1	≈ 2
				+0.18/+0.08									
DFPD-HD-32000-385-SY-A-90-RD-F35	50	60	39	32	25	230	6	5	45°	22.5°	45°	55	55
DFPD-HD-32000-385-SY-Y-90-RD-F35													
DFPD-HD-32000-435-SY-A-90-RD-F35													
DFPD-HD-32000-435-SY-Y-90-RD-F35													
DFPD-HD-32000-485-SY-A-90-RD-F35													
DFPD-HD-32000-485-SY-Y-90-RD-F35													
DFPD-HD-32000-535-SY-A-90-RD-F35													
DFPD-HD-32000-535-SY-Y-90-RD-F35													
DFPD-HD-32000-585-SY-Y-90-RD-F35													
DFPD-HD-32000-635-SY-Y-90-RD-F35													

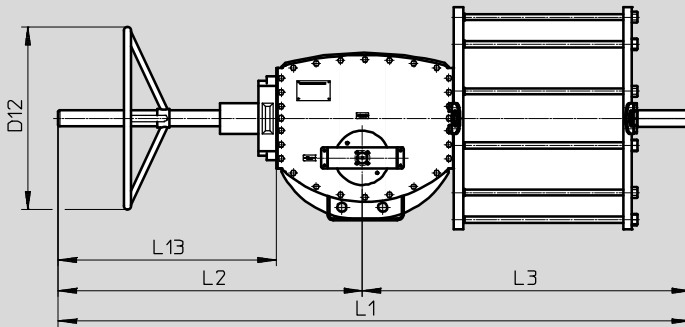
## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right, with manual override

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Sizes 9000, 18000, 32000



DFPD-HD-9000-...	D12 ∅ max.	L1 max.	L2 max.	L3	L13 max.
DFPD-HD-9000-235-SY-A-90-RD-F25-MW	1000	1845	1005	840	820
DFPD-HD-9000-235-SY-Y-90-RD-F25-MW					
DFPD-HD-9000-280-SY-A-90-RD-F25-MW					
DFPD-HD-9000-280-SY-Y-90-RD-F25-MW					
DFPD-HD-9000-335-SY-A-90-RD-F25-MW					
DFPD-HD-9000-335-SY-Y-90-RD-F25-MW					
DFPD-HD-9000-385-SY-Y-90-RD-F25-MW					
DFPD-HD-9000-435-SY-Y-90-RD-F25-MW					

DFPD-HD-18000-...	D12 ∅ max.	L1 max.	L2 max.	L3	L13 max.
DFPD-HD-18000-335-SY-A-90-RD-F30-MW	1000	1916	1036	880	820
DFPD-HD-18000-335-SY-Y-90-RD-F30-MW					
DFPD-HD-18000-385-SY-A-90-RD-F30-MW					
DFPD-HD-18000-385-SY-Y-90-RD-F30-MW					
DFPD-HD-18000-435-SY-A-90-RD-F30-MW					
DFPD-HD-18000-435-SY-Y-90-RD-F30-MW					
DFPD-HD-18000-485-SY-A-90-RD-F30-MW					
DFPD-HD-18000-485-SY-Y-90-RD-F30-MW					
DFPD-HD-18000-535-SY-Y-90-RD-F30-MW					
DFPD-HD-18000-585-SY-Y-90-RD-F30-MW					

DFPD-HD-32000-...	D12 ∅ max.	L1 max.	L2 max.	L3	L13 max.
DFPD-HD-32000-385-SY-A-90-RD-F35-MW	1000	2177	1102	1075	820
DFPD-HD-32000-385-SY-Y-90-RD-F35-MW					
DFPD-HD-32000-435-SY-A-90-RD-F35-MW					
DFPD-HD-32000-435-SY-Y-90-RD-F35-MW					
DFPD-HD-32000-485-SY-A-90-RD-F35-MW					
DFPD-HD-32000-485-SY-Y-90-RD-F35-MW					
DFPD-HD-32000-535-SY-A-90-RD-F35-MW					
DFPD-HD-32000-535-SY-Y-90-RD-F35-MW					
DFPD-HD-32000-585-SY-Y-90-RD-F35-MW					
DFPD-HD-32000-635-SY-Y-90-RD-F35-MW					

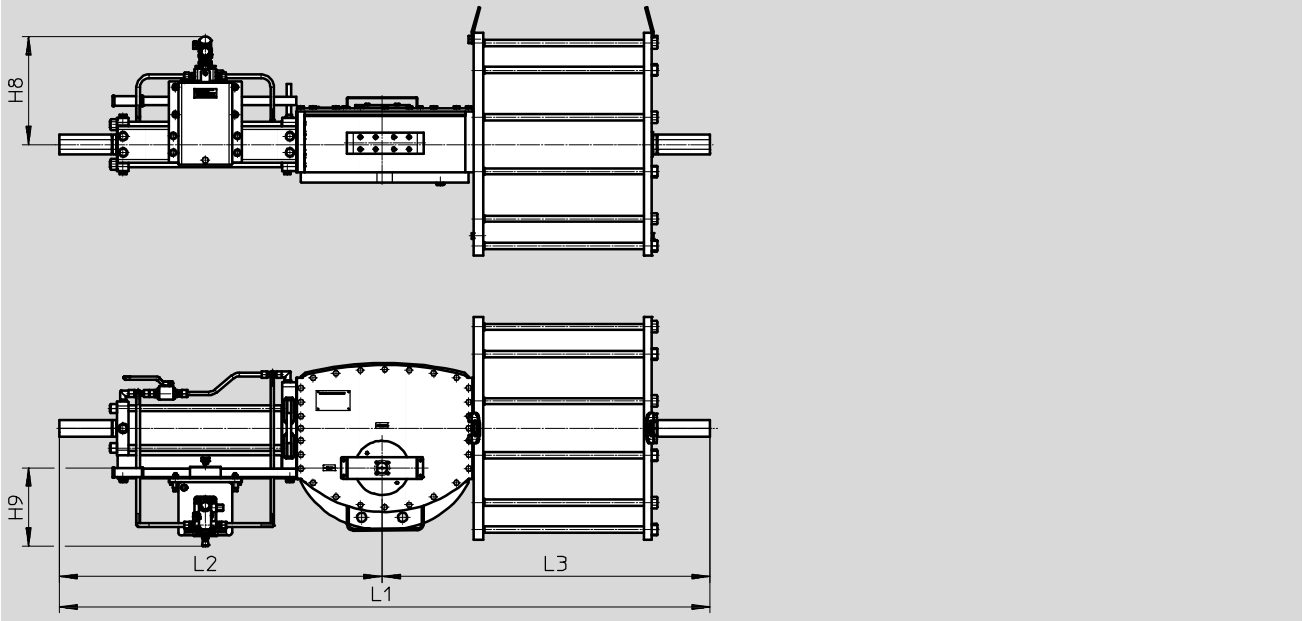
## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right, with manual override, hydraulically supported

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 9000



DFPD-HD-9000-...	H8	H9	L1	L2	L3
DFPD-HD-9000-235-SY-A-90-RD-F25-HW	353	288	1677	837	840
DFPD-HD-9000-235-SY-Y-90-RD-F25-HW					
DFPD-HD-9000-280-SY-A-90-RD-F25-HW					
DFPD-HD-9000-280-SY-Y-90-RD-F25-HW					
DFPD-HD-9000-335-SY-A-90-RD-F25-HW					
DFPD-HD-9000-335-SY-Y-90-RD-F25-HW					
DFPD-HD-9000-385-SY-Y-90-RD-F25-HW					
DFPD-HD-9000-435-SY-Y-90-RD-F25-HW					

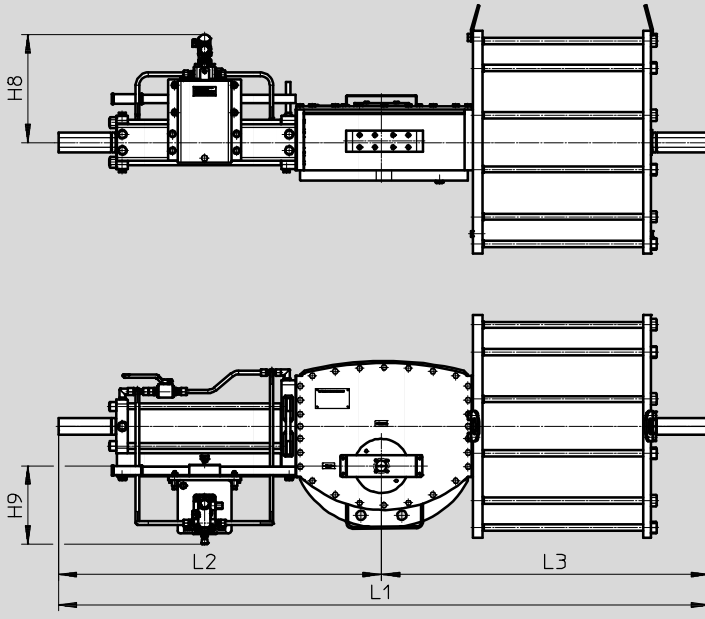
## Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right, with manual override, hydraulically supported

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 18000



DFPD-HD-18000-...	H8	H9	L1	L2	L3
DFPD-HD-18000-335-SY-A-90-RD-F30-HW	353	255.5	2133	1058	1075
DFPD-HD-18000-335-SY-Y-90-RD-F30-HW					
DFPD-HD-18000-385-SY-A-90-RD-F30-HW					
DFPD-HD-18000-385-SY-Y-90-RD-F30-HW					
DFPD-HD-18000-435-SY-A-90-RD-F30-HW					
DFPD-HD-18000-435-SY-Y-90-RD-F30-HW					
DFPD-HD-18000-485-SY-A-90-RD-F30-HW					
DFPD-HD-18000-485-SY-Y-90-RD-F30-HW					
DFPD-HD-18000-535-SY-Y-90-RD-F30-HW					
DFPD-HD-18000-585-SY-Y-90-RD-F30-HW					

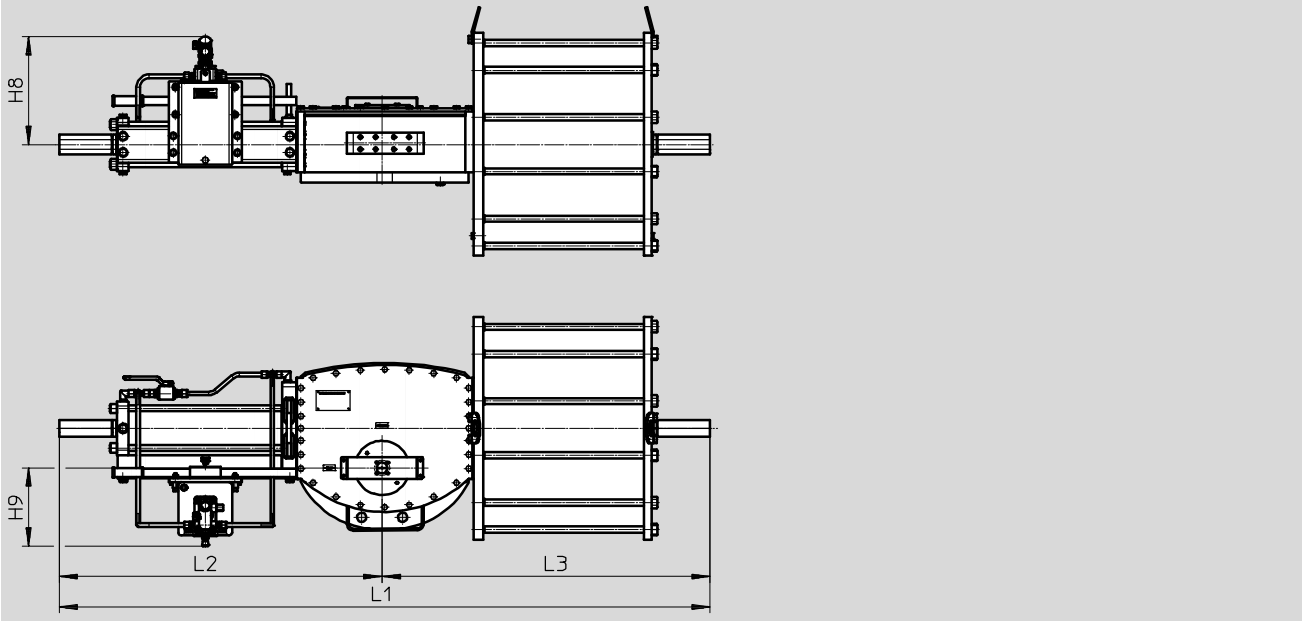
# Quarter turn actuators DFPD-HD, double-acting

Technical data – Swivel direction right, with manual override, hydraulically supported

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 32000

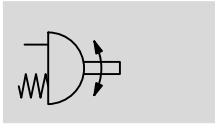



DFPD-HD-32000-...	H8	H9	L1	L2	L3
DFPD-HD-32000-385-SY-A-90-RD-F35-HW	353	255.5	2133	1058	1075
DFPD-HD-32000-385-SY-Y-90-RD-F35-HW					
DFPD-HD-32000-435-SY-A-90-RD-F35-HW					
DFPD-HD-32000-435-SY-Y-90-RD-F35-HW					
DFPD-HD-32000-485-SY-A-90-RD-F35-HW					
DFPD-HD-32000-485-SY-Y-90-RD-F35-HW					
DFPD-HD-32000-535-SY-A-90-RD-F35-HW					
DFPD-HD-32000-535-SY-Y-90-RD-F35-HW					
DFPD-HD-32000-585-SY-Y-90-RD-F35-HW					
DFPD-HD-32000-635-SY-Y-90-RD-F35-HW					

## Quarter turn actuators DFPD-HD, single-acting


Technical data


Function



 Swivel angle  
90°



 Size  
9000, 18000, 32000

 Torque  
9000 ... 32000 Nm

General technical data			
Size	9000	18000	32000
Flange hole pattern	F25	F30	F35
Shaft connection	V60	V72	V120
Shaft connection depth [mm]	160	200	230
Pneumatic connection	–	–	G1
Design	Scotch yoke system		
Mode of operation	Single-acting		
Cushioning	None		
Connection to process valve to standard	ISO 5211		
Note about the torque	Increasing the operating pressure above the limit given in the table is not permitted; doing so will cause overloading of the actuator.		
Swivel angle [°]	90		
End-position adjusting range at 0° [°]	–5 ... +5		
End-position adjusting range at 90° [°]	–5 ... +5		
Position sensing	Optical		

Operating and environmental conditions			
	9000	18000	32000
Operating pressure [bar]	1 ... +8.5		
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]		
Note on operating/pilot medium	Pressure dew point 10°C below ambient temperature/temperature of medium		
Degree of protection	IP66M IP67M		
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)		
Ambient temperature [°C]	–20 ... +80		
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX) To EC Machinery Directive		
→ <a href="http://www.festo.com">www.festo.com</a>			
Certified for safety function to ISO 13849 and IEC 61508 (SIL)	Product can be used in SRP/CS up to SIL 2 (Low Demand)		
ATEX category gas	II 2G		
Type of ignition protection for gas	c IIB TX X		
ATEX category dust	II 2D		
Type of ignition protection for dust	c TX X		
Explosion ambient temperature [°C]	–20 °C ≤ Ta ≤ +80 °C		

## Quarter turn actuators DFPD-HD, single-acting

Technical data – Torques

Materials	
Housing	Steel
End cap	Steel
Piston	Steel
Piston rod	Steel, hard-chrome-plated
Tie rod	Steel
Cylinder barrel	Steel, nickel-plated
Stop screws	Steel
Spring	Spring steel
Spring rod	Steel, hard-chrome-plated
Socket	Bronze
	PTFE
Seals	NBR
	TPE-U(PU)

Terminology			
Actuator torque at defined positions (0, 45, 90°) and actuation direction (opening, closing)			
Abbreviation	Meaning of abbreviation	Torque on action	Position specification
Actuation direction → Opening			
BTO	Break to open	Breakaway torque to open	Moving off from the 0° (closed) position
RTO	Run to open	Torque during actuation in the open direction	Position during travel at ~45°
ETO	End to open	Torque to arrive in the open position	Entering the 90° (open) position
Actuation direction → Closing			
BTC	Break to close	Breakaway torque to close	Moving off from the 90° (open) position
RTC	Run to close	Torque during actuation in the closed direction	Position during travel at ~45°
ETC	End to close	Torque to arrive in the closed position	Entering the 0° (closed) position


**Note**

When connecting quarter turn actuators, you must observe ISO 5211!

## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, asymmetrical yoke, NC, closing with spring force

Theoretical torque [Nm] as a function of operating pressure																
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]														
		Spring			3.0			3.5			4.0			4.5		
		BTC	RTC	ETC	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
9000-280-SY-A-90-RS4-F25	9	2.0	1.2	2.4	-	-	-	-	-	-	-	-	-	-	-	-
9000-335-SY-A-90-RS2-F25	9	2.0	1.2	2.3	-	-	-	3.1	0.7	0.7	3.9	1.0	1.2	4.7	1.3	1.6
9000-385-SY-A-90-RS1-F25	9	2.0	1.2	2.3	3.8	1.0	1.1	4.9	1.4	1.7	5.9	1.9	2.3	6.9	2.1	2.7
9000-385-SY-A-90-RS3-F25	9	3.3	2.0	3.7	-	-	-	-	-	-	-	-	-	5.8	1.4	1.5
9000-435-SY-A-90-RS2-F25	9	3.3	2.0	3.7	-	-	-	5.5	1.3	1.4	6.9	1.9	2.2	8.3	2.3	2.8
9000-385-SY-A-90-RS3-F25	9	3.5	2.2	4.3	-	-	-	-	-	-	-	-	-	-	-	-
9000-435-SY-A-90-RS3-F25	9	3.5	2.2	4.3	-	-	-	5.0	1.1	1.1	6.3	1.7	1.9	7.9	2.2	2.5
9000-435-SY-A-90-RS4-F25	9	4.3	2.6	5.1	-	-	-	-	-	-	-	-	-	7.0	1.6	1.5
18000-385-SY-A-90-RS3-F30	18	5.6	3.2	5.2	-	-	-	-	-	-	-	-	-	-	-	-
18000-435-SY-A-90-RS3-F30	18	5.5	3.1	5.2	-	-	-	-	-	-	-	-	-	9.1	2.0	1.8
18000-485-SY-A-90-RS3-F30	18	5.5	3.1	5.1	-	-	-	-	-	-	10.6	2.4	2.5	12.3	3.2	3.5
18000-435-SY-A-90-RS4-F30	18	6.4	3.8	7.1	-	-	-	-	-	-	-	-	-	-	-	-
18000-485-SY-A-90-RS4-F30	18	6.4	3.8	7.1	-	-	-	-	-	-	8.9	2.0	1.7	10.7	2.6	2.7
18000-535-SY-A-90-RS2-F30	18	6.4	3.8	7.1	-	-	-	9.7	2.0	2.0	12.1	3.1	3.3	14.4	3.9	4.5
18000-585-SY-A-90-RS2-F30	18	6.4	3.8	7.1	10.1	2.2	2.2	13.0	3.4	3.8	15.6	4.3	5.2	-	-	-
18000-535-SY-A-90-RS3-F30	18	7.9	4.6	8.5	-	-	-	-	-	-	10.9	2.4	2.2	13.1	3.2	3.3
18000-585-SY-A-90-RS3-F30	18	7.9	4.6	8.5	-	-	-	-	-	-	14.4	3.7	4.0	17.1	4.6	5.4
18000-535-SY-A-90-RS4-F30	18	8.9	5.4	10.6	-	-	-	-	-	-	9.1	1.8	1.3	11.3	2.6	2.4
18000-585-SY-A-90-RS4-F30	18	8.9	5.4	10.6	-	-	-	9.9	2.1	1.7	12.6	3.1	3.1	15.3	4.0	4.4
32000-435-SY-A-90-RS4-F35	32	8.1	5.0	10.2	-	-	-	-	-	-	-	-	-	-	-	-
32000-485-SY-A-90-RS2-F35	32	8.1	5.0	10.2	-	-	-	-	-	-	10.5	2.2	2.2	-	-	-
32000-535-SY-A-90-RS1-F35	32	8.1	5.0	10.2	-	-	-	11.8	2.8	2.9	15.1	4.1	4.7	-	-	-
32000-585-SY-A-90-RS1-F35	32	8.1	5.0	10.2	12.4	3.1	3.3	16.3	4.6	5.4	20.1	6.1	7.5	-	-	-
32000-635-SY-A-90-RS1-F35	32	8.1	5.0	10.3	16.6	4.7	5.6	21.1	6.5	8.1	25.7	8.3	10.6	-	-	-
32000-485-SY-A-90-RS3-F35	32	10.1	6.1	11.7	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-A-90-RS2-F35	32	10.1	6.1	11.7	-	-	-	-	-	-	-	-	-	-	-	-
32000-585-SY-A-90-RS2-F35	32	10.1	6.1	11.7	-	-	-	14.8	3.2	3.2	18.6	4.8	5.3	-	-	-
32000-635-SY-A-90-RS2-F35	32	10.1	6.1	11.8	15.1	3.3	3.4	19.6	5.2	5.9	24.2	7.1	8.4	-	-	-
32000-485-SY-A-90-RS4-F35	32	10.1	6.8	14.1	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-A-90-RS3-F35	32	10.8	6.8	14.1	-	-	-	-	-	-	-	-	-	-	-	-
32000-585-SY-A-90-RS3-F35	32	10.8	6.8	14.1	-	-	-	-	-	-	16.2	4.1	4.4	-	-	-
32000-635-SY-A-90-RS3-F35	32	10.9	6.8	14.2	-	-	-	17.2	4.5	5.0	21.7	6.3	7.5	-	-	-
32000-685-SY-A-90-RS3-F35	32	10.9	6.8	14.2	17.1	4.5	4.9	22.4	6.6	7.9	27.6	8.7	10.8	-	-	-
32000-535-SY-A-90-RS4-F35	32	14.6	8.8	17.1	-	-	-	-	-	-	-	-	-	-	-	-
32000-585-SY-A-90-RS4-F35	32	14.6	8.8	17.2	-	-	-	-	-	-	-	-	-	-	-	-
32000-635-SY-A-90-RS4-F35	32	14.6	8.8	17.2	-	-	-	-	-	-	-	-	-	-	-	-
32000-685-SY-A-90-RS2-F35	32	14.6	8.8	17.2	-	-	-	-	-	-	24.6	6.1	6.5	-	-	-



## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, asymmetrical yoke, NC, closing with spring force

Theoretical torque [Nm] as a function of operating pressure																
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]														
		Spring			5.0			5.5			6.0			7.0		
		BTC	RTC	ETC	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
9000-280-SY-A-90-RS4-F25	9	2.0	1.2	2.4	3.1	0.7	0.7	3.7	0.9	1.0	4.2	1.2	1.3	5.3	1.6	2.0
9000-335-SY-A-90-RS2-F25	9	2.0	1.2	2.3	5.5	1.7	2.1	6.3	2.0	2.5	7.1	2.3	2.9	8.7	2.9	3.8
9000-385-SY-A-90-RS1-F25	9	2.0	1.2	2.3	8.1	2.7	3.5	9.1	3.1	4.1	-	-	-	-	-	-
9000-385-SY-A-90-RS3-F25	9	3.3	2.0	3.7	6.7	1.8	2.0	7.7	2.2	2.6	8.8	2.7	3.2	-	-	-
9000-435-SY-A-90-RS2-F25	9	3.3	2.0	3.7	-	-	-	-	-	-	-	-	-	-	-	-
9000-385-SY-A-90-RS3-F25	9	3.5	2.2	4.3	6.1	1.6	1.7	7.2	2.0	2.3	8.2	2.4	2.9	-	-	-
9000-435-SY-A-90-RS3-F25	9	3.5	2.2	4.3	9.0	2.8	3.4	-	-	-	-	-	-	-	-	-
9000-435-SY-A-90-RS4-F25	9	4.3	2.6	5.1	8.2	2.2	2.5	-	-	-	-	-	-	-	-	-
18000-385-SY-A-90-RS3-F30	18	5.6	3.2	5.2	7.3	1.4	0.9	8.5	1.8	1.5	9.7	2.0	2.0	12.3	3.1	3.4
18000-435-SY-A-90-RS3-F30	18	5.5	3.1	5.2	10.7	2.5	2.5	12.3	3.2	3.4	13.9	3.8	4.3	-	-	-
18000-485-SY-A-90-RS3-F30	18	5.5	3.1	5.1	14.6	4.4	4.7	16.1	4.5	5.4	-	-	-	-	-	-
18000-435-SY-A-90-RS4-F30	18	6.4	3.8	7.1	8.9	2.0	1.8	10.4	2.3	2.4	12.0	3.0	3.3	14.9	4.1	4.8
18000-485-SY-A-90-RS4-F30	18	6.4	3.8	7.1	12.6	3.3	3.6	14.4	3.9	4.6	16.3	4.6	5.5	-	-	-
18000-535-SY-A-90-RS2-F30	18	6.4	3.8	7.1	16.6	4.7	5.7	-	-	-	-	-	-	-	-	-
18000-585-SY-A-90-RS2-F30	18	6.4	3.8	7.1	-	-	-	-	-	-	-	-	-	-	-	-
18000-535-SY-A-90-RS3-F30	18	7.9	4.6	8.5	15.4	4.0	4.5	-	-	-	-	-	-	-	-	-
18000-585-SY-A-90-RS3-F30	18	7.9	4.6	8.5	-	-	-	-	-	-	-	-	-	-	-	-
18000-535-SY-A-90-RS4-F30	18	8.9	5.4	10.6	13.6	3.4	3.6	15.9	4.2	4.7	-	-	-	-	-	-
18000-585-SY-A-90-RS4-F30	18	8.9	5.4	10.6	-	-	-	-	-	-	-	-	-	-	-	-
32000-435-SY-A-90-RS4-F35	32	8.1	5.0	10.2	10.6	2.3	2.3	12.8	3.2	3.4	14.9	4.1	4.6	19.1	5.8	7.0
32000-485-SY-A-90-RS2-F35	32	8.1	5.0	10.2	15.8	4.4	5.1	18.4	5.5	6.6	21.0	6.5	8.0	26.3	8.6	11.0
32000-535-SY-A-90-RS1-F35	32	8.1	5.0	10.2	21.5	6.7	8.3	24.7	8.0	10.1	27.9	9.2	11.9	34.4	11.8	15.4
32000-585-SY-A-90-RS1-F35	32	8.1	5.0	10.2	27.8	9.2	11.8	31.7	10.7	13.9	-	-	-	-	-	-
32000-635-SY-A-90-RS1-F35	32	8.1	5.0	10.3	34.7	11.9	15.6	-	-	-	-	-	-	-	-	-
32000-485-SY-A-90-RS3-F35	32	10.1	6.1	11.7	14.2	2.9	2.9	16.9	4.1	4.4	19.5	5.2	5.8	24.8	7.3	8.8
32000-535-SY-A-90-RS2-F35	32	10.1	6.1	11.7	20.0	5.4	6.1	23.2	6.7	7.9	26.4	8.0	9.6	32.9	10.5	13.2
32000-585-SY-A-90-RS2-F35	32	10.1	6.1	11.7	26.3	7.9	9.6	30.2	9.4	11.7	34.0	10.9	13.8	-	-	-
32000-635-SY-A-90-RS2-F35	32	10.1	6.1	11.8	33.2	10.6	13.4	-	-	-	-	-	-	-	-	-
32000-485-SY-A-90-RS4-F35	32	10.1	6.8	14.1	-	-	-	14.5	3.4	3.5	17.1	4.5	4.9	22.4	6.6	7.9
32000-535-SY-A-90-RS3-F35	32	10.8	6.8	14.1	17.6	4.6	5.2	20.1	5.9	7.0	24.0	7.2	8.8	30.4	9.8	12.3
32000-585-SY-A-90-RS3-F35	32	10.8	6.8	14.1	23.9	7.2	8.7	27.7	8.7	10.8	31.6	10.2	13.0	-	-	-
32000-635-SY-A-90-RS3-F35	32	10.9	6.8	14.2	30.8	9.9	12.5	-	-	-	-	-	-	-	-	-
32000-685-SY-A-90-RS3-F35	32	10.9	6.8	14.2	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-A-90-RS4-F35	32	14.6	8.8	17.1	-	-	-	-	-	-	21.0	4.5	4.5	27.4	7.3	8.1
32000-585-SY-A-90-RS4-F35	32	14.6	8.8	17.2	20.9	4.5	4.5	24.7	6.1	6.6	28.6	7.7	8.7	-	-	-
32000-635-SY-A-90-RS4-F35	32	14.6	8.8	17.2	27.8	7.4	8.3	32.3	9.2	10.8	-	-	-	-	-	-
32000-685-SY-A-90-RS2-F35	32	14.6	8.8	17.2	-	-	-	-	-	-	-	-	-	-	-	-

 Note

Torques at higher operating pressure are possible on request.

# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, symmetrical yoke, NC, closing with spring force

Theoretical torque [Nm] as a function of operating pressure																
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]														
		Spring			3.0			3.5			4.0			4.5		
		BTC	RTC	ETC	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
9000-280-SY-Y-90-RS4-F25	9	2.4	1.1	1.5	-	-	-	-	-	-	-	-	-	1.7	0.7	0.7
9000-335-SY-Y-90-RS2-F25	9	2.4	1.1	1.5	1.4	0.4	0.4	2.0	0.8	0.9	2.5	1.7	1.5	3.1	1.5	2.0
9000-385-SY-Y-90-RS1-F25	9	2.4	1.1	1.5	2.4	1.1	1.5	3.1	1.6	2.2	3.8	2.0	2.9	4.5	2.3	3.4
9000-435-SY-Y-90-RS1-F25	9	2.4	1.1	1.5	3.5	1.8	2.7	4.4	2.4	3.6	5.3	2.9	4.6	6.1	3.2	4.9
9000-335-SY-Y-90-RS3-F25	9	3.8	1.8	2.4	-	-	-	-	-	-	-	-	-	2.3	0.8	0.6
9000-385-SY-Y-90-RS2-F25	9	3.8	1.8	2.4	-	-	-	-	-	-	2.9	1.1	1.2	3.7	1.7	1.9
9000-435-SY-Y-90-RS2-F25	9	3.8	1.8	2.4	2.7	0.9	0.9	3.5	1.6	1.9	4.4	2.1	2.8	5.3	2.6	3.5
9000-335-SY-Y-90-RS4-F25	9	4.1	2.0	2.7	-	-	-	-	-	-	-	-	-	-	-	-
9000-385-SY-Y-90-RS3-F25	9	4.1	2.0	2.7	-	-	-	-	-	-	2.5	0.8	0.8	3.5	1.5	1.6
9000-435-SY-Y-90-RS3-F25	9	4.1	2.0	2.7	2.3	0.5	0.5	3.2	1.3	1.5	4.0	1.9	2.4	5.1	2.4	3.2
9000-385-SY-Y-90-RS4-F25	9	5.0	2.4	3.2	-	-	-	-	-	-	-	-	-	-	-	-
9000-435-SY-Y-90-RS4-F25	9	5.0	2.4	3.2	-	-	-	-	-	-	3.5	1.3	1.3	6.9	2.5	3.2
18000-385-SY-Y-90-RS3-F30	18	6.3	2.8	3.3	-	-	-	-	-	-	-	-	-	-	-	-
18000-435-SY-Y-90-RS3-F30	18	6.3	2.8	3.3	-	-	-	-	-	-	4.7	1.2	1.1	5.8	2.4	2.4
18000-485-SY-Y-90-RS3-F30	18	6.3	2.8	3.2	-	-	-	5.4	1.9	1.9	6.7	2.9	3.3	7.9	3.6	4.4
18000-535-SY-Y-90-RS1-F30	18	6.3	2.8	3.2	5.8	2.3	2.3	7.4	3.3	4.0	9.0	4.3	5.7	10.3	5.0	6.7
18000-585-SY-Y-90-RS1-F30	18	6.3	2.8	3.2	7.7	3.5	4.3	9.5	4.7	6.4	11.4	5.9	8.4	12.9	6.4	9.2
18000-385-SY-Y-90-RS4-F30	18	7.5	3.5	4.5	-	-	-	-	-	-	-	-	-	-	-	-
18000-435-SY-Y-90-RS4-F30	18	7.5	3.5	4.5	-	-	-	-	-	-	-	-	-	4.8	1.8	1.4
18000-485-SY-Y-90-RS4-F30	18	7.4	3.5	4.5	-	-	-	-	-	-	5.5	1.9	1.9	6.9	3.0	3.4
18000-535-SY-Y-90-RS2-F30	18	7.4	3.5	4.5	4.6	1.0	1.0	6.1	2.5	2.7	7.7	3.5	4.4	9.3	4.4	5.7
18000-585-SY-Y-90-RS2-F30	18	7.4	3.5	4.5	6.4	2.7	3.0	8.3	3.9	5.0	10.2	5.1	7.1	11.8	5.8	8.2
18000-535-SY-Y-90-RS3-F30	18	9.1	4.4	5.4	-	-	-	5.5	2.0	1.4	7.0	2.9	2.9	8.5	3.7	4.3
18000-585-SY-Y-90-RS3-F30	18	9.1	4.4	5.4	-	-	-	7.6	3.2	3.4	9.3	4.2	5.1	11.0	5.2	6.8
18000-535-SY-Y-90-RS4-F30	18	10.4	5.2	6.8	-	-	-	-	-	-	5.8	2.2	1.7	7.3	3.0	3.1
18000-585-SY-Y-90-RS4-F30	18	10.4	5.2	6.8	-	-	-	6.4	2.5	2.3	8.1	3.5	3.9	9.9	4.5	5.6
32000-435-SY-Y-90-RS3-F35	32	9.5	4.7	6.4	-	-	-	-	-	-	-	-	-	-	-	-
32000-485-SY-Y-90-RS2-F35	32	9.5	4.7	6.4	-	-	-	5.0	1.1	1.1	6.7	2.7	2.9	-	-	-
32000-535-SY-Y-90-RS1-F35	32	9.5	4.7	6.4	5.5	1.7	1.6	7.5	3.3	3.9	9.6	4.6	6.1	-	-	-
32000-585-SY-Y-90-RS1-F35	32	9.5	4.7	6.4	7.9	3.6	4.3	10.4	5.1	7.0	12.8	6.7	9.7	-	-	-
32000-635-SY-Y-90-RS1-F35	32	9.5	4.7	6.5	10.6	5.3	7.2	13.5	7.1	10.4	16.3	8.9	13.5	-	-	-
32000-435-SY-Y-90-RS4-F35	32	11.7	5.6	7.4	-	-	-	-	-	-	-	-	-	-	-	-
32000-485-SY-Y-90-RS3-F35	32	11.7	5.6	7.4	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-Y-90-RS2-F35	32	11.7	5.6	7.4	-	-	-	-	-	-	8.6	3.4	3.4	-	-	-
32000-585-SY-Y-90-RS2-F35	32	11.7	5.6	7.4	7.0	1.6	1.6	9.4	3.9	4.3	11.9	5.5	6.9	-	-	-
32000-635-SY-Y-90-RS2-F35	32	11.7	5.6	7.4	9.6	4.0	4.5	12.5	5.9	7.6	15.4	7.8	10.8	-	-	-
32000-685-SY-Y-90-RS2-F35	32	11.7	5.6	7.4	12.4	5.9	7.6	15.8	8.0	11.2	19.2	10.1	14.9	-	-	-
32000-485-SY-Y-90-RS4-F35	32	12.6	6.4	8.9	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-Y-90-RS3-F35	32	12.6	6.4	8.9	-	-	-	-	-	-	7.1	2.3	2.3	-	-	-
32000-585-SY-Y-90-RS3-F35	32	12.7	6.4	8.9	-	-	-	7.9	3.1	3.1	10.3	4.7	5.8	-	-	-
32000-635-SY-Y-90-RS3-F35	32	12.7	6.4	8.9	8.1	3.2	3.4	10.9	5.1	6.5	13.8	7.0	9.7	-	-	-
32000-685-SY-Y-90-RS3-F35	32	12.7	6.4	8.9	10.9	5.1	6.4	14.2	7.2	10.1	17.6	9.3	13.8	-	-	-
32000-735-SY-Y-90-RS3-F35	32	12.6	6.4	8.9	13.9	7.0	9.8	17.8	9.4	14.0	21.7	11.9	18.2	-	-	-
32000-535-SY-Y-90-RS4-F35	32	16.9	8.2	10.8	-	-	-	-	-	-	-	-	-	-	-	-
32000-585-SY-Y-90-RS4-F35	32	17.0	8.2	10.8	-	-	-	-	-	-	-	-	-	-	-	-
32000-635-SY-Y-90-RS4-F35	32	17.0	8.2	10.8	-	-	-	-	-	-	11.9	4.5	4.5	-	-	-
32000-685-SY-Y-90-RS4-F35	32	17.0	8.2	10.8	-	-	-	12.3	4.8	4.9	15.7	7.1	8.6	-	-	-
32000-735-SY-Y-90-RS4-F35	32	16.9	8.2	10.8	12.0	4.6	4.6	15.9	7.2	8.8	19.7	9.7	13.0	-	-	-

## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, symmetrical yoke, NC, closing with spring force

Theoretical torque [Nm] as a function of operating pressure																
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]														
		Spring			5.0			5.5			6.0			7.0		
		BTC	RTC	ETC	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
9000-280-SY-Y-90-RS4-F25	9	2.4	1.1	1.5	2.0	0.8	0.9	2.3	1.1	1.4	2.7	1.3	1.7	3.4	1.8	2.5
9000-335-SY-Y-90-RS2-F25	9	2.4	1.1	1.5	3.5	1.8	2.6	4.0	2.1	3.2	4.5	2.5	3.8	5.6	3.1	4.9
9000-385-SY-Y-90-RS1-F25	9	2.4	1.1	1.5	5.1	2.8	4.4	5.8	3.3	5.2	6.5	3.7	5.9	7.9	4.5	7.4
9000-435-SY-Y-90-RS1-F25	9	2.4	1.1	1.5	7.0	4.0	6.5	7.9	4.6	7.4	8.7	5.1	8.4	-	-	-
9000-335-SY-Y-90-RS3-F25	9	3.8	1.8	2.4	2.8	1.1	1.0	3.1	1.3	1.4	3.6	1.6	2.0	4.7	2.3	3.1
9000-385-SY-Y-90-RS2-F25	9	3.8	1.8	2.4	4.2	2.0	2.7	4.9	2.5	3.4	5.6	2.9	4.1	7.0	3.7	5.6
9000-435-SY-Y-90-RS2-F25	9	3.8	1.8	2.4	6.1	3.2	4.7	7.0	3.8	5.7	7.9	4.3	6.6	9.6	5.4	8.5
9000-335-SY-Y-90-RS4-F25	9	4.1	2.0	2.7	2.3	0.5	0.5	2.8	1.0	1.0	3.3	1.4	1.6	4.3	2.1	2.7
9000-385-SY-Y-90-RS3-F25	9	4.1	2.0	2.7	3.9	1.8	2.3	4.6	2.2	3.0	5.2	2.7	3.8	6.6	3.5	5.2
9000-435-SY-Y-90-RS3-F25	9	4.1	2.0	2.7	5.8	3.0	4.3	6.6	3.5	5.3	7.5	4.1	6.2	9.2	5.2	8.1
9000-385-SY-Y-90-RS4-F25	9	5.0	2.4	3.2	3.4	1.2	1.2	4.0	1.7	1.9	4.7	2.1	2.7	6.1	3.0	4.1
9000-435-SY-Y-90-RS4-F25	9	5.0	2.4	3.2	5.2	2.5	3.2	6.1	3.0	4.2	6.9	3.6	5.1	8.7	4.7	7.0
18000-385-SY-Y-90-RS3-F30	18	6.3	2.8	3.3	4.6	1.0	0.9	5.4	1.8	1.8	6.2	2.5	2.7	7.8	3.6	4.5
18000-435-SY-Y-90-RS3-F30	18	6.3	2.8	3.3	6.8	2.9	3.4	7.8	3.6	4.5	8.9	4.3	5.6	10.9	5.6	7.9
18000-485-SY-Y-90-RS3-F30	18	6.3	2.8	3.2	9.3	4.5	6.1	10.6	5.4	7.5	11.9	6.2	8.9	-	-	-
18000-535-SY-Y-90-RS1-F30	18	6.3	2.8	3.2	12.1	6.3	9.1	13.6	7.3	10.8	-	-	-	-	-	-
18000-585-SY-Y-90-RS1-F30	18	6.3	2.8	3.2	-	-	-	-	-	-	-	-	-	-	-	-
18000-385-SY-Y-90-RS4-F30	18	7.5	3.5	4.5	-	-	-	-	-	-	5.0	1.4	1.4	6.6	2.8	3.1
18000-435-SY-Y-90-RS4-F30	18	7.5	3.5	4.5	5.6	2.0	2.0	6.6	2.8	3.1	7.6	3.5	4.3	9.7	4.8	6.5
18000-485-SY-Y-90-RS4-F30	18	7.4	3.5	4.5	8.0	3.7	4.7	9.3	4.6	6.1	10.6	5.4	7.5	13.2	7.0	10.3
18000-535-SY-Y-90-RS2-F30	18	7.4	3.5	4.5	10.8	5.5	7.8	12.4	6.5	9.5	14.0	7.5	11.2	16.6	8.6	12.8
18000-585-SY-Y-90-RS2-F30	18	7.4	3.5	4.5	13.9	7.4	11.1	15.3	7.9	11.6	17.1	8.9	13.3	-	-	-
18000-535-SY-Y-90-RS3-F30	18	9.1	4.4	5.4	9.9	4.6	5.7	11.4	5.4	7.1	12.9	6.2	8.5	15.8	7.9	11.4
18000-585-SY-Y-90-RS3-F30	18	9.1	4.4	5.4	12.8	6.2	8.5	14.5	7.2	10.2	16.3	8.2	11.9	-	-	-
18000-535-SY-Y-90-RS4-F30	18	10.4	5.2	6.8	8.8	3.9	4.6	10.2	4.7	6.0	11.7	5.6	7.4	14.6	7.3	10.2
18000-585-SY-Y-90-RS4-F30	18	10.4	5.2	6.8	11.6	5.5	7.3	13.4	6.5	9.0	15.1	7.6	10.7	-	9.6	14.1
32000-435-SY-Y-90-RS3-F35	32	9.5	4.7	6.4	6.8	2.8	3.0	8.1	3.7	4.5	9.5	4.6	6.0	12.2	6.3	9.0
32000-485-SY-Y-90-RS2-F35	32	9.5	4.7	6.4	10.0	4.9	6.6	11.7	6.0	8.5	13.4	7.0	10.3	16.8	9.2	14.0
32000-535-SY-Y-90-RS1-F35	32	9.5	4.7	6.4	13.7	7.2	10.6	15.7	8.5	12.9	17.8	9.8	15.1	21.9	12.4	19.6
32000-585-SY-Y-90-RS1-F35	32	9.5	4.7	6.4	17.7	9.7	15.0	20.2	11.3	17.7	22.6	12.8	20.4	27.5	15.9	25.7
32000-635-SY-Y-90-RS1-F35	32	9.5	4.7	6.5	22.1	12.5	19.8	25.0	14.3	23.0	27.9	16.1	26.1	33.7	19.7	32.5
32000-435-SY-Y-90-RS4-F35	32	11.7	5.6	7.4	-	-	-	7.2	1.9	1.8	8.5	3.3	3.3	11.2	5.1	6.3
32000-485-SY-Y-90-RS3-F35	32	11.7	5.6	7.4	9.1	3.7	3.9	10.8	4.8	5.7	12.4	5.9	7.6	15.8	8.0	11.3
32000-535-SY-Y-90-RS2-F35	32	11.7	5.6	7.4	12.7	6.1	7.9	14.8	7.4	10.1	16.8	8.7	12.4	20.9	11.2	16.9
32000-585-SY-Y-90-RS2-F35	32	11.7	5.6	7.4	16.8	8.6	12.3	19.2	10.2	15.0	21.7	11.7	17.7	26.6	14.8	23.0
32000-635-SY-Y-90-RS2-F35	32	11.7	5.6	7.4	21.2	11.4	17.1	24.1	13.2	20.3	26.9	15.0	23.4	32.7	18.6	29.8
32000-685-SY-Y-90-RS2-F35	32	11.7	5.6	7.4	25.9	14.3	22.3	29.2	16.4	25.9	32.6	18.5	29.6	-	-	-
32000-485-SY-Y-90-RS4-F35	32	12.6	6.4	8.9	7.5	2.8	2.8	9.2	4.0	4.6	10.9	5.1	6.5	14.3	7.2	10.1
32000-535-SY-Y-90-RS3-F35	32	12.6	6.4	8.9	11.2	5.3	6.8	13.2	6.6	9.0	15.3	7.9	11.3	19.4	10.5	15.7
32000-585-SY-Y-90-RS3-F35	32	12.7	6.4	8.9	15.2	7.8	11.2	17.7	9.4	13.9	20.1	10.9	16.5	25.0	14.0	21.9
32000-635-SY-Y-90-RS3-F35	32	12.7	6.4	8.9	19.6	10.6	16.0	22.5	12.4	19.2	25.4	14.2	22.3	31.2	17.8	28.6
32000-685-SY-Y-90-RS3-F35	32	12.7	6.4	8.9	24.3	13.5	21.1	27.7	15.6	24.8	31.1	17.7	28.5	-	-	-
32000-735-SY-Y-90-RS3-F35	32	12.6	6.4	8.9	29.4	16.7	26.7	33.3	19.1	30.9	-	-	-	-	-	-
32000-535-SY-Y-90-RS4-F35	32	16.9	8.2	10.8	-	-	-	11.3	3.9	3.8	13.4	5.6	6.1	17.5	8.2	10.6
32000-585-SY-Y-90-RS4-F35	32	17.0	8.2	10.8	13.3	5.5	6.0	15.7	7.1	8.7	18.2	8.7	11.4	23.1	11.8	16.7
32000-635-SY-Y-90-RS4-F35	32	17.0	8.2	10.8	17.7	8.4	10.8	20.6	10.2	14.0	23.5	12.0	17.1	29.3	15.7	23.4
32000-685-SY-Y-90-RS4-F35	32	17.0	8.2	10.8	22.4	11.4	16.0	25.8	13.5	19.6	29.1	15.6	23.3	-	-	-
32000-735-SY-Y-90-RS4-F35	32	16.9	8.2	10.8	22.5	14.6	21.5	31.3	17.0	25.7	-	-	-	-	-	-



Note

Torques at higher operating pressure are possible on request.

## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, asymmetrical yoke, NO, opening with spring force

Theoretical torque [Nm] as a function of operating pressure																
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]														
		Spring			3.0			3.5			4.0			4.5		
		BTO	RTO	ETO	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
9000-280-SY-A-90-LS4-F25	9	3.9	1.0	1.2	-	-	-	-	-	-	-	-	-	-	-	-
9000-335-SY-A-90-LS2-F25	9	3.9	1.0	1.1	1.3	0.5	0.5	1.7	0.9	1.4	2.1	1.2	2.2	2.5	1.5	2.9
9000-385-SY-A-90-LS1-F25	9	3.8	1.0	1.1	2.1	1.2	2.2	2.7	1.6	3.3	3.3	2.0	4.4	3.6	2.3	4.9
9000-435-SY-A-90-LS1-F25	9	3.8	1.0	1.1	3.1	1.9	4.0	3.8	2.4	5.5	4.6	3.0	7.0	4.9	3.2	7.2
9000-385-SY-A-90-LS2-F25	9	6.3	1.6	1.8	-	-	-	1.9	0.6	0.5	2.5	1.3	1.7	3.0	1.7	2.7
9000-435-SY-A-90-LS2-F25	9	6.2	1.6	1.8	2.3	1.1	1.3	3.1	1.7	2.7	3.8	2.2	4.2	4.3	2.6	5.0
9000-385-SY-A-90-LS3-F25	9	6.8	1.8	2.1	-	-	-	-	-	-	2.2	1.0	1.1	2.8	1.6	2.3
9000-435-SY-A-90-LS3-F25	9	6.8	1.8	2.1	2.0	0.7	0.7	2.8	1.5	2.1	3.5	2.0	3.6	4.1	2.5	4.6
9000-435-SY-A-90-LS4-F25	9	8.3	2.2	2.5	-	-	-	-	-	-	3.0	1.5	1.9	3.7	2.0	2.8
18000-385-SY-A-90-LS3-F30	18	10.5	2.4	2.5	-	-	-	-	-	-	-	-	-	-	-	-
18000-435-SY-A-90-LS3-F30	18	10.5	2.4	2.5	-	-	-	-	-	-	4.1	1.5	1.5	5.1	2.6	3.6
18000-485-SY-A-90-LS3-F30	18	10.5	2.4	2.5	-	-	-	4.7	2.3	2.6	5.9	3.1	4.8	7.0	3.9	6.9
18000-435-SY-A-90-LS4-F30	18	12.3	3.1	3.5	-	-	-	-	-	-	-	-	-	-	-	-
18000-485-SY-A-90-LS4-F30	18	12.3	3.1	3.4	-	-	-	-	-	-	4.8	2.3	2.7	6.1	3.3	5.2
18000-535-SY-A-90-LS2-F30	18	12.3	3.2	3.4	4.0	1.3	1.2	5.4	2.8	3.8	6.7	3.8	6.4	8.1	4.7	8.9
18000-585-SY-A-90-LS2-F30	18	12.3	3.2	3.4	5.6	3.0	4.3	7.2	4.1	7.4	8.8	5.3	10.6	10.4	6.3	12.9
18000-535-SY-A-90-LS3-F30	18	14.4	4.2	4.2	-	-	-	-	-	-	-	-	-	7.5	4.1	6.9
18000-585-SY-A-90-LS3-F30	18	14.4	4.2	4.2	-	-	-	-	-	-	-	-	-	9.7	5.6	10.8
18000-535-SY-A-90-LS4-F30	18	16.3	4.9	5.3	-	-	-	-	-	-	-	-	-	6.4	3.4	5.0
18000-585-SY-A-90-LS4-F30	18	16.3	4.9	5.3	-	-	-	-	-	-	7.2	3.9	6.3	8.7	4.9	9.0
32000-435-SY-A-90-LS3-F35	32	15.6	4.3	5.0	-	-	-	-	-	-	-	-	-	-	-	-
32000-485-SY-A-90-LS2-F35	32	15.6	4.3	4.9	-	-	-	4.3	1.5	1.4	5.8	3.0	4.2	-	-	-
32000-535-SY-A-90-LS1-F35	32	15.6	4.3	4.9	4.8	2.2	2.2	6.6	3.6	5.7	8.3	4.9	9.1	-	-	-
32000-585-SY-A-90-LS1-F35	32	15.6	4.3	5.0	6.9	3.8	6.3	9.0	5.4	10.4	11.1	6.9	14.6	-	-	-
32000-635-SY-A-90-LS1-F35	32	15.7	4.4	5.0	9.2	5.5	10.8	11.7	7.3	15.6	14.2	9.0	20.5	-	-	-
32000-485-SY-A-90-LS3-F35	32	19.3	5.1	5.7	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-A-90-LS2-F35	32	19.3	5.1	5.7	-	-	-	5.7	1.6	1.4	7.5	3.8	4.8	-	-	-
32000-585-SY-A-90-LS2-F35	32	19.3	5.1	5.7	6.0	2.2	2.0	8.2	4.3	6.1	10.3	5.9	10.3	-	-	-
32000-635-SY-A-90-LS2-F35	32	19.4	5.1	5.7	8.4	4.4	6.5	10.9	6.3	11.3	13.4	8.1	16.2	-	-	-
32000-685-SY-A-90-LS2-F35	32	19.4	5.1	5.7	10.8	6.2	11.2	13.7	8.3	16.9	16.7	10.4	22.5	-	-	-
32000-485-SY-A-90-LS4-F35	32	20.8	5.9	6.9	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-A-90-LS3-F35	32	20.8	5.9	6.9	-	-	-	-	-	-	6.2	3.0	3.2	-	-	-
32000-585-SY-A-90-LS3-F35	32	20.8	5.9	6.9	-	-	-	6.8	3.5	4.5	9.0	5.0	8.6	-	-	-
32000-635-SY-A-90-LS3-F35	32	20.9	5.9	6.9	7.0	3.6	4.8	9.5	5.4	9.7	12.0	7.2	14.5	-	-	-
32000-685-SY-A-90-LS3-F35	32	20.8	5.9	6.9	9.5	5.4	9.5	12.4	7.5	15.2	15.3	9.6	20.9	-	-	-
32000-535-SY-A-90-LS4-F35	32	27.9	7.5	8.3	-	-	-	-	-	-	-	-	-	-	-	-
32000-585-SY-A-90-LS4-F35	32	28.0	7.5	8.3	-	-	-	-	-	-	-	-	-	-	-	-
32000-635-SY-A-90-LS3-F35	32	28.0	7.5	8.4	-	-	-	-	-	-	10.4	5.2	6.3	-	-	-
32000-685-SY-A-90-LS4-F35	32	28.0	7.5	8.4	-	-	-	10.7	5.4	7.0	13.6	7.6	12.7	-	-	-
32000-735-SY-A-90-LS4-F35	32	27.9	7.5	8.3	10.4	5.2	6.4	13.8	7.7	13.0	17.2	10.1	19.5	-	-	-

## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, asymmetrical yoke, NO, opening with spring force

Theoretical torque [Nm] as a function of operating pressure																
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]														
		Spring			5.0			5.5			6.0			7.0		
		BTO	RTO	ETO	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
9000-280-SY-A-90-LS4-F25	9	3.9	1.0	1.2	1.7	0.9	1.4	2.0	1.1	2.0	2.3	1.4	2.6	3.0	1.8	3.8
9000-335-SY-A-90-LS2-F25	9	3.9	1.0	1.1	3.0	1.9	4.0	3.5	2.2	4.8	3.9	2.5	5.7	4.8	3.1	7.4
9000-385-SY-A-90-LS1-F25	9	3.8	1.0	1.1	4.5	2.9	6.7	5.1	3.3	7.9	-	-	-	-	-	-
9000-435-SY-A-90-LS1-F25	9	3.8	1.0	1.1	-	-	-	-	-	-	-	-	-	-	-	-
9000-385-SY-A-90-LS2-F25	9	6.3	1.6	1.8	3.7	2.1	4.0	4.3	2.6	5.1	4.9	3.0	6.2	6.1	3.8	8.5
9000-435-SY-A-90-LS2-F25	9	6.2	1.6	1.8	5.3	3.3	7.1	-	-	-	-	-	-	-	-	-
9000-385-SY-A-90-LS3-F25	9	6.8	1.8	2.1	3.4	1.9	3.4	3.9	2.3	4.5	4.6	2.8	5.6	5.7	3.6	7.9
9000-435-SY-A-90-LS3-F25	9	6.8	1.8	2.1	5.0	3.1	6.5	5.8	3.6	8.0	-	-	-	-	-	-
9000-435-SY-A-90-LS4-F25	9	8.3	2.2	2.5	4.5	2.6	4.8	5.3	3.2	6.2	6.0	3.7	7.7	-	-	-
18000-385-SY-A-90-LS3-F30	18	10.5	2.4	2.5	-	-	-	4.7	2.3	2.5	5.4	2.8	3.9	6.8	3.8	6.6
18000-435-SY-A-90-LS3-F30	18	10.5	2.4	2.5	5.9	3.2	4.9	6.8	3.9	6.7	7.7	4.5	8.4	9.5	5.8	11.9
18000-485-SY-A-90-LS3-F30	18	10.5	2.4	2.5	8.1	4.8	9.1	9.2	5.6	11.3	10.3	6.4	13.4	-	-	-
18000-435-SY-A-90-LS4-F30	18	12.3	3.1	3.5	-	-	-	5.7	3.1	4.6	6.6	3.7	6.3	8.4	5.0	9.8
18000-485-SY-A-90-LS4-F30	18	12.3	3.1	3.4	7.0	4.0	7.0	8.1	4.8	9.2	9.2	5.6	11.3	-	-	-
18000-535-SY-A-90-LS2-F30	18	12.3	3.2	3.4	9.4	5.7	11.7	10.7	6.5	13.4	12.0	7.4	15.7	-	-	-
18000-585-SY-A-90-LS2-F30	18	12.3	3.2	3.4	11.9	7.3	15.6	-	-	-	-	-	-	-	-	-
18000-535-SY-A-90-LS3-F30	18	14.4	4.2	4.2	8.7	5.0	9.1	10.0	5.8	11.4	11.3	6.7	13.7	-	-	-
18000-585-SY-A-90-LS3-F30	18	14.4	4.2	4.2	11.3	6.7	13.5	12.8	7.8	16.3	-	-	-	-	-	-
18000-535-SY-A-90-LS4-F30	18	16.3	4.9	5.3	7.7	4.2	7.3	9.0	5.1	9.6	10.3	6.0	11.8	12.9	7.8	16.4
18000-585-SY-A-90-LS4-F30	18	16.3	4.9	5.3	10.2	6.0	11.7	11.8	7.0	14.4	13.3	8.1	17.2	-	-	-
32000-435-SY-A-90-LS3-F35	32	15.6	4.3	5.0	5.9	3.1	4.4	7.0	4.0	6.7	8.2	4.8	8.9	10.6	6.5	13.5
32000-485-SY-A-90-LS2-F35	32	15.6	4.3	4.9	8.7	5.1	9.9	10.2	6.2	12.7	11.7	7.2	15.5	14.6	9.3	21.2
32000-535-SY-A-90-LS1-F35	32	15.6	4.3	4.9	11.9	7.4	16.0	13.7	8.7	19.5	15.5	9.9	22.9	19.0	12.4	29.8
32000-585-SY-A-90-LS1-F35	32	15.6	4.3	5.0	15.4	9.9	22.8	17.5	11.4	26.9	19.7	12.9	31.1	-	-	-
32000-635-SY-A-90-LS1-F35	32	15.7	4.4	5.0	19.2	12.6	30.2	-	-	-	-	-	-	-	-	-
32000-485-SY-A-90-LS3-F35	32	19.3	5.1	5.7	7.9	4.1	5.6	9.4	5.2	8.4	10.8	6.2	11.3	13.8	8.3	16.9
32000-535-SY-A-90-LS2-F35	32	19.3	5.1	5.7	11.1	6.4	11.7	12.9	7.7	15.2	14.6	9.0	18.6	18.2	11.5	25.6
32000-585-SY-A-90-LS2-F35	32	19.3	5.1	5.7	14.6	8.9	18.5	16.7	10.4	22.7	18.8	11.9	26.8	-	-	-
32000-635-SY-A-90-LS2-F35	32	19.4	5.1	5.7	18.4	11.6	25.9	20.9	13.4	30.8	-	-	-	-	-	-
32000-685-SY-A-90-LS2-F35	32	19.4	5.1	5.7	22.5	14.5	33.9	-	-	-	-	-	-	-	-	-
32000-485-SY-A-90-LS4-F35	32	20.8	5.9	6.9	6.5	3.2	3.9	8.0	4.3	6.7	9.5	5.4	9.6	12.4	7.5	15.2
32000-535-SY-A-90-LS3-F35	32	20.8	5.9	6.9	9.7	5.6	10.1	11.5	6.9	13.5	13.3	8.1	17.0	16.9	10.7	23.9
32000-585-SY-A-90-LS3-F35	32	20.8	5.9	6.9	13.2	8.1	16.8	15.4	9.6	21.0	17.5	11.1	25.0	21.8	14.1	33.3
32000-635-SY-A-90-LS3-F35	32	20.9	5.9	6.9	17.1	10.8	24.2	19.6	12.6	29.1	22.1	14.3	34.0	-	-	-
32000-685-SY-A-90-LS3-F35	32	20.8	5.9	6.9	21.2	13.7	32.2	-	-	-	-	-	-	-	-	-
32000-535-SY-A-90-LS4-F35	32	27.9	7.5	8.3	8.1	2.1	1.9	9.8	4.8	5.3	11.6	6.1	8.8	15.2	8.7	15.7
32000-585-SY-A-90-LS4-F35	32	28.0	7.5	8.3	11.6	6.1	8.6	13.7	7.6	12.8	15.8	9.2	16.9	20.1	12.2	25.1
32000-635-SY-A-90-LS3-F35	32	28.0	7.5	8.4	15.4	8.9	16.0	17.9	10.7	20.9	20.4	12.5	25.8	-	-	-
32000-685-SY-A-90-LS4-F35	32	28.0	7.5	8.4	19.5	11.8	24.0	22.4	13.9	29.6	-	-	-	-	-	-
32000-735-SY-A-90-LS4-F35	32	27.9	7.5	8.3	23.9	14.9	32.5	-	-	-	-	-	-	-	-	-

 Note

Torques at higher operating pressure are possible on request.

## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, symmetrical yoke, NO, opening with spring force

Theoretical torque [Nm] as a function of operating pressure																
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]														
		Spring			3.0			3.5			4.0			4.5		
		BTO	RTO	ETO	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
9000-280-SY-Y-90-LS4-F25	9	2.4	1.1	1.5	-	-	-	-	-	-	-	-	-	1.7	0.7	0.7
9000-335-SY-Y-90-LS2-F25	9	2.3	1.1	1.5	1.4	0.4	0.4	2.0	0.8	0.9	2.5	1.2	1.5	3.0	1.5	2.1
9000-385-SY-Y-90-LS1-F25	9	2.3	1.1	1.5	2.4	1.1	1.5	3.1	1.6	2.2	3.8	2.0	2.9	4.3	2.3	3.5
9000-435-SY-Y-90-LS1-F25	9	2.3	1.1	1.5	3.5	1.8	2.7	4.4	2.4	3.6	5.3	2.9	4.6	5.9	3.2	5.1
9000-335-SY-Y-90-LS3-F25	9	3.8	1.8	2.4	-	-	-	-	-	-	-	-	-	2.3	0.8	0.6
9000-385-SY-Y-90-LS2-F25	9	3.8	1.8	2.3	-	-	-	-	-	-	2.9	1.1	1.2	3.6	1.7	2.0
9000-435-SY-Y-90-LS2-F25	9	3.8	1.8	2.3	2.7	0.9	0.9	3.5	1.6	1.9	4.4	2.1	2.8	5.2	2.6	3.6
9000-335-SY-Y-90-LS4-F25	9	4.1	2.0	2.7	-	-	-	-	-	-	-	-	-	2.0	0.7	0.3
9000-385-SY-Y-90-LS3-F25	9	4.1	2.0	2.7	-	-	-	-	-	-	2.5	0.8	0.8	3.4	1.5	1.7
9000-435-SY-Y-90-LS3-F25	9	4.1	2.0	2.7	2.3	0.5	0.5	3.2	1.3	1.5	4.1	1.9	2.4	4.9	2.4	3.3
9000-385-SY-Y-90-LS4-F25	9	5.0	2.4	3.2	-	-	-	-	-	-	-	-	-	2.8	0.9	0.5
9000-435-SY-Y-90-LS4-F25	9	5.0	2.4	3.2	-	-	-	-	-	-	3.5	1.3	1.3	4.4	1.9	2.1
18000-385-SY-Y-90-LS3-F30	18	6.3	2.8	3.3	-	-	-	-	-	-	-	-	-	3.8	1.3	0.6
18000-435-SY-Y-90-LS3-F30	18	6.3	2.8	3.3	-	-	-	-	-	-	4.7	1.2	1.1	5.7	2.4	2.5
18000-485-SY-Y-90-LS3-F30	18	6.3	2.8	3.2	-	-	-	5.4	1.9	1.9	6.7	2.9	3.3	7.7	3.6	4.6
18000-535-SY-Y-90-LS1-F30	18	6.3	2.8	3.2	5.8	2.3	2.3	7.4	3.3	4.0	9.0	4.3	5.7	10.0	5.0	6.9
18000-585-SY-Y-90-LS1-F30	18	6.3	2.8	3.2	7.7	3.5	4.3	9.5	4.7	6.4	11.4	5.9	8.4	12.5	6.4	9.5
18000-385-SY-Y-90-LS4-F30	18	7.5	3.5	4.5	-	-	-	-	-	-	-	-	-	-	-	-
18000-435-SY-Y-90-LS4-F30	18	7.5	3.5	4.5	-	-	-	-	-	-	-	-	-	4.6	1.8	1.4
18000-485-SY-Y-90-LS4-F30	18	7.4	3.5	4.5	-	-	-	-	-	-	5.5	1.9	1.9	6.7	3.0	3.5
18000-535-SY-Y-90-LS2-F30	18	7.4	3.5	4.5	4.6	1.0	1.0	6.1	2.5	2.7	7.7	3.5	4.4	9.0	4.4	5.8
18000-585-SY-Y-90-LS2-F30	18	7.4	3.5	4.5	6.4	2.7	3.0	8.3	3.9	5.0	10.2	5.1	7.1	11.5	5.8	8.4
18000-535-SY-Y-90-LS3-F30	18	8.7	4.4	5.4	-	-	-	5.4	2.0	1.5	6.8	2.9	3.0	8.2	3.7	4.4
18000-585-SY-Y-90-LS3-F30	18	8.7	4.4	5.4	-	-	-	7.3	3.2	3.5	9.0	4.2	5.2	10.7	5.2	7.0
18000-535-SY-Y-90-LS4-F30	18	9.9	5.2	6.8	-	-	-	-	-	-	5.7	2.2	1.8	7.1	3.0	3.2
18000-585-SY-Y-90-LS4-F30	18	9.9	5.2	6.8	-	-	-	6.2	2.5	2.3	7.9	3.5	4.1	9.6	4.5	5.8
32000-435-SY-Y-90-LS3-F35	32	9.5	4.7	6.4	-	-	-	-	-	-	-	-	-	-	-	-
32000-485-SY-Y-90-LS2-F35	32	9.5	4.7	6.4	-	-	-	5.0	1.1	1.1	6.7	2.7	2.9	-	-	-
32000-535-SY-Y-90-LS1-F35	32	9.5	4.7	6.4	5.5	1.7	1.6	7.5	3.3	3.9	9.6	4.6	6.1	-	-	-
32000-585-SY-Y-90-LS1-F35	32	9.5	4.7	6.4	7.9	3.6	4.3	10.3	5.1	7.0	12.8	6.7	9.7	-	-	-
32000-635-SY-Y-90-LS1-F35	32	9.5	4.7	6.4	10.6	5.3	7.2	13.5	7.1	10.4	16.3	8.9	13.5	-	-	-
32000-385-SY-Y-90-LS4-F35	32	11.7	5.6	7.4	-	-	-	-	-	-	-	-	-	-	-	-
32000-435-SY-Y-90-LS4-F35	32	11.7	5.6	7.4	-	-	-	-	-	-	-	-	-	-	-	-
32000-485-SY-Y-90-LS3-F35	32	11.7	5.6	7.4	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-Y-90-LS2-F35	32	11.7	5.6	7.4	-	-	-	-	-	-	8.6	3.4	3.4	-	-	-
32000-585-SY-Y-90-LS2-F35	32	11.7	5.6	7.4	7.0	1.6	1.6	9.4	3.9	4.3	11.9	5.5	6.9	-	-	-
32000-635-SY-Y-90-LS2-F35	32	11.8	5.6	7.4	9.6	4.0	4.5	12.5	5.2	7.6	15.4	7.8	10.8	-	-	-
32000-685-SY-Y-90-LS2-F35	32	11.7	5.6	7.4	12.4	5.9	7.6	15.8	8.0	11.2	19.2	10.1	14.9	-	-	-
32000-485-SY-Y-90-LS4-F35	32	12.6	6.4	8.9	-	-	-	-	-	-	-	-	-	-	-	-
32000-535-SY-Y-90-LS3-F35	32	12.6	6.4	8.9	-	-	-	-	-	-	7.1	2.3	2.3	-	-	-
32000-585-SY-Y-90-LS3-F35	32	12.7	6.4	8.9	-	-	-	7.9	3.1	3.1	10.3	4.7	5.8	-	-	-
32000-635-SY-Y-90-LS3-F35	32	12.7	6.4	8.9	8.1	3.2	3.4	10.9	5.1	6.5	13.8	7.0	9.7	-	-	-
32000-685-SY-Y-90-LS3-F35	32	12.7	6.4	8.9	10.9	5.1	6.4	14.2	7.2	10.1	17.6	9.3	13.8	-	-	-
32000-735-SY-Y-90-LS3-F35	32	12.6	6.4	8.9	13.9	7.0	9.8	17.8	9.4	14.0	21.7	11.9	18.2	-	-	-
32000-535-SY-Y-90-LS4-F35	32	16.9	8.2	10.8	-	-	-	-	-	-	-	-	-	-	-	-
32000-585-SY-Y-90-LS4-F35	32	17.0	8.2	10.8	-	-	-	-	-	-	-	-	-	-	-	-
32000-635-SY-Y-90-LS4-F35	32	17.0	8.2	10.8	-	-	-	-	-	-	11.9	4.5	4.5	-	-	-
32000-685-SY-Y-90-LS4-F35	32	17.0	8.2	10.8	-	-	-	12.3	4.8	4.9	15.7	7.1	8.6	-	-	-
32000-735-SY-Y-90-LS4-F35	32	17.0	8.2	10.8	12.0	4.6	4.6	15.9	7.2	8.8	19.7	9.7	13.0	-	-	-

## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, symmetrical yoke, NO, opening with spring force

Theoretical torque [Nm] as a function of operating pressure																
DFPD-HD-...	Max. torque [kNm]	Transferable torque [kNm] at operating pressure [bar]														
		Spring			5.0			5.5			6.0			7.0		
		BTO	RTO	ETO	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
9000-280-SY-Y-90-LS4-F25	9	2.4	1.1	1.5	2.0	0.8	1.0	2.3	1.1	1.4	2.7	1.3	1.7	3.4	1.8	2.5
9000-335-SY-Y-90-LS2-F25	9	2.3	1.1	1.5	3.5	1.8	2.6	4.0	2.1	3.2	4.5	2.5	3.8	5.6	3.1	4.9
9000-385-SY-Y-90-LS1-F25	9	2.3	1.1	1.5	5.1	2.8	4.4	5.8	3.3	5.2	6.5	3.7	5.9	7.9	4.5	7.4
9000-435-SY-Y-90-LS1-F25	9	2.3	1.1	1.5	7.0	4.0	6.5	7.9	4.6	7.4	8.7	5.1	8.4	-	-	-
9000-335-SY-Y-90-LS3-F25	9	3.8	1.8	2.4	2.6	0.9	0.9	3.1	1.3	1.4	3.6	1.6	2.0	4.7	2.3	3.1
9000-385-SY-Y-90-LS2-F25	9	3.8	1.8	2.3	4.2	2.0	2.7	4.9	2.5	3.4	5.6	2.9	4.1	7.0	3.7	5.6
9000-435-SY-Y-90-LS2-F25	9	3.8	1.8	2.3	6.1	3.2	4.7	7.0	3.8	5.7	7.9	4.3	6.6	9.6	5.4	8.5
9000-335-SY-Y-90-LS4-F25	9	4.1	2.0	2.7	2.3	0.5	0.5	2.8	1.0	1.0	3.3	1.4	1.6	4.3	2.1	2.7
9000-385-SY-Y-90-LS3-F25	9	4.1	2.0	2.7	3.9	1.8	2.3	4.6	2.2	3.0	5.2	2.7	3.8	6.6	3.5	5.3
9000-435-SY-Y-90-LS3-F25	9	4.1	2.0	2.7	5.8	3.0	4.3	6.6	3.5	5.3	7.5	4.1	6.2	9.2	5.2	8.1
9000-385-SY-Y-90-LS4-F25	9	5.0	2.4	3.2	3.3	1.2	1.2	4.0	1.7	1.9	4.7	2.1	2.7	6.1	3.0	4.1
9000-435-SY-Y-90-LS4-F25	9	5.0	2.4	3.2	5.2	2.5	3.2	6.1	3.0	4.2	6.9	3.6	5.1	8.7	4.7	7.0
18000-385-SY-Y-90-LS3-F30	18	6.3	2.8	3.3	4.6	1.0	0.9	5.4	1.8	1.8	6.2	2.5	2.7	7.8	3.6	4.5
18000-435-SY-Y-90-LS3-F30	18	6.3	2.8	3.3	6.8	2.9	3.4	7.8	3.6	4.5	8.9	4.3	5.6	10.9	5.6	7.9
18000-485-SY-Y-90-LS3-F30	18	6.3	2.8	3.2	9.3	4.5	6.1	10.6	5.4	7.5	11.9	6.2	8.9	-	-	-
18000-535-SY-Y-90-LS1-F30	18	6.3	2.8	3.2	12.1	6.3	9.1	13.6	7.3	10.8	-	-	-	-	-	-
18000-585-SY-Y-90-LS1-F30	18	6.3	2.8	3.2	14.2	7.5	11.2	15.9	8.5	13.0	-	-	-	-	-	-
18000-385-SY-Y-90-LS4-F30	18	7.5	3.5	4.5	-	-	-	-	-	-	5.0	1.4	1.4	6.6	2.8	3.1
18000-435-SY-Y-90-LS4-F30	18	7.5	3.5	4.5	5.6	2.0	2.0	6.6	2.8	3.1	7.6	3.5	4.3	9.7	4.8	6.5
18000-485-SY-Y-90-LS4-F30	18	7.4	3.5	4.5	8.0	3.7	4.7	9.3	4.6	6.1	10.6	5.4	7.5	13.2	7.0	10.3
18000-535-SY-Y-90-LS2-F30	18	7.4	3.5	4.5	10.8	5.5	7.8	12.4	6.5	9.5	14.0	7.5	11.2	-	-	-
18000-585-SY-Y-90-LS2-F30	18	7.4	3.5	4.5	13.9	7.4	11.1	14.8	7.9	11.9	16.5	8.9	13.7	-	-	-
18000-535-SY-Y-90-LS3-F30	18	8.7	4.4	5.4	9.6	4.6	5.9	11.0	5.4	7.3	12.5	6.2	8.8	15.3	7.9	11.7
18000-585-SY-Y-90-LS3-F30	18	8.7	4.4	5.4	12.4	6.2	8.7	14.1	7.2	10.5	15.8	8.2	12.2	-	-	-
18000-535-SY-Y-90-LS4-F30	18	9.9	5.2	6.8	8.5	3.9	4.7	9.9	4.7	6.2	11.3	5.6	7.6	14.2	7.3	10.6
18000-585-SY-Y-90-LS4-F30	18	9.9	5.2	6.8	11.3	5.5	7.6	13.0	6.5	9.3	14.7	7.6	11.1	-	-	-
32000-435-SY-Y-90-LS3-F35	32	9.5	4.7	6.4	6.8	2.8	3.0	8.1	3.7	4.5	9.5	4.6	6.0	12.2	6.3	9.0
32000-485-SY-Y-90-LS2-F35	32	9.5	4.7	6.4	10.0	4.9	6.6	11.7	6.0	8.5	13.4	7.0	10.3	16.8	9.2	14.0
32000-535-SY-Y-90-LS1-F35	32	9.5	4.7	6.4	13.7	7.2	10.6	15.7	8.5	12.9	17.8	9.8	15.1	21.9	12.4	19.6
32000-585-SY-Y-90-LS1-F35	32	9.5	4.7	6.4	17.7	9.7	15.0	20.2	11.3	17.7	22.6	12.8	20.4	27.5	15.9	25.7
32000-635-SY-Y-90-LS1-F35	32	9.5	4.7	6.4	22.1	12.5	19.8	25.0	14.3	23.0	27.9	16.1	26.1	33.7	19.7	32.5
32000-385-SY-Y-90-LS4-F35	32	11.7	5.6	7.4	-	-	-	-	-	-	-	-	-	7.1	1.8	1.8
32000-435-SY-Y-90-LS4-F35	32	11.7	5.6	7.4	-	-	-	7.1	1.9	1.8	8.5	3.3	3.3	11.2	5.1	6.3
32000-485-SY-Y-90-LS3-F35	32	11.7	5.6	7.4	9.1	3.7	3.9	10.8	4.8	5.7	12.4	5.9	7.6	15.8	8.0	11.3
32000-535-SY-Y-90-LS2-F35	32	11.7	5.6	7.4	12.7	6.1	7.9	14.8	7.4	10.1	16.8	8.7	12.4	20.9	11.2	16.9
32000-585-SY-Y-90-LS2-F35	32	11.7	5.6	7.4	16.7	8.6	12.3	19.2	10.2	15.0	21.7	11.7	17.7	26.6	14.8	23.0
32000-635-SY-Y-90-LS2-F35	32	11.8	5.6	7.4	21.2	11.4	17.1	24.1	13.2	20.3	26.9	15.0	23.4	32.7	18.6	29.8
32000-685-SY-Y-90-LS2-F35	32	11.7	5.6	7.4	25.9	14.3	22.3	29.2	16.4	25.9	32.6	18.5	29.6	-	-	-
32000-485-SY-Y-90-LS4-F35	32	12.6	6.4	8.9	7.5	2.8	2.8	9.2	4.0	4.6	10.9	5.1	6.5	14.3	7.2	10.1
32000-535-SY-Y-90-LS3-F35	32	12.6	6.4	8.9	11.2	5.3	6.8	13.2	6.6	9.0	15.3	7.9	11.3	19.4	10.5	15.7
32000-585-SY-Y-90-LS3-F35	32	12.7	6.4	8.9	15.2	7.8	11.2	17.7	9.4	13.9	20.1	10.9	16.5	25.0	14.0	21.9
32000-635-SY-Y-90-LS3-F35	32	12.7	6.4	8.9	19.6	10.6	16.0	22.5	12.4	19.2	25.4	14.2	22.3	31.2	17.8	28.6
32000-685-SY-Y-90-LS3-F35	32	12.7	6.4	8.9	24.3	13.5	21.1	27.7	15.6	24.8	31.1	17.7	29.0	-	-	-
32000-735-SY-Y-90-LS3-F35	32	12.6	6.4	8.9	29.4	16.7	26.7	33.3	19.1	30.9	-	-	-	-	-	-
32000-535-SY-Y-90-LS4-F35	32	16.9	8.2	10.8	-	-	-	11.3	3.9	3.8	13.4	5.6	6.1	17.5	8.2	10.6
32000-585-SY-Y-90-LS4-F35	32	17.0	8.2	10.8	13.3	5.5	6.0	15.7	7.1	8.7	18.2	8.7	11.4	23.1	11.8	16.7
32000-635-SY-Y-90-LS4-F35	32	17.0	8.2	10.8	17.7	8.4	10.8	20.6	10.2	14.0	23.5	12.0	17.1	29.3	15.7	23.5
32000-685-SY-Y-90-LS4-F35	32	17.0	8.2	10.8	22.4	11.4	16.0	25.8	13.5	19.6	29.1	15.6	23.3	-	-	-
32000-735-SY-Y-90-LS4-F35	32	17.0	8.2	10.8	27.5	14.6	21.5	31.3	17.0	25.7	-	-	-	-	-	-



Note

Torques at higher operating pressure are possible on request.

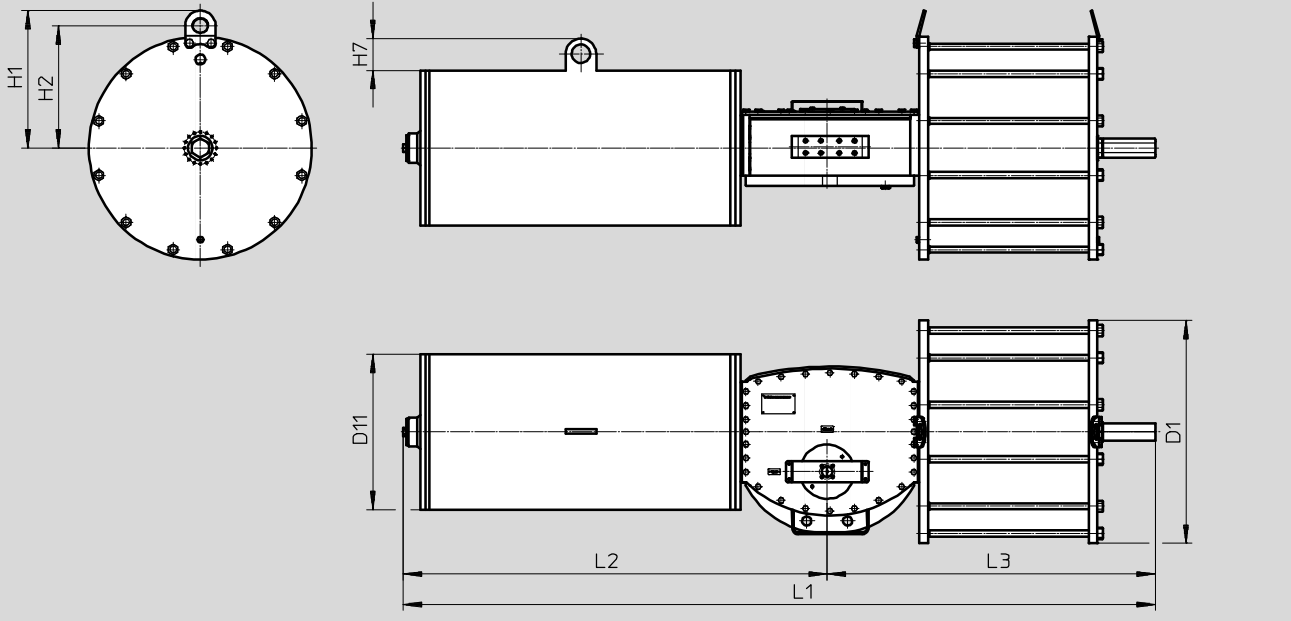
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 9000



DFPD-HD-9000-...	D1 Ø	D11 Ø	H1	H2	H7	L1	L2	L3			
DFPD-HD-9000-280-SY-A-90-RS4-F25	355	324	266	120	85	1736	896	840			
DFPD-HD-9000-280-SY-Y-90-RS4-F25											
DFPD-HD-9000-335-SY-A-90-RS2-F25	410		293	147							
DFPD-HD-9000-335-SY-Y-90-RS2-F25											
DFPD-HD-9000-385-SY-A-90-RS1-F25	470		323	168							
DFPD-HD-9000-385-SY-Y-90-RS1-F25											
DFPD-HD-9000-435-SY-A-90-RS1-F25	516		346	190							
DFPD-HD-9000-435-SY-Y-90-RS1-F25											
DFPD-HD-9000-335-SY-Y-90-RS3-F25	410		293	147	85	1807	967				
DFPD-HD-9000-385-SY-A-90-RS2-F25											
DFPD-HD-9000-385-SY-Y-90-RS2-F25	470		323	168							
DFPD-HD-9000-435-SY-A-90-RS2-F25											
DFPD-HD-9000-435-SY-Y-90-RS2-F25	516		346	190							
DFPD-HD-9000-335-SY-Y-90-RS4-F25											
DFPD-HD-9000-385-SY-A-90-RS3-F25	470		323	168					85	1780	940
DFPD-HD-9000-385-SY-Y-90-RS3-F25											
DFPD-HD-9000-435-SY-A-90-RS3-F25	516	346	190								
DFPD-HD-9000-435-SY-Y-90-RS3-F25											
DFPD-HD-9000-385-SY-Y-90-RS4-F25	470	323	168								
DFPD-HD-9000-435-SY-A-90-RS4-F25											
DFPD-HD-9000-435-SY-Y-90-RS4-F25	516	406	346	190	1844	1004					



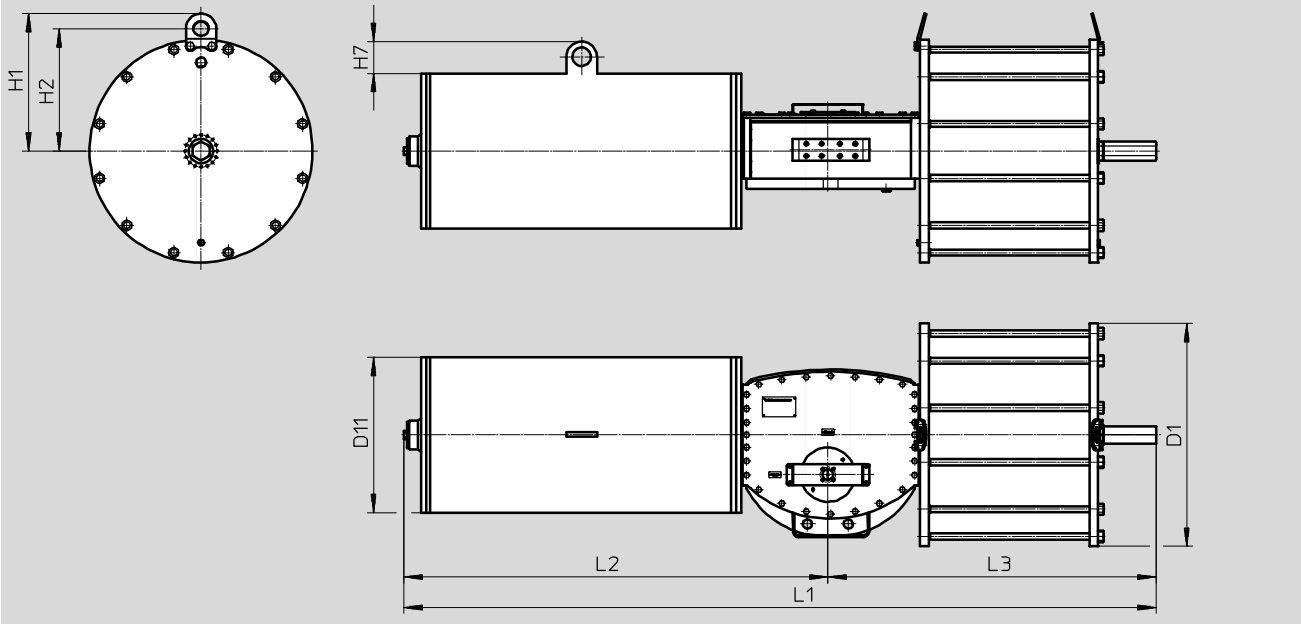
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 18000



DFPD-HD-18000-...	D1 Ø	D11 Ø	H1	H2	H7	L1	L2	L3
DFPD-HD-18000-385-SY-A-90-RS3-F30	470	406	232	168	85	1951	1071	880
DFPD-HD-18000-385-SY-Y-90-RS3-F30								
DFPD-HD-18000-435-SY-A-90-RS3-F30								
DFPD-HD-18000-435-SY-Y-90-RS3-F30	516		346	190				
DFPD-HD-18000-485-SY-A-90-RS3-F30								
DFPD-HD-18000-485-SY-Y-90-RS3-F30								
DFPD-HD-18000-535-SY-Y-90-RS1-F30	629		401	240				
DFPD-HD-18000-585-SY-Y-90-RS1-F30	680		427	265				
DFPD-HD-18000-385-SY-Y-90-RS4-F30	470		323	168				
DFPD-HD-18000-435-SY-A-90-RS4-F30	516		346	190				
DFPD-HD-18000-435-SY-Y-90-RS4-F30								
DFPD-HD-18000-485-SY-A-90-RS4-F30						578	376	
DFPD-HD-18000-485-SY-Y-90-RS4-F30								
DFPD-HD-18000-535-SY-A-90-RS2-F30								
DFPD-HD-18000-535-SY-Y-90-RS2-F30	629	401	240					
DFPD-HD-18000-585-SY-A-90-RS2-F25	680	427	265					
DFPD-HD-18000-585-SY-Y-90-RS2-F30								
DFPD-HD-18000-535-SY-A-90-RS3-F30				629	401	240		
DFPD-HD-18000-535-SY-Y-90-RS3-F30								
DFPD-HD-18000-585-SY-A-90-RS3-F30	680	427	265					
DFPD-HD-18000-585-SY-Y-90-RS3-F30								
DFPD-HD-18000-535-SY-Y-90-RS4-F30				629	401	240		
DFPD-HD-18000-585-SY-A-90-RS4-F30								
DFPD-HD-18000-585-SY-Y-90-RS4-F30	680	427	265					

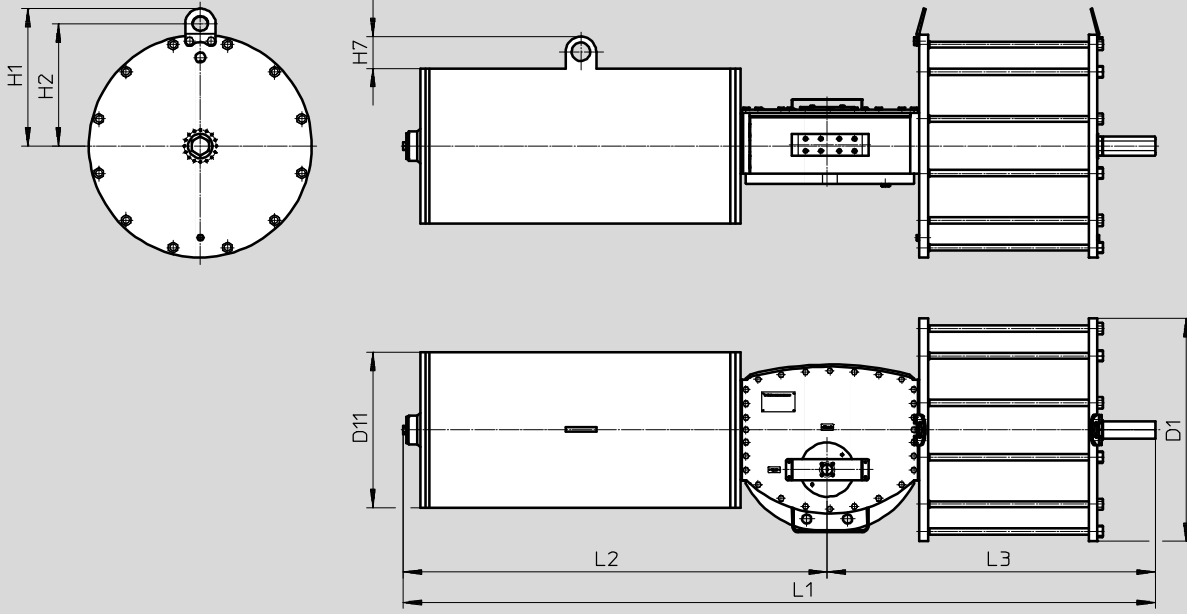
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 32000



## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right

DFPD-HD-32000-...	D1 ∅	D11 ∅	H1	H2	H7	L1	L2	L3
DFPD-HD-32000-435-SY-A-90-RS3-F35	516	508	346	190	105	2462	1387	1075
DFPD-HD-32000-435-SY-Y-90-RS3-F35								
DFPD-HD-32000-485-SY-A-90-RS2-F35	578		376	215				
DFPD-HD-32000-485-SY-Y-90-RS2-F35								
DFPD-HD-32000-535-SY-A-90-RS1-F35	629		401	240				
DFPD-HD-32000-535-SY-Y-90-RS1-F35								
DFPD-HD-32000-585-SY-A-90-RS1-F35	680		427	265				
DFPD-HD-32000-585-SY-Y-90-RS1-F35								
DFPD-HD-32000-635-SY-A-90-RS1-F35	730		450	290				
DFPD-HD-32000-635-SY-Y-90-RS1-F35								
DFPD-HD-32000-435-SY-Y-90-RS4-F35	516		346	190				
DFPD-HD-32000-485-SY-A-90-RS3-F35	578		376	215				
DFPD-HD-32000-485-SY-Y-90-RS3-F35								
DFPD-HD-32000-535-SY-A-90-RS2-F35	629		401	240				
DFPD-HD-32000-535-SY-Y-90-RS2-F35								
DFPD-HD-32000-585-SY-A-90-RS2-F35	680		427	265				
DFPD-HD-32000-585-SY-Y-90-RS2-F35								
DFPD-HD-32000-635-SY-A-90-RS2-F35	730		450	290				
DFPD-HD-32000-635-SY-Y-90-RS2-F35								
DFPD-HD-32000-685-SY-Y-90-RS2-F35	780		475	315				
DFPD-HD-32000-485-SY-A-90-RS4-F35	578		376	215				
DFPD-HD-32000-485-SY-Y-90-RS4-F35								
DFPD-HD-32000-535-SY-A-90-RS3-F35	629		401	240				
DFPD-HD-32000-535-SY-Y-90-RS3-F35								
DFPD-HD-32000-585-SY-A-90-RS3-F35	680		427	265				
DFPD-HD-32000-585-SY-Y-90-RS3-F35								
DFPD-HD-32000-635-SY-A-90-RS3-F35	730		450	290				
DFPD-HD-32000-635-SY-Y-90-RS3-F35								
DFPD-HD-32000-685-SY-A-90-RS3-F35	780	475	315					
DFPD-HD-32000-685-SY-Y-90-RS3-F35								
DFPD-HD-32000-735-SY-Y-90-RS3-F35	830	500	340					
DFPD-HD-32000-535-SY-A-90-RS4-F35	629	401	240					
DFPD-HD-32000-535-SY-Y-90-RS4-F35								
DFPD-HD-32000-585-SY-A-90-RS4-F35	680	427	265					
DFPD-HD-32000-585-SY-Y-90-RS4-F35								
DFPD-HD-32000-635-SY-A-90-RS4-F35	730	450	290					
DFPD-HD-32000-635-SY-Y-90-RS4-F35								
DFPD-HD-32000-685-SY-A-90-RS4-F35	780	475	315					
DFPD-HD-32000-685-SY-Y-90-RS4-F35								
DFPD-HD-32000-735-SY-A-90-RS4-F35	830	500	340					
DFPD-HD-32000-735-SY-Y-90-RS4-F35								

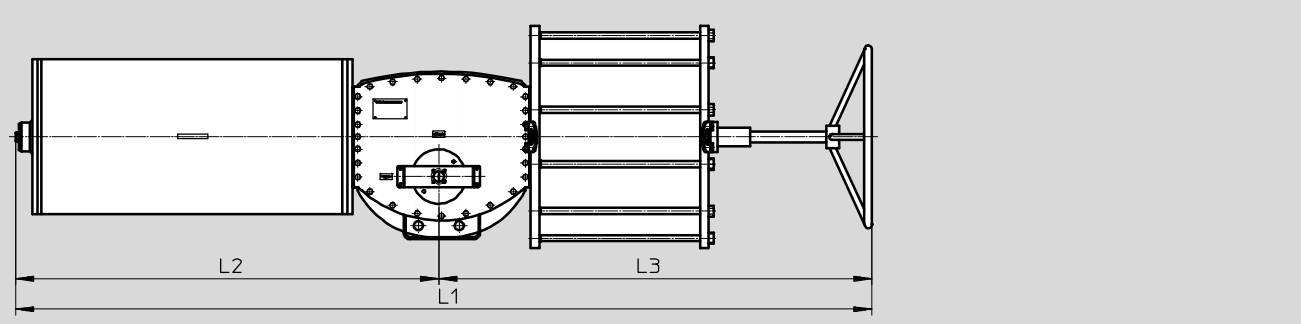
## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, with manual override

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 9000



DFPD-HD-9000-...	L1 max.	L2	L3 max.
DFPD-HD-9000-280-SY-A-90-RS4-F25-MW	2370	896	1474
DFPD-HD-9000-280-SY-Y-90-RS4-F25-MW			
DFPD-HD-9000-335-SY-A-90-RS2-F25-MW			
DFPD-HD-9000-335-SY-Y-90-RS2-F25-MW			
DFPD-HD-9000-385-SY-A-90-RS1-F25-MW			
DFPD-HD-9000-385-SY-Y-90-RS1-F25-MW			
DFPD-HD-9000-435-SY-A-90-RS1-F25-MW			
DFPD-HD-9000-435-SY-Y-90-RS1-F25-MW			
DFPD-HD-9000-335-SY-Y-90-RS3-F25-MW	2441	967	
DFPD-HD-9000-385-SY-A-90-RS2-F25-MW			
DFPD-HD-9000-385-SY-Y-90-RS2-F25-MW			
DFPD-HD-9000-435-SY-A-90-RS2-F25-MW			
DFPD-HD-9000-435-SY-Y-90-RS2-F25-MW	2414	940	
DFPD-HD-9000-335-SY-Y-90-RS4-F25-MW			
DFPD-HD-9000-385-SY-A-90-RS3-F25-MW			
DFPD-HD-9000-385-SY-Y-90-RS3-F25-MW			
DFPD-HD-9000-435-SY-A-90-RS3-F25-MW			
DFPD-HD-9000-435-SY-Y-90-RS3-F25-MW			
DFPD-HD-9000-385-SY-Y-90-RS4-F25-MW	2478	1004	
DFPD-HD-9000-435-SY-A-90-RS4-F25-MW			
DFPD-HD-9000-435-SY-Y-90-RS4-F25-MW			

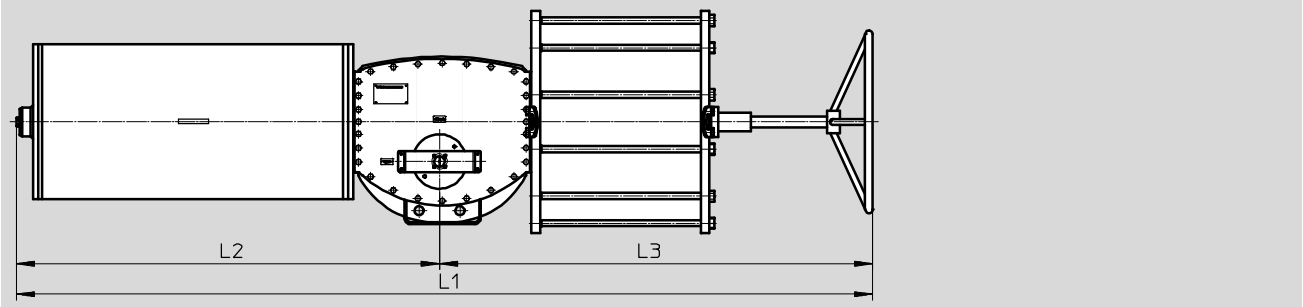
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, with manual override

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 18000



DFPD-HD-18000-...	L1 max.	L2	L3 max.
DFPD-HD-18000-385-SY-A-90-RS3-F30-MW	2578	1071	1507
DFPD-HD-18000-385-SY-Y-90-RS3-F30-MW			
DFPD-HD-18000-435-SY-A-90-RS3-F30-MW			
DFPD-HD-18000-435-SY-Y-90-RS3-F30-MW			
DFPD-HD-18000-485-SY-A-90-RS3-F30-MW			
DFPD-HD-18000-485-SY-Y-90-RS3-F30-MW			
DFPD-HD-18000-535-SY-Y-90-RS1-F30-MW			
DFPD-HD-18000-585-SY-Y-90-RS1-F30-MW			
DFPD-HD-18000-385-SY-Y-90-RS4-F30-MW	2516	109	
DFPD-HD-18000-435-SY-A-90-RS4-F30-MW			
DFPD-HD-18000-435-SY-Y-90-RS4-F30-MW			
DFPD-HD-18000-485-SY-A-90-RS4-F30-MW			
DFPD-HD-18000-485-SY-Y-90-RS4-F30-MW			
DFPD-HD-18000-535-SY-A-90-RS2-F30-MW			
DFPD-HD-18000-535-SY-Y-90-RS2-F30-MW			
DFPD-HD-18000-585-SY-A-90-RS2-F30-MW			
DFPD-HD-18000-585-SY-Y-90-RS2-F30-MW	2662	1155	
DFPD-HD-18000-535-SY-A-90-RS3-F30-MW			
DFPD-HD-18000-535-SY-Y-90-RS3-F30-MW			
DFPD-HD-18000-585-SY-A-90-RS3-F30-MW			
DFPD-HD-18000-585-SY-Y-90-RS3-F30-MW			
DFPD-HD-18000-535-SY-A-90-RS4-F30-MW			
DFPD-HD-18000-535-SY-Y-90-RS4-F30-MW			
DFPD-HD-18000-585-SY-A-90-RS4-F30-MW			
DFPD-HD-18000-535-SY-Y-90-RS4-F30-MW			
DFPD-HD-18000-585-SY-A-90-RS4-F30-MW			
DFPD-HD-18000-585-SY-Y-90-RS4-F30-MW			

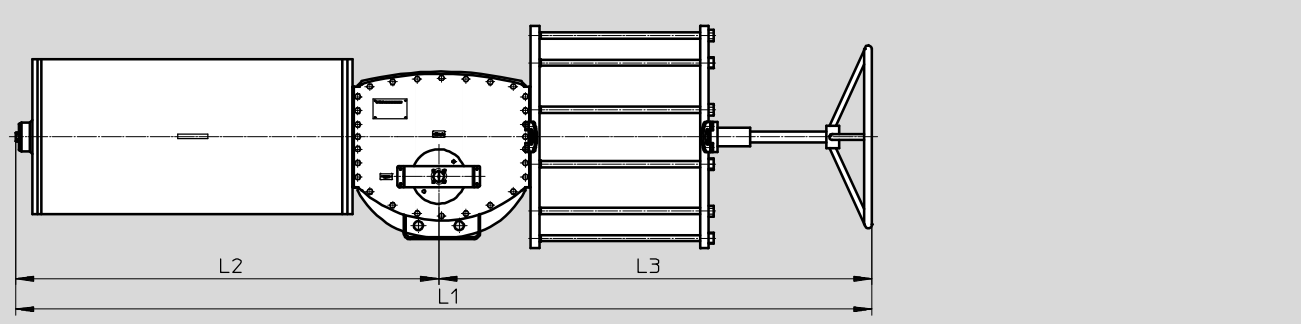
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, with manual override

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 32000



DFPD-HD-32000-...	L1 max.	L2	L3 max.
DFPD-HD-32000-435-SY-A-90-RS3-F35-MW	3087	1387	1700
DFPD-HD-32000-435-SY-Y-90-RS3-F35-MW			
DFPD-HD-32000-485-SY-A-90-RS2-F35-MW			
DFPD-HD-32000-485-SY-Y-90-RS2-F35-MW			
DFPD-HD-32000-535-SY-A-90-RS1-F35-MW			
DFPD-HD-32000-535-SY-Y-90-RS1-F35-MW			
DFPD-HD-32000-585-SY-A-90-RS1-F35-MW			
DFPD-HD-32000-585-SY-Y-90-RS1-F35-MW			
DFPD-HD-32000-635-SY-A-90-RS1-F35-MW			
DFPD-HD-32000-635-SY-Y-90-RS1-F35-MW			
DFPD-HD-32000-435-SY-Y-90-RS4-F35-MW			
DFPD-HD-32000-485-SY-A-90-RS3-F35-MW			
DFPD-HD-32000-485-SY-Y-90-RS3-F35-MW			
DFPD-HD-32000-535-SY-A-90-RS2-F35-MW			
DFPD-HD-32000-535-SY-Y-90-RS2-F35-MW			
DFPD-HD-32000-585-SY-A-90-RS2-F35-MW			
DFPD-HD-32000-585-SY-Y-90-RS2-F35-MW			
DFPD-HD-32000-635-SY-A-90-RS2-F35-MW			
DFPD-HD-32000-635-SY-Y-90-RS2-F35-MW			
DFPD-HD-32000-685-SY-Y-90-RS2-F35-MW			
DFPD-HD-32000-485-SY-A-90-RS4-F35-MW	3038	1338	1700
DFPD-HD-32000-485-SY-Y-90-RS4-F35-MW			
DFPD-HD-32000-535-SY-A-90-RS3-F35-MW			
DFPD-HD-32000-535-SY-Y-90-RS3-F35-MW			
DFPD-HD-32000-585-SY-A-90-RS3-F35-MW			
DFPD-HD-32000-585-SY-Y-90-RS3-F35-MW			
DFPD-HD-32000-635-SY-A-90-RS3-F35-MW			
DFPD-HD-32000-635-SY-Y-90-RS3-F35-MW			
DFPD-HD-32000-685-SY-A-90-RS3-F35-MW			
DFPD-HD-32000-685-SY-Y-90-RS3-F35-MW			
DFPD-HD-32000-735-SY-Y-90-RS3-F35-MW			
DFPD-HD-32000-535-SY-A-90-RS4-F35-MW			
DFPD-HD-32000-535-SY-Y-90-RS4-F35-MW			
DFPD-HD-32000-585-SY-A-90-RS4-F35-MW			
DFPD-HD-32000-585-SY-Y-90-RS4-F35-MW			
DFPD-HD-32000-635-SY-A-90-RS4-F35-MW			
DFPD-HD-32000-635-SY-Y-90-RS4-F35-MW			
DFPD-HD-32000-685-SY-A-90-RS4-F35-MW			
DFPD-HD-32000-685-SY-Y-90-RS4-F35-MW			
DFPD-HD-32000-735-SY-A-90-RS4-F35-MW			
DFPD-HD-32000-735-SY-Y-90-RS4-F35-MW			
DFPD-HD-32000-735-SY-Y-90-RS4-F35-MW			

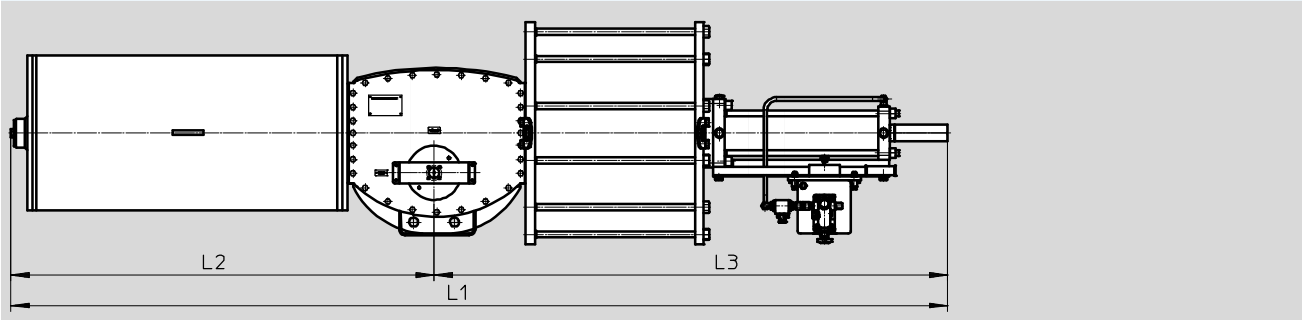
## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, with manual override, hydraulically supported

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 9000



DFPD-HD-9000-...	L1	L2	L3
DFPD-HD-9000-280-SY-A-90-RS4-F25-HW	2225	896	1329
DFPD-HD-9000-280-SY-Y-90-RS4-F25-HW			
DFPD-HD-9000-335-SY-A-90-RS2-F25-HW			
DFPD-HD-9000-335-SY-Y-90-RS2-F25-HW			
DFPD-HD-9000-385-SY-A-90-RS1-F25-HW			
DFPD-HD-9000-385-SY-Y-90-RS1-F25-HW			
DFPD-HD-9000-435-SY-A-90-RS1-F25-HW			
DFPD-HD-9000-435-SY-Y-90-RS1-F25-HW			
DFPD-HD-9000-335-SY-Y-90-RS3-F25-HW	2296	967	
DFPD-HD-9000-385-SY-A-90-RS2-F25-HW			
DFPD-HD-9000-385-SY-Y-90-RS2-F25-HW			
DFPD-HD-9000-435-SY-A-90-RS2-F25-HW			
DFPD-HD-9000-435-SY-Y-90-RS2-F25-HW	2269	940	
DFPD-HD-9000-335-SY-Y-90-RS4-F25-HW			
DFPD-HD-9000-385-SY-A-90-RS3-F25-HW			
DFPD-HD-9000-385-SY-Y-90-RS3-F25-HW			
DFPD-HD-9000-435-SY-A-90-RS3-F25-HW			
DFPD-HD-9000-435-SY-Y-90-RS3-F25-HW			
DFPD-HD-9000-385-SY-Y-90-RS4-F25-HW			
DFPD-HD-9000-435-SY-A-90-RS4-F25-HW			
DFPD-HD-9000-435-SY-Y-90-RS4-F25-HW	2333	1004	
DFPD-HD-9000-435-SY-Y-90-RS4-F25-HW			

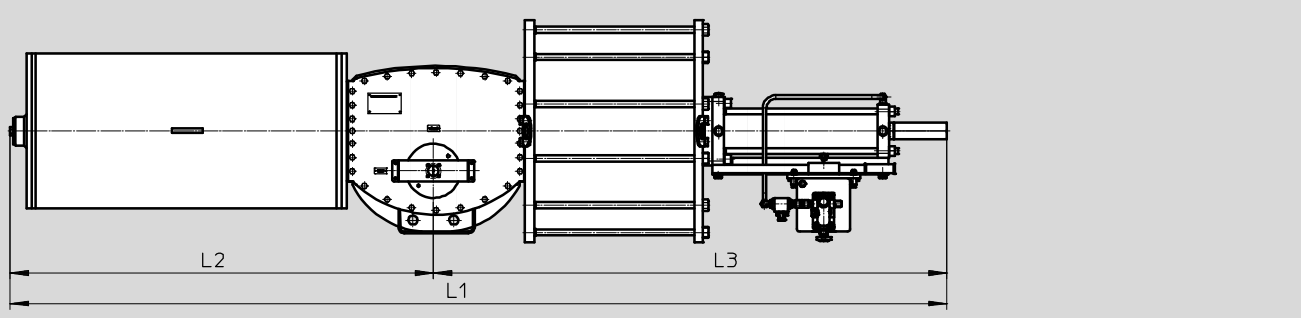
## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, with manual override, hydraulically supported

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 18000



DFPD-HD-18000-...	L1	L2	L3
DFPD-HD-18000-385-SY-A-90-RS3-F30-HW	2440	1071	
DFPD-HD-18000-385-SY-Y-90-RS3-F30-HW			
DFPD-HD-18000-435-SY-A-90-RS3-F30-HW			
DFPD-HD-18000-435-SY-Y-90-RS3-F30-HW			
DFPD-HD-18000-485-SY-A-90-RS3-F30-HW			
DFPD-HD-18000-485-SY-Y-90-RS3-F30-HW			
DFPD-HD-18000-535-SY-Y-90-RS1-F30-HW			
DFPD-HD-18000-585-SY-Y-90-RS1-F30-HW			
DFPD-HD-18000-385-SY-Y-90-RS4-F30-HW			
DFPD-HD-18000-435-SY-A-90-RS4-F30-HW			
DFPD-HD-18000-435-SY-Y-90-RS4-F30-HW			
DFPD-HD-18000-485-SY-A-90-RS4-F30-HW			
DFPD-HD-18000-485-SY-Y-90-RS4-F30-HW			
DFPD-HD-18000-535-SY-A-90-RS2-F30-HW			
DFPD-HD-18000-535-SY-Y-90-RS2-F30-HW			
DFPD-HD-18000-585-SY-A-90-RS2-F30-HW			
DFPD-HD-18000-585-SY-Y-90-RS2-F30-HW			
DFPD-HD-18000-535-SY-A-90-RS3-F30-HW	2524	1155	
DFPD-HD-18000-535-SY-Y-90-RS3-F30-HW			
DFPD-HD-18000-585-SY-A-90-RS3-F30-HW			
DFPD-HD-18000-585-SY-Y-90-RS3-F30-HW			
DFPD-HD-18000-535-SY-A-90-RS4-F30-HW	2466	1097	
DFPD-HD-18000-535-SY-Y-90-RS4-F30-HW			
DFPD-HD-18000-585-SY-A-90-RS4-F30-HW			
DFPD-HD-18000-585-SY-Y-90-RS4-F30-HW			



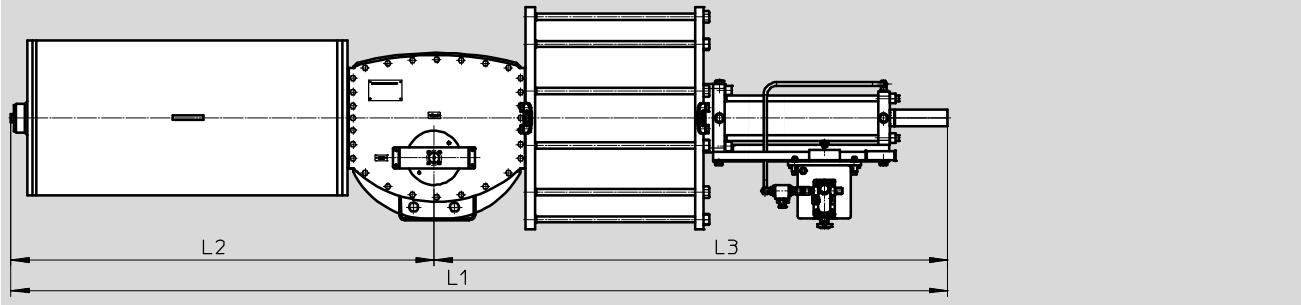
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction right, with manual override, hydraulically supported

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 32000



DFPD-HD-32000-...	L1	L2	L3
DFPD-HD-32000-435-SY-A-90-RS3-F35-HW	3070	1387	1683
DFPD-HD-32000-435-SY-Y-90-RS3-F35-HW			
DFPD-HD-32000-485-SY-A-90-RS2-F35-HW			
DFPD-HD-32000-485-SY-Y-90-RS2-F35-HW			
DFPD-HD-32000-535-SY-A-90-RS1-F35-HW			
DFPD-HD-32000-535-SY-Y-90-RS1-F35-HW			
DFPD-HD-32000-585-SY-A-90-RS1-F35-HW			
DFPD-HD-32000-585-SY-Y-90-RS1-F35-HW			
DFPD-HD-32000-635-SY-A-90-RS1-F35-HW			
DFPD-HD-32000-635-SY-Y-90-RS1-F35-HW			
DFPD-HD-32000-435-SY-Y-90-RS4-F35-HW			
DFPD-HD-32000-485-SY-A-90-RS3-F35-HW			
DFPD-HD-32000-485-SY-Y-90-RS3-F35-HW			
DFPD-HD-32000-535-SY-A-90-RS2-F35-HW			
DFPD-HD-32000-535-SY-Y-90-RS2-F35-HW			
DFPD-HD-32000-585-SY-A-90-RS2-F35-HW			
DFPD-HD-32000-585-SY-Y-90-RS2-F35-HW			
DFPD-HD-32000-635-SY-A-90-RS2-F35-HW			
DFPD-HD-32000-635-SY-Y-90-RS2-F35-HW			
DFPD-HD-32000-685-SY-Y-90-RS2-F35-HW			
DFPD-HD-32000-485-SY-A-90-RS4-F35-HW	3021	1338	1683
DFPD-HD-32000-485-SY-Y-90-RS4-F35-HW			
DFPD-HD-32000-535-SY-A-90-RS3-F35-HW			
DFPD-HD-32000-535-SY-Y-90-RS3-F35-HW			
DFPD-HD-32000-585-SY-A-90-RS3-F35-HW			
DFPD-HD-32000-585-SY-Y-90-RS3-F35-HW			
DFPD-HD-32000-635-SY-A-90-RS3-F35-HW			
DFPD-HD-32000-635-SY-Y-90-RS3-F35-HW			
DFPD-HD-32000-685-SY-A-90-RS3-F35-HW			
DFPD-HD-32000-685-SY-Y-90-RS3-F35-HW			
DFPD-HD-32000-735-SY-Y-90-RS3-F35-HW	3129	1446	1683
DFPD-HD-32000-535-SY-A-90-RS4-F35-HW			
DFPD-HD-32000-535-SY-Y-90-RS4-F35-HW			
DFPD-HD-32000-585-SY-A-90-RS4-F35-HW			
DFPD-HD-32000-585-SY-Y-90-RS4-F35-HW			
DFPD-HD-32000-635-SY-A-90-RS4-F35-HW			
DFPD-HD-32000-635-SY-Y-90-RS4-F35-HW			
DFPD-HD-32000-685-SY-A-90-RS4-F35-HW			
DFPD-HD-32000-685-SY-Y-90-RS4-F35-HW			
DFPD-HD-32000-735-SY-A-90-RS4-F35-HW			
DFPD-HD-32000-735-SY-Y-90-RS4-F35-HW			

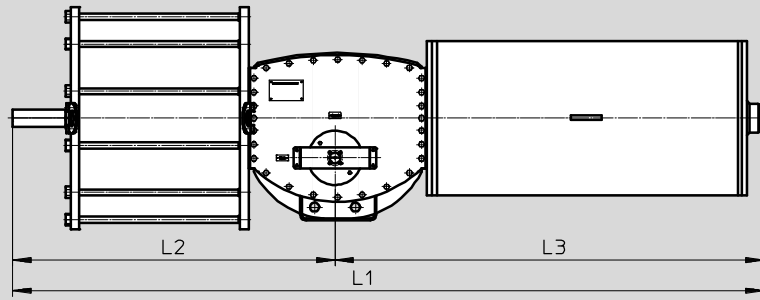
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 9000



DFPD-HD-9000-...	L1	L2	L3
DFPD-HD-9000-280-SY-A-90-LS4-F25	1736	820	916
DFPD-HD-9000-280-SY-Y-90-LS4-F25			
DFPD-HD-9000-335-SY-A-90-LS2-F25			
DFPD-HD-9000-335-SY-Y-90-LS2-F25			
DFPD-HD-9000-385-SY-A-90-LS1-F25			
DFPD-HD-9000-385-SY-Y-90-LS1-F25			
DFPD-HD-9000-435-SY-A-90-LS1-F25			
DFPD-HD-9000-435-SY-Y-90-LS1-F25			
DFPD-HD-9000-335-SY-Y-90-LS3-F25	1807	820	987
DFPD-HD-9000-385-SY-A-90-LS2-F25			
DFPD-HD-9000-385-SY-Y-90-LS2-F25			
DFPD-HD-9000-435-SY-A-90-LS2-F25			
DFPD-HD-9000-435-SY-Y-90-LS2-F25			
DFPD-HD-9000-335-SY-Y-90-LS4-F25			
DFPD-HD-9000-385-SY-A-90-LS3-F25			
DFPD-HD-9000-385-SY-Y-90-LS3-F25			
DFPD-HD-9000-435-SY-A-90-LS3-F25	1780	820	960
DFPD-HD-9000-435-SY-Y-90-LS3-F25			
DFPD-HD-9000-385-SY-Y-90-LS4-F25			
DFPD-HD-9000-435-SY-A-90-LS4-F25			
DFPD-HD-9000-435-SY-Y-90-LS4-F25			
DFPD-HD-9000-385-SY-Y-90-LS4-F25			
DFPD-HD-9000-435-SY-A-90-LS4-F25			
DFPD-HD-9000-435-SY-Y-90-LS4-F25			
	1844		1024

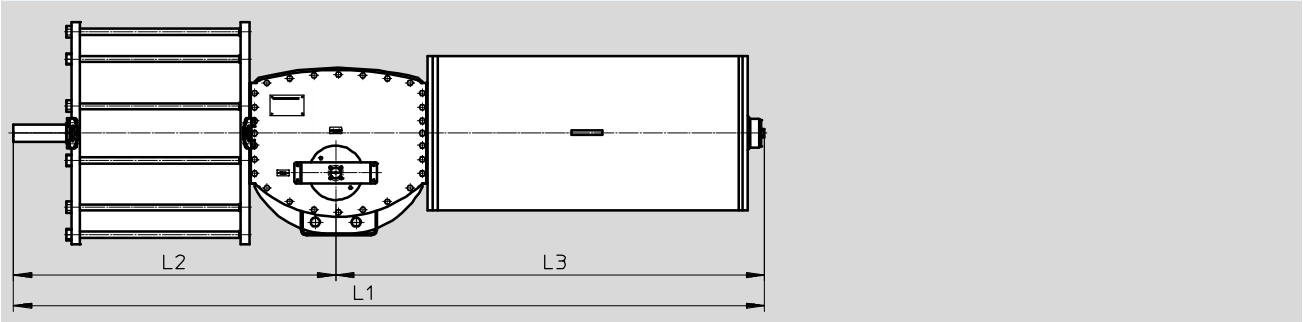
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 18000



DFPD-HD-18000-...	L1	L2	L3
DFPD-HD-18000-385-SY-A-90-LS3-F30	1951		1100
DFPD-HD-18000-385-SY-Y-90-LS3-F30			
DFPD-HD-18000-435-SY-A-90-LS3-F30			
DFPD-HD-18000-435-SY-Y-90-LS3-F30			
DFPD-HD-18000-485-SY-A-90-LS3-F30			
DFPD-HD-18000-485-SY-Y-90-LS3-F30			
DFPD-HD-18000-535-SY-Y-90-LS1-F30			
DFPD-HD-18000-585-SY-Y-90-LS1-F30			
DFPD-HD-18000-385-SY-Y-90-LS4-F30			
DFPD-HD-18000-435-SY-A-90-LS4-F30			
DFPD-HD-18000-435-SY-Y-90-LS4-F30			
DFPD-HD-18000-485-SY-A-90-LS4-F30			
DFPD-HD-18000-485-SY-Y-90-LS4-F30			
DFPD-HD-18000-535-SY-A-90-LS2-F30			
DFPD-HD-18000-535-SY-Y-90-LS2-F30			
DFPD-HD-18000-585-SY-A-90-LS2-F30			
DFPD-HD-18000-585-SY-Y-90-LS2-F30			
DFPD-HD-18000-535-SY-A-90-LS3-F30	2035		1184
DFPD-HD-18000-535-SY-Y-90-LS3-F30			
DFPD-HD-18000-585-SY-A-90-LS3-F30			
DFPD-HD-18000-585-SY-Y-90-LS3-F30	1977		1126
DFPD-HD-18000-535-SY-A-90-LS4-F30			
DFPD-HD-18000-535-SY-Y-90-LS4-F30			
DFPD-HD-18000-585-SY-A-90-LS4-F30			
DFPD-HD-18000-585-SY-Y-90-LS4-F30			

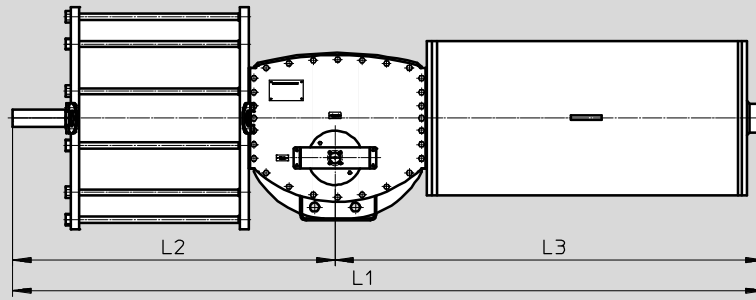
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 32000



DFPD-HD-32000-...	L1	L2	L3			
DFPD-HD-32000-435-SY-A-90-LS3-F35	2462	1057	1405			
DFPD-HD-32000-435-SY-Y-90-LS3-F35						
DFPD-HD-32000-485-SY-A-90-LS2-F35						
DFPD-HD-32000-485-SY-Y-90-LS2-F35						
DFPD-HD-32000-535-SY-A-90-LS1-F35						
DFPD-HD-32000-535-SY-Y-90-LS1-F35						
DFPD-HD-32000-585-SY-A-90-LS1-F35						
DFPD-HD-32000-585-SY-Y-90-LS1-F35						
DFPD-HD-32000-635-SY-A-90-LS1-F35						
DFPD-HD-32000-635-SY-Y-90-LS1-F35						
DFPD-HD-32000-435-SY-Y-90-LS4-F35				2413	1057	1356
DFPD-HD-32000-485-SY-A-90-LS3-F35						
DFPD-HD-32000-485-SY-Y-90-LS3-F35						
DFPD-HD-32000-535-SY-A-90-LS2-F35						
DFPD-HD-32000-535-SY-Y-90-LS2-F35						
DFPD-HD-32000-585-SY-A-90-LS2-F35						
DFPD-HD-32000-585-SY-Y-90-LS2-F35						
DFPD-HD-32000-635-SY-A-90-LS2-F35						
DFPD-HD-32000-635-SY-Y-90-LS2-F35						
DFPD-HD-32000-685-SY-A-90-LS2-F35						
DFPD-HD-32000-685-SY-Y-90-LS2-F35						
DFPD-HD-32000-485-SY-A-90-LS4-F35	2521	1057	1464			
DFPD-HD-32000-485-SY-Y-90-LS4-F35						
DFPD-HD-32000-535-SY-A-90-LS3-F35						
DFPD-HD-32000-535-SY-Y-90-LS3-F35						
DFPD-HD-32000-585-SY-A-90-LS3-F35						
DFPD-HD-32000-585-SY-Y-90-LS3-F35						
DFPD-HD-32000-635-SY-A-90-LS3-F35						
DFPD-HD-32000-635-SY-Y-90-LS3-F35						
DFPD-HD-32000-685-SY-A-90-LS3-F35						
DFPD-HD-32000-685-SY-Y-90-LS3-F35						
DFPD-HD-32000-735-SY-Y-90-LS3-F35						
DFPD-HD-32000-535-SY-A-90-LS4-F35						
DFPD-HD-32000-535-SY-Y-90-LS4-F35						
DFPD-HD-32000-585-SY-A-90-LS4-F35						
DFPD-HD-32000-585-SY-Y-90-LS4-F35						
DFPD-HD-32000-635-SY-A-90-LS4-F35						
DFPD-HD-32000-635-SY-Y-90-LS4-F35						
DFPD-HD-32000-685-SY-A-90-LS4-F35						
DFPD-HD-32000-685-SY-Y-90-LS4-F35						
DFPD-HD-32000-735-SY-A-90-LS4-F35						
DFPD-HD-32000-735-SY-Y-90-LS4-F35						

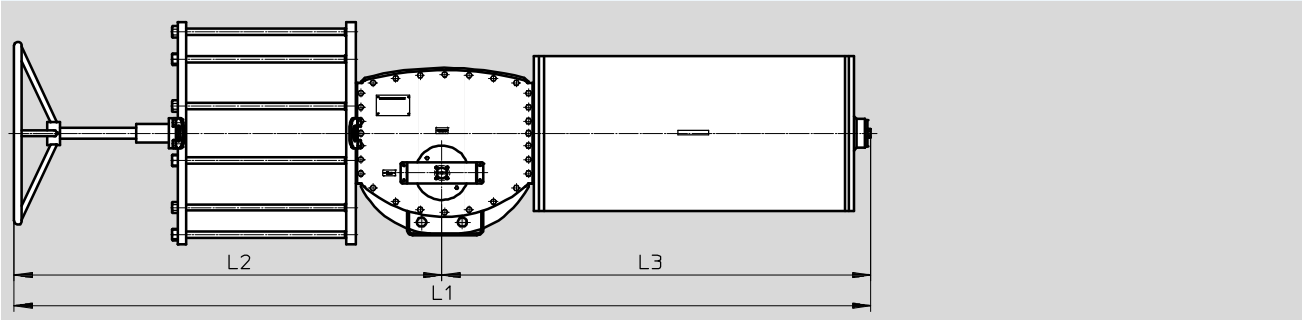
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, with manual override

**Dimensions**

Size: 9000

Download CAD data → [www.festo.com](http://www.festo.com)



DFPD-HD-9000-...	L1 max.	L2 max.	L3
DFPD-HD-9000-280-SY-A-90-LS4-F25-MW	2363	1447	916
DFPD-HD-9000-280-SY-Y-90-LS4-F25-MW			
DFPD-HD-9000-335-SY-A-90-LS2-F25-MW			
DFPD-HD-9000-335-SY-Y-90-LS2-F25-MW			
DFPD-HD-9000-385-SY-A-90-LS1-F25-MW			
DFPD-HD-9000-385-SY-Y-90-LS1-F25-MW			
DFPD-HD-9000-435-SY-A-90-LS1-F25-MW			
DFPD-HD-9000-435-SY-Y-90-LS1-F25-MW			
DFPD-HD-9000-335-SY-Y-90-LS3-F25-MW	2434	1447	987
DFPD-HD-9000-385-SY-A-90-LS2-F25-MW			
DFPD-HD-9000-385-SY-Y-90-LS2-F25-MW			
DFPD-HD-9000-435-SY-A-90-LS2-F25-MW			
DFPD-HD-9000-435-SY-Y-90-LS2-F25-MW	2407	1447	960
DFPD-HD-9000-335-SY-Y-90-LS4-F25-MW			
DFPD-HD-9000-385-SY-A-90-LS3-F25-MW			
DFPD-HD-9000-385-SY-Y-90-LS3-F25-MW			
DFPD-HD-9000-435-SY-A-90-LS3-F25-MW			
DFPD-HD-9000-435-SY-Y-90-LS3-F25-MW			
DFPD-HD-9000-385-SY-Y-90-LS4-F25-MW	2471	1447	1024
DFPD-HD-9000-435-SY-A-90-LS4-F25-MW			
DFPD-HD-9000-435-SY-Y-90-LS4-F25-MW			

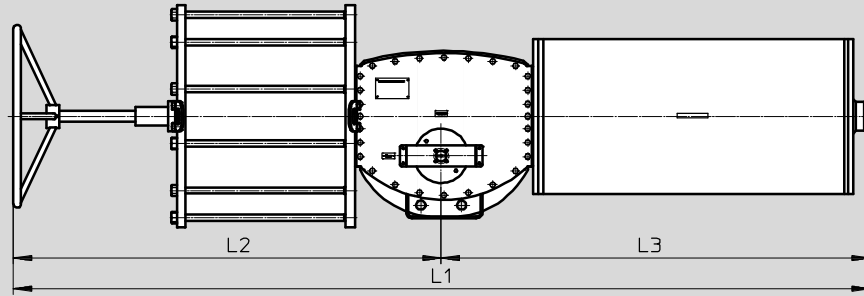
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, with manual override

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 18000



DFPD-HD-18000-...	L1 max.	L2 max.	L3
DFPD-HD-18000-385-SY-A-90-LS3-F30-MW	2577		1100
DFPD-HD-18000-385-SY-Y-90-LS3-F30-MW			
DFPD-HD-18000-435-SY-A-90-LS3-F30-MW			
DFPD-HD-18000-435-SY-Y-90-LS3-F30-MW			
DFPD-HD-18000-485-SY-A-90-LS3-F30-MW			
DFPD-HD-18000-485-SY-Y-90-LS3-F30-MW			
DFPD-HD-18000-535-SY-Y-90-LS1-F30-MW			
DFPD-HD-18000-585-SY-Y-90-LS1-F30-MW			
DFPD-HD-18000-385-SY-Y-90-LS4-F30-MW	2515	1477	1038
DFPD-HD-18000-435-SY-A-90-LS4-F30-MW			
DFPD-HD-18000-435-SY-Y-90-LS4-F30-MW			
DFPD-HD-18000-485-SY-A-90-LS4-F30-MW			
DFPD-HD-18000-485-SY-Y-90-LS4-F30-MW			
DFPD-HD-18000-535-SY-A-90-LS2-F30-MW			
DFPD-HD-18000-535-SY-Y-90-LS2-F30-MW			
DFPD-HD-18000-585-SY-A-90-LS2-F30-MW			
DFPD-HD-18000-585-SY-Y-90-LS2-F30-MW	2661		1184
DFPD-HD-18000-535-SY-A-90-LS3-F30-MW			
DFPD-HD-18000-585-SY-A-90-LS3-F30-MW			
DFPD-HD-18000-585-SY-Y-90-LS3-F30-MW			
DFPD-HD-18000-535-SY-A-90-LS4-F30-MW	2603		1126
DFPD-HD-18000-535-SY-Y-90-LS4-F30-MW			
DFPD-HD-18000-585-SY-A-90-LS4-F30-MW			
DFPD-HD-18000-585-SY-Y-90-LS4-F30-MW			

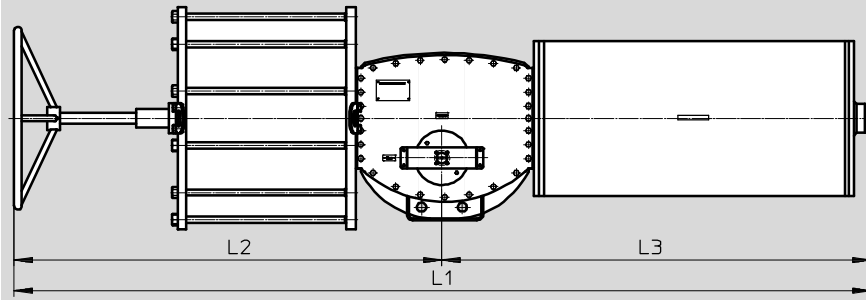
# Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, with manual override

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 32000



DFPD-HD-32000-...	L1 max.	L2 max.	L3			
DFPD-HD-32000-435-SY-A-90-LS3-F35-MW	3087	1682	1405			
DFPD-HD-32000-435-SY-Y-90-LS3-F35-MW						
DFPD-HD-32000-485-SY-A-90-LS2-F35-MW						
DFPD-HD-32000-485-SY-Y-90-LS2-F35-MW						
DFPD-HD-32000-535-SY-A-90-LS1-F35-MW						
DFPD-HD-32000-535-SY-Y-90-LS1-F35-MW						
DFPD-HD-32000-585-SY-A-90-LS1-F35-MW						
DFPD-HD-32000-585-SY-Y-90-LS1-F35-MW						
DFPD-HD-32000-635-SY-A-90-LS1-F35-MW						
DFPD-HD-32000-635-SY-Y-90-LS1-F35-MW						
DFPD-HD-32000-435-SY-Y-90-LS4-F35-MW				3038	1682	1356
DFPD-HD-32000-485-SY-A-90-LS3-F35-MW						
DFPD-HD-32000-485-SY-Y-90-LS3-F35-MW						
DFPD-HD-32000-535-SY-A-90-LS2-F35-MW						
DFPD-HD-32000-535-SY-Y-90-LS2-F35-MW						
DFPD-HD-32000-585-SY-A-90-LS2-F35-MW						
DFPD-HD-32000-585-SY-Y-90-LS2-F35-MW						
DFPD-HD-32000-635-SY-A-90-LS2-F35-MW						
DFPD-HD-32000-635-SY-Y-90-LS2-F35-MW						
DFPD-HD-32000-685-SY-A-90-LS2-F35-MW						
DFPD-HD-32000-685-SY-Y-90-LS2-F35-MW						
DFPD-HD-32000-485-SY-A-90-LS4-F35-MW	3146	1682	1464			
DFPD-HD-32000-485-SY-Y-90-LS4-F35-MW						
DFPD-HD-32000-535-SY-A-90-LS3-F35-MW						
DFPD-HD-32000-535-SY-Y-90-LS3-F35-MW						
DFPD-HD-32000-585-SY-Y-90-LS3-F35-MW						
DFPD-HD-32000-635-SY-A-90-LS3-F35-MW						
DFPD-HD-32000-635-SY-Y-90-LS3-F35-MW						
DFPD-HD-32000-685-SY-A-90-LS3-F35-MW						
DFPD-HD-32000-685-SY-Y-90-LS3-F35-MW						
DFPD-HD-32000-735-SY-Y-90-LS3-F35-MW						
DFPD-HD-32000-535-SY-A-90-LS4-F35-MW						
DFPD-HD-32000-535-SY-Y-90-LS4-F35-MW						
DFPD-HD-32000-585-SY-A-90-LS4-F35-MW						
DFPD-HD-32000-585-SY-Y-90-LS4-F35-MW						
DFPD-HD-32000-635-SY-A-90-LS4-F35-MW						
DFPD-HD-32000-635-SY-Y-90-LS4-F35-MW						
DFPD-HD-32000-685-SY-A-90-LS4-F35-MW						
DFPD-HD-32000-685-SY-Y-90-LS4-F35-MW						
DFPD-HD-32000-735-SY-A-90-LS4-F35-MW						
DFPD-HD-32000-735-SY-Y-90-LS4-F35-MW						

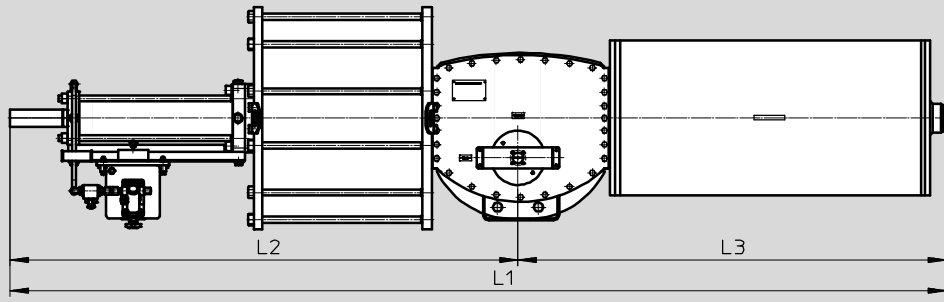
## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, with manual override, hydraulically supported

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 9000



DFPD-HD-9000-...	L1	L2	L3
DFPD-HD-9000-280-SY-A-90-LS4-F25-HW	2225	1309	916
DFPD-HD-9000-280-SY-Y-90-LS4-F25-HW			
DFPD-HD-9000-335-SY-A-90-LS2-F25-HW			
DFPD-HD-9000-335-SY-Y-90-LS2-F25-HW			
DFPD-HD-9000-385-SY-A-90-LS1-F25-HW			
DFPD-HD-9000-385-SY-Y-90-LS1-F25-HW			
DFPD-HD-9000-435-SY-A-90-LS1-F25-HW			
DFPD-HD-9000-435-SY-Y-90-LS1-F25-HW			
DFPD-HD-9000-335-SY-Y-90-LS3-F25-HW	2296	1309	987
DFPD-HD-9000-385-SY-A-90-LS2-F25-HW			
DFPD-HD-9000-385-SY-Y-90-LS2-F25-HW			
DFPD-HD-9000-435-SY-A-90-LS2-F25-HW			
DFPD-HD-9000-435-SY-Y-90-LS2-F25-HW			
DFPD-HD-9000-335-SY-Y-90-LS4-F25-HW			
DFPD-HD-9000-385-SY-A-90-LS3-F25-HW			
DFPD-HD-9000-385-SY-Y-90-LS3-F25-HW			
DFPD-HD-9000-435-SY-A-90-LS3-F25-HW	2269	1309	960
DFPD-HD-9000-435-SY-Y-90-LS3-F25-HW			
DFPD-HD-9000-385-SY-Y-90-LS4-F25-HW			
DFPD-HD-9000-435-SY-A-90-LS4-F25-HW			
DFPD-HD-9000-435-SY-Y-90-LS4-F25-HW			
DFPD-HD-9000-385-SY-Y-90-LS4-F25-HW			
DFPD-HD-9000-435-SY-A-90-LS4-F25-HW			
DFPD-HD-9000-435-SY-Y-90-LS4-F25-HW			
DFPD-HD-9000-435-SY-Y-90-LS4-F25-HW	2333	1309	1024



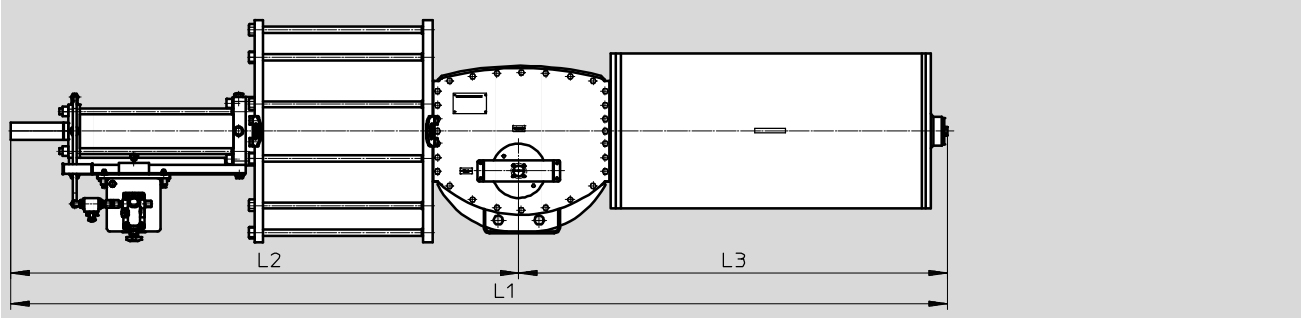
## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, with manual override, hydraulically supported

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 18000



Type DFPD-HD-18000-...	L1	L2	L3
DFPD-HD-18000-385-SY-A-90-LS3-F30-HW	2440		1100
DFPD-HD-18000-385-SY-Y-90-LS3-F30-HW			
DFPD-HD-18000-435-SY-A-90-LS3-F30-HW			
DFPD-HD-18000-435-SY-Y-90-LS3-F30-HW			
DFPD-HD-18000-485-SY-A-90-LS3-F30-HW			
DFPD-HD-18000-485-SY-Y-90-LS3-F30-HW			
DFPD-HD-18000-535-SY-Y-90-LS1-F30-HW			
DFPD-HD-18000-585-SY-Y-90-LS1-F30-HW			
DFPD-HD-18000-385-SY-Y-90-LS4-F30-HW	2378	1340	1038
DFPD-HD-18000-435-SY-A-90-LS4-F30-HW			
DFPD-HD-18000-435-SY-Y-90-LS4-F30-HW			
DFPD-HD-18000-485-SY-A-90-LS4-F30-HW			
DFPD-HD-18000-485-SY-Y-90-LS4-F30-HW			
DFPD-HD-18000-535-SY-A-90-LS2-F30-HW			
DFPD-HD-18000-535-SY-Y-90-LS2-F30-HW			
DFPD-HD-18000-585-SY-A-90-LS2-F30-HW			
DFPD-HD-18000-585-SY-Y-90-LS2-F30-HW	2524		1184
DFPD-HD-18000-535-SY-A-90-LS3-F30-HW			
DFPD-HD-18000-535-SY-Y-90-LS3-F30-HW			
DFPD-HD-18000-585-SY-A-90-LS3-F30-HW			
DFPD-HD-18000-585-SY-Y-90-LS3-F30-HW	2466		1126
DFPD-HD-18000-535-SY-A-90-LS4-F30-HW			
DFPD-HD-18000-535-SY-Y-90-LS4-F30-HW			
DFPD-HD-18000-585-SY-A-90-LS4-F30-HW			
DFPD-HD-18000-585-SY-Y-90-LS4-F30-HW			

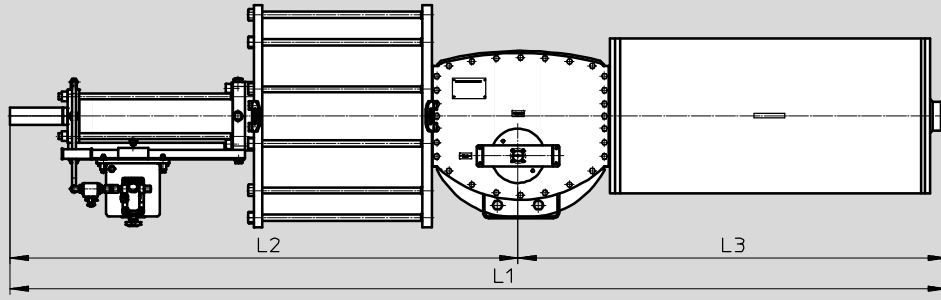
## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, with manual override, hydraulically supported

### Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Size: 32000



## Quarter turn actuators DFPD-HD, single-acting

Technical data – Swivel direction left, with manual override, hydraulically supported

DFPD-HD-32000-...	L1	L2	L3
DFPD-HD-32000-435-SY-A-90-LS3-F35-HW	3070	1665	1405
DFPD-HD-32000-435-SY-Y-90-LS3-F35-HW			
DFPD-HD-32000-485-SY-A-90-LS2-F35-HW			
DFPD-HD-32000-485-SY-Y-90-LS2-F35-HW			
DFPD-HD-32000-535-SY-A-90-LS1-F35-HW			
DFPD-HD-32000-535-SY-Y-90-LS1-F35-HW			
DFPD-HD-32000-585-SY-A-90-LS1-F35-HW			
DFPD-HD-32000-585-SY-Y-90-LS1-F35-HW			
DFPD-HD-32000-635-SY-A-90-LS1-F35-HW			
DFPD-HD-32000-635-SY-Y-90-LS1-F35-HW			
DFPD-HD-32000-435-SY-Y-90-LS4-F35-HW			
DFPD-HD-32000-485-SY-A-90-LS3-F35-HW			
DFPD-HD-32000-485-SY-Y-90-LS3-F35-HW			
DFPD-HD-32000-535-SY-A-90-LS2-F35-HW			
DFPD-HD-32000-535-SY-Y-90-LS2-F35-HW			
DFPD-HD-32000-585-SY-A-90-LS2-F35-HW			
DFPD-HD-32000-585-SY-Y-90-LS2-F35-HW			
DFPD-HD-32000-635-SY-A-90-LS2-F35-HW			
DFPD-HD-32000-635-SY-Y-90-LS2-F35-HW			
DFPD-HD-32000-685-SY-A-90-LS2-F35-HW			
DFPD-HD-32000-685-SY-Y-90-LS2-F35-HW			
DFPD-HD-32000-485-SY-A-90-LS4-F35-HW	3021	1665	1356
DFPD-HD-32000-485-SY-Y-90-LS4-F35-HW			
DFPD-HD-32000-535-SY-A-90-LS3-F35-HW			
DFPD-HD-32000-535-SY-Y-90-LS3-F35-HW			
DFPD-HD-32000-585-SY-A-90-LS3-F35-HW			
DFPD-HD-32000-585-SY-Y-90-LS3-F35-HW			
DFPD-HD-32000-635-SY-A-90-LS3-F35-HW			
DFPD-HD-32000-635-SY-Y-90-LS3-F35-HW			
DFPD-HD-32000-685-SY-A-90-LS3-F35-HW			
DFPD-HD-32000-685-SY-Y-90-LS3-F35-HW			
DFPD-HD-32000-735-SY-Y-90-LS3-F35-HW	3129	1665	1464
DFPD-HD-32000-535-SY-A-90-LS4-F35-HW			
DFPD-HD-32000-535-SY-Y-90-LS4-F35-HW			
DFPD-HD-32000-585-SY-A-90-LS3-F35-HW			
DFPD-HD-32000-585-SY-Y-90-LS4-F35-HW			
DFPD-HD-32000-635-SY-A-90-LS3-F35-HW			
DFPD-HD-32000-635-SY-Y-90-LS4-F35-HW			
DFPD-HD-32000-685-SY-A-90-LS4-F35-HW			
DFPD-HD-32000-685-SY-Y-90-LS4-F35-HW			
DFPD-HD-32000-735-SY-A-90-LS4-F35-HW			
DFPD-HD-32000-735-SY-Y-90-LS4-F35-HW			

# Quarter turn actuators DFPD-HD

Ordering data – Modular product system

Ordering table						
Size	9000	18000	32000	Condi- tions	Code	Entry code
<b>M</b> Module no.	<b>8042201</b>	<b>8042202</b>	<b>8042203</b>			
Function	Quarter turn actuator				<b>DFPD</b>	DFPD
<b>O</b> Metric						
Version	Standard					
	Heavy-duty guide			<b>9</b>	<b>-HD</b>	
<b>M</b> Torque [Nm]	9000	–	–		<b>-9000</b>	
	–	18000	–		<b>-18000</b>	
	–	–	32000		<b>-32000</b>	
<b>O</b> Piston diameter [mm]	Standard					
	235	–	–	<b>10</b>	<b>-235</b>	
	280	–	–	<b>10</b>	<b>-280</b>	
	335	–	–	<b>10</b>	<b>-335</b>	
	385	–	–	<b>10</b>	<b>-385</b>	
	435	–	–	<b>10</b>	<b>-435</b>	
	–	485	–	<b>10</b>	<b>-485</b>	
	–	535	–	<b>10</b>	<b>-535</b>	
	–	585	–	<b>10</b>	<b>-585</b>	
	–	–	635	<b>10</b>	<b>-635</b>	
	–	–	685	<b>10</b>	<b>-685</b>	
	–	–	735	<b>10</b>	<b>-735</b>	
<b>M</b> Design	Scotch yoke system				<b>-SY</b>	
<b>O</b> Yoke type	Asymmetrical			<b>10, 17</b>	<b>-A</b>	
	Symmetrical			<b>10</b>	<b>-Y</b>	

**9 HD** Mandatory specification with torque 9000 Nm, 18000 Nm, 32000 Nm

**10 235 ... 735,**

**A, Y** Mandatory specification in combination with heavy-duty guide (HD)  
Not in combination with double-acting D

**17 A** Not for combinations of:  
torque 9000 and Ø 385 and function D,  
torque 9000 and Ø 435 and function D,  
torque 18000 and Ø 535 and function D,  
torque 18000 and Ø 585 and function D,  
torque 32000 and Ø 585 and function D,  
torque 32000 and Ø 635 and function D

**M** Mandatory data

**O** Options

Transfer order code

**DFPD** - **HD** -  -  -  -  -  -  -

# Quarter turn actuators DFPD-HD

Ordering data – Modular product system

Ordering table						
Size	9000	18000	32000	Condi- tions	Code	Entry code
<b>M</b> Module no.	<b>8042201</b>	<b>8042202</b>	<b>8042203</b>			
<b>M</b> Swivel angle	90°				<b>-90</b>	
Swivel direction	Left			<b>15</b>	<b>-L</b>	
	Right			<b>16</b>	<b>-R</b>	
Function	Double-acting			<b>13, 16</b>	<b>D</b>	
	Single-acting			<b>1, 15</b>	<b>S</b>	
<b>O</b> Spring force HD	None					
	Spring package 1			<b>11, 18</b>	<b>1</b>	
	Spring package 2			<b>11, 19</b>	<b>2</b>	
	Spring package 3			<b>11, 20</b>	<b>3</b>	
Flange pattern 1	F25				<b>-F25</b>	
		F30			<b>-F30</b>	
Hole pattern			F35		<b>-F35</b>	
<b>O</b> Manual override	None					
	Handwheel, hydraulically supported					<b>-HW</b>
	Handwheel			<b>14</b>		<b>-MW</b>
<b>O</b> Temperature range	Standard					
Corrosion protection	Standard					
Housing surface treatment	None					

**1 S** Not in combination with swivel angle 180°  
**11 1, 2, 3, 4** Mandatory specification in combination with single-acting S

**13 D** Not together with a combination of heavy-duty guide HD and swivel direction left  
**14 FW** Only in combination with heavy-duty design HD  
**15 L,S,** Not for combinations of:

torque 9000 and Ø 235,  
torque 18000 and Ø 335,  
torque 32000 and Ø 385

**16 R,D,** Not for combinations of:  
torque 32000 and Ø 685,  
torque 32000 and Ø 735

**18 1** Not for combinations of:  
torque 9000 and Ø 280 and function S,  
torque 9000 and Ø 335 and yoke type A and function S,  
torque 9000 and Ø 335 and yoke type Y and function S,  
torque 18000 and Ø 385 and yoke type A and function S,  
torque 18000 and Ø 385 and yoke type Y and function S,  
torque 18000 and Ø 435 and function S,  
torque 18000 and Ø 485 and function S,  
torque 18000 and Ø 535 and yoke type A and function S,  
torque 18000 and Ø 585 and yoke type A and function S,  
torque 32000 and Ø 435 and yoke type A and function S,  
torque 32000 and Ø 435 and yoke type Y and function S,  
torque 32000 and Ø 485 and function S,

**18 1** Not for combinations of:  
torque 32000 and Ø 685 and yoke type Y and function S,  
torque 32000 and Ø 685 and yoke type A and swivel direction L and function S,  
torque 32000 and Ø 685 and yoke type A and swivel direction R and function S,  
torque 32000 and Ø 735 and yoke type A and function S,  
torque 32000 and Ø 735 and yoke type Y and function S

**19 2** Not for combinations of:  
torque 18000 and Ø 385 and yoke type A and function S,  
torque 18000 and Ø 385 and yoke type Y and function S,  
torque 18000 and Ø 435 and function S,  
torque 18000 and Ø 485 and function S,  
torque 32000 and Ø 435 and yoke type A and function S,  
torque 32000 and Ø 435 and yoke type Y and function S,  
torque 32000 and Ø 685 and yoke type A and swivel direction R and function S,  
torque 32000 and Ø 735 and yoke type A and function S,  
torque 32000 and Ø 735 and yoke type Y and function S

**20 3** Not for combinations of:  
torque 9000 and Ø 280 and function S,  
torque 9000 and Ø 335 and yoke type A and function S,  
torque 32000 and Ø 735 and yoke type A and function S

**21 4** Not for combinations of:  
torque 9000 and Ø 335 and yoke type A and function S,  
torque 9000 and Ø 385 and yoke type A and function S,  
torque 18000 and Ø 385 and yoke type A and function S,  
torque 32000 and Ø 435 and yoke type A and function S

**M** Mandatory data

**O** Options

**Transfer order code**

**DFPD** - **HD** -  -  -  -