

Assembly and torque measuring technology





The many advantages of MANNESMANN DEMAG impact wrenches:

- Excellent power / weight ratios and very small reaction forces
- Easy and non-tiring to use
- Comfortable to service thanks to their two-part housing
- High power production with an economical air consumption
- For robust use in all branches of industry
- Can be used over a wide range thanks to adjustable impact strength
- Exhaust air through the handle

Hammer mechanism options:

- 1 TWIN hammer mechanism allows two strikes per round on both sides of the drive spindle
- 2 The three jaw system strikes both jaws of the drive spindle simultaneously for an outstanding high power
- 3 One jaw hammer mechanism strike once on one side of the drive spindle for a very powerful impulse

Impact wrenches

Guideline values for torques and pretensioning forces according to DIN 13

Screw quality according to DIN 267

Size	screw width internal mm	screw width external mm	3.6 torque Nm	4.6 torque Nm	4.8 torque Nm	5.6 torque Nm	5.8 torque Nm	6.9 torque Nm	8.8 torque Nm	10.9 torque Nm	12.9 torque Nm
M 4	3	7	0.85	1.10	1.50	1.40	1.90	2.30	2.90	4.10	4.90
M 5	4	9	1.70	2.20	3.00	2.80	3.70	4.50	6.00	8.50	10.00
M 6	5	10	2.90	3.90	5.10	4.80	6.40	7.70	10.00	14.00	17.00
M 8	6	13	7.00	9.30	12.00	12.00	16.00	19.00	25.00	35.00	41.00
M 10	8	17	14.00	19.00	25.00	23.00	31.00	37.00	49.00	69.00	83.00
M 12	10	19	24.00	32.00	43.00	40.00	54.00	65.00	86.00	120.00	145.00
M 14	12	22	39.00	51.00	68.00	64.00	86.00	105.00	135.00	190.00	230.00
M 16	14	24	59.00	79.00	105.00	98.00	130.00	155.00	210.00	295.00	355.00
M 18	14	27	81.00	110.00	145.00	135.00	180.00	215.00	290.00	405.00	485.00
M 20	17	30	115.00	155.00	205.00	190.00	255.00	305.00	410.00	580.00	690.00
M 22	17	32	155.00	205.00	275.00	260.00	345.00	415.00	550.00	780.00	930.00
M 24	19	36	200.00	265.00	350.00	330.00	440.00	530.00	710.00	1 000	1 200
M 27	19	41	295.00	390.00	520.00	490.00	650.00	780.00	1 050	1 500	1 800
M 30	22	46	395.00	530.00	710.00	660.00	880.00	1 050	1 450	2 000	2 400
M 33	24	50	540.00	720.00	960.00	900.00	1 200	1 450	1 900	2 700	3 250
M 36	27	55	690.00	920.00	1 250	1 150	1 550	1 850	2 450	3 450	4 150
M 39	27	60	920.00	1 200	1 600	1 500	2 000	2 400	3 200	4 500	5 400
M 42	32	65	1 100	1 500	1 950	1 850	2 450	2 950	3 950	5 550	6 650
M 45	32	70	1 400	1 850	2 450	2 300	3 100	3 700	4 950	6 950	8 350
M 48	36	75	1 700	2 250	3 000	2 800	3 750	4 450	5 950	8 400	10 100
M 52	36	80	2 150	2 900	3 850	3 600	4 800	5 750	7 650	10 800	12 900
M 56	—	85	2 700	3 600	4 800	4 500	5 950	7 150	9 550	13 400	16 100
M 60	—	90	3 350	4 450	5 950	5 550	7 400	8 900	11 900	16 700	20 000
M 64	—	95	4 000	5 350	7 150	6 700	8 950	10 700	14 300	20 100	24 100
M 68	—	100	4 850	6 500	8 650	8 100	10 800	13 000	17 300	24 300	29 100

The table shows an overview of necessary torques for screws and nuts of all grades.



Impact wrenches

- Type E 10 PS3 with quick-change chuck
- Type E 25 P: long lifetime because the strike mechanism is permanently greased by an oil bath
- Type E 26 P with vibration 2.5 m/s^2



E 10 P3



E 10 PS3



E 16 P3



E 24 P3

Technical data

Type		E 10 P3	E 10 PS3	E 16 P3	E 18 P3	E 24 P3	E 25 P	E 26 P
Order No.		29501-56-5	29501-57-5	03954-77-4	29915-32-5	29908-31-5	29946-37-6	29946-38-6
For screws up to	mm	M 6 – M 12	M 6 – M 12	M 6 – M 18	M 8 – M 18	M 14 – M 24	M 14 – M 24	M 14 – M 24
Torque max.	Nm	140	80	350	400	950	1 500	1 500
Working range	Nm	30–110	15–60	70–210	80–240	200–570	320–910	320–910
Driv. square end		3/8"	1/4" SWF	1/2"	1/2"	3/4"	3/4"	3/4"
Length	mm	155	165	180	185	214	189	203
Throttle stages		4	4	4	4	4	—	—
Air consumption	m ³ /min	0.28	0.28	0.40	0.68	0.77	0.95	0.95
Weight	kg	1.20	1.25	2.35	2.40	4.15	5.68	6.20
Number of blows	p. min.	2 600	2 600	1 500	1 100	1 000	830	900
Free speed	rpm	10 000	10 000	8 000	6 800	5 300	4 800	4 800
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 3/8" i	G 1/2" i	G 1/2" i
Hose I. D.	mm	10	10	10	10	10	13	13
Noise level	dB(A)	72	72	72	85	85	87	91
Hammer mechanism		jaw	jaw	jaw	TWIN	three jaw	TWIN	three jaw

Power and free speed at 6 bar operating pressure. Compressed air quality: oiled.

Accessories supplied

E 10 – E 18	Clamp, impact grease, oil bottle
E 24 – E 56	Thread socket, impact grease, oil bottle

Accessories

Swivel joint

1/4" × 1/4" internal / external	60001-60-6
3/8" × 3/8" internal / external	60001-61-6
1/2" × 1/2" internal / external	60001-62-6



Impact wrench with swivel joint



E 31 P



E 36 P1



E 40 F



E 40 P

Technical data

Type		E 31 P	E 33 P	E 36 P1	E 40 F	E 40 P
Order No.		60029-74-6	29946-39-6	29927-80-6	03204-07-4	60010-92-6
For screws up to	mm	M 16 – M 26	M 18 – M 33	M 18 – M 40	M 18 – M 40	M 18 – M 45
Torque max.	Nm	1 900	2 500	3 000	3 185	3 700
Working range	Nm	200–1 450	490–1325	685–1570	590–1670	785–1670
Driv. square end		1"	1"	1"	1"	1"
Length	mm	266	203	224	293	240
Throttle stages		—	—	—	—	—
Air consumption	m ³ /min	1.10	1.10	1.35	1.20	1.35
Weight	kg	5.60	7.27	9.35	10.80	10.85
Number of blows	p. min.	1 150	780	780	750	755
Free speed	rpm	6 800	4 300	3 100	3 200	3 000
Connection		G 1/2" i	G 1/2" i	G 1/2" i	G 1/2" i	G 1/2" i
Hose I. D.	mm	13	13	13	13	13
Noise level	dB(A)	90	92	90	90	90
Hammer mechanism		three jaw	three jaw	three jaw	three jaw	three jaw

Power and free speed at 6 bar operating pressure. Compressed air quality: oiled.



Accessories

For Types E 31 – 56

Throttle control 1/2" i	03024-47-4
Throttle control 3/8" i	60010-93-6



Extended drive spindle E 33 P (150 mm)

Impact wrenches



E 56 F



A 71

Technical data

Type		E 56 F	A 71	A 81
Order No.		032 045 74	45700-01-6	45800-01-6
For screws up to	mm	M 24 – M 55	M 30 – M 80	M 50 – M 110
Torque max.	Nm	5 200	8 000	24 000
Working range	Nm	1 300–3 200	2 300–5 275	5 400–7 850
Driv. square end		1 1/2"	1 1/2"	2 1/2"
Length	mm	355	448	535
Throttle stages		—	—	—
Air consumption	m ³ /min	1.60	2.80	5.50
Weight	kg	15.50	32.00	67.00
Number of blows	p. min.	650	515	400
Free speed	rpm	3 200	2 300	2 100
Connection		G 1/2" i	G 3/4" i	G 1" i
Hose I. D.	mm	16	19	25
Noise level	dB(A)	90	104	104
Hammer mechanism		three jaw	three jaw	three jaw

Leistung und Drehzahl bei 6 bar Betriebsdruck. Druckluft geölt.



Holster

for impact and hydropulse wrenches

- Universal and protective
- Tool is always within reach
- Tidy working area

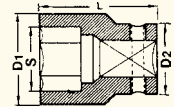
Impact wrench with holster

For E 10 – E 18, RRI, ULT 60012-17-6

High-performance box spanner inserts

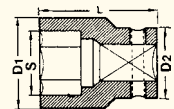
3/8" (square)

Thread	SW mm	D1 mm	D2 mm	L mm max.	Order No.
M 4	8	13,8	19	34	9 376 195
M 6	10	16,4	19	34	9 376 197
M 8	13	20,2	19	34	9 376 199
M 8	14	21,5	22	34	9 376 200
M 10	17	25,4	22	34	9 376 201
M 12	19	27,9	22	34	9 376 202



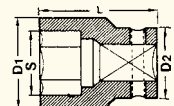
1/2" (square)

Thread	SW mm	D1 mm	D2 mm	L max. mm	Order No.	L max. mm	Order No.
M 6	10	17.6	25	40	9 376 204	85	9 376 215
M 7	11	18.9	25	40	9 376 205	85	9 376 216
M 8	13	21.4	25	40	9 376 206	85	9 376 217
M 8	14	22.7	25	40	9 376 207	85	9 376 218
M 10	17	26.6	30	40	9 376 208	85	9 376 219
M 12	19	29.1	30	40	9 376 209	85	9 376 220
M 14	22	32.9	30	40	9 376 210	85	9 376 221
M 16	24	35.4	30	45	9 376 211	85	9 376 222
M 18	27	39.3	30	50	9 376 212	85	9 376 223
M 20	30	43.0	30	50	9 376 213	—	—



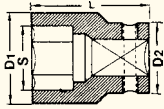
3/4" (square)

Thread	SW mm	D1 mm	D2 mm	L max. mm	Order No.	L max. mm	Order No.
M 10	17	30.0	44	50	9 376 231	—	—
M 12	19	32.5	44	50	9 376 232	—	—
M 14	22	36.5	44	50	9 376 233	100	9 376 241
M 16	24	38.9	44	50	9 376 234	100	9 376 242
M 18	27	42.5	44	50	9 376 235	100	9 376 243
M 20	30	46.5	44	53	9 376 236	100	9 376 244
M 22	32	48.8	44	53	9 376 237	100	9 376 245
M 24	36	53.8	44	55	9 376 238	100	9 376 246
M 27	41	60.0	44	57	9 376 239	100	9 376 247
M 30	46	66.5	44	62	9 376 240	100	9 376 248



High-performance box spanner inserts

1" (square)



Thread	SW mm	D1 mm	D2 mm	L max. mm	Order No.	L max. mm	Order No.
M 14	22	39.0	54	57	9 376 458	108	9 376 459
M 16	24	41.5	54	57	9 376 249	108	9 376 259
M 18	27	45.5	54	57	9 376 250	108	9 376 260
M 20	30	49.0	54	62	9 376 251	108	9 376 261
M 22	32	51.5	54	62	9 376 252	108	9 376 262
M 24	36	56.5	54	62	9 376 253	108	9 376 263
M 27	41	62.8	54	66	9 376 254	108	9 376 264
M 30	46	69.0	54	70	9 376 255	108	9 376 265
M 33	50	74.0	54	70	9 376 256	108	9 376 266
M 36	55	80.5	54	75	9 376 257	108	9 376 267
M 39	60	86.5	54	75	9 376 258	108	9 376 268

Box spanner sets

3/8"

10 box spanner, standard:
9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 19 mm
Packaging: plastic and metal box
Order No. 60029-16-6



1/2"

10 box spanner, standard:
9 | 10 | 11 | 13 | 14 | 17 | 19 | 22 | 24 | 27 mm
Packaging: metal box
Order No. 60029-17-6



3/4"

8 box spanner, standard:
24 | 27 | 30 | 32 | 33 | 36 | 38 | 41 mm
Packaging: plastic and metal box
Order No. 60029-18-6



1"

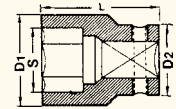
7 box spanner, long version:
24 | 27 | 30 | 32 | 33 | 36 | 41 mm
Packaging: plastic box
Order No. 60029-19-6



High-performance box spanner inserts

1 1/2" (square) □

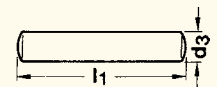
Thread	SW mm	D1 mm	D2 mm	L max. mm	Order No.	L max. mm	Order No.
M 27	41	68	86	80	9 376 269	120	9 376 282
M 30	46	74	86	84	9 376 270	133	9 376 283
M 33	50	79	86	87	9 376 271	146	9 376 284
M 36	55	85	86	90	9 376 272	146	9 376 285
M 39	60	91	86	90	9 376 273	146	9 376 286
M 42	65	95	86	95	9 376 274	153	9 376 287
M 45	70	103	86	100	9 376 275	153	9 376 288
M 48	75	108	86	105	9 376 276	165	9 376 289
M 52	80	115	86	110	9 376 277	172	9 376 290
M 56	85	122	86	110	9 376 278	172	9 376 291
M 60	90	128	86	112	9 376 279	178	9 376 292
M 64	95	135	86	112	9 376 280	184	9 376 293
M 68	100	140	86	115	9 376 281	190	9 376 294
M 72	105	146	86	120	9 376 344	195	9 376 346
M 76	110	153	86	128	9 376 345	203	9 376 347



Replacement locking pins

For high-performance box-spanners, extensions, holders and adapters

Driv. square end	D2 ∅ mm	Locking pin d3 × l1	Order No.
3/8"	19 – 20	2.5 × 14	9 315 149
3/8"	22	2.5 × 16	9 315 491
1/2"	24 – 26	3.0 × 20	9 315 165
1/2"	30	3.0 × 24	9 315 166
3/4"	44	4.0 × 36	9 315 182
3/4"	54	5.0 × 45	9 315 203
1"	54	5.0 × 45	9 315 203
1 1/2"	86	6.0 × 75	9 315 224
1 1/2"	127	6.0 × 110	9 315 498
2 1/2"	170	10.0 × 150	9 315 250



Spanner for socket head screws

3/8" (outer square)



SW mm	D2 mm	L mm	Order No.
M 6 / 5	22	50	9 376 500
M 8 / 6	22	50	9 376 501
M 10 / 8	22	50	9 376 502
M 12 / 10	22	50	9 376 503
M 14 / 12	22	50	9 376 504
M 16 / 14	22	50	9 376 505

1/2" (outer square)

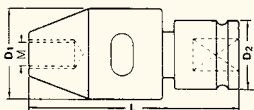
SW mm	D2 mm	L mm	Order No.
M 6 / 5	30	50	9 376 506
M 8 / 6	30	50	9 376 507
M 10 / 8	30	50	9 376 508
M 12 / 10	30	50	9 376 509
M 14 / 12	30	50	9 376 510
M 16 / 14	30	50	9 376 511
M 22 / 17	30	55	9 376 528

3/4" (outer square)

SW mm	D2 mm	L mm	Order No.
M 22 / 17	44	62	9 376 512
M 24 / 19	44	62	9 376 513
M 30 / 22	44	62	9 376 514
M 33 / 24	44	62	9 376 515
M 36 / 27	44	62	9 376 516
M 42 / 32	44	62	9 376 518

Stud bolt chuck

3/8" (square)



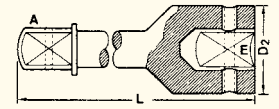
Thread	D1 mm	D2 mm	L max. mm	Order No.
M 6	34	22	72	030 248 74
M 8	34	22	72	030 250 74
M 10	34	22	72	030 251 74

1/2" (square)

Thread	D1 mm	D2 mm	L max. mm	Order No.
M 10	34	30	84	030 259 74
M 12	34	30	84	030 260 74
M 14	45	30	102	030 261 74
M 16	45	30	102	030 262 74

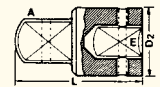
Extensions

External square A	Intern. square E	D2 mm	L mm	Order No.
3/8"	3/8"	19	75	9 376 383
3/8"	3/8"	19	150	9 376 384
1/2"	1/2"	25	125	9 376 385
3/4"	3/4"	44	175	9 376 387
3/4"	3/4"	44	250	9 376 388
3/4"	3/4"	44	330	9 376 389
1"	1"	54	175	9 376 390
1"	1"	54	330	9 376 391
1 1/2"	1 1/2"	86	250	9 369 218



Connectors

External square A	Intern. square E	D2 mm	L mm	Order No.
1/2"	3/8"	22	45	9 369 227
1/2"	3/4"	44	70	9 369 226
3/4"	1"	54	70	9 369 225
1"	1 1/2"	86	115	9 369 224
1 1/2"	2 1/2"	127	145	9 369 229



Hydropulse wrenches



Hydropulse wrenches are used when high product quality is demanded. MANNESMANN DEMAG hydropulse wrenches guarantee:

- High torque repetition accuracy
- Easy setting of the torque desired
- Long service life – up to six times the tool life compared to conventional impact wrenches
- Handiness thanks to the optimum position of the centre of gravity as well as the ergonomically designed handle
- No reaction forces
- Low vibration and noise levels
- Very high cut-off accuracy

Recommended torque range

The data on the following pages are approximate values, the actual torque depends on the fastening conditions, accessories being used and the operating pressure.

Hydropulse wrenches ULT

With switch-off

Light-weight with high accuracy

The new hydropulse wrenches are the right solutions for small dimensions, where torque between 7 and 50 Nm is needed.

The innovative double vaneimpulse unit procures an increased torque accuracy for hard and soft joints.

- Rubber handle
- New ergonomical design
- No colour coating
- Rubber housing protection cap
- Exhaust air in every direction (360 °) possible
- 9 vane double chamber motor
- Low noise level
- Non-lubricated working



ULT 50

Technical data

Type		ULT 50 D	ULT 50	ULT 60 D	ULT 60	ULT 70
Order No.		60012-18-6	60012-19-6	60012-20-6	60012-21-6	60012-22-6
Switch-off		yes	yes	yes	yes	yes
For screws up to	mm	M 6	M 6	M 8	M 8	M 8 – 10
Torque range	Nm	7 – 15,5	7 – 15,5	15 – 32	15 – 32	30 – 55
Driv. square end		1/4" SWF	3/8"	1/4" SWF	3/8"	3/8"
Length	mm	163	160	175	172	178
Air consumption	m ³ /min	0.25	0.25	0.35	0.35	0.40
Weight	kg	0.92	0.92	0.95	0.95	1.05
Free speed	rpm	4 400	4 400	6 700	6 700	6 000
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	6	6	9	9	9
Noise level	dB(A)	78	78	80	80	80
Accessories supplied		Thread socket, 2 allen keys				

Power and free speed at 6 bar operating pressure.

Type		ULT 90	ULT 100	ULT 130	ULT 150
Order No.		60012-23-6	60012-24-6	60012-26-6	60012-27-6
Switch-off		yes	yes	yes	yes
For screws up to	mm	M 10 – 12	M 12	M 14	M 16
Torque range	Nm	50 – 85	70 – 130	110 – 150	140 – 210
Driv. square end		1/2"	1/2"	1/2"	3/4"
Length	mm	190	197	215	238
Air consumption	m ³ /min	0.53	0.55	0.73	0.70
Weight	kg	1.45	1.70	2.30	2.80
Free speed	rpm	5 700	5 200	4 000	3 700
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	9	13	13	13
Noise level	dB(A)	82	82	82	82

Accessories supplied

Thread socket, allen key for torque setting

Power and free speed at 6 bar operating pressure.

Hydropulse wrenches RRI

With switch-off



RRI 50 AT

- Rubber handle
- 9 vane -double chamber motor
- Twin drive roller vanes for less noise, vibration and better pulse efficiency
- Exhaust air in every direction (360°) possible
- Simple torque adjustment

Housing protection upon request
→ p. 104

1/4" (outer square) | Technical data

Type		RRI 30 AT	RRI 40 AT	RRI 50 AT	RRI 60 AT	RRI 70 AT
Order No.		60023-49-6	60023-50-6	60023-51-6	60023-52-6	60023-53-6
Switch-off		yes	yes	yes	yes	yes
For screws up to	mm	M 6	M 6 – M 8	M 8	M 8	M 10
Torque range	Nm	6.0 – 12.5	10.0 – 18.0	16.0 – 26.0	20.0 – 30.0	32.0 – 47.0
Driv. square end		1/4" SWF	1/4" SWF	1/4" SWF	1/4" SWF	1/4" SWF
Length	mm	163	170	170	181	188
Air consumption	l/sec	3.7	3.7	5.3	6.2	7.0
Weight	kg	0.89	0.92	0.92	1.00	1.35
Free speed	rpm	4 600	4 600	7 200	6 200	7 200
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	6.5	6.5	6.5	8.0	8.0
Noise level	dB(A)	78	78	80	82	82
Accessories supplied		Wrench, holding clamp				

Power and free speed at 6 bar operating pressure.

3/8" (square) | Technical data

Type		RRI 30 T	RRI 40 T	RRI 50 T	RRI 60 T	RRI 70 T
Order No.		60023-54-6	60023-55-6	60023-56-6	60023-57-6	60023-58-6
Switch-off		yes	yes	yes	yes	yes
For screws up to	mm	M 6	M 6 – M 8	M 8	M 8 – M 10	M10
Torque range	Nm	7.0 – 12.5	11.0 – 19.0	16.0 – 27.0	22.0 – 35.0	37.0 – 57.0
Driv. square end		3/8"	3/8"	3/8"	3/8"	3/8"
Length	mm	160	167	167	178	194
Air consumption	l/sec	3.7	3.7	5.3	6.2	7.0
Weight	kg	0,89	0.92	0.92	1.00	1.35
Free speed	rpm	4 600	4 600	7 200	6 200	7 200
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	6.5	6.5	6.5	8.0	8.0
Noise level	dB(A)	78	78	80	82	82
Accessories supplied		Wrench, holding clamp				

Power and free speed at 6 bar operating pressure.

Hydropulse wrenches RRI

With switch-off | Without switch-off



RRI 90 T

1/2" – 3/4" (square) | Technical data

Type		RRI 90 T	RRI 100 T	RRI 130 T	RRI 150 T	RRI 180 T
Order No.		60023-59-6	60023-60-6	60023-61-6	60023-62-6	60023-63-6
Switch-off		yes	yes	yes	yes	yes
For screws up to	mm	M 12	M 12 – M 14	M 14 – M 16	M 16	M 16 – M 18
Torque range	Nm	64 – 90	85 – 120	123 – 148	165 – 210	180 – 255
Driv. square end		1/2"	1/2"	1/2"	1/2"	1/2"
Length	mm	200	209	216	239	263
Air consumption	l/sec	8.3	8.7	11.6	11.6	12.2
Weight	kg	1.55	1.87	2.26	3.10	3.80
Free speed	rpm	5 400	5 300	3 600	3 700	2 700
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	8.0	8.0	11.0	11.0	11.0
Noise level	dB(A)	83	84	86	86	86
Accessories supplied		Wrench, holding clamp				

Power and free speed at 6 bar operating pressure.

1/4" (outer square) | Technical data

Type		RRI 30 A	RRI 40 A	RRI 50 A	RRI 60 A	RRI 70 A
Order No.		60028-86-6	60028-87-6	60028-88-6	60028-89-6	60028-90-6
Switch-off		no	no	no	no	no
For screws up to	mm	M 6	M 6 – M 8	M 8	M 8	M 10
Torque range	Nm	6.0 – 12.5	10.0 – 18.0	16.0 – 26.0	20.0 – 30.0	32.0 – 47.0
Driv. square end		1/4" SWF	1/4" SWF	1/4" SWF	1/4" SWF	1/4" SWF
Length	mm	167	167	167	178	194
Air consumption	l/sec	3.7	3.7	5.3	6.2	7.0
Weight	kg	0.87	0.90	0.90	0.97	1.33
Free speed	rpm	4 600	4 600	7 200	6 200	7 200
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	6.5	6.5	6.5	8.0	8.0
Noise level	dB(A)	78	78	80	82	82
Accessories supplied		Wrench, holding clamp				

Power and free speed at 6 bar operating pressure.

Hydropulse wrenches RRI

Without switch-off



RRI 130



3/8" (square) | Technical data

Type		RRI 30	RRI 40	RRI 50	RRI 60	RRI 70
Order No.		60028-91-6	60028-92-6	60028-93-6	60028-94-6	60024-20-6
Switch-off		no	no	no	no	no
For screws up to	mm	M 6	M 6 – M 8	M 8	M 8 – M 10	M 10
Torque range	Nm	7.0 – 12.5	11.0 – 19.0	16.0 – 27.0	22.0 – 35.0	37.0 – 57.0
Driv. square end		3/8"	3/8"	3/8"	3/8"	3/8"
Length	mm	167	167	167	178	194
Air consumption	l/sec	3.7	3.7	5.3	6.2	7.0
Weight	kg	0.87	0.90	0.90	0.97	1.33
Free speed	rpm	4 600	4 600	7 200	6 200	7 200
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	6,5	6,5	6,5	8,0	8,0
Noise level	dB(A)	78	78	80	82	82
Accessories supplied		Wrench, holding clamp				

Power and free speed at 6 bar operating pressure.

1/2 – 3/4" (square) | Technical data

Type		RRI 90	RRI 100	RRI 130	RRI 150	RRI 180
Order No.		60028-96-6	60027-57-6	60028-97-6	60028-98-6	60028-99-6
Switch-off		no	no	no	no	no
For screws up to	mm	M 12	M 12 – M 14	M 14 – M 16	M 16	M 16 – M 18
Torque range	Nm	64.0 – 90.0	85.0 – 120.0	123.0 – 148.0	165.0 – 210.0	180.0 – 255.0
Driv. square end		1/2"	1/2"	1/2"	3/4"	3/4"
Length	mm	200	209	216	239	263
Air consumption	l/sec	8.3	8.7	11.6	11.6	12.2
Weight	kg	1.53	1.85	2.22	3.05	3.80
Free speed	rpm	5 400	5 300	3 600	3 700	2 700
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	8.0	8.0	11.0	11.0	11.0
Noise level	dB(A)	83	84	86	86	86
Accessories supplied		Wrench, holding clamp				

Power and free speed at 6 bar operating pressure.

Hydropulse wrenches RRI

With shut-off | Straight version



RRI 30 ST

1/4" (outer square) | Technical data

Type		RRI 30 STA	RRI 40 STA	RRI 50 STA	RRI 60 STA	RRI 70 STA
Order No.		60029-00-6	60029-01-6	60029-02-6	60029-03-6	60029-04-6
Switch-off		yes	yes	yes	yes	yes
For screws up to	mm	M 6	M 6 – M 8	M 8	M 8	M 8 – M10
Torque range	Nm	6.0 – 11.5	10.0 – 17.0	15.0 – 25.0	20.0 – 30.0	28.0 – 40.0
Driv. square end		1/4" SWF	1/4" SWF	1/4" SWF	1/4" SWF	1/4" SWF
Length	mm	219	224	224	225	225
Air consumption	l/sec	3.7	3.7	5.3	6.2	6.2
Weight	kg	0.77	0.80	0.80	0.86	0.97
Free speed	rpm	4 200	4 200	6 800	6 000	5 000
Connection		G 1/4"	G 1/4"	G 1/4"	G 1/4"	G 1/4"
Hose I. D.	mm	6.5	6.5	6.5	8.0	8.0
Noise level	dB(A)	78	78	80	80	80
Accessories supplied		Wrench, holding clamp				

Power and free speed at 6 bar operating pressure.

3/8" (square) | Technical data

Type		RRI 30 ST	RRI 40 ST	RRI 50 ST	RRI 60 ST	RRI 70 ST
Order No.		60029-05-6	60027-84-6	60028-38-6	60029-06-6	60029-07-6
Switch-off		yes	yes	yes	yes	yes
For screws up to	mm	M 6	M 6 – M 8	M 8	M 8 – M10	M 10
Torque range	Nm	7.0 – 12.5	11.0 – 19.0	16.0 – 27.0	22.0 – 35.0	31.0 – 47.0
Driv. square end		3/8"	3/8"	3/8"	3/8"	3/8"
Length	mm	216	221	221	231	244
Air consumption	l/sec	3.7	3.7	5.3	6.2	6.2
Weight	kg	0.80	0.80	0.80	0.86	0.97
Free speed	rpm	4 200	4 200	6 800	6 000	5 000
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	6.5	6,5	6.5	8.0	8.0
Noise level	dB(A)	78	78	80	80	80
Accessories supplied		Wrench, holding clamp				

Power and free speed at 6 bar operating pressure.

Hydropulse wrenches RRI

With switch-off | Angle head version



RRI 50 RT

RRI 50 RTA

1/4" (outer square) | Technical data

Type		RRI 50 RTA	RRI 60 RTA	RRI 70 RTA
Order No.		60029-08-6	60029-09-6	60029-10-6
Switch-off		yes	yes	yes
For screws up to	mm	M 6 – M 8	M 8	M 8
Torque range	Nm	9.5 – 16.0	15.0 – 22.0	20.0 – 29.0
Driv. square end		1/4" Skt	1/4" Skt	1/4" Skt
Length	mm	253	264	272
Air consumption	l/sec	4.8	6.2	6.2
Weight	kg	1.20	1.30	1.40
Free speed	rpm	4 300	4 700	4 500
Connection		G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	6.5	8.0	8.0
Noise level	dB(A)	80	80	80
Accessories supplied		Wrench, holding clamp		

Power and free speed at 6 bar operating pressure.

3/8 – 1/2" (square) | Technical data

Type		RRI 50 RT	RRI 60 RT	RRI 70 RT	RRI 70 RGT	RRI 70 RHT
Order No.		60029-11-6	60029-12-6	60029-13-6	60029-14-6	60029-15-6
Switch-off		yes	yes	yes	yes	yes
For screws up to	mm	M 6 – M 8	M 8	M 8 – M 10	M 10	M 12
Torque range	Nm	10.5 – 17.0	16.0 – 24.0	22.0 – 31.0	32.0 – 45.0	46.0 – 60.0
Driv. square end		3/8"	3/8"	3/8"	3/8"	1/2"
Length	mm	253	264	272	281	281
Air consumption	l/sec	4.8	6.2	6.2	6.2	6.2
Weight	kg	1.20	1.30	1.40	1.60	1.60
Free speed	rpm	4 300	4 700	4 500	2 000	2 000
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Hose I. D.	mm	6.5	8.0	8.0	8.0	8.0
Noise level	dB(A)	80	80	80	82	82
Accessories supplied		Wrench, holding clamp				

Power and free speed at 6 bar operating pressure.

Spindle guided inserts prevent from wobbling of the box spanner on the square drive by means of a supporting ring on the drive spindle.

Hydropulse wrenches

Spindle guided box spanners

Accessories

High-performance box spanner inserts (spindle guided)

3/8" (square) □

Thread	SW mm	D1 mm	D2 mm	L mm max.	Order No.
M 4	8	13.0	19	43	60029-33-6
M 6	10	16.0	19	43	60029-34-6
M 8	13	20.0	22	43	60029-35-6
M 8	14	21.0	22	43	60029-36-6
M 10	17	25.0	22	43	60029-37-6
M 12	19	27.5	22	43	60029-38-6



1/2" (square) □

Thread	SW mm	D1 mm	D2 mm	L max. mm	Order No.
M 8	13	21.0	25	52	60029-39-6
M 8	14	22.5	25	52	60029-40-6
M 10	17	26.0	30	52	60029-41-6
M 12	19	28.7	30	52	60029-42-6
M 14	22	32.0	30	52	60029-43-6
M 16	24	35.0	30	52	60029-44-6
M 18	27	39.0	30	57	60029-45-6
M 20	30	42.0	30	62	60029-46-6

3/4" (square) □

Thread	SW mm	D1 mm	D2 mm	L max. mm	Order No.
M 14	22	37.0	44	65	60029-47-6
M 16	24	39.0	44	65	60029-48-6
M 18	27	43.0	44	65	60029-49-6
M 20	30	47.0	44	68	60029-50-6
M 22	32	49.0	44	70	60029-51-6
M 24	36	54.0	44	70	60029-52-6

Extensions (spindle guided)

External square A	Intern. square E	D2 mm	L mm	Order No.
3/8"	3/8"	22	75	60029-65-6
3/8"	3/8"	22	125	60029-66-6
1/2"	1/2"	25	125	60029-67-6
3/4"	3/4"	44	175	60029-68-6

Hydropulse wrenches

Spindle guided box spanners

Accessories

Box spanner for inner hexagon screws



3/8" (external square) □

SW mm	D2 mm	L mm	Order No.
M 6 / 5	22	75	60027-68-6
M 8 / 6	22	75	60027-69-6
M 10 / 8	22	75	60027-70-6
M 12 / 10	22	75	60027-71-6
M 14 / 12	22	75	60027-72-6
M 16 / 14	22	75	60027-73-6

1/2" (external square) □

SW mm	D2 mm	L mm	Order No.
M 6 / 5	25	75	60029-20-6
M 8 / 6	25	75	60029-21-6
M 10 / 8	25	75	60029-22-6
M 12 / 10	25	75	60029-23-6
M 14 / 12	25	75	60029-24-6
M 16 / 14	25	75	60029-25-6
M 22 / 17	25	75	60029-26-6

3/4" (external square) □

SW mm	D2 mm	L mm	Order No.
M 22 / 17	44	100	60029-27-6
M 24 / 19	44	100	60029-28-6
M 30 / 22	44	100	60029-29-6
M 33 / 24	44	100	60029-30-6
M 36 / 27	44	100	60029-31-6
M 42 / 32	44	100	60029-32-6

spindle guided box spanners ensure:

- Exact torques
- Reduce vibration
- Reduced noise
- Reduced wear



Protection caps

For Type	Order No.
RRI 30 40 50	A T AT 60027-76-6
RRI 60	A T AT 60027-77-6
RRI 70	A T AT 60027-78-6
RRI 90	A T 60027-79-6
RRI 100	A T 60027-80-6
RRI 130	A T 60027-80-6
RRI 150	A T 60027-80-6
RRI 180	A T 60027-85-6

Quick change chuck with spindle guide

Drive 3/8" Drift 1/4"	937 64 05
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Swivel joint

Swivel joint	600 016 06
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Impulse wrench oil

1 Litre	0950 05 50
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Programmable battery screw driver Battery angle screw driver



- Torque range
 - Pistole type: 0,8 – 14,0 Nm
 - Angle type: 0,7 – 60,0 Nm
- Brushless motor
- Programmable via USB
- Programmable parameters:
 - time / speed / angle / electricity
- IO/NIO-evaluation
- Multiple step proceedings
- OLED display for worker information
- Automatic softstart
- Electrical motor brake
- Auto battery shutoff
- Li-Ion battery 14,4V
- Integrated battery management
- Supplied with protection cap

[Ask our specialists for advice](#)

Battery shut off screwdrivers Prog-2

Pistol | angle | programmable

Brushless | 2 – 60 Nm



BFL

- Programmable via USB
- Programmable parameters
time | speed | angle | electricity
- Preset target performance comparison
- IO / NIO-evaluation
- Optional barcode reader to assign values to workpieces
- Optional radio unit to transmit values
- Direction control
- Integrated Battery management
- LED front light
- OLED display for worker information
- Integrated screw counter
- * Different adaptors available:
inner hexagon form C1/4 "
inner hexagon form E 1/4 "
square drive 1/4 "

Technical data

Type		BFL 407 Prog-2	BFL 417 Prog-2	BFL 301 Prog-2	BFL 402 Prog-2
Order No.		29809-47-8	29809-48-8	29809-49-8	29809-50-8
Design		angle	angle	angle	angle
Switch-off		yes	yes	yes	yes
Brushless		yes	yes	ja	ja
Torque range	Nm	2.0 – 8.0	8.0 – 18.0	16.0 – 30.0	25,0 – 40.0
Drive square		3/8 "	3/8 "	3/8 "	3/8 "
Dimensions length x width x height	mm	385 x 72 x 92	385 x 72 x 92	430 x 72 x 92	430 x 72 x 92
Weight without battery	kg	1.23	1.23	1.47	1.52
Weight with battery	kg	1.73	1.73	1.97	2.02

Power and free speed at 6 bar operating pressure.

Type		BFL 602 Prog-2	BFT 091 Prog-2	BFT 140 Prog-2
Order No.		29809-51-8	29809-52-8	29809-53-8
Design		angle	pistol	pistol
Switch-off		yes	yes	yes
Brushless		yes	yes	yes
Torque range	Nm	30,0 – 60,0	1,5 – 9,0	3,0 – 14,0
Drive square		3/8 "	1/4 " Form E	1/4 " Form E
Dimensions length x width x height	mm	430 x 72 x 92	190 x 57 x 250	190 x 57 x 250
Weight without battery	kg	1.72	1.02	1.02
Weight with battery	kg	2.22	1.52	1.52

Power and free speed at 6 bar operating pressure.

Accessories

Replacement battery (Li-Ion 14.4V, 3.0VH)	29808-86-8
Quick charger (reloads in 22 minutes)	29808-87-8
Adjusting tool (for all BFL models)	29808-88-8

Battery angle shut-off screwdriver BFL

Brushless | 0.7 – 60 Nm

- Automatic softstart
- Brushless motor:
 - automatic shut off on pre-set torque
- Electric motor brake
- clockwise / counterclockwise direction change with sliding switch
- Anti slip grip surface
- Torque scale for easy torque adjustment
- IO / NIO assesment
- Li-Ion 14.4 / 3.0 Ah
- * Different adaptors available:
 - inner hexagon form C 1/4 "
 - inner hexagon form E 1/4 "
 - square drive 1/4 "



BFL

Technical data

Type		BFL 035 *	BFL 201 *	BFL 301 *	BFL 402
Order No.		29809-77-8	29809-78-8	29809-79-8	29809-80-8
Design		angle	angle	angle	angle
Switch-off		yes	yes	yes	yes
Brushless		yes	yes	yes	yes
Torque range	Nm	0.7 – 3.0	8.0 – 20.0	16.0 – 30.0	25.0 – 40.0
Free speed	rpm	600	320	210	175
Drive square		3/8 "	3/8 "	3/8 "	3/8 "
Dimensions length x width x height	mm	385 x 72 x 92	385 x 72 x 92	430 x 72 x 92	430 x 72 x 92
Weight without battery	kg	1.20	1.20	1.50	1.50
Weight with battery	kg	1.70	1.70	2.0	2.0

Power and free speed at 6 bar operating pressure.

Type		BFL 407 *	BFL 417 *	BFL 602
Order No.		29809-81-8	29809-82-8	29809-83-8
Design		angle	angle	angle
Switch-off		yes	yes	yes
Brushless		yes	yes	yes
Torque range	Nm	2.0 – 8.0	5.0 – 16.0	30.0 – 60.0
Free speed	rpm	115	800	480
Drive square		3/8 "	3/8 "	3/8 "
Dimensions length x width x height	mm	385 x 72 x 92	385 x 72 x 92	430 x 72 x 92
Weight without battery	kg	1.20	1.20	1.70
Weight with battery	kg	1.70	1.70	2.20

Power and free speed at 6 bar operating pressure.

Accessories

Replacement battery (Li-Ion 14.4V, 3.0VH)	29808-86-8
Quick charger (reloads in 22 minutes)	29808-87-8
Adjusting tool (for all BFL models)	29808-88-8



MANNESMANN DEMAG screwdrivers are suitable for all fields of application, both for individual jobs and for series production. Constant product improvements have led to the high standard of quality of present-day rotary screwdrivers: with automatic cut-off and friction clutch, in straight, angle or pistol grip versions.

- Very high switch-off accuracy, due to the automatic clutch, with variations of 5% of the rated value under ideal conditions
- Quick-change chuck
- Quick and easy torque adjustment from the outside
- Low noise and vibration values
- Push start for straight screwdrivers
- Ergonomically designed handle for operator-friendly use and safe operation without fatigue
- No oil required
- With automatic shut-off screwdrivers with full torque range in reverse direction for screw opening capability
- Cost-saving and easy to service due to long-life motors and clutches
- Dry running motors

- Easy torque setting
- Ergonomic handle
- Variable use, but mainly for self cutting screws
- Comfortable reverse button

Screwdrivers

Pistol grip and straight design

With slip clutch

1.5 – 10.0 Nm

With lever start on request



A 8-450 URPS



A 8-500 URS

Technical data

Type		A 6-900 URPS	A 8-450 URPS	A 6-1 000 URS	A 8-500 URS
Order No.		60011-39-6	60008-42-6	60011-40-6	60011-49-6
Start		pressure start	pressure start	push start	push start
Free speed	rpm	900	450	1 000	500
For screws up to		M 6	M 8	M 6	M 8
Reversible		yes	yes	yes	yes
Drive		F 1/4"	F 1/4"	F 1/4"	F 1/4"
Torque range	Nm	1.5 – 8.0	1.5 – 10.0	1.5 – 8.0	1.5 – 10.0
Noise level	dB(A)	78	78	77	77
Air consumption	l / sec	9.0	9.0	9.0	9.0
Weight without hose	kg	0.98	0.98	0.82	0.82
Ø machine	mm	36	36	40	40
Machine length	mm	224	224	226	226
Hose I. D.	mm	8	8	8	8
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Accessories supplied					wrench, support

Power and free speed at 6 bar operating pressure.

Torque springs

A6-900 URPS	white, Ø 2.5 mm, 1.5 – 6.0 Nm, installed red, Ø 3.5 mm, 4 – 8 Nm, included
A6-1000 URS	white, Ø 2.5 mm, 1.5 – 6.0 Nm, installed Farbe Rot, Ø 3.5 mm, 4 – 8 Nm, included
A8-450 URPS	white, Ø 2.5 mm, 1.5 – 6.5 Nm, installed red, Ø 3.5 mm, 3.5 – 10.0 Nm, included
A8-500 URS	white, Ø 2.5 mm, 1.5 – 6.5 Nm, installed red, Ø 3.5 mm, 3.5 – 10.0 Nm, included

Screwdrivers

Straight design with automatic clutch

0.4 – 5.0 Nm

- Reverse push button
- Quick change coupling
- Easy external torque setting
- Ergonomic anti-slip softgrip
- Non-lubricated use applicable



1



2

Technical data

Type	A 4-902 UAS	A 4-902 UAS H	A 4-552 UAS	A 4-552 UAS H	
Order No.	29949-18-6	60010-91-6	60008-24-6	60001-17-6	
Illustration	1	2	1	2	
Start	push start	lever start	push start	lever start	
Free speed	rpm	950	950	650	650
For screws up to	M 4	M 4	M 4	M 4	
Reversible	yes	yes	yes	yes	
Drive	F 1/4"	F 1/4"	F 1/4"	F 1/4"	
Torque range	Nm	0.4 – 4.5	0.4 – 4.5	0.4 – 5.0	0.4 – 5.0
Noise level	dB(A)	73	73	73	73
Air consumption	l/ sec	5.5	5.5	5.5	5.5
Weight without hose	kg	0,59	0,60	0,59	0,60
Ø machine	mm	38	38	38	38
Machine length	mm	230	228	230	228
Hose I. D.	mm	6	6	6	6
Connection	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	
Accessories supplied	wrench, support				

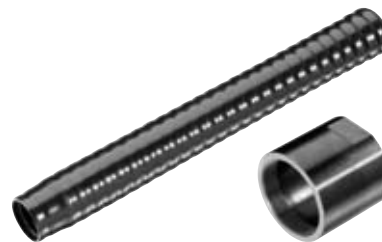
Power and free speed at 6 bar operating pressure.

Torque springs

A4-902 UAS	Grey, Ø 3.2 mm, 0.8 – 4.5 Nm, installed
A4-902 UAS H	Black, Ø 2.2 mm, 0.4 – 1.3 Nm, included
A4-552 UAS	Grey, Ø 3.2 mm, 0.8 – 5.0 Nm, installed
A4-552 UAS H	Black, Ø 2.2 mm, 0.4 – 1.3 Nm, included

Accessories

Exhaust hose for model A4	29501-35-6
Cylindric housing for use with tool support	600 091 96



Straight design with automatic clutch

0.4 – 12.0 Nm



1

Technical data

Type		A 5-1350 UAS	A 6-1000 UAS	A 8-850 UAS	A 8-400 UAS
Order No.		60014-83-6	60014-82-6	60014-84-6	60014-81-6
Illustration		1	1	1	1
Start		push start	push start	push start	push start
Free speed	rpm	1 350	1 000	850	400
For screws up to		M 5	M 6	M 6	M 8
Reversible		yes	yes	yes	yes
Drive		F 1/4"	F 1/4"	F 1/4"	F 1/4"
Torque range	Nm	0.4 – 5.0	3.5 – 8.0	3.5 – 9.5	3.5 – 12.0
Noise level	dB(A)	75	75	75	75
Air consumption	l/sec	6	6	6	6
Weight without hose	kg	0.80	0.90	0.90	0.90
Ø machine	mm	40	40	40	40
Machine length	mm	235	255	255	255
Hose I. D.	mm	8	8	8	8
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Accessories supplied					wrench, support

Power and free speed at 6 bar operating pressure.

Torque springs

A5-1350 UAS	Grey, Ø 3.2 mm, 1.0 – 5.0 Nm, installed Black, Ø 2.2 mm, 0.4 – 1.3 Nm, included
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Accessories

Exhaust hose for model A5 – A8	60020-94-6
Cylindric housing for model A5 for use with tool support	60009-19-6
Cylindric housing for model A6,8 for use with tool support	60026-88-6
Handle for model A6,8	60028-78-6



Screwdrivers

Pistol grip with automatic clutch

0.4 – 24.0 Nm



A 5-653 UAPS

- Automatic shut-off
- Quick-change chuck
- Automatic start with button
- Low noise level thanks to integrated silencing
- Ergonomic handle
- Trigger start
- Non-lubricated
- Hand grip in middle position available

Technical data

Type		A 5-653 UAPS	A 5-1300 UAPS	A 6-1000 UAPS	A 8-400 UAPS	A10-450 UAPS
Order No.		60008-21-6	60010-80-6	60010-79-6	60010-81-6	29501-23-6
Start		trigger start	trigger start	trigger start	trigger start	trigger start
Free start	rpm	650	1300	1000	400	450
For screws up to		M 5	M 5	M 6	M 8	M 10
Reversible		yes	yes	yes	yes	yes
Drive		F 1/4"	F 1/4"	F 1/4"	F 1/4"	F 1/4"
Torque range	Nm	0.6 – 5.0	0.4 – 5.0	3.5 – 8.0	3.5 – 12.0	7.0 – 24.0
Noise level	dB(A)	71	73	73	73	77
Air consumption	l/sec	6.0	7.0	7.0	7.0	10.0
Weight without hose	kg	0.72	0.87	0.97	0.97	1.75
Ø machine	mm	37	38	38	38	46
Machine length	mm	209	190	210	210	265
Hose I.D.	mm	6	6	6	6	6
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Accessories supplied		wrenches for setting the torque				

Power and free speed at 6 bar operating pressure.

Torque springs

A 5-653 UAPS	Grey, Ø 3.2 mm, 0.8 – 5.0 Nm, installed Black, Ø 2.2 mm, 0.4 – 1.2 Nm, included
A 5-1300 UAPS	Grey, Ø 3.2 mm, 1.0 – 5.0 Nm, installed Black, Ø 1.2 mm, 0.4 – 1.3 Nm, included



A 8-400 UAPS



A 10-450 UAPS

- Easy and quick setting of the torque on the outside
- Reversible
- Small design of the angle heads
- Rugged, tried and tested design
- Long lifetime
- Low noise level
- High repeating accuracy
- Signal tone at the end of the cycle
- Even torque with hard and soft connections
- Non-lubricated



AW 4-950 UA



AW 10-352 UA

Technical data

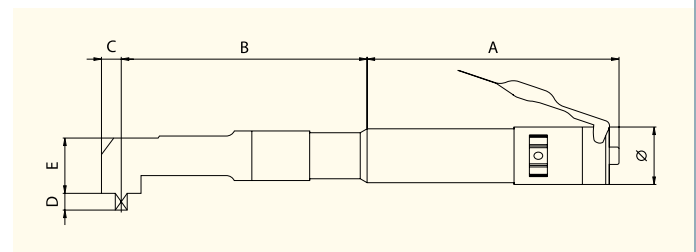
Type		AW 4-950 UA	AW 4-650 UA	AW 8-602 UA	AW 10-352 UA	AW 10-400 UA	AW 12-301 UA
Order No.		60010-96-6	60010-95-6	29939-31-6	29939-35-6	29900-34-6	29900-35-6
Start		lever start	lever start	lever start	lever start	lever start	lever start
Free start	rpm	950	650	600	350	400	300
For screws up to		M 4	M 4	M 8	M 10	M 10	M 12
Reversible		yes	yes	yes	yes	yes	yes
Drive		1/4"	1/4"	3/8"	3/8"	3/8"	1/2"
Torque range	Nm	0.8 – 4.0	0.8 – 5.0	3.0 – 14.0	11.5 – 26.0	18.0 – 40.0	29.0 – 60.0
Noise level	dB(A)	73	73	77	77	77	77
Air consumption	l/sec	5.5	5.5	10	10	13	13
Weight without hose	kg	0.70	0.70	1.40	1.45	2.05	2.30
Ø machine	mm	32	32	40	40	40	40
Machine length	mm	276	276	334	331	419	438
Hose l. D.	mm	5	5	8	8	10	10
Connection		G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i	G 1/4" i
Accessories supplied		wrenches for setting the torque					

Power and free speed at 6 bar operating pressure.

Types AW 4-950 UA, AW 4-650 UA and AW 10-352 UA with allen screw C 6.3 – 1/4" allen screw available.

Dimensions | mm

Type	Ø × L	A	B	C	D	E
AW 4-...	32 × 276	157	109	100	8.5	20.0
AW 8-602 UA	40 × 334	195	125	140	12.0	34.5
AW 10-352 UA	40 × 331	180	137	140	12.0	34.5
AW 10-400 UA	40 × 419	240	163	160	16.0	40.0
AW 12-301 UA	40 × 438	240	178	200	16.5	45.5



Suspension device

AW 8-602 UA, AW 10-352 UA	29946-57-6
AW 10-400 UA, AW 12-301 UA	29946-66-6



Ratchet screwdrivers

Compact design, 6 – 120 Nm

- Small design for the use in difficult to access areas
- Isolating soft grip
- Reversible for clockwise and anti-clockwise rotation
- MDR 2100 with speed regulation
- Exhaust air outlet and thread connection with 360° rotation capacity



MDR 2100



MDR 2101

Technical data

Type		MDR 2100	MDR 2101	MDR 2102	MDR 2103
Order No.		82400-10-2	82400-20-2	82400-30-2	82400-40-2
Driv. square end		1/4"	3/8"	1/2"	1/2"
Free speed	rpm	220	180	180	180
For screws up to		M 10	M 10	M 10	M 10
Working torque	Nm	6 – 33	13 – 120	13 – 120	13 – 120
Torque max.	Nm	55	160	160	160
Noise level	dB(A)	82	84	84	84
Air consumption	l/sec	4.7	10.8	10.8	10.8
Weight	kg	0.6	1.3	1.3	1.3
Length (total)	mm	200	270	270	270
Hose I.D.	mm	8 (5/16")	10 (3/8")	10 (3/8")	10 (3/8")
Connection		NPT 1/4"	NPT 1/4"	NPT 1/4"	NPT 1/4"
Vibration	m/s ²	3.5	3.3	3.7	3.7

Power and free speed at 6 bar operating pressure.



MDR 2102



MDR 2103

- For tightening and loosening screw connections
- Reliable, robust, for tough applications
- Rugged design
- Long lifetime
- Adjustment of sledges in machine tools
- Reversible by simply using the upper (clockwise) or lower (anti-clockwise) hexagon



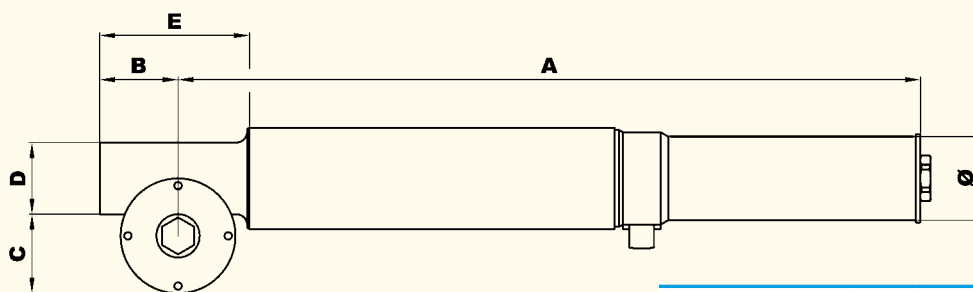
MS 50-45

Technical data

Type		MS 50-45	MS 90-125
Order No.		29501-58-6	29946-56-6
Valve		push button	push button
Free speed	rpm	450	125
For screws up to		M 10	M 12
Torque range max.	Nm	50	90
Driv. square end	mm	F 12	F 12
Length	mm	373	373
Smallest axle distance	mm	34	34
Air consumption	l/sec	13	13
Weight	kg	2.20	2.35
Noise level	dB(A)	77	77
Hose I. D.	mm	10	10
Connection	G	1/4" i	1/4" i

Power and free speed at 6 bar operating pressure. Compressed air quality: oiled.

Dimensions



Dimensions (mm)	Ø	A	B	C	D	E
MS	38	337.3	35.6	35.9	32.6	68

Accessories

Connector, hexagon 12 mm, square 1/2"	29501-54-3
--	------------

Built-in screwdrivers

With automatic switch-off

Clockwise



MCSE

- For use in one or multi spindle linear screw units or automatic assembly lines
- Low noise level
- Push start version upon request
- Tightening control via air pressure signal possible
- Highest reliability
- Rotation clockwise
- Non-lubricated
- Also reversible with quick change chuck and telescope front end

Technical data

Type		MCZE 4A	MCZE 5A	MCSE 8A	MCSE 10A	MCY 11A
Order No.		29946-58-6	29946-59-6	29946-60-6	29946-61-6	29946-62-6
Start		direct start	direct start	direct start	direct start	direct start
Free speed	rpm	900	550	1 000	500	550
Drive		F 1/4"	F 1/4"	F 1/4"	F 1/4"	F 1/4"
Torque range	Nm	0.6 – 3.8	0.6 – 5.0	2.5 – 8.0	2.5 – 10.0	7.0 – 24.0
Noise level	dB(A)	72	72	77	77	76
Air consumption	l/sec	7	7	9	9	10
Weight without hose	kg	0.70	0.70	0.98	0.98	1.50
Hose I. D.	mm	6	6	8	8	8
Connection		G 1/8" i	G 1/8" i	G 1/4" i	G 1/4" i	G 1/4" i
Accessories supplied						wrenches for setting the torque

Power and free speed at 6 bar operating pressure. Compressed air quality: oiled.

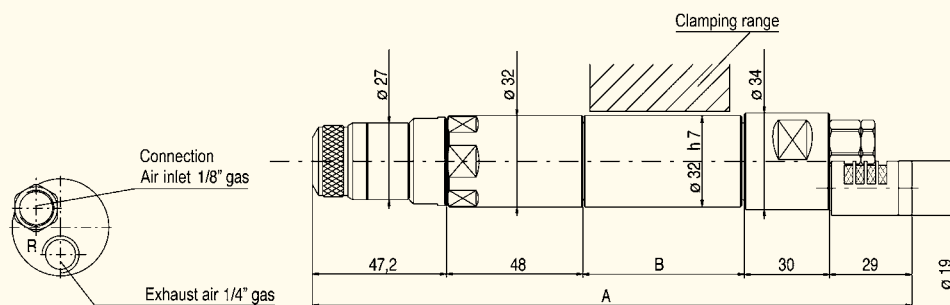
Torque springs

15 MC 4A	grey, 0.8 – 4.0 Nm, installed black, 0.4 – 1.2 Nm, included
15 MC 5A	grey, 0.8 – 5.0 Nm, installed black, 0.4 – 1.2 Nm, included

MCSE 8A	blue, 2.5 – 8.0 Nm, installed
MCSE 10A	neutral, 2.5 – 10.0 Nm, installed
MCY 11A	violet, 7.0 – 24.0 Nm, installed

Dimensions of models 15 MC (mm)

Dimensions (mm)	A	B
MCZE	251.6	70



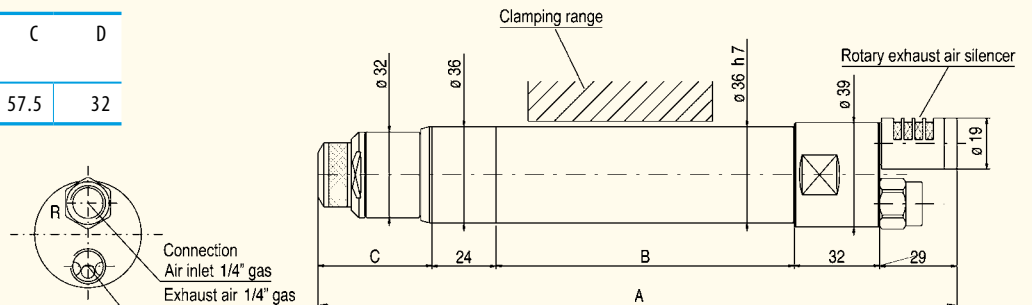
Compressed air fitted screwdrivers

With automatic switch-off

Clockwise

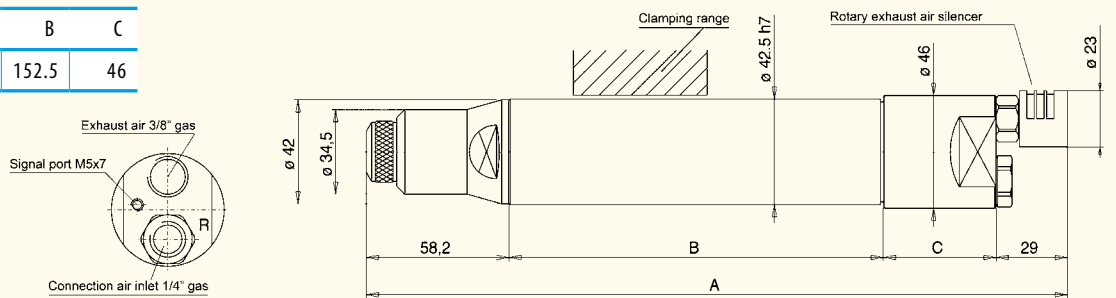
Dimensions of models MCSE (mm)

Dimensions (mm)	A	B	C	D
MCSE	266	111.5	57.5	32

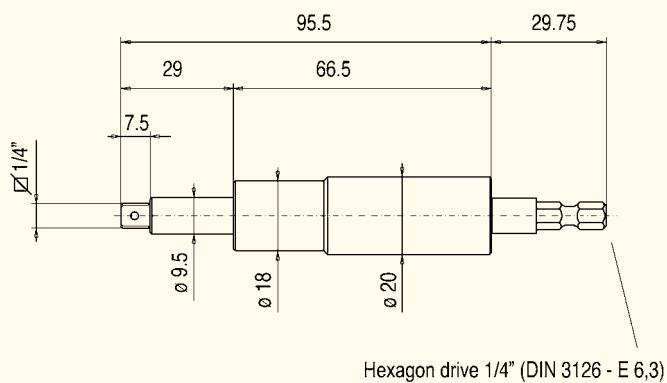


Dimensions of models MCY (mm)

Prop. (mm)	A	B	C
MCY	315.5	152.5	46



Telescope front end | 1/4" (square)



Telescope front ends make easier to arrange the screws and reduce the axial load on the mechanical parts of the motor. Whenever several screws shall be tightened simultaneously the telescope front end compensates the start height differences between the screws. A built-in guiding sleeve ensures a permanent alignment of the telescope front end. The telescope front end is combined with the components named above. A specific adaptor must be attached if required. The spring tension force of the telescope front end in the final position will be approx. 3.5 kg.

Brushless electrical screwdrivers

Straight version, with shut off clutch

32V



CESL

- High torque accuracy $\pm 5\%$
- ESD-design as standard
- Low maintenance
- Exact torque control
- Infinitely adjustable torque adjustment
- Optional: locking through protection cap
- Ergonomic housing (soft grip)
- All models with CE-certificate and conform to RoHS
- Energy saving

Technical data

Type		CESL 623 ESD	CESL 623 P ESD	CESL 624 ESD	CESL 624 P ESD
Order No.		29947-86-6	29947-87-6	29947-88-6	29947-89-6
Start		lever start	push start	lever start	push start
Free speed	rpm	1 000 / 650	1 000 / 650	1 000 / 650	1 000 / 650
For screw size up to		M 3	M 3	M 4	M 4
Reversible		yes	yes	yes	yes
Drive DIN 3126		F 1/4"	F 1/4"	F 1/4"	F 1/4"
Torque range hard joint	Nm	0.15 – 1.18	0.15 – 1.18	0.29 – 1.86	0.29 – 1.86
Weight	kg	0.52	0.52	0.52	0.52
Ø machine	mm	36	36	36	36
Machine length	mm	245	245	245	245
Electrical supply	V/DC	32	32	32	32
Accessories supplied		protection cap, electric cable 2 m			

Control unit

Technical data

Type		BECT 626 E SSO	BECT 620 CE
Order No.		29947-90-6	29947-91-6
Input voltage	V/AC	100 – 240	100 – 240
Input voltage	Hz	50 / 60	50 / 60
Output voltage	DC	32	32
Weight	kg	0.90	0.25
Dimensions	mm	150 × 130 × 48	145 × 60 × 35
Cable length	m	2.0	1.5
Speed high / low		yes	yes
Soft start		yes	no
Interface		yes	no
Error indicator		yes	no
Compliance		CE / RoHS / ETL	CE / RoHS / ETL



BECT 620 CE

Accessories

Cylindrical sleeve for use with tool arm	29948-03-6
--	------------

- High torque accuracy $\pm 5\%$
- ESD-design as standard
- Low maintenance
- Exact torque control
- Infinitely adjustable torque adjustment
- Optional: locking through protection cap
- Ergonomic housing (soft grip)
- All models with CE-certificate and conform to RoHS
- Energy saving

Brushless electrical screwdrivers

Straight version, with shut off clutch

40V



ESL

Technical data

Type		ESL 628 ESD	ESL 628 P ESD	ESL 629 ESD	ESL 629 P ESD
Order No.		29947-92-6	29947-93-6	29947-94-6	29947-95-6
Start		lever start	push start	lever start	push start
Free speed	rpm	1 000 / 650	1 000 / 650	1 000 / 650	1 000 / 650
For screw size up to		M 4	M 4	M 4	M 4
Reversible		ja	ja	ja	ja
Drive DIN 3126		F 1/4"	F 1/4"	F 1/4"	F 1/4"
Torque range hard joint	Nm	0.98 – 2.94	0.98 – 2.94	1.96 – 4.90	1.96 – 4.90
Weight	kg	0.80	0.80	0.80	0.80
Ømaschine	mm	39.5	39.5	39.5	39.5
Machine length	mm	278	278	278	278
Electrical supply	V/DC	40	40	40	40
Accessories supplied		protection cap, 1 additional handle, cable 2 m			

Type		ESL 630 M	ESL 630 PM	ESP 630	ESP 640
Order No.		29947-96-6	29947-97-6	29947-98-6	29947-99-6
Design		straight	straight	pistol	pistol
Start		lever start	push start	push button	push button
Free speed	rpm	800 / 600	800 / 600	800 / 600	550 / 410
For screw size up to		M 6	M 6	M 6	M 8
Reversible		yes	yes	yes	yes
Drive DIN 3126		F 1/4"	F 1/4"	F 1/4"	F 1/4"
Torque range hard joint	Nm	3.0 – 7.5	3.0 – 7.5	3.0 – 7.5	4 – 10
Weight	kg	1.20	1.20	1.25	1.25
Ømaschine	mm	46.2	46.2	48.0	48.0
Machine length	mm	297	297	270	270
Electrical supply	V/DC	40	40	40	40
Accessories supplied		1 additional handle, cable 2 m			

Suitable control unit and accessories see page 120.

Control unit for 40V screw driver

- Programmable parameter
- BECT 640 SSO | BECT 626 SSO
- Tool can be locked against programme changes
- Programmable time frame "min / max time"
- Programmable tightening numbers with acoustic signal "batch completed"
- Large LED display for tightening count



BECT 640 SSO

Technical data

Type		BECT 640 E SSO	BECT 640 HLE
Order No.		29948-00-6	29948-01-6
Input voltage	V/AC	100 – 240	100 – 240
Input voltage	Hz	50 / 60	50 / 60
Output voltage	DC	40	40
Weight	kg	2.5	1.8
Dimensions	mm	248 × 130 × 100	210 × 118 × 85
Cable length	m	2.0	2.0
Speed high / low		yes	yes
Soft start		yes	no
Interface		yes	no
Error indicator		yes	no
Compliance		CE / RoHs / ETL	CE / RoHs / ETL



Accessories for ESL 628 | 629

Cylindrical sleeve for use with tool arm	29948-02-6
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Insert tools

Outer hexagon 1/4" (DIN 3126)

Bits

Slotted

Thread	Bit width mm	Bit thickness mm	Length mm	Order No.
M 2	3.0	0.5	50	9 376 112
M 2.5	4.0	0.5	50	9 376 114
M 2.6	4.5	0.6	50	9 376 115
M 3	5.0	0.8	50	9 376 116
M 4	6.0	1.0	50	9 376 118
M 4	7.0	1.0	50	9 376 119
M 5	8.0	1.2	50	9 376 120
M 6	9.0	1.6	50	9 376 121



Pozidriv | Philips

Thread	Wood screws	Size	Length mm	Pozidriv Order No.	Philips Order No.
M 2 – M 3	2.0 – 3.0	1	50	9 376 461	9 376 125
M 3.5 – M 5	3.5 – 5.0	2	50	9 376 462	9 376 126
M 6	5.5 – 7.0	3	50	9 376 463	9 376 127
M 8 – M 10	8.0	4	50	9 376 464	9 376 128



Hexagon (DIN 7426)

Thread	Bit width mm	Length mm	Order No.
M 3	2.5	50	9 376 129
M 4	3.0	50	9 376 130
M 5	4.0	50	9 376 131
M 6	5.0	50	9 376 132
M 8	6.0	50	9 376 133
M 10	8.0	50	9 376 134
M 12	10.0	50	9 376 135



Torx

Size S	Length L mm	Order No.
T 10	50	9 376 480
T 15	50	9 376 481
T 20	50	9 376 482
T 25	50	9 376 483
T 30	50	9 376 484
T 40	50	9 376 485

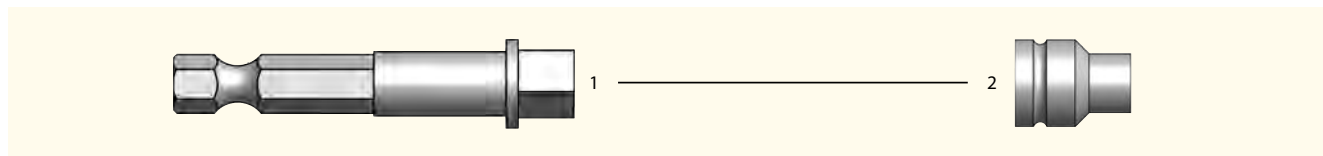
Bits also available in length
70, 76, 102, 127 and 152 mm.



Insert tools

Outer hexagon 1/4" (DIN 3126)

Socket and holder



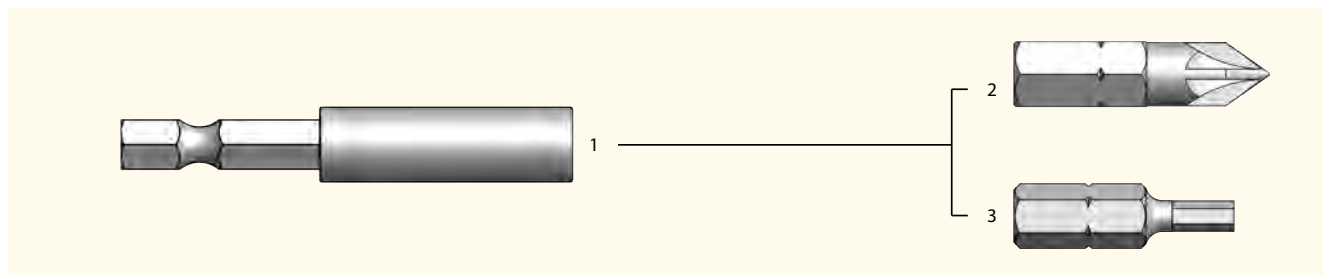
1 Holder for bits

Drive	Driven side	Length mm	Order No.
1/4"	1/4"	100	9 376 453
1/4"	1/4"	50	9 376 136
1/4"	3/8"	100	9 376 454
1/4"	3/8"	50	9 376 137

2 For holder with 1/4" square

Thread	Schlüsselweite mm	Length mm	Order No.
M 6	10.0	25	9 376 339
M 7	11.0	25	9 376 340
M 8	13.0	25	9 376 341

Holder with and without magnet, bits



1 Holder for bits

Driven side	Length mm	Order No.
1/4"	57	9 376 447
1/4"	75	* 9 376 448

* with permanent magnet

2 Pozidriv | Philips

Thread	Wood screws	Size	Length mm	Pozidriv Order No.	Philips Order No.
M 2.5 – M 3	2.0 – 3.0	1	25	9 376 396	9 376 109
M 3.5 – M 5	3.5 – 5.0	2	25	9 376 397	9 376 110
M 6	5.5 – 7.0	3	25	9 376 398	—

3 Hexagon

Thread	Bit width mm	Length mm	Order No.
M 4	3.0	25	9 376 141
M 5	4.0	25	9 376 142
M 6	5.0	25	9 376 143
M 8	6.0	25	9 376 144
M 10	8.0	25	9 376 145
M 12	10.0	25	9 376 146

- Tool stand can be rotated through 360°
- Linear ball bearings for easy running
- No torque is transferred back into the worker's wrist
- Fast tool change



Parallel arm



Ergo-Linear

Technical data

Type		Ergo-Linear *	Parallel arm **	Parallel arm **
Order No.		60027-92-6	29946-69-6	60029-62-6
Height	mm	1 050	580	580
Vertical stroke max.	mm	670	450	550
Working radius min. – max.	mm	220 – 600	800	860
Torque range max.	Nm	25	25	25
Weight	kg	3	2	4
Bearing load spring balancer max.	kg	3	—	—
∅ tool holder	mm	25 – 40	26 – 55	26 – 55

* Ergo-Linear: air connection R 1/4", momentum clutch and nipple mounted.

** Parallel arm: weight compensation and adjustment through pneumatic cylinders and pressure reducer.

Screw feeding system

- For air driven hand held screw drivers to max. shaft diameter 12.0 mm
- Infinitely adjustable screw sorting
- Multifunctional by easy retooling
- Electronical screw control
- High screw delivery rate



SM 1002

Technical data

Type		SM 1002	SM 2002	SM 3002
Order No.		29501-29-6	29501-30-6	60010-94-6
Dimensions length x width x height	mm	315 x 200 x 240	400 x 300 x 325	500 x 420 x 425
Weight	kg	18	32	45
Voltage	V / Hz	220 / 50	220 / 50	220 / 50
Air supply	bar	6	6	6
Hose unit length	m	3	4	4

Range

Type		SM 1002	SM 2002	SM 3002
shaft diameter	mm	1.3 - 4.2	2.5 - 6.0	5.0 - 12.0
head diameter	mm	2.3 - 8.0	5.0 - 13.0	8.0 - 18.0
Max. length	mm	25	55	55

Please note:

For all requests please send screw and work-piece samples to us. All models of our air driven screw driver range can be mounted to the screw feeding system.

For further assistance, technical advice and service please call our sales engineers.

- Suitable for screw size 1.0 to 5.2 mm and max. thread length of 19 mm
- Retooling kit for use with different screw sizes included
- Alternative for screw feeding system
- Low maintenance
- Easy handling
- Multifunctional use
- DC 15V – 1,5 A
- Approx. 2 screws per second
- Handling of screw with washer or lock washer possible
- Adjustable bit guide ensures exact positioning



DRFF 520

Technical data

Type		DRFF 520
Order No.		60029-63-6
Screw diameter	mm	1.0 – 5.2
Thread legth	mm	19
Dimensions length × width × height	mm	125 × 183 × 142
Weight	kg	2.45
Accessories supplied		Line adaptor 220V 50 / 60 Hz

To ensure an optimized adjustment
we need 30 sample screws

Electronic dynamometric wrench

Perfect to measure tightenings



- Easy handling and precise torque control
- User friendly software
- Integrated gyroscope
- Torque and angle measurement
- With ongoing display or maximum value display
- Ideal for hydropulse wrench torque control
- Clockwise/ counterclockwise measurement
- Torque control with angle tracing
- Angle control with torque tracing
- Standard shaft for insert 9 × 12 or 14 × 8
- Data transfer to PC via RS 232

SCS easy

Technical data

Type		SCS easy 50	SCS easy 50 TA angle	SCS easy 100	SCS easy 100 TA angle
Order No.		29807-96-8	29807-97-8	29807-98-8	29807-99-8
Possible units		Nm, lbf, -in, lbf-ft, Kgm			
Power supply		4 rechargeable AA batteries for 40 hours continuous use without light			
Capacity	Nm	5 – 50	5 – 50	10 – 100	10 – 100
Adaptor	mm	9 × 12	9 × 12	9 × 12	9 × 12
Weight	kg	1.15	1.15	1.36	1.36
Length	mm	357	357	418	418
Data memory		900	900	900	900
Accessories supplied		carrying case			

Display deviation: ± 0,5 % between 20 to 100 %, 1 % between 10 % and 20 % of torque capacity, 1° display deviation of the angle. Torque calibration according to DAkks-DKD-R 3-7, angle calibration according to VDI / VDE 2648, Blatt 2.

Type		SCS easy 200	SCS easy 200 TA angle	SCS easy 350	SCS easy 350 TA angle
Order No.		29808-00-8	29808-01-8	29808-02-8	29808-03-8
Possible units		Nm, lbf, -in, lbf-ft, Kgm			
Power supply		4 rechargeable AA batteries for 40 hours continuous use without light			
Capacity	Nm	20 – 200	20 – 200	35 – 350	35 – 350
Adaptor	mm	14 × 18	14 × 18	14 × 18	14 × 18
Weight	kg	1.43	1.43	1.55	1.55
Length	mm	512	512	610	610
Data memory		900	900	900	900
Accessories supplied		carrying case			

Display deviation: ± 0,5 % between 20 to 100 %, 1 % between 10 % and 20 % of torque capacity, 1° display deviation of the angle. Torque calibration according to DAkks-DKD-R 3-7, angle calibration according to VDI / VDE 2648, Blatt 2.

The Multitool: quality control becomes easy, quick and efficient with the Data Touch³

- Your solution for tool and process control in all torque ranges with the possibility to mount different transducers
- Data memory storage (2 GB)
- 20 000 values – 20 000 curves – 1 000 parameter sets
- USB interface
- Optional data transfer via bluetooth
- Direct Cp / Cpk, Cm / Cmk analysis
- Touch screen and navigation buttons



Data Touch³

Technical highlights

- Touchscreen
- Displays curve of every measurement
- Tool test torque
- Tool test torque / angle
- Statistical assessment with trend control on display
- Automatic link-up with transducers

Order No. 29807-05-8

Accessories

Single battery charger	29808-46-8
Li-Ion Battery	050 111 74

Rotary torque transducer RMC

For dynamic torque measurement



- Handles impulse and ongoing torque
- Patented transmitting system for high precision
- Automatic transducer identification
- Fail safe
- Robust and compact design
- Suitable for Data Touch
- Display deviation 0,5 %

RMC

Technical data | Only torque

Type		RMC 5	RMC 10	RMC 20	RMC 20
Order No.		29807-42-8	29807-43-8	29807-44-8	29807-45-8
Torque range min. – max.	Nm	1 – 5	2 – 10	4 – 20	4 – 20
Hexagon drive		1/4"	—	1/4"	—
Square drive		—	1/4"	—	1/4"
Torque calibration acc. to DIN 51309					

Type		RMC 25	RMC 75	RMC 180	RMC 250
Order No.		29807-46-8	29807-47-8	29807-48-8	29807-49-8
Torque range min. – max.	Nm	5 – 25	15 – 75	36 – 180	50 – 250
Drive		3/8"	3/8"	1/2"	3/4"
Torque calibration acc. to DIN 51309					

Accessories

Cable for rotating torque transducer RMC	3 m	29501-03-6
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For static torque measurement

- Perfect for measurement of click- or torque wrenches
- Impulse and ongoing torque
- Patented transmitting system for high precision
- Automatic transducer identification
- Fail safe
- Robust and compact design
- Optional: assembly task simulator
- Suitable for Data Touch

Static torque transducer SMC



SMC

Technical data | Only torque

Type		SMC 10	SMC 20	SMC 50	SMC 100	SMC 250	SMC 500
Order No.		29807-51-8	29807-02-8	29807-03-8	29807-54-8	29807-55-8	29807-56-8
Torque range min. – max.	Nm	2 – 10	4 – 20	10 – 50	20 – 100	50 – 250	100 – 500
Drive		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Torque calibration acc. to DIN 51309							

Accessories

Cable for rotating torque transducer SMC	3 m	29807-60-8
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- For testing click wrenches and repeatability precision of impulse wrenches

Assembly task simulator

Technical data

Type		ISM 10 SD	ISM 50 SD	ISM 100 SD	ISM 250 SD	ISM 500 SD
Order No.		29807-77-8	29807-78-8	29807-79-8	29807-80-8	29807-83-8
Torque range min. – max.	Nm	10	50	100	250	500
Drive		1/4"	1/2"	1/2"	1/2"	3/4"
Please state joint hardness with your order						

Torque control device

For screw driver adjustment of air and electric screw drivers

- LCD-Display:
Mode of measurement, unit, value
max. / min. / average
- Data output via USB interface
- Automatic zero-point calibration B-Type
- Simple and quick value display



DRBT 100

Technical data

Type	DRBT 100	
Order No.	29807-19-8	
Adjustable units	Nm to kgf-cm or lbf-in	
Power source	rechargeable Ni-Cd batteries for approx. 30 working hours	
Torque range	0,15 – 10 Nm	
Dimensions length × width × height	mm	230 × 123 × 65
Weight	kg	2
Accessories	AC / DC-Adaptor Input AC 220 – 240 V Output DC 7,2 V / 120 mA Aluminium case Certificate Simulators	