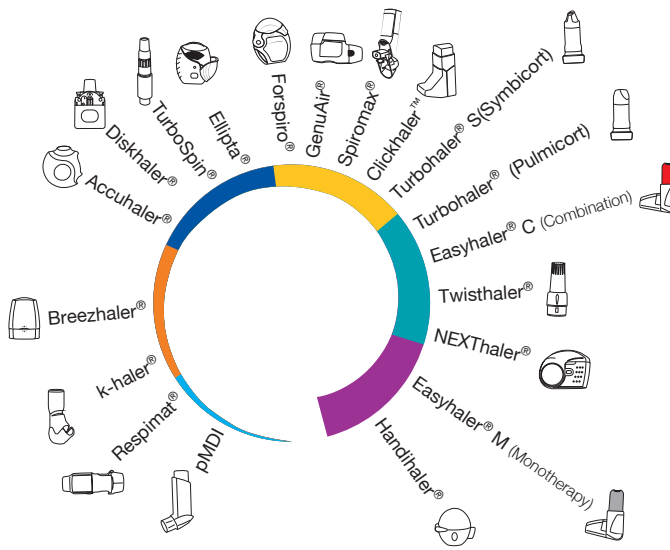
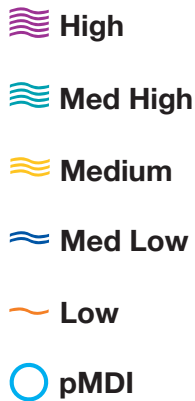


# Inhaler Resistance Range



## International


















- Handihaler®
- Easyhaler®
- NEXThaler®
- Twisthaler®
- Turbuhaler®
- Turbuhaler®, Flexhaler®
- Clickhaler™
- RespiClick®, Spiromax®
- Novolizer®, Genuair®, Pressair®
- Forspiro®
- Ellipta®
- TurboSpin®
- Diskhaler®
- Diskus®
- Breezhaler®, Aerolizer®, Neohaler®
- k-haler®
- RespiMat®

**Clement Clarke International Ltd.**  
 Edinburgh Way, Harlow, Essex, CM20 2TT, UK.  
 Tel: +44 (0)1279 414969 Fax: +44 (0)1279 456300  
 email: resp@clement-clarke.com Web: www.clement-clarke.com

©Copyright 2016 Clement Clarke International Ltd.

Part no. 3109306 Issue no. 7 Aug 2019



Icon	Product	Icon	Product	Device Resistance
	*Handihaler <sup>®</sup>		Forspiro <sup>®</sup>	
	*Easyhaler <sup>®</sup>		Ellipta <sup>®</sup>	
	NEXThaler <sup>®</sup>		TurboSpin <sup>®</sup>	
	Twisthaler <sup>®</sup>		*Diskhaler <sup>®</sup> (4)	
	*Turbohaler <sup>®</sup> P		*Accuhaler <sup>®</sup>	
	Turbohaler <sup>®</sup> S		*Breezhaler <sup>®</sup>	
	*Clickhaler <sup>™</sup>		k-haler <sup>®</sup>	
	Spiromax <sup>®</sup>		Respimat <sup>®</sup>	
	*GenuAir <sup>®</sup>			

**Please Note:**  
 All trademarks and product names are the property of their respective owners, see IFU booklet for details.  
 \*Indicates device specific adaptor is available, see IFU booklet.

### Assessing inspiratory flow rate for clinical efficacy:

Select appropriate resistance setting, inhale through meter, assess achieved flow rate.

For DPIs values between 30-90 L/min are generally associated with clinical efficacy.

For pMDIs values between 20-60 L/min are preferred.

For Handihaler 20 L/min is associated with clinical efficacy.

### Bibliography:

1. Pedersen S, Dubus JC, Crompton G. 5) Inhaler selection in children with asthma. *Prim Care Respir J* 2010;**19** (3):209-16
2. Lavorini F, Levy ML, Corrigan C, Crompton G. 6) Training tools for inhalation devices. *Prim Care Respir J* 2010;**19** (4):335-41
3. Capstick, T. G., & Clifton, I. J. (2014). Inhaler technique and training in people with chronic obstructive pulmonary disease and asthma. *Expert review of respiratory medicine*.
4. Sanders, M. J. (2017). Guiding Inspiratory Flow: Development of the In-Check DIAL G16, a Tool for Improving Inhaler Technique. *Pulmonary medicine*, 2017.
5. Mahler, D. A. (2017). Peak inspiratory flow rate as a criterion for dry powder inhaler use in chronic obstructive pulmonary disease. *Annals of the American Thoracic Society*, 14(7), 1103-1107.
6. Laube, B. L., Janssens, H.M., de Jongh, F.H., Devadason, S.G., Dhand, R., Diot, P., ...& Chrystyn, H. (2011). What the pulmonary specialist should know about the new inhalation therapies. *European Respiratory Journal* **37** (6) 1308-1417.

