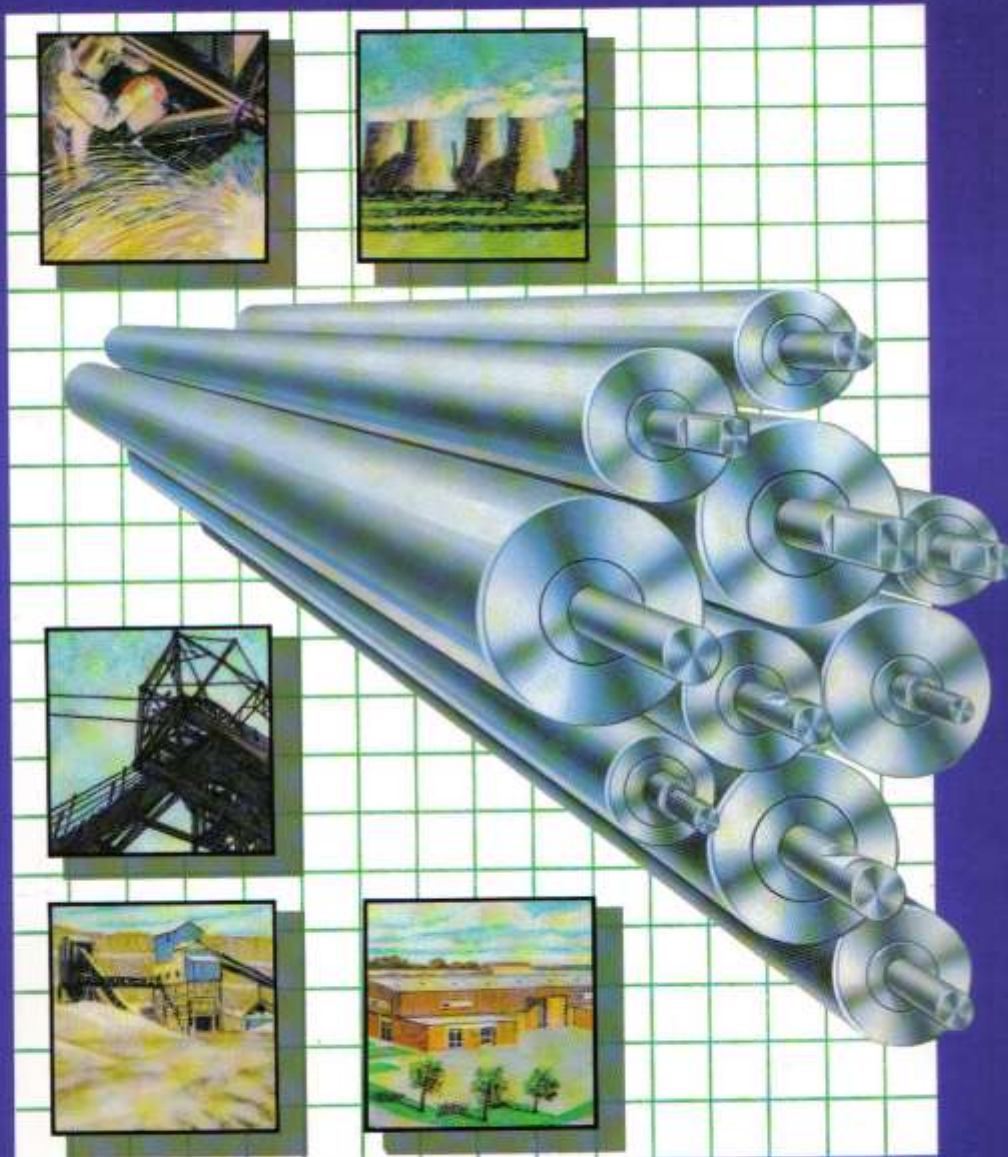


WESTWOOD DAWES

ROLLERS FOR INDUSTRY SERIES 25 & 35



SERIES 25 & 35 ROLLERS with internal ball bearings



- 25 or 35mm shafts and bearings.
- 7 roller diameters from 3" to 6⁵/₈" (76 to 168mm).
- Rollers supplied to any face width.
- Standard shaft extension ends or custom-made to suit specific installation.
- Precision bearings for continuous running, grease packed and sealed-for-life.
- Accurate running with low frictional drag.

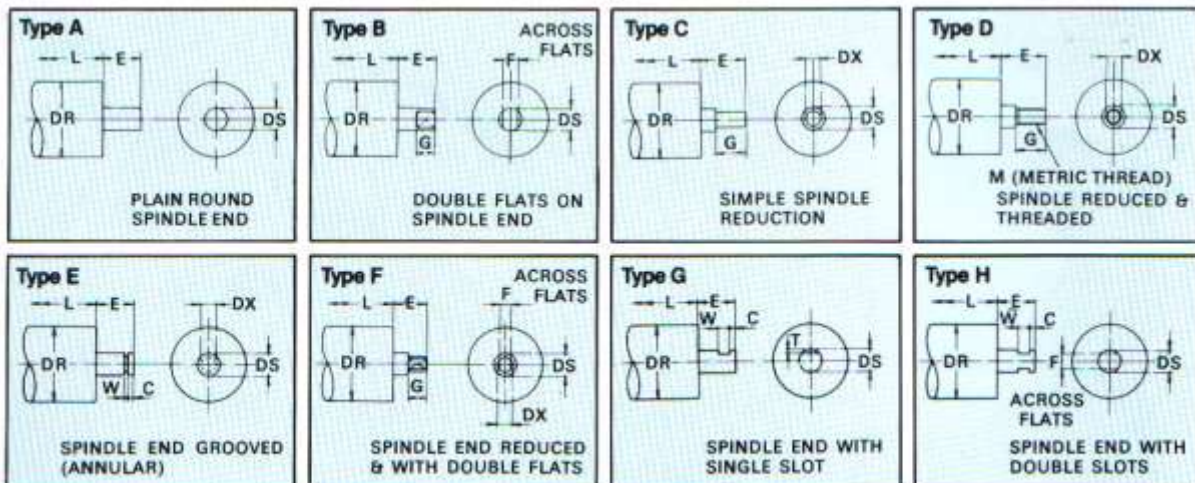
There is no compromise in the design to produce the best roller available for long life under arduous conditions. There may be cheaper rollers, but they will not match the Westwood Dawes Series 25 and 35 for sheer Value Engineering.

25 and 35 series rollers with internal ball bearings are illustrated on pages 3 and 5 with the range of tube diameters, gauges and related technical data.

Alternative Shaft End Details

Shaft ends normally have Double Flats with dimensions to ISO 1537. Alternatively Shaft Ends can be machined to your exact requirements. Several useful types are shown below.

A similar range is shown on page 6 for live shaft rollers, to be used with external bearings such as the Plummer Blocks shown.



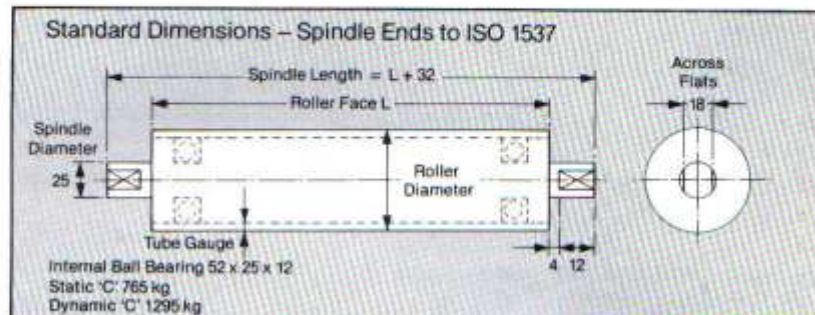
Note: For 25 series rollers DS = 25mm and for 35 series DS = 35mm.

SERIES 25 ROLLERS

Dimensions & Technical Data STANDARD STEEL TUBULAR TYPE

– with standard shaft in ISO 1537.
See page 2 for alternative shaft end types.

The bearing assembly arrangement is similar to that illustrated on page 2, as widely used in Westwood Dawes' range of belt conveyor idlers.



Roller Diameter (D) Tube Gauge (nom) Roller Reference	MEDIUM DUTY						MEDIUM/HEAVY DUTY			
	3" (76mm) 2.64mm 3025	4" (102mm) 2.95mm 4025	5" (127mm) 3.25mm 5025	3 1/2" (89mm) 6.35mm 3525	4 1/2" (114mm) 6.35mm 4525					
L mm	Cap. †	Wt. *	Cap. †	Wt. *	Cap. †	Wt. *	Cap. †	Wt. *	Cap. †	Wt. *
150	480	2.06	720	2.56	960	3.12	1370	3.34	1850	4.07
200	470	2.50	700	3.11	940	3.81	1350	4.18	1820	5.11
250	460	2.93	690	3.66	930	4.50	1320	5.02	1800	6.14
300	450	3.36	680	4.21	900	5.19	1300	5.86	1760	7.18
350	440	3.79	670	4.76	880	5.88	1270	6.69	1720	8.22
400	430	4.22	650	5.31	860	6.56	1240	7.53	1680	9.25
500	410	5.09	625	6.42	830	7.94	1190	9.21	1600	11.33
600	400	5.95	600	7.52	790	9.32	1140	10.88	1540	12.65
800	360	7.67	540	9.72	710	12.07	1030	14.23	1400	17.54
1000	330	9.40	480	11.92	630	14.82	920	17.58	1250	21.69
1200	290	11.13	420	14.12	550	17.57	810	20.93	1100	25.84
1400	250	12.85	360	16.32	480	20.32	710	24.28	960	29.93
1600	230	14.58	320	18.53	420	23.08	630	27.68	850	34.13

† Roller capacity in kg is the maximum uniformly distributed load permissible. Point loading installations should be checked with the Technical Department of Westwood Dawes.
* Weight of roller in kg includes shaft to ISO 1537.

Roller face width: Rollers can be made to any face width – dimension L, but the above nominal lengths are suggested.

Straightness: Maximum variation 1:600 of L.

Concentricity: Within 0.5mm on Medium duty rollers; within 1.0mm on Medium/Heavy duty rollers.

Machining: Medium/Heavy duty rollers can be machined on face to within 0.4mm TIR, with finished dimensions:–

Type 3525 86mm diameter x 4.9mm wall
Type 4525 110mm diameter x 4.2mm wall

How to specify 25 Series Rollers

Examples:

20 Rollers Type 4025 = 500

Standard shaft ends.

Or (say)

30 Rollers Type 4025 L = 500

Type G shaft ends (refer page 2)

E = 50, W = 10, C = 15, T = 6mm

or supply drawing showing exact dimensions required.

All fitted with 25 Series ball bearing assembly as illustrated on Page 2.

Alternative Roller Body Materials – 25 Series



Designed for loading points of Belt Conveyors, but suitable for direct loading of heavy objects also. Specify the full nature of load to ensure suitable rubber grade. Stock rubber mouldings are general purpose or fire resistant grades in several diameters.

Impact Absorbing



The individual rubber discs as used for Impact Rollers can be spaced on the tube at any pitch. Suitable for roller conveyors handling sheets, boards, laminates, glass etc., or where material surface is uneven. Discs can also be fitted to Live Shaft Rollers. NYLON discs also available.

Rubber Disc



Higher abrasion resistance and improved corrosion resistance compared with the standard steel tubular type. Heat resistant, even up to 500°C with suitable lubricants. A range of stock sizes with 7mm wall thickness is available in 5" diameter.

Cast Iron



Moulded with 7mm tough Polyurethane outer skin with high density foam interior at 1/3 weight of steel. Highly resistant to most acids and alkalis and good abrasion resistance. Also non-marking and quiet running.

Polyurethane



End flanges can retain or guide materials during conveying. Flange diameters to suit most applications, can be fitted to series 25, 35 or live shaft rollers.

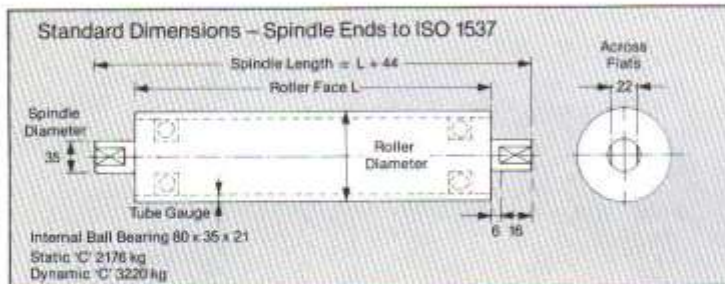
Flanged Steel



Rollers can be covered with plain or pattern finish rubber to various thicknesses and grades e.g. natural rubber, fire resistant neoprene, food quality white rubber, oil resistant nitrile etc. Other polymeric coverings include nylon, PVC and Polyurethane.

Rubber Covered

SERIES 35 ROLLERS



Dimensions & Technical Data STANDARD STEEL TUBULAR TYPE

– with standard shaft to ISO 1537.
 See page 2 for alternative shaft end types.

Roller Diameter (D) Tube Gauge (nom) Roller Reference	HEAVY DUTY				SUPER DUTY					
	5" (127mm)		6 5/8" (168mm)		4 1/2" (114mm)		5 1/2" (140mm)		6 5/8" (168mm)	
	4.06mm		4.47mm		6.35mm		6.35mm		7.94mm	
	5035		65635/H		4535		5535		65635/S	
L mm	Cap. †	Wt. *	Cap. †	Wt. *	Cap. †	Wt. *	Cap. †	Wt. *	Cap. †	Wt. *
250	1400	7.80	3080	9.83	1520	8.80	2540	10.11	3280	13.14
300	1380	8.77	3000	11.09	1500	10.00	2500	11.51	3200	15.07
350	1360	9.75	2960	12.35	1480	11.21	2440	12.91	3160	17.00
400	1340	10.72	2900	13.61	1440	12.41	2400	14.32	3100	18.91
500	1300	12.67	2790	16.14	1400	14.82	2300	17.12	2980	22.76
600	1240	14.62	2660	18.66	1340	17.22	2200	19.92	2860	26.60
800	1140	18.51	2400	23.70	1220	22.04	2000	25.53	2620	34.29
1000	1040	22.41	2180	28.74	1120	26.85	1800	31.11	2380	41.98
1200	920	26.31	1960	33.78	1000	31.66	1620	36.75	2160	49.67
1400	820	30.20	1720	38.82	900	36.48	1440	42.36	1920	57.36
1600	720	34.10	1480	43.87	790	41.29	1240	47.96	1680	65.05
1800	620	38.00	1240	48.91	660	46.11	1040	53.59	1420	72.74
2000	500	41.89	1000	53.95	550	50.92	850	59.18	1200	80.43

Roller face width: Rollers can be made to any face width – dimension L, but the above nominal lengths are suggested.

Straightness: Maximum variation 1/600 of L.

Concentricity: Within 0.5mm on Heavy duty rollers, within 1.0mm on Super duty rollers.

Machining: Super duty rollers can be machined on face to within 0.4mm TIR, with finished dimensions:

Type 4535 110mm diameter x 4.2mm wall
 Type 5535 135mm diameter x 4.0mm wall
 Type 65635/S 165mm diameter x 6.35mm wall

† Roller capacity in kg is the maximum uniformly distributed load permissible. Point loading installations should be checked with the Technical Department of Westwood Dawes.

* Weight of roller in kg includes shaft to ISO 1537.

How to specify 35 Series Rollers

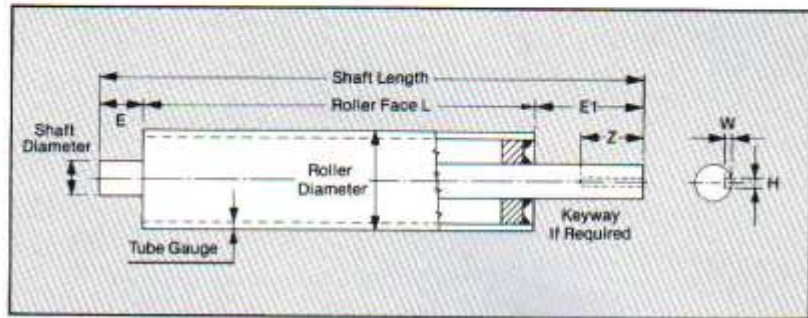
Examples: 20 Rollers Type 4535 L = 500 Standard shaft ends
 or (say) 20 Rollers Type 4535 L = 500 Type D shaft ends E = 50.
 G = 35 Threaded M24 or supply drawing showing exact dimensions required.

Cast Iron Brackets to take 25mm or 35mm diameter plain spindles (set screw retention) are available. Keyhole slot pressed steel brackets are available for type G Spindle (as used for Westwood Dawes 'Europa' idlers).

LIVE SHAFT ROLLERS

Dimensions & Technical Data

Westwood Dawes Live Shaft Rollers have bright drawn steel shafts fully welded in position. A range of Pulleys to larger sizes and with keyed-in shafts etc., is available (see separate brochure).



Roller Body Sizes

Roller Reference	Roller Diameter	Thickness (mm)		
		Tube	End Plate	Max L
Medium 30/LS	3" (76mm)	3.25	8	1200
Medium 40/LS	4" (102mm)	2.95	8	1500
Medium 50/LS	5" (127mm)	3.25	8	1800
Heavy 35/LS	3½" (89mm)	6.35	10	1800
Heavy 45/LS	4½" (114mm)	6.35	10	2000
Heavy 65/LS	6½" (165mm)	4.88	10	2400
Super 55/LS	5½" (140mm)	6.35	12	3000
Super 65/LS	6½" (165mm)	6.35	12	3000
Super 85/LS	8½" (216mm)	6.35	12	3000

Shaft Sizes

Metric (mm)		
Shaft Dia.	Keyway W	(if required) H
16	5	3
20	6	3.5
25	8	4
30	8	4
35	10	5
40	12	5
50	14	5.5
60	18	7

Tolerance of shaft diameter:
Metric + 0.00mm - 0.09mm

Any diameter shaft can be welded into any body size, within practical limits.

Construction

Roller body: Tubes up to 4.88mm wall - Electric Resistance welded. Tubes 6.35mm wall and above - Hot Finish Seamless.

Welding: Tubes, plates and shafts are fully welded together by the MIG process.

Straightness: Normally maximum variation 1:600 of L. Special straightening to 1:2000.

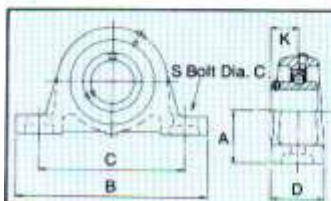
Concentricity: Within 0.5mm on tubes up to 4.88mm thick; within 1.0mm on thicker tubes.

* **Machining:** Roller types Super 65/LS and Super 85/LS are fully machined on face. Finished tube thickness is 6.35mm. Run-out 0.4mm T.I.R.

Roller types Heavy duty 35/LS, 45/LS and 55/LS may be machined on face to finished dimensions as follows:

	Heavy 35/LS	Heavy 45/LS	Heavy 55/LS
Finished dia. (mm)	86	110	135
Finished wall (mm)	4.9	4.2	4.00

Plummer Blocks Self-Lube, self aligning



Dimensions

Shaft dia. (mm)	Bearing Ref.	A	B	C	D	K	S
25	MP25	44.4	161	120	41	22	M12
30	MP30	47.6	166	130	44	26	M12
35	MP35	54.0	203	144	58	30	M12
40	MP40	58.7	222	156	67	30	M16
50	MP50	63.5	241	171	73	33	M16
60	MP60	76.2	286	203	83	45	M20

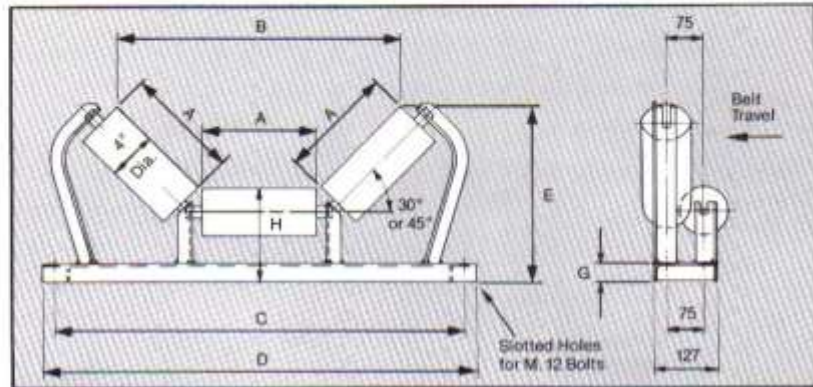
25 SERIES 'EUROPA' BELT CONVEYOR IDLERS

A separate catalogue is available depicting a comprehensive range of BELT CONVEYOR IDLERS. Popular troughing and return idlers are illustrated below.

'Europa'
3 roll
troughing sets
30° or 45°
4" (102mm) diameter
Idlers

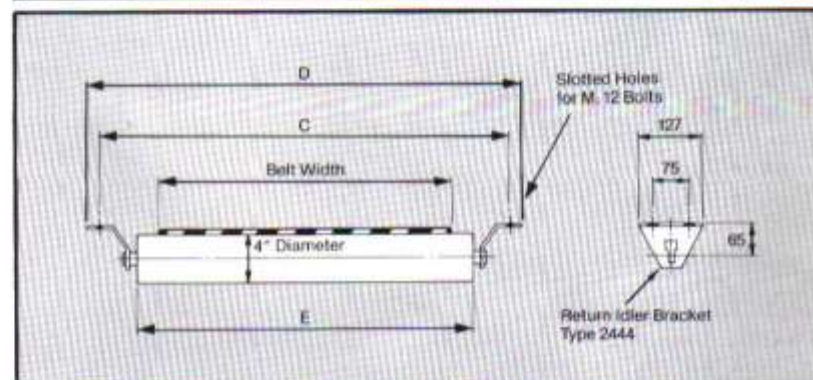


Heavy duty (5" diameter) and Extra Heavy duty (6 1/2" diameter) versions also available.



Belt Width	30"					45"			Weight kg		
	Dimensions (mm)					Dimensions (mm)					
mm	A	C	D	G	Idler Reference	B	E	H	Idler Reference	Dimensions (mm)	
400	146	640	690	25	NT430400	420	256	181	—	—	12.3
500	197	740	790	25	NT430500	565	282	181	NT445500	492 327 181	14.5
600	235	840	890	38	NT430600	670	314	194	NT445600	584 365 194	16.7
650	235	890	940	38	NT430650	670	314	194	NT445650	584 365 194	17.3
750	286	990	1040	38	NT430750	810	340	194	NT445750	708 400 194	19.2
800	286	1040	1090	38	NT430800	810	340	194	NT445800	708 400 194	19.7
900	336	1140	1190	38	NT430900	946	365	194	NT445900	829 438 194	21.7
1000	343	1240	1290	38	NT4301000	965	369	194	NT4451000	846 443 194	26.5
1050	394	1300	1350	38	NT4301050	1105	391	194	NT4451050	968 479 194	28.7
1200	445	1450	1500	51	NT4301200	1245	425	206	NT4451200	1089 518 206	33.2

'Europa'
4" (102mm) diameter
Return Idlers



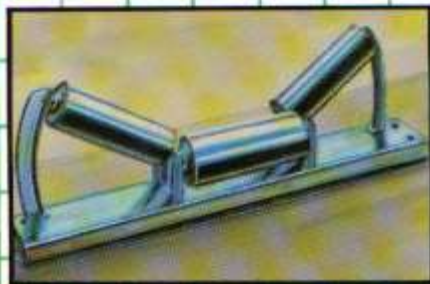
Replacement Rollers

Westwood Dawes offers a service for replacement rollers to suit any existing installations with 4025 or 5025 rollers (4" or 5" diameter) or 65835 rollers (6 1/2" diameter). Specify Type and required dimensions as shown on Page 2.

Belt Width	Dimensions (mm)			Idler Reference	Weight kg
	C	D	E		
400	640	690	488	R425400	6.02
500	740	790	588	R425500	7.07
600	840	890	688	R425600	8.12
650	890	940	738	R425650	8.64
750	990	1040	838	R425750	9.69
800	1040	1090	888	R425800	10.23
900	1140	1190	988	R425900	11.28
1000	1240	1290	1088	R4251000	12.33
1050	1300	1350	1148	R4251050	12.96
1200	1450	1500	1298	R4251200	13.83

WESTWOOD DAWES

MECHANICAL HANDLING ENGINEERS



WESTWOOD DAWES produce:
PULLEYS, IDLERS & ROLLERS for
Belt Conveyors
Elevators
Powered & Gravity Roller Conveyors
Process lines and Special purpose machinery for all industries.

We will quote for any variation in design and materials to suit your application. Phone our Roller Sales Office now!

Westwood Dawes plc, Bowling Green Road,
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Phone: 0384-394741. Telex: 335480 WESDAW G.

